

UCB8/9.11/12

C.2

COLORADO STATE PUBLICATIONS LIBRARY



3 1799 00138 4080

University of Colorado Museum
Boulder, Colorado

Leaflet No. 12

October, 1955

*Guide to the Winter Birds
of Colorado*

RICHARD G. BEIDLEMAN



"Scientific knowledge almost daily advances . . . Yet educated folk become more and more ignorant of it . . . Scientists write for other scientists . . . Yet many of the greatest from Galileo and Copernicus to Darwin and Galton wrote largely for the public." (Warden, *Comp. Psych.*, p. ii)

UNIVERSITY OF COLORADO MUSEUM LEAFLETS

No. 1	Guide to the Snakes of Colorado	Out of print
	W. Harry Jones-Burdick, 1939	
No. 2	Guide to the Amphibia of Colorado	Out of print
	Hugo G. Rodeck, 1943	
No. 3	Guide to the Lizards of Colorado	Out of print
	T. Paul Maslin, 1947	
No. 4	Guide to the Waterfowl of Colorado	Out of print
	Lowell E. Swenson, 1947	
No. 5	Guide to the Snakes of Colorado (Revised)	30c
	W. Harry Jones-Burdick, 1949	
No. 6	Guide to the Birds of Prey of Colorado	25c
	Richard G. Beidleman, 1949	
No. 7	Guide to the Turtles of Colorado	20c
	Hugo G. Rodeck, 1950	
No. 8	Guide to Some Common Colorado Spiders	25c
	Walker Van Riper, 1950	
No. 9	Guide to the Upland Game Birds of Colorado	20c
	Lowell E. Swenson, 1952	
No. 10	Guide to the Mammals of Colorado	75c
	Hugo G. Rodeck, 1952	
No. 11	Guide to the Fishes of Colorado	\$1.00
	William C. Beckman, 1952	
No. 12	Guide to the Winter Birds of Colorado	\$1.00
	Richard G. Beidleman, 1955	

(postage and handling 5c extra)

Address

Hugo G. Rodeck, Director
 University of Colorado Museum
 Boulder, Colorado

GUIDE TO THE WINTER BIRDS OF COLORADO

RICHARD G. BEIDLEMAN

Drawings by Dominick O. D'Ostilio

Photographs by Walker Van Riper

Table of Contents

Introduction	1
Bird Watching in Colorado	2
How to Find Birds—and Why	3
Where to See the Birds	5
Attracting Birds	9
Keys for Identification of Colorado Winter Birds	10
Descriptions of the Winter Birds of Colorado	19
Appendix A—Distributional Checklist of Colorado Winter Birds	51
Appendix B—Representative Winter Birding Areas in Colorado	53
Appendix C—Glossary of Scientific Names	57
Index	61

Introduction

The leaves of the cottonwoods along the plains rivers and those of the quaking aspens up the mountain draws have long since turned yellow and drifted to earth. The marmots and the striped ground squirrels have sought out their underground dens, the leopard frogs, in the muddy bottoms of their ponds, are silent, and the prairie rattlers no longer sun themselves on the sandstone ledges. But there is still sunshine, blue sky, invigorating air . . . and plenty of life in the Colorado out-of-doors. Winter is across the land; but there are green conifers on the canyon walls, cottontail tracks along every hedgerow, and each patch of open ground, thicket of snowberry, and box elder copse has its congregation of bird life.

There is perhaps no better season for becoming acquainted with birds than our winter months, from the middle of November to the middle of March. Gone from the broad-leaved trees is the obscuring foliage of summer; and the gross weed cover, the stinging nettles, the ubiquitous poison ivy, the irritating spined and burred plants, are clear from the fields and woodlands. The muck of the marshes becomes frozen and hard underfoot, as do the muddy shores of the ponds and streams. The black flies, mosquitoes, and deer flies no longer swarm after the idle wanderer.

Birds, free from the responsibilities of raising and protecting their families, are less secretive. They break from their nesting territories and congregate on the doorstep, in the front yard, atop the spruce trees of the city park, alongside the snow-covered lane, in the woodland, often several species together. The songs of summer are gone, but winter time is the time for talk, for constant chattering and twittering and whistling.

The watcher of birds in winter is spared the confusion of identi-

ying a multitude of species, many of them transient and elusive, and can readily become familiar with the common winter residents. But there is still challenge in numbers for the ardent investigator, with more than 160 different varieties of winter birds having been recorded in our state over the last fifty years. And every change in the weather may mean a change in the pattern of bird life.

Winter in Colorado is not always the formidable season of year that it is in some parts of America. Occasional picnics in the backyard, an afternoon in the park, excursions into the mountains, or a February hike up a favorite summer trail, are a familiar part of our winter activities. These outdoor diversions, enjoyable in themselves, can be enhanced by an appreciation for, and a recognition of, the birds which spend their winters in the state.

The pages which follow contain a simple introduction to winter birding in Colorado. There is an attempt to tell what the most common birds are, how they may be identified, and where, geographically and environmentally, they may be found. The main emphasis is on birding in the eastern high plains near the mountains, since most people who use this Leaflet will presumably reside in that area. However, other parts of Colorado have been considered as well.

This Guide has been the cooperative work of many whose names do not appear on the title page. The author is deeply appreciative of the information and criticism offered by these people: John Hough, Hugo G. Rodeck, Gordon Alexander, John Wampole, Paul Baldwin, Donald Thatcher, A. Sidney Hyde, John Chapin, Edward Hellstern, Mrs. Tracy C. Forward, Mrs. F. S. Carman, Richard Pillmore, Homer Griffin, John Flavin, Bob Lamb, and Al Knorr. To the two illustrators, Dominick O. D'Ostilio who made the drawings, and Walker Van Riper who made the photographic plates (except Plate 7), is due great credit for making this Leaflet much more attractive and useful.

We all look forward to the recreations of summer. Winter birding is an avocation which gives one an enthusiastic anticipation for the colder months of the year. It is hoped that this Museum Leaflet on winter birds in Colorado will serve as an introduction to a form of wildlife which, easily encountered, becomes increasingly enjoyed with closer acquaintance.

Bird Watching in Colorado

Bird watching in Colorado is particularly rewarding for a number of reasons. The geographic location of our state is such that we share the bird life both of eastern and western United States and of the north and south as well. The altitudinal range from less than 4000 to more than 14,000 feet is accompanied by climatic and associated vegetational conditions approximating those from northern Mexico to Alaska. A tremendous variety of habitats thus exists in Colorado: plains grassland, desert, chaparral, deciduous woodland, coniferous forest, mountain parkland, rock outcrops, marshes, irrigation lakes, city parks, rivers, agricultural land, springs, alpine tundra, and a host of others too numerous to mention individually. Some of these habitats have been newly created, while others are representative of

the wilderness of western America in centuries gone by. A great part of the state, especially in the mountains, is public land where wild-life is relatively undisturbed.

The winter climate of Colorado is somewhat more temperate than that in adjoining states to the north and east, and hence bird life is often attracted here during periods of inclement weather elsewhere. Also, many birds of the mountains can achieve a favorable change during the winter simply by moving onto the plains, rather than having to fly south.

With these favorable conditions for an abundance of birds, it is not surprising that the total list of species recorded in Colorado during the winter months should exceed 160, many of which are listed in Appendix A.

Probably the most favorable birding can be done on the eastern Colorado plains near the foothills. In the Denver area as many as 86 species have been recorded on a winter day by a congregation of bird watchers. A single observer could record between fifteen and thirty species in a suitable locality. Fewer kinds and numbers of birds are encountered in the mountains, especially if severe weather prevails, and those found are often in isolated pockets of activity. A list of ten kinds would be average for observation in a good montane region. The southern portions of Colorado, particularly the southwestern corner, are interesting areas in which to bird, inasmuch as many northern summer residents often linger here into and sometimes through the winter. Except for protected "oases," extreme eastern and northwestern Colorado, and the high country, are poor in bird life during the winter.

It would be difficult within the confines of this leaflet to describe the best winter birding areas for the state. A few representative localities have been mentioned in Appendix B, and Pettingill's *A Guide to Bird Finding—West* contains additional description. It is helpful for a birder in a strange area to contact the local college, museum, or bird club for information on regional conditions, or inquire of a forest service, park service, or fish and game department representative, or a biology teacher.

How to Find Birds — and Why

Birds, especially in the winter time, are more readily seen than any other type of wildlife, a fact which perhaps accounts in part for the popularity of bird watching. There is, however, more to bird observation than simply strolling through the woods. One must learn to be aware of the presence of birds, to look for as well as at them. The ability to detect birds comes with experience in the field, with a knowledge of bird habits, and with an appreciation of the habitats which are most suitable for each species.

A surprising number of birds can be seen and identified from the car window, if one drives slowly and along back roads. Birds of prey are readily encountered by this manner of field observation, as are some water birds. The best field work, however, is accomplished on foot. Many more birds can be observed by one who sits down in a

favorable spot, *looking for movements and listening*, than by one who keeps walking, despite the slowness of the pace. Although birds seldom sing in the winter, they make a variety of calls which are helpful in discovering their presence in an area and sometimes in identifying them. Silence on the part of the observer is desirable but not necessary, nor, in winter, is the traditional though debilitating practice of field work before dawn. Indeed, during the colder months birds seldom become active until the sun gets into and warms their home ground, and then they are active throughout most of the daylight hours. Fortunately for the observer, field work during windy or snowy weather is unproductive.

It is no longer necessary to go into the field with a shotgun for the identification of birds. The combination of a good pair of binoculars and a good field manual permits all but the most exacting recognition. It is possible to do birding in the winter without binoculars, especially if one has a feeding table by a window, but probably any binoculars are better than none. Perhaps the best all-around glasses are 6x30 binoculars, combining lightness with good magnification, brilliance of image, and width of field. This type can be purchased rather reasonably at the present time and represents a valuable investment for the serious bird watcher. For more critical work, the 7x50 binoculars are preferable, especially in the winter when light conditions are sometimes poor. This model, however, is considerably more bulky and expensive.

Everyone interested in identifying birds in the field in Colorado should have a copy of Roger Tory Peterson's *Field Guide to Western Birds* and, especially in the eastern part of the state, Peterson's eastern guide or Pough's *Audubon Bird Guide—Land Birds*. A good bird book dealing with habits, as well as descriptions, and usually available in the public library, is Pearson's *Birds of America*, with color plates. More specific information on the distribution of birds in Colorado can be obtained from the Niedrach and Rockwell *Birds of Denver and Mountain Parks* and from the older but more exhaustive *History of the Birds of Colorado* by Sclater.

The most accurate identification is that made in the field with the bird to be identified in view. Often a species can be recognized immediately or after quick reference to the pictures and text in Peterson or in this Guide. In identifying strange birds, it is essential that distinguishing marks be noted, either jotted down or even sketched until such time as positive identification is possible. Sometimes an unknown bird will, in habits or appearance, resemble some known species, a situation which may facilitate its eventual recognition. For example, if a bird reminds one of a woodpecker, its description should first be sought among Colorado winter woodpeckers. It is well to keep in mind that many birds have a distinctive winter plumage, the sexes may be unlike, and young birds which do not resemble their parents may be present during the winter.

In reaching a decision on the identity of a bird, the best choice should be that of a species which has previously been recorded in the area (see Appendix A). It is better not to have reported a rare bird

than to have misidentified a more common one. Uncommon records should be verified by another ornithologist and the bird perhaps collected by a natural history museum.

Although bird watching need be nothing more than a hobby, the careful bird watcher can contribute greatly to the knowledge of American bird life by seeing that *precise notes* on observations are kept and these notes placed where they may be of some value. No notes can be too complete. Certainly, exact location and date of observation should always be recorded, and data on the activity of the birds, the exact habitat in which seen, and the weather conditions are significant.

A periodical, *Audubon Field Notes*, published by the National Audubon Society (1130 Fifth Avenue, New York 28, N. Y.) solicits reports from all over the nation on the seasonal status of bird life. Unusual records and yearly trends are particularly desired. The Denver Museum of Natural History and the University Museum at Boulder appreciate receiving significant information on birds, as, surprisingly enough, do local newspapers. It is amazing how many people read and enjoy articles about the birds in their own back yards.

Two further projects sponsored by the National Audubon Society may be of interest to winter bird watchers in Colorado. Each Christmas season across the country single-day counts within a circumscribed area ("Christmas Bird Count") are made by interested individuals, the results being published in the April issue of *Audubon Field Notes*. For years there have been participants in Colorado, especially at Denver, but also, in 1953-54, at Aspen, Boulder, Colorado Springs, Durango, Fort Collins, Grand Junction, Idaho Springs, Longmont, Lyons, and Paonia. These community birding events are eagerly anticipated and long remembered. Since 1948 the Audubon Society has sponsored winter bird-population studies, carried out in various habitats throughout the winter season. Coloradoans have been quite active in this more serious and productive venture, but a number of habitats exist in the state which still need to be censused.

Many people are satisfied with the mere acquisition of a list of species. Winter birding becomes considerably more interesting, however, when it is possible to observe the habits of the birds, the winter season being a particularly good time to study social behavior and food preferences. Whatever one's activity and interest with respect to bird watching, here is an increasingly popular avocation which can prove a contribution both to natural science and to one's personal enjoyment of life in the out-of-doors.

Where to See the Birds

Colorado is a country of many different habitats, some major, some minor. Although birds move about, there is a tendency for certain species to associate themselves with certain habitats, and a knowledge of these relationships will increase the bird watcher's success in the field.

A good winter birding area is one which includes a great variety of places in which birds can live. In Colorado the large cottonwood river-bottoms of the eastern plains, with their mixture of woodland,

brushland, grassland, agricultural cropland, marshes, shorelines, streams, and ponds, are probably the most productive areas for observation in the winter time. Species encountered most often here are the Tree Sparrow, Oregon Junco, American Magpie, Black-capped Chickadee, Red-shafted Flicker, Downy Woodpecker, Song Sparrow, American Goldfinch, Marsh Hawk, and Red-wing, with up to forty or more species possible during a winter season and perhaps an average of fifteen per trip. The large, undisturbed river-bottoms which contain an abundance of food, shelter, and a variety of water bodies are the best.

City woodlands such as cemeteries, parks, campuses, and even yards are excellent spots for winter birding. What one will see depends in part on the geographic location of the city. On the irrigated plains the most common urban species seen include the House Finch, Red-shafted Flicker, English Sparrow, Black-capped Chickadee, Oregon Junco, Gray-headed Junco, Slate-colored Junco, Mountain Chickadee, Brown Creeper, and Downy Woodpecker. Thirty or more species can be recorded during a winter's period, with a daily average of ten to fifteen species, perhaps.

In eastern Colorado the irrigated farmland, with its rural buildings, hedgerows, wind-breaks of cottonwood, cropland, weed patches, vegetation-lined ditches and ponds, makes good birding, especially for the person who prefers to do his field work by auto. Here the Red-wing, Starling, Tree Sparrow, Magpie, Ring-necked Pheasant, Marsh hawk, Meadowlark, and a host of others are commonly encountered.

There is not much marshland left in Colorado, but where it occurs is good habitat for Red-wings, Snipe, Mallards, the Marsh Hawk, Short-eared Owl, Ring-necked Pheasant, Song Sparrow, Marsh Wren, and others. Lakes, streams, and their shorelines are, of course, good spots at which to see various water and shore birds like the Killdeer, Mallard, Pintail, Green-winged Teal, Great Blue Heron, Ring-billed Gull, Kingfisher, and towards the migratory periods a great variety of other species.

The grassland and unirrigated farmland of Colorado's lower elevations are as monotonous for birding as for sightseeing. The only common birds seen are the Horned lark and Meadowlark, with an occasional Raven. Birds of prey, however, are often encountered in this type of country.

Brushland of various sorts is to be found in Colorado, especially in the foothills: mountain mahogany in the northern foothills; scrub oak in the south; bitterbrush at higher elevations; wild plum, chokecherry, sumac, and others in ravines; snowberry and wild rose in river-bottoms; rabbitbrush, saltbush, creosote bush, and sage on the plains. The fruiting shrubbery common to ravines is best for birding. Species which favor a brushland habitat are the Tree Sparrow, White-crowned Sparrows, Towhees, Song Sparrows (moist areas), Ring-necked Pheasant, Quails, and sometimes Juncos and Chickadees.

The coniferous forests of the Colorado mountains are made up of numerous species of trees, spruce and fir at higher elevations, lodgepole pine and aspen at middle elevations, ponderosa pine (sunny

hillsides) and Douglas fir (shady hillsides) in the upper foothills, pinon-juniper in the southern and western foothills, blue spruce and narrow-leaf cottonwood along the water courses, and so on. The ponderosa-Douglas fir woodlands in northern Colorado, pinon-juniper in the southern part of the state, are perhaps best in winter for birding. There is no uniformly dense population of birds in the winter mountains, but searching usually turns up the Mountain Chickadee, Pygmy Nuthatch, White-breasted Nuthatch, Townsend's Solitaire, Magpie, Brown Creeper, Steller's Jay, Golden-crowned Kinglet, Red Crossbill, and Gray-headed Junco. More than thirty species might be recorded in one area over a winter, but daily lists are often disappointingly small.

Many people are birding for quality, rather than quantity, and this requires some study of the desired species' habitat preferences. The Dipper, for example, can usually be discovered in rocky foothills streams, the Pine Grosbeak in the lower reaches of the spruce-fir forest, the Ptarmigan at timberline, the Longspurs in the wind-swept eastern Colorado grassland, the Rosy Finches in open grasslands of the high country, the Cañon Wren in foothills cliff country, the Bald Eagle at plains irrigation lakes, the Blue Jay in eastern Colorado city parks, the Red-breasted Nuthatch in blue spruce, and so on.

Many an ornithological sage has noted that "birds are where you find them," and in this truism lies part of the adventure of birding. Field work is quite often a search for the unpredictable and the unknown, and no set of statistics will ever be able, in advance, to reveal which birds, to the last species, will be found where and when. Some postulations, however, can be made and may prove helpful to the bird watcher who wishes an orientation on a particular geographic region, habitat, or species. Immediately following is a checklist of some characteristic winter birds in Colorado, relating them to the habitats in which they may most likely be encountered. In Appendix A there is a rather complete listing of the species of winter birds which have been recorded in Colorado, with their relative abundance in different parts of the state. Appendix B contains sketches of a few good birding areas within the state which may be of interest to visiting bird watchers.

Colorado Winter Birds and Their Habitats

The following major habitats are represented in this listing, which refers mainly to eastern Colorado:

- 1—Semi-arid grassland, often with interspersed sagebrush, typical of much of eastern Colorado plains.
- 2—Agricultural land, especially on the irrigated eastern plains near the mountains.
- 3—Brushland of the foothills and plains.
- 4—Cottonwood-willow river-bottoms.
- 5—Coniferous forest, especially ponderosa pine, Douglas fir, pinon and juniper in the lower mountains.
- 6—Marshland, especially of cattail, some spring-fed, usually with some open water.
- 7—Water bodies consisting of streams, irrigation ditches, lakes and ponds, and their shorelines.

8—City woodlands such as parks, cemeteries, campuses and yards.

9—Sedimentary cliffs and rock outcrops, especially in the foothills.

10—High mountains, including spruce-fir forest and lower alpine tundra.

It is helpful, though not often feasible, to indicate the relative abundance of a species in its habitat. The following symbols, and, indeed, the distribution of the species listed, are crude representations of the field situation, and they should be used with this in mind.

r—Found in, but not particularly typical of, habitat.

R—Found in, and fairly typical of, habitat.

c—Common in, but not particularly typical of, habitat.

C—Common in, and fairly typical of, habitat.

These listings, by no means complete, can be used to orient a bird watcher in a particular type of habitat, giving him some estimate of what may ordinarily be seen. Species are arranged in A.O.U. checklist order (that in Peterson's guides).

	1	2	3	4	5	6	7	8	9	10
Great Blue Heron				r		r	R			
Mallard		r		C		r	C			
Pintail				R			R			
Green-winged Teal				R			R			
American Merganser				r			R			
Goshawk					R					
Sharp-shinned Hawk				r	r			r		
Cooper's Hawk				r	r			r		
Red-tailed Hawk	r	R		r	R				r	
Amer. Rough-legged Hawk	r	r		R						
Ferruginous Rough-leg	R	r								r
Bald Eagle		R		R	r		R			
Golden Eagle	r	r		r	R					R
Marsh Hawk	r	C		r		C				
Prairie Falcon	R	r		r						R
Pigeon Hawk		r		r				r		
Sparrow Hawk	r	R		r						
Dusky Grouse					r					r
Ptarmigan										R
Ring-necked Pheasant	r	C	C	C		C				
Killdeer		r		c		c	C			
Wilson's Snipe				r		r	R			
Herring Gull				r			R			
Ring-billed Gull				c			C			
Screech Owl				R	r			R		
Horned Owl				R	r			r		
Long-eared Owl				R	r					
Short-eared Owl		r				R				
Kingfisher				R			R			
Red-shafted Flicker		c		C	r			C		
Lewis's Woodpecker		R		r						
Hairy Woodpecker				r	R			r		
Downy Woodpecker		r		C	r			c		
Horned Lark	C	c		r						
Canada Jay					r					r
Blue Jay				r				R		
Steller's Jay					C			r		
Scrub Jay			R	r						
American Magpie	r	C	r	C	r			r		
Raven	C			r						
Crow		r		R						
Clark's Nutcracker				r						
Black-capped Chickadee		r	r	C	r			C		r
Mountain Chickadee			r	r	C			r		

	1	2	3	4	5	6	7	8	9	10
White-breasted Nuthatch				r	R			r		
Red-breasted Nuthatch				r	r			r		
Pygmy Nuthatch					C					
Brown Creeper				R	R			R		
Water Ouzel (foothills)							R			
Marsh Wren						R				
Canon and Rock Wrens									R	
Robin		r	r	r	C			c		
Townsend's Solitaire					C			r		
Golden-crowned Kinglet					C			r		
Waxwings								r		
Shrikes	r	R		r						
Starling		C		r				r		
Meadowlark	C	C		r						
Red-wing		c		C		C				
English Sparrow		r		r				C		
Evening Grosbeak				r				R		
Cassin's Finch			r	r	C					
House Finch		r		r				C		
Pine Grosbeak					r					R
Rosy Finches					r					R
Pine Siskin		r		r	R					
American Goldfinch		r		C	r			r		
Red Crossbill					R					r
Towhees			R	r						
White-winged Junco				r	R			r		
Slate-colored Junco		r		r	r			r		
Oregon Junco		c	c	C	C			C		
Gray-headed Junco				r	C			r		
Tree Sparrow		C	C	C				r		
White-crowned Sparrows		r	C	C				r		
Song Sparrow (moist areas)		r	C	C		C				
Longspurs	R	r								

Attracting Birds

Spacious back yards and front yards filled with vegetation often make possible good birding close at home. Birds in Colorado are particularly attracted by the planting of such favorites as the blue spruce, Russian olive, juniper, snowberry, sumac, locust, mountain ash, Virginia creeper, and similar good shelter and fruit trees, shrubs and vines.

By putting up feeding tables in the yard or at a window, many Coloradoans entice a number of species of winter birds. The feeding trays need not be elaborate affairs, a rimmed platform roofed to keep off rain and snow being sufficient. In establishing feeding stations, care should be taken that they are protected from cats and squirrels, are located close to vegetational cover, and are painted neither in bizarre patterns nor with conspicuous colors. Various prepared bird seed mixtures can be bought at most dime stores or ordered through the National Audubon Society. Stale bread crumbs are a readily available standby, and sunflower seeds and chicken scratch grain, found at any feed store, are attractive. Suet or fat trimmings interest the non-vegetarian birds and can be attached to the feeding tray, to a nearby tree, or mixed with seeds.

Among the species which might frequently be attracted to feeding

stations in Colorado are the Chickadees, Nuthatches, Brown Creeper, Downy Woodpecker, Flicker, Blue Jay and Steller's Jay, Robin, Junco, Tree Sparrow and White-crowned Sparrow, English Sparrow, House Finch, Goldfinch, and, on rare occasions, the Evening Grosbeak. Whether a feeding station is on the plains or in the mountains, within a city or in a rural area, will have great bearing on the variety of birds observed. A good reference on attracting birds is *Songbirds In Your Garden* by John K. Terres.

Some home bird watchers have, through cooperation with the federal government, made important contributions to the knowledge of bird activity by banding species which come to their feeding stations. Details on bird banding can be obtained from the U. S. Fish and Wildlife Service, Washington, D. C.

Keys For Identification of Colorado Winter Birds

Although the experienced bird watcher can usually recognize birds by their general appearance, the beginner often finds it easier to make an identification by looking for distinguishing marks. The keys which follow include some of the major field characteristics of Colorado winter birds, and, if used carefully, will permit identification of the species exhibiting these features. The illustrations and text in this Leaflet should be used to supplement the keys.

The keys are arranged in the following order with, in some cases, subdivisions:

- 1 Winter waterfowl (ducks and geese)
- 2 Wildfowl (grouse and quail)
- 3 Hawks and eagles
- 4 Owls
- 5 Shore or wading birds
- 6 Distinctive habitats
- 7 Head features
- 8 Tail features
- 9 Wing features
- 10 Body features, including overall plumage color
- 11 Appearance in flight

In using the keys, if one sees a bird, for example, with a black cap, the section on head features (No. 7), subheading "black cap, crown, or forehead" (No. 7h) is referred to, and so on. All common winter species, but not some of the infrequent ones, have been included in the following keys. Generally speaking, the waterfowl, wildfowl, and birds of prey (hawks and owls) key out only in their own individual keys (Nos. 1, 2, 3, & 4). Other kinds of birds key out according to their distinctive characteristics.

1—Winter Waterfowl (male ducks and geese) at rest

Dark head, neck, and breast

Large goose, white cheek patch—CANADA GOOSE

Large duck, white wing bars and neck ring—MALLARD

Small duck, white vertical line at front of wing, green and brown head—
GREEN-WINGED TEAL

- Dark head, white neck and breast
- Sides white, tail relatively short
 - Head all black, narrow bill—AMERICAN MERGANSER
 - Head black with white patch in front of eye—AMERICAN GOLDEN-EYE
- Sides gray, long pointed tail—PINTAIL
- 2—Wildfowl** (grouse and quail)
 - Quail-like (short, chunky, often plumed or crested)
 - Head with pendant plume
 - Dark belly patch and forehead, sides rufous—GAMBEL'S QUAIL
 - No belly patch, forehead and sides gray—CALIFORNIA QUAIL
 - No plume but upright crest sometimes present
 - Crest prominent, white-topped—SCALED QUAIL
 - Crest inconspicuous, rufous coloration, white line above eye—BOB-WHITE
 - Grouse-like (large, stocky, head never plumed)
 - Pointed tail
 - Black belly band—SAGE HEN
 - No black belly band, male highly colored, female brown-streaked—RING-NECKED PHEASANT
 - Tail broad
 - Dark plumage, gray band across tail tip—DUSKY GROUSE
 - White plumage—WHITE-TAILED PTARMIGAN
- 3—Hawks, eagles and falcons**
 - Conspicuous rufous tail
 - Size small, pointed wings, tail fairly long and narrow, black facial marks, overall color brown with (male) slate-blue wings—SPARROW HAWK
 - Size large, wings and tail broad, chin sometimes appears dark—RED-TAILED HAWK
 - Tail not conspicuously rufous
 - White base on tail, white rump patch, or tail all white
 - Black terminal band on white tail
 - Large bird, black elbow marks under wings and dark belly on light phase—AMERICAN ROUGH-LEGGED HAWK
 - Very large bird, white patches near tips of wings above and below—GOLDEN EAGLE (immature; adult shows no light wing patches)
 - No black terminal band on white tail
 - Tail all white or whitish-gray, unbanded
 - Very large bird, white head—BALD EAGLE (adult)
 - Large bird, head not conspicuously white, in light phase dark feathered legs form "V" on light belly—FERRUGINOUS ROUGH-LEG
 - Rump or tail base appears white
 - Definite white rump patch, long tail, flies low with wings above horizontal, gray (male) or brown (female)—MARSH HAWK
 - Tail gray, shading to whitish at base, front of wings beneath lighter than back of wings, dark breast band—SWAINSON'S HAWK
 - Not as above
 - Hawks with long pointed wings and dark facial marks (falcons)
 - Size small (11")
 - Rufous plumage above—SPARROW HAWK (male with slate wings)
 - Slate-blue or dark brown above—PIGEON HAWK
 - Size medium (17" or crow-size)
 - Very light brown coloration, dark patches where wings join body below—PRAIRIE FALCON
 - Dark slate-gray above, lighter below—DUCK HAWK
 - Not as above
 - Size very large, broad wings and tail, dark brown—GOLDEN EAGLE
 - Size small to large, short rounded wings and long tail (accipiters)
 - Larger than a crow, gray, with light line above eye—GOSHAWK

Smaller than a crow
Small (12"), tail appears squared when outspread—SHARP-
SHINNED HAWK
Medium-sized (17"), tail appears rounded when outspread—
COOPER'S HAWK

4—Owls (flat faces, usually ear-tufts on head, soft plumage)

Larger than a crow
Ear-tufts prominent, plumage brown—GREAT HORNED OWL
No ear-tufts, plumage white—SNOWY OWL

Smaller than a crow
Ear-tufts very small, owl active in daylight, usually in marshland—
SHORT-EARED OWL
Ear-tufts prominent
Size small (9") and chunky, gray—SCREECH OWL
Size larger (15") and slimmer, face rusty, ears close together—LONG-
EARED OWL

5—Shore or Wading birds (usually long legs and bills)

Size very large, long legs, neck, and bill—GREAT BLUE HERON
Size smaller

Gull-like birds
Black ring around bill—RING-BILLED GULL
Apparent ring (red spot) on lower mandible only—HERRING GULL

Not as above
Bill very long, legs short; predominantly brown-streaked—WILSON'S
SNIPE
Bill shorter, legs longer, predominantly dark and white plumage, two
black chest bands—KILLDEER

6—Distinctive habitats

a—Rocky foothills streams: chunky, slate-gray bird, short tail, bobbing
habit—WATER OUZEL
b—Rock piles, ledges, or cliffs
Throat white, tail rufous—CANYON WREN
Throat streaked, tail with buff-spotted edge when outspread, white line
above eye—ROCK WREN

7—Head features

7a—Partial or complete eye-ring

Smaller than sparrow, greenish, light wing bars—RUBY-CROWNED
KINGLET

Larger than a sparrow
Stream habitat, chunky, short-tailed—WATER OUZEL (white lids)
Forest habitat, slim, white outer tail feathers, tan wing bars—
TOWNSEND'S SOLITAIRE

7b—Definite white line above eye

Much smaller than a sparrow
Greenish, with light wing bars—GOLDEN-CROWNED KINGLET

Not as above
White-striped back, short tail held upright, marshland—MARSH
WREN

Not as above, with black cap
White throat, stubby tail—RED-BREASTED NUTHATCH
Black throat, longer tail—MOUNTAIN CHICKADEE

Sparrow-size or larger

Black stripe above white eye stripe
Black chest band, white-patched outer tail feathers, yellow throat—
HORNED LARK

Not as above (note: immatures of two birds below have brown
crown stripes rather than black)
White line to eye only—WHITE-CROWNED SPARROW
White line to base of bill—GAMBEL'S SPARROW

No black stripe on side of crown

Smaller than robin

White outer tail feathers, line above eye buffy, breast striped buffy, grassland bird—AMERICAN PIPIT

Buffy edging on outspread tail, finely streaked breast, slightly down-curved bill, rocky habitat—ROCK WREN

Not as above, clear breast, solid rufous cap—CHIPPING SPARROW

Larger than robin, bright blue above with gray-brown back patch—SCRUB JAY

7c—Black line or mask through eye

Smaller than a sparrow, white line above eye

Olive-green coloration, white wing bars, yellow crown—GOLDEN CROWNED KINGLET

Not as above, rufous below, black cap—RED-BREASTED NUTHATCH

Sparrow-size or larger

Black throat, white line above eye—MOUNTAIN CHICKADEE

Throat not black

Bright rufous crown—CHIPPING SPARROW (Note: female English Sparrow has dull light line above eye, and dull brown cap.)

Not as above

Black and white crowns

Sparrow-like

White line above eye extends to bill—GAMBEL'S SPARROW

White line extends only to eye—WHITE-CROWNED SPARROW

Woodpecker-like

Bill shorter than head, black spots on white outer tail feathers, 7" long—DOWNY WOODPECKER

Bill as long as or longer than head, no black spots on outer tail feathers, 9" long—HAIRY WOODPECKER

Crowns not black and white

Black band across breast, yellow throat, black line extends below eye—HORNED LARK

Breast not as above, black mask very evident

Breast white; smaller than robin, bill black—WHITE-RUMPED SHRIKE

Breast finely streaked; robin-size, lower part of bill is light colored—NORTHERN SHRIKE

7d—Solid rufous crown or cap

Sparrow-size

Wings, body and tail chiefly white—SNOW BUNTING

Not as above

Unspotted or unstreaked breast

Definite white line above eye, cap bright rufous—CHIPPING SPARROW

Dull white line above eye, cap dull—ENGLISH SPARROW (female)

Breast streaked or with spots

Clear breast with single, central spot, no white line above eye—TREE SPARROW

Breast heavily streaked, with central spot, dull cap, black mustache mark—SONG SPARROW

7e—Crown-patch or cap red or yellow (no other red or yellow in plumage)

Crown-patch yellow

Size small, white line above eye, crown-patch yellow (female) or gold (male)—GOLDEN-CROWNED KINGLET

Not as above, woodpecker-like, barred sides—THREE-TOED WOODPECKER (male)

Crown-patch red

Olive-green, very small, white eye-ring—RUBY CROWNED KINGLET (male)

Black and white, larger than sparrow

Bill shorter than head, black spots on white outer tail feathers, 7" long—DOWNY WOODPECKER (male)

Bill as long as or longer than head, no black spots on outer tail feathers, 9" long—HAIRY WOODPECKER (male)

7f—Black chin or throat

Sparrow-like

Extensive black cap, gray cheeks, large for a sparrow (7½") HARRIS'S SPARROW (adult)

Not as above

Red forehead, pink breast, restricted black chin—REDPOLL

No red; gray crown, white cheeks, common around houses—ENGLISH SPARROW (male)

Not sparrow-like

Black-capped, size small

White line above eye—MOUNTAIN CHICKADEE

No white line above eye—BLACK-CAPPED CHICKADEE

7g—Crested

Plumage predominantly blue

Aquatic habitat, belted breast—BELTED KINGFISHER

Mountain woodlands (usually), all blue-black, no white—STELLER'S JAY

Eastern plains woodlands, light blue above, white beneath—BLUE JAY

Plumage brownish or grayish

Smaller than robin

Smaller than sparrow, gray—PLAIN TITMOUSE

Larger than sparrow, brown

Rufous under tail, white in wings conspicuous—BOHEMIAN WAXWING

White under tail—CEDAR WAXWING

Much larger than robin, ground bird, long tail—ROAD-RUNNER

7h—Black cap, crown, or forehead

Black throat

Smaller than sparrow

White line above eye—MOUNTAIN CHICKADEE

No white line—BLACK-CAPPED CHICKADEE

Sparrow-sized (7½"), gray cheeks, black extends onto chest—HARRIS'S SPARROW

No black throat

Black line through eye, white line above eye

Much smaller than sparrow, rufous breast—RED-BREASTED NUTHATCH

Larger than sparrow, black and white plumage

Bill shorter than head, black spots on white outer tail feathers, 7" long—DOWNY WOODPECKER

Bill as long as or longer than head, no black spots on outer tail feathers, 9" long—HAIRY WOODPECKER

Not as above

Reddish-brown coloration, gray atop head

Gray on top and back of head, plumage dark—BLACK ROSY FINCH

Gray on back of head only, dark forehead more extensive—GRAY-CROWNED ROSY FINCH

Not as above

White cheeks and throat, black cap extends to back of neck, tree branch climber—WHITE-BREASTED NUTHATCH (note: the somewhat similar but smaller Pigmy Nuthatch has white throat only, and cap is brownish-gray)

Not as above, back greenish-black, yellowish below, dark wings marked with white—ARKANSAS GOLDFINCH (male)

7i—Conspicuous black hood or head

Sparrow-size, white outer tail feathers—SHUFELDT'S JUNCO

Larger than sparrow

White spotting on outspread tail, wings, and back, rufous sides—

SPOTTED TOWHEE (male; female has brown hood)

No rufous, no white on tail, tail extremely long—MAGPIE

7j—Shape or color of bill

j-1. Mandibles of bill crossed (overlapping), birds red (male) or burnt orange (female)—RED CROSSBILL

j-2. Bill very chunky, yellowish; bird black, white, and yellow—EVENING GROSBEAK

j-3. Bill down-curved (not hooked)

Tree-climber, dark-colored, streaked back, small—BROWN CREEPER

Rocky habitat, never upon trees, bill only slightly curved

Throat white, tail rufous—CANON WREN

Throat streaked, tail with buff-spotted edge when outspread—ROCK WREN

j-4. Extremely long bill on chunky body, brown-streaked wading bird—WILSON'S SNIPE

j-5. Hooked bill (not owl or hawk), birds black, white, and gray with black masks

Breast finely streaked; robin size, lower part of bill is light-colored—NORTHERN SHRIKE

Breast white; smaller than robin, bill black—WHITE-RUMPED SHRIKE

j-6. Gull-like birds

Bill banded with black—RING-BILLED GULL

Bill with apparent band (red spot) on lower part of bill only—

HERRING GULL

8—Tail features

8a—White on outer tail feathers or outer tail feathers white

Sparrow-size or smaller

Bill fairly long and thin

Bill slightly curved, tail tips buffy, in rocks—ROCK WREN

Bill not curved, streaked buffy breast, in grassland—AMERICAN PIPIT

Bill short and conical

Predominantly brown-streaked above

Wings conspicuously white—SNOW BUNTING

Wings not conspicuously white

Tail mostly white except centrally

Black on tail in form of "V"—CHESTNUT-COLLARED LONGSPUR

Black on tail in form of "T"—McCOWN'S LONGSPUR

Tail mostly black, white edging

Black, white and yellow facial markings—HORNED LARK

Not as above, often with other longspurs—ALASKA LONGSPUR

Not predominantly brown-streaked above

Sides pinkish (Oregon Juncos)

Head (hood) black—SHUFELDT'S JUNCO

Head (hood) gray—PINK-SIDED JUNCO

Sides not pinkish

Body color contrasting black and white—DOWNY WOODPECKER

Body color not as above

Back rufous—GRAY-HEADED JUNCO

Back not rufous—

White wing-bars—WHITE-WINGED JUNCO

No white wing-bars—SLATE-COLORED JUNCO

Larger than a sparrow

Bird black, white, and gray

Up to robin-size, black mask

Finely streaked below, robin-size, lower part of bill light-colored—
NORTHERN SHRIKE

Breast white; smaller than robin, bill black—WHITE-RUMPED
SHRIKE

Larger than robin, no mask—CLARK'S NUTCRACKER

Bird blue above, white below—BLUE JAY

Not as above

Grassland or ground bird primarily

Yellow throat, black breast band

Yellow breast and belly, chunky-bodied, no black facial marks
—MEADOWLARK

Buffy breast and belly, slim-bodied, black facial marks—
HORNED LARK

Not as above, buffy-streaked below, mountain parklands usually
—AMERICAN PIPIT

Woodland bird

Black and white, woodpecker-like—HAIRY WOODPECKER

Dark gray, tan wing-bars, white eye-ring—TOWNSEND'S
SOLITAIRE

Brushland bird, black hood, rufous sides, white spotting on tail
edges—SPOTTED TOWHEE

8b—Tail conspicuously colored

Rufous: Sparrow-size, white throat, rocky habitat—CANON WREN

Robin-size wading bird, two black breast bands—KILLDEER

White: Sparrow-size, much white on wings and body, as well as whitish
on tail—SNOW BUNTING

8c—Tail extremely long, bird black and white in appearance—MAGPIE

**8d—Tail extremely long and narrow for small size (4½") of brown-gray
bird—BUSH TIT**

**8e—Tail very stubby, tiny bird dark above, light below, moving in bands
and chattering—PYGMY NUTHATCH**

**8f—Tail held upright, sometimes flicked nervously, sparrow-size or smaller
Breast heavily streaked, with central spot—SONG SPARROW**

Not as above (Wrens)

White line over eye

White-striped back, very small, marshland—MARSH WREN

Not as above, larger, finely streaked breast, buffy edges on tail
when outspread, rock outcrops—ROCK WREN

No white line over eye

Black hood on head, white spots on outer tail feathers, rufous sides—
SPOTTED TOWHEE

Not as above

Throat and breast white, tail rufous—CANON WREN

Throat and breast dark, very small—WINTER WREN

9—Wing features

Light wing-bars (note: many birds have wing-bars, so that this characteristic
in itself is not an especially helpful identification feature. Some wing
bars, however, are fairly distinctive)

1. Yellowish wing-bars on small bird, conspicuous in flight—PINE SISKIN

2. Buffy wing-bars on dark gray bird with white outer tail feathers and
white eye ring—TOWNSEND'S SOLITAIRE

3. Sparrow-sized bird gray above, white below, with white wing-bars—
WHITE-WINGED JUNCO

4. Tiny greenish bird with white eye ring and white wing-bars—RUBY-
CROWNED KINGLET

5. Tiny greenish bird with white line above eye, white wing-bars, and
yellow crown—GOLDEN-CROWNED KINGLET

6. Robin-sized bird with large, stocky bill, pink head, breast and back,
dark wings with white wing-bars—PINE GROSBEEK

7. Small yellowish bird with conspicuous wing-bars on dark wings—
AMERICAN GOLDFINCH

10—Body features

10a—Back conspicuous/y colored, usually different from rest of body

1. Rufous back, sparrow-size
Pink sides, black head—SHUFELDT'S JUNCO
Gray sides, gray head—GRAY-HEADED JUNCO
2. Grayish-brown back patch, otherwise bright blue above—SCRUB JAY
3. White back patch
Smaller than robin, black and white—DOWNY WOODPECKER
Robin-size
Sides white, black forehead—HAIRY WOODPECKER
Sides barred black, yellow forehead—THREE-TOED WOODPECKER (male)

10b—White rump patch

- Black, white and gray, with black eye mask
Breast finely streaked; robin-size, lower part of bill light-colored—NORTHERN SHRIKE
Breast white; smaller than robin, bill black—WHITE-RUMPED SHRIKE
Not as above, reddish in wings and tail, black band across breast—RED-SHAFTED FLICKER

10c—Breast with one or two prominent belts or bands

- Head with crest, blue above, aquatic habitat—BELTED KINGFISHER
Head without crest
Yellow throat above black band
Breast and belly yellow, no black facial marks—MEADOWLARK
Breast and belly buff, black facial marks—HORNED LARK
Throat not yellow
Black and white wading bird, two black belts—KILLDEER
Reddish-brown woodpecker, one black, crescent-shaped belt—RED-SHAFTED FLICKER

10d—Breast with central spot or blotch

- Rufous crown conspicuous
Sparrow-size, single spot on clear breast—TREE SPARROW
Larger than sparrow, brown bird with lightly streaked tan throat, sometimes central breast spot present—CANON TOWHEE
Crown, if rufous, not conspicuously so
Breast streaked, showing central spot or blotch
Streaks cover underparts, dark mustache marks—SONG SPARROW
Streaks form blotch-like bib on chest, tan cheeks—HARRIS'S SPARROW (immature)

10e—Underparts conspicuously colored, different from body color

1. Yellow
EVENING GROSBEAK—white and black wings, black tail
MEADOWLARK—all underparts yellow except for black breast band
2. Rose-red belly, gray breast, with gray collar around black back—LEWIS'S WOODPECKER

10f—Plumage mainly blue in appearance

- Bird crested
Aquatic habitat, breast conspicuously belted—BELTED KINGFISHER
Woodland habitat
Light blue above, white below, in wings and tail—BLUE JAY
Dark blue with no white—STELLER'S JAY
Not crested
Reddish on breast (males also reddish on shoulders)—WESTERN BLUEBIRD
Not as above
Solid blue-gray above and below
Smaller than robin, grassland—MOUNTAIN BLUEBIRD
Larger than robin, long bill, acts like small crow—PINON JAY
Bright blue above, with gray-brown back patch, light throat, gray belly—SCRUB JAY

10g—Plumage mainly black in appearance

- Crow-size and larger

Very large, humped shoulders, hoarse croaking voice, thick bill—
RAVEN

Not as above, smaller—CROW

Smaller than a crow

Body predominantly black

Red markings on shoulder—RED-WING

No red on shoulder

Tail short, body bullet-shaped, spotted with white—STARLING

Tail and body fairly long and slim, appears pure black—

BREWER'S BLACKBIRD (male; female brown-black and lacks
white eye of male)

Black conspicuous but with other colors present

Tail very long, body dark above with white belly, white flashes in
wings—AMERICAN MAGPIE

Not as above, belly and cheeks crimson, gray collar—LEWIS'S
WOODPECKER

10h—Plumage predominantly red in appearance

Sparrow-size

Red on head, as well as elsewhere

Chin black, red forehead—REDPOLL

Not as above

Brown striping on body, pink on head, breast and rump

No belly streakings, mainly in foothills—CASSIN'S PURPLE
FINCH

Belly streakings common, mainly around towns and farms—
HOUSE FINCH

No brown striping on body, red on head, back and breast, dark
wings—RED CROSSBILL (male)

No red on head, back or breast—ROSY FINCHES (see text)

Larger than a sparrow

Back mainly dark blue—WESTERN BLUEBIRD

Back mainly brown-black—ROBIN

10i—Plumage predominantly gray in appearance

Sparrow-size, white outer tail feathers

White wing-bars—WHITE-WINGED JUNCO

Not as above

Pink sides and breast—PINK-SIDED JUNCO

Uniformly gray, with white underparts—SLATE-COLORED JUNCO

Larger than sparrow

Aquatic habitat (rocky foothills streams)—WATER OUZEL

Not in aquatic habitat

Uniformly gray

Light outer tail feathers, wing-bars and eye-ring, dark gray—
TOWNSEND'S SOLITAIRE

Not as above, whitish top to head—CANADA JAY

Gray, black and white

Robin-size or smaller, black mask, wings and tail

Breast finely streaked, size larger—NORTHERN SHRIKE

Breast white, smaller—WHITE-RUMPED SHRIKE

Larger than robin, no mask, gray underparts—CLARK'S
NUTCRACKER

11—Appearance in flight

11a—Bobbing or undulating flight (common winter species)

Size small (5" or less), quick bobbing accompanied by cheeping

Yellow wing bars show in flight, streaked beneath—PINE SISKIN

Not as above—GOLDFINCHES (see text)

Size larger (6" or more)

Black and white coloration

Sparrow-size, small bill—DOWNY WOODPECKER

Robin-size, bill usually longer than head—HAIRY WOODPECKER

Not as above

Tail looks black beneath, contrasting with lighter body

White outer tail feathers conspicuous—AMERICAN PIPIT

Outer tail feathers splotched with white—HORNED LARK

Not as above

Conspicuous white rump patch, rufous in wings and tail—RED-SHAFTED FLICKER

Not as above

Crimson (or heavily streaked) above and below—CASSIN'S PURPLE FINCH (male crimson, female streaked)

Brick red (male) or burnt orange (female) above and below, no streaking—RED CROSSBILL

Note: Longspurs and other winter birds may undulate in flight but are less commonly encountered than the above and are difficult to identify on the wing.

11b—Black and white conspicuous in plumage in flight

1. SHRIKES: black eye mask, usually come to perch on treetop or atop post or telephone wire
2. MAGPIE: extremely long tail, white back patch
3. DOWNY WOODPECKER: black and white, sparrow-size
4. HAIRY WOODPECKER: black and white, robin-size
5. CLARK'S NUTCRACKER: Gray below, black and white restricted to wings and tail

11c—Bullet-shaped body with short wings set in middle, quick beating of wings—STARLING

11d—Small brown-streaked bird which flies from top of one tree to bottom of next, up that and on to another tree base—BROWN CREEPER

11e—Swoops low from one fence post perch to the next in grassland—SHRIKES

11f—Flies up quickly from creek-bottom or marshland, zig-zagging away with "scaiping" call, soon dropping to earth again—WILSON'S SNIPE

11g—Slate-gray bird which follows course of foothills streams close to the water—WATER OUZEL

11h—Tail appears very stubby in flight, tiny bird dark above, light below, moving in bands and chattering—PYGMY NUTHATCH

Descriptions of the Winter Birds of Colorado

In the following section are descriptions of more than a hundred species of birds which have been encountered in various parts of Colorado during the winter season. Not all of these birds are common, nor have all winter birds ever recorded in the state been described here, but, certainly, the typical ones are included, among others. In the descriptions, features most useful in identification have been printed *in italics* and where possible an indication of the bird's usual location and abundance in the state has been written. For further information on this kind of data, the reader is referred to the table in the chapter on "Where to See the Birds" (p. 5) and to Appendices A and B. The birds are arranged in a loose taxonomic order (somewhat like that in Peterson's guides), with closely related species usually discussed together. Insofar as possible, currently acceptable common and scientific (*in italics*) names have been used.

These scientific names are those by which birds are known in professional and international communication. The first is the generic name, that of the *genus* to which the bird belongs, the second is that of the *species*, the specific name; occasionally a third or subspecific

name is employed. These words may be merely the Latin or Greek name for approximately the same kind of bird. More often they describe some physical or behavioristic character of the bird. Less frequently they are geographical (often quite misleading) or proper names (persons in whose honor the bird has been named). Occasionally words from Greek and Latin mythology or history are used, chosen for some real or fancied resemblance.

For those with curiosity as to the translations and meanings of these a glossary of scientific names used in this pamphlet, compiled by John Hough, will be found in Appendix C, listed alphabetically under the generic name.

Heron

The **Great Blue Heron**, *Ardea herodias* (48" long), is the largest of our Colorado wading birds, and the *only large one present in winter*. It appears to be increasingly common at lower elevations in the state through the winter, especially along the larger rivers where unfrozen pools occur. During severe spells of weather the Herons may disappear, apparently having sought out regions of more temperate climate to the south. Most of Colorado's summer Herons have left their cottonwood rookeries by the end of November, to return northward about the middle of March. The ones remaining here for the winter are usually solitary. Herons are occasionally seen in the winter sky; their long legs and wings and laborious, flapping flight quickly identify them.

The Winter Waterfowl

Although many species of ducks occur in Colorado (especially on the eastern plains, to a lesser extent in southwestern Colorado, seldom in the mountains) during the course of the winter (see Appendix A), most of these are migratory, coming through in late fall and late winter, and only a few species occur commonly as winter residents.

The most numerous, of course, are the **Mallards**, *Anas platyrhynchos* (24' long), sometimes occurring by the hundreds and even thousands at lower elevations throughout the state, on open irrigation reservoirs or broad plains rivers, and occasionally in adjoining grain fields. Often large flights of these birds can be seen in the air at dusk near plains lakes. On the wing and on the water the *dark head and breast of the male contrast with the lighter portions of the body*, making identification of this large duck easy even at a distance. (The Lesser Scaup, somewhat similar in appearance, is shorter and chunkier.) The *female Mallard is brown*, with no particularly conspicuous marks except for a *purplish wing bar (speculum) edged on both sides by white*. The familiar *male has a green head, white neck ring, and rufous breast*.

Frequently associated with the Mallard is the less common **American Pintail**, *Anas acuta* (28" long), which is larger; the *male has a long pointed tail and a long neck, up each side of which extends a white stripe*. In flight with Mallards the male Pintail is readily distinguished by its *pointed length and the conspicuously white underparts contrasting with the dark head and tail*. The female resembles the female Mallard but *lacks the conspicuous white-edged speculum*.

The other large winter duck is the **American Merganser**, *Mergus merganser* (26" long), which occurs haphazardly on the plains, usually in single-species flocks of up to a hundred along slow-moving rivers, less commonly on lakes. This bird, a fish eater, has a *long, narrow, "toothed" bill* unlike the flat strainer of the Mallard and Pintail. The sexes can be readily distinguished, the *male* by its *black head and back* contrasting with the *white underparts*, the *female* because of its *crest and reddish-gray coloration*. The much less common female **Red-breasted Merganser** is similar but is *smaller and lacks a definite demarcation* between the dark head and light breast.

The common small winter duck is the **Green-winged Teal**, *Anas carolinensis* (14" long), a bird of lake shore and stream edge on the eastern plains and in western Colorado. It can be identified by its *diminutive size* and the striking coloration of the *male, gray with rich brown head marked with iridescent green, a vertical white line in front of the wing* (at rest), and a *green bar* on the side of the folded wing. The *speed of flight and abruptness of landing*, associated with a *loud swishing of wings* and a *clear whistling call*, are distinctive. This small duck appears darker and *lacks the white areas* shown by other common winter species. These birds congregate in small bands, usually flying in a single-species flock but often associating on the water with other ducks.

The **American Goldeneye**, *Bucephala clangula* (19" long), is occasionally encountered as a winter resident on lowland lakes and large waterways, usually in small flocks. It has been seen on the Yampa River in northwestern Colorado and is reported as common around Gunnison. Goldeneyes are typically more abundant, however, during migration. The *male* has a *dark back and roundish head, the latter with a conspicuous white patch in front of the eye*. The *breast and sides are white*. The *female* has a *roundish brown head, the rest of the body appearing light gray, with two white wing bars*.

The **Canada Goose**, *Branta canadensis* (35" long), can be distinguished from other common waterfowl by its *large size* alone, although markings are conspicuous (*black head and neck with white cheek patch, and white rump*). These birds occur around large reservoirs on the eastern Colorado plains, where they may spend much time on shore or in the air, but not in the numbers found elsewhere in the United States.

For identification and information concerning the less common winter waterfowl, the reader is referred to Lowell E. Swenson's *Guide to the Waterfowl of Colorado* (University of Colorado Museum Leaflet No. 4).

The Winter Birds of Prey

Although more than twenty birds of prey (hawks, eagles and owls) have been reported in Colorado during the winter, many of these are too infrequently encountered to warrant discussion here. A perusal of Appendix A will indicate the relative chances of seeing the various species. More comprehensive identification and other information can be obtained in *Guide to the Birds of Prey of Colorado* by Richard G. Beidleman (University of Colorado Museum Leaflet No. 6).

A *slim-bodied, long-tailed, low-soaring hawk with white rump patch and wings held above the horizontal* is easily recognized as the **Marsh Hawk**, *Circus cyaneus*. The *females are brown, males are light gray above and conspic-*

uously *white beneath*, and *both sexes have dark chins*. This is the most common hawk of marshland, grassland and agricultural areas during the winter, traveling along or with a mate, but is frequently seen in the mountains. The birds may rest on the ground but seldom perch in trees, as do most of our hawks. While hunting, the Marsh Hawk glides close to earth and will occasionally swoop to pick up the grass-ball nests of meadow mice, or the mice themselves.

Our only *small hawk with reddish tail, pointed wings and black facial marks*, the **Sparrow Hawk**, *Falco sparverius* (10" long), is typically seen perched on telephone poles or wires or atop a dead cottonwood stub on the eastern plains and (especially) in southwestern Colorado. A Sparrow Hawk will often frequent the same locality all winter. It is seldom encountered in the mountains during the winter. Because these hawks are much less common in winter than during the summer, it may well be that most of those wintering here breed to the north, and our summer residents may travel south for the winter. There are large migratory flights, particularly along the edge of the eastern foothills, north in early April and south in early October. These birds, like most hawks, love windy weather and can frequently be seen hovering above the ground on air currents, then sliding quickly with the wind only to return to the same spot and hover again. The *male* can be distinguished from the *rusty-colored female* by its *slate-blue wings*.

Two other pointed-winged hawks (falcons), somewhat larger than the Sparrow Hawk, are occasionally seen during the winter, especially in eastern Colorado. The medium-sized **Prairie Falcon**, *Falco mexicanus* (17" long), frequents plains and foothills country, particularly in the vicinity of bluffs, and in flight can be easily identified from below by its conspicuously *light brown coloration*, contrasting with *black patches where the wings attach to the body*. The **Pigeon Hawk**, *Falco columbarius* (12" long), is slightly larger than the Sparrow Hawk and *lacks the reddish brown tail*. The *male is blue above*, streaked brown below. The *females are dull brown above and below*. These falcons now and then frequent cities such as Denver, as well as occurring in plains woodlands and infrequently in mountain coniferous forests. They are nowhere common.

The so-called "bird hawks," all with *long tails and shortish squared wings*, occur but are not especially common in Colorado during the winter. Largest is the **Goshawk**, *Accipiter gentilis* (23" long), a *slim hawk, heavily streaked below, the adult being slate-gray, the immature brown*. Sometimes the *white line above the eye* can be distinguished. This species is generally restricted to the coniferous forests of the mountains.

The Cooper's and Sharp-shinned Hawks are very similar except for size and the shape of the tail. The smaller is the **Sharp-shinned Hawk**, *Accipiter striatus* (11" long), which has a *square-tipped tail* when spread. **Cooper's Hawk**, *Accipiter cooperii* (17" long), has a *rounded tail*. Both are *slate-gray above, rusty below, with black bands across the long tail*. Furtive in habits, they like to hide in dense vegetation, especially in city parks, cottonwood river-bottoms, and coniferous forest, waiting to dash out upon a flock of smaller birds. Scattered bloody feathers of Juncos, Robins, Bluebirds or Sparrows on the ground or snow suggest the work of these predators.

Of the *large, broad-winged, broad-tailed* species (Buteos), the **Red-tailed Hawk**, *Buteo jamaicensis* (22" long), is the most common and familiar.

Typical specimens can be identified by the *broad tail, rufous to the base*. Non-typical specimens may lack the red tail but usually have the *dark chin and dark streaking across the belly*. In flight the Red-tail *soars with the wing tips turned up*. These hawks occur everywhere in the state but appear to be somewhat more abundant in the southern portion. They are the most commonly encountered hawks in the mountains. Their piercing, *down-slurring cry* is a good identification feature.

The Ferruginous Rough-leg and American Rough-legged Hawk (more common) occur on the eastern Colorado plains during the winter, the former also being encountered in the southwestern part of the state. Both occur, but are not common, in the mountains, the American Rough-legged Hawk especially around Gunnison. The **Ferruginous Rough-leg**, *Buteo regalis* (24" long), has a *grayish tail shading to white at the base above*. The bird is typically *white below (at least the tail)*, with the *feathered legs forming a dark "V" on the belly*. The typical **American Rough-legged Hawk**, *Buteo lagopus* (22" long), has a *white tail tipped by a broad black band and is light beneath* except for conspicuous *black elbow patches under the wings* and sometimes a *black belly band*. Dark varieties have a very *dark leading edge under the wing*. Both species have legs feathered to the toes, but this characteristic is difficult to see unless the hawk is perched. The American Rough-leg is frequently encountered soaring alone or with a companion over wooded plains river-bottoms, searching for rodent food. The Ferruginous Rough-leg may be seen in the same type of habitat but seems more at home in foothills and open plains country such as that in southeastern Colorado.

Although encountered much more commonly in migration and during the summer, the **Swainson's Hawk**, *Buteo swainsoni* (21" long), is occasionally seen in Colorado in the winter, particularly in the southern part of the state. These hawks usually show a *dark breast band* (which contrasts with a light throat) and, from above, a gray, finely-banded tail which may appear whitish at its base. Usually the *front portion of the wings, seen from below, appears much lighter than the back portion*. During the fall and spring large circling flocks of these hawks are now and then observed moving along the foothills or across the plains.

Both Bald and Golden Eagles occur in Colorado during the winter. They can be distinguished from the hawks by their much larger size, especially the wing span, and by their much more leisurely flight. The **Bald Eagle**, *Haliaeetus leucocephalus* (wing spread 7 feet), is often fairly common in the vicinity of large plains reservoirs, over river bottoms, and it occasionally wanders into the mountains. The *adult has the familiar white head and tail, while the young bird is brownish all over*. The **Golden Eagle**, *Aquila chrysaetos* (wing spread 7 feet), is closely associated with, and frequently seen in, the sedimentary foothills cliff country (where it begins nesting in late February), but also occurs in plains areas. The *adult is brown-black with golden head and white base on tail above; the young is brownish with black-tipped white tail and white wing patches beneath*. Both eagles may be more common in southern and western Colorado than they are in the better-known northeastern part of the state.

Owls

Several species of owls occur in Colorado during the winter but their secretive nocturnal habits generally make them difficult to observe. Perhaps because of its size, the **Great Horned Owl**, *Bubo virginianus* (24" long), is the most familiar. It is the only *very large owl with feather tufts ("ears") on its head*. Almost every large and relatively undisturbed city woodland, plains river-bottom, and open mountain forest (especially ponderosa pine) will contain a pair. Winter and summer the owls may not only frequent the same area but utilize the same tree perch, the pellets of regurgitated hair and bones beneath the favorite perch revealing their presence. These are among our earliest nesting birds, the eggs frequently being laid by the end of February in old heron or magpie nests. The Horned Owl hunts at night for rabbits and mice, wing marks often being imprinted in the snow where prey was picked up.

On rare occasions another *very large, but earless*, owl, the **white Snowy Owl**, *Nyctea scandiaca* (24" long), ranges into the eastern plains and foothills country of Colorado when food in its native arctic wasteland becomes scarce. One of the last great invasions was during the winter of 1886-87.

The *small, chunky, conspicuously-eared* **Screech Owl**, *Otus asio* (9" long), is occasionally encountered in woodland areas, especially in southwestern Colorado. In eastern plains marshland the *medium-sized* **Short-eared Owl**, *Asio flammeus* (15" long), with *inconspicuous ear tufts on a stocky head*, and a conspicuous *light patch atop each wing*, is frequently seen, particularly in the southeastern part of the state. This owl is the only one typically active during daylight hours in the winter, either flying low over the ground like a marsh hawk or perched on a fence post. Sometimes the **Long-eared Owl**, *Asio otus* (14" long), is seen, perched in a river bottom Box Elder or on a branch along a foothills ravine. This slim owl has *long ear tufts set close to each other*.

The Winter Wildfowl

Although imported originally from Asia the well-known **Ring-necked Pheasant**, *Phasianus colchicus* (20" to 35" long), has become common throughout the plains region of eastern Colorado, especially to the north. It occurs less commonly in southwestern Colorado and rarely in the higher mountains. During the winter Pheasants often congregate in large numbers in brushy areas, cattail marshes, and fields of standing corn, where they communally roost or feed. Their chicken-like tracks, piles of whitish-brown dung in thicket perches, and scratched feeding areas in the snow reveal their presence in a locality. The *male is large and brilliantly colored*, whereas the *female is a smaller, dull brown, grouse-like bird*.

The blue-gray **Scaled Quail**, *Callipepla squamata* (11" long), with *white-topped bushy crest and scale-patterned buff underparts*, is fairly common in the plains and foothills country of southeastern Colorado, particularly favoring gully areas. There is a scattering of **Bobwhite Quail**, *Colinus virginianus* (9" long), here and there in eastern Colorado (as around Fort Morgan, Sterling, Wray) where the bird is either a native or has been introduced. This *chunky, crestless, brown quail* with contrasting *dark and light head markings (male)* favors river-bottoms and agricultural uplands where shrub-

bery or other dense vegetation provide shelter. The characteristic whistled "bob-white" call reveals the presence of a covey in an area.

In dry and rocky regions of southwestern Colorado two introduced quails, both with *arching head plumes*, are found, **Gambel's Quail**, *Lophortyx gambeli* (10" long), and the **California Quail**, *Lophortyx californica* (10" long). Gambel's Quail, one of the most frequently encountered winter birds in that part of the state, is distinguished from the less common but very similar California Quail by the *black spot on the belly* and the *more rufous coloration atop the head and on the flanks*.

The **Wild Turkey** *Meleagris gallopavo* (36" to 48" long) may be encountered in the south-central and southwestern portion of Colorado in scrub oak and ponderosa pine country, and the **Sage Hen**, *Centrocercus urophasianus* (22" to 28" long), in northwestern sagebrush country. The *black belly band* will distinguish this latter species from similar wildfowl. On rare occasions bad weather in Wyoming will force Sage Hens into northeastern Colorado, as during the blizzard-winter of 1948-1949.

In the mountains near timberline the **White-tailed Ptarmigan**, *Lagopus leucurus* (13" long), occurs in small numbers but is seldom seen. The bird is unique in that it changes from brownish-gray in summer to *white plumage in winter*. Throughout the coniferous forests of the mountains down to the foothills the **Dusky Grouse**, *Dendragapus obscurus* (20" long), dark gray-brown with a contrasting *gray tip-band on a dark tail*, is resident but not common.

Other less abundant wildfowl occur in Colorado, but in most cases their distribution is restricted to a particular section of the state. More information can be obtained in Lowell E. Swenson's *Guide to the Upland Game Birds of Colorado* (University of Colorado Museum Leaflet No. 9).

Winter Shore Birds

The **Killdeer**, *Charadrius vociferus* (10" long), a *chunky wading bird*

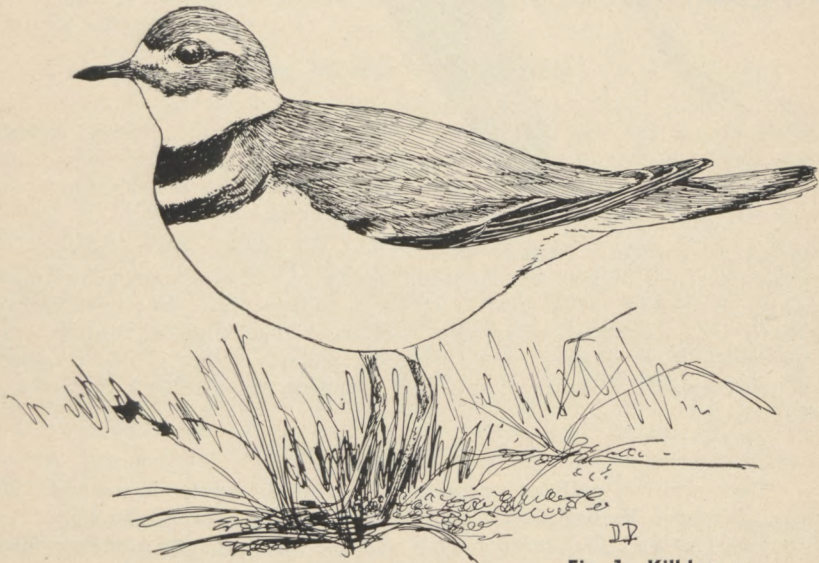


Fig. 1. Killdeer.

with two black bands across the white breast and a rusty coloration on the outspread tail, is our only common shorebird during the winter months (Fig. 1), although less common than in the summer. Usually frequenting the sand and mud edges of open plains rivers and adjacent fallow fields in small groups, these birds may disappear during extremely severe weather. The Killdeer typically does not winter in the mountains, although it is occasionally seen around Gunnison during mild winters. The birds are often difficult to spot, but their plaintive "wee-dee-dee" call gives their presence away. In flight they wing rapidly and may be mistaken for falcons.

The **Wilson's Snipe**, *Capella gallinago* (11" long), is a short-legged, chunky shore or marsh bird with an extremely long straight bill and a brown-striped color pattern (Fig. 2). In eastern Colorado it was more common in former years but may still be flushed from slow-moving plains creeks and

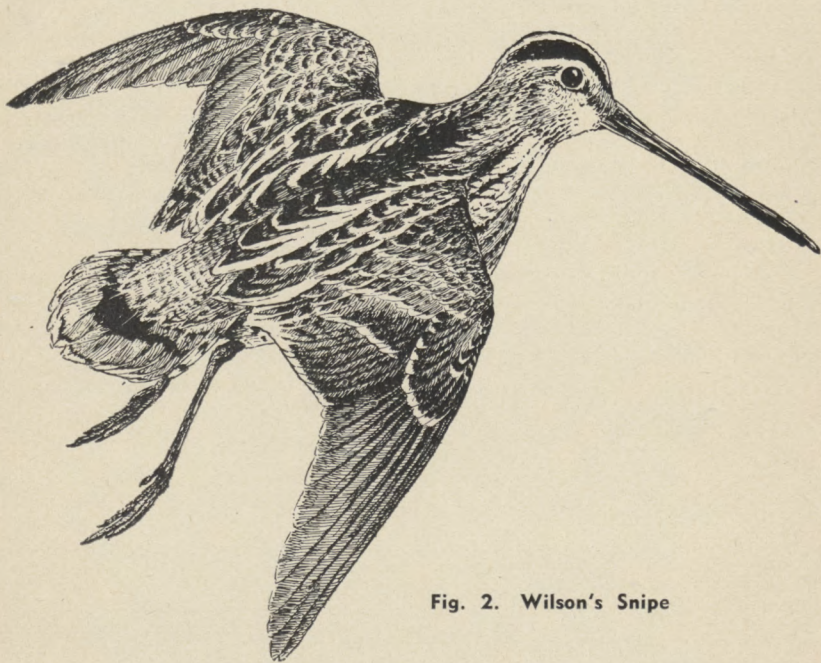


Fig. 2. Wilson's Snipe

marshy areas where it feeds on worms and small insects. During severe winter weather it is seldom seen, possibly having moved temporarily into more temperate country. The bird is typically solitary, but sometimes congregations are encountered in suitable habitats such as mud-flat river-bottoms. The erratic flight when startled (flying up suddenly with a shrill "scaiping" call, zig-zagging quickly away, and then dropping abruptly back to earth) is distinctive.

Gulls

Two species of gulls are encountered during the winter in eastern Colorado, the large **Herring Gull**, *Larus argentatus* (25" long), (red spot on lower part of bill, flesh-colored legs) and the smaller, more common **Ring-**

billed Gull, *Larus delawarensis* (19" long), (*black band circling bill, legs greenish-yellow*). These birds occur in the vicinity of irrigation lakes and along large rivers, sometimes moving into nearby fields, and are often seen circling over river-bottoms. Before the turn of the century both of these gulls were migratory. Twenty-five years ago, any winter gull usually turned out to be the Ring-billed. In recent years, however, the Herring Gulls have increased in numbers, especially in east central Colorado (Boulder and Denver, for example).

Some Special Types

The **Mourning Dove**, *Zenaidura macroura* (12" long), the *only dove with a pointed tail*, is familiar to all Coloradoans but perhaps not as a winter species. Actually, a few of these summer residents linger on into the colder months almost every year, during mild weather staying the entire season. Not surprisingly, they have been reported more commonly from southeastern Colorado but rarely from the mountains.

The **Road-runner**, *Geococcyx californianus* (22" long). Although a rare sight the interesting Road-runner is occasionally encountered in the winter in southeastern Colorado, in pinon-juniper, scrub oak, or brushland. There is no mistaking this *large, brown-streaked ground cuckoo, with its long legs and tail and crested head*, unless it might be confused with a female pheasant. The bird seldom flies but can run exceedingly well.

The **Belted Kingfisher**, *Megaceryle alcyon* (12" long). The *long crest, blue back, and belted chest* (male with one blue band, female with one blue and one brown band) serve to identify this resident of plains streams, gravel ponds and lakes. Never numerous, one or two of these birds may occupy the same stretch of river throughout the year, usually a spot where there are deep pools and plenty of fish. It is typical for the Kingfisher to frequent a favorite perch such as a wire or tree snag above the water. In flight these birds usually follow the course of the river, uttering their characteristic rattling call.

The Winter Woodpeckers

Everyone in the West is acquainted with the common **Red-shafted Flicker**, *Colaptes cafer* (13" long), of our plains woodlands and lower mountain coniferous forests, next to the Magpie the most frequently encountered winter bird in Colorado on the plains. The Flickers (Plate 1) of the plains occupy much the same area throughout the year, especially favoring cottonwood groves and city parks where large dead or rotting trees are plentiful. In the mountains there is a movement of Flickers down to lower elevations during the early fall. Although they are woodpeckers, Flickers spend much of their time feeding on the ground (for ants and other invertebrates), even in the winter, several often being seen together. This species is easily recognized on the wing by the *undulating flight, reddish tail and wing feathers, and flashing white rump patch*. The *male has red mustache marks*. There is some interbreeding of the Red-shafted and eastern Yellow-shafted Flickers in eastern Colorado, with a consequent mixture of markings.

The **Downy Woodpecker**, *Dendrocopos pubescens* (7" long), a *black and white bird* slightly larger than an English sparrow, with a *bill no longer*

than its head width and black spots on the white outer tail feathers, occurs frequently in eastern plains river-bottoms and towns and to a lesser extent in the lower mountains and westward (Fig. 3). It is often seen working its way up the trunk of a tree or perched on a dead stub pecking for insect food, then *bobbing away in undulating flight*, uttering its characteristic, *piercing, one-note call* ("pip"). Usually a Downy Woodpecker is solitary, but sometimes a pair will travel together, the male being distinguished by its *red crown patch*. The Downy will quite often be in loose company with other small winter birds, especially the Chickadees, Creeper, Nuthatches and Juncos.

The **Hairy Woodpecker**, *Dendrocopos villosus* (9" long), resembles a Downy but is almost as large as a Robin with a sturdy bill longer than the

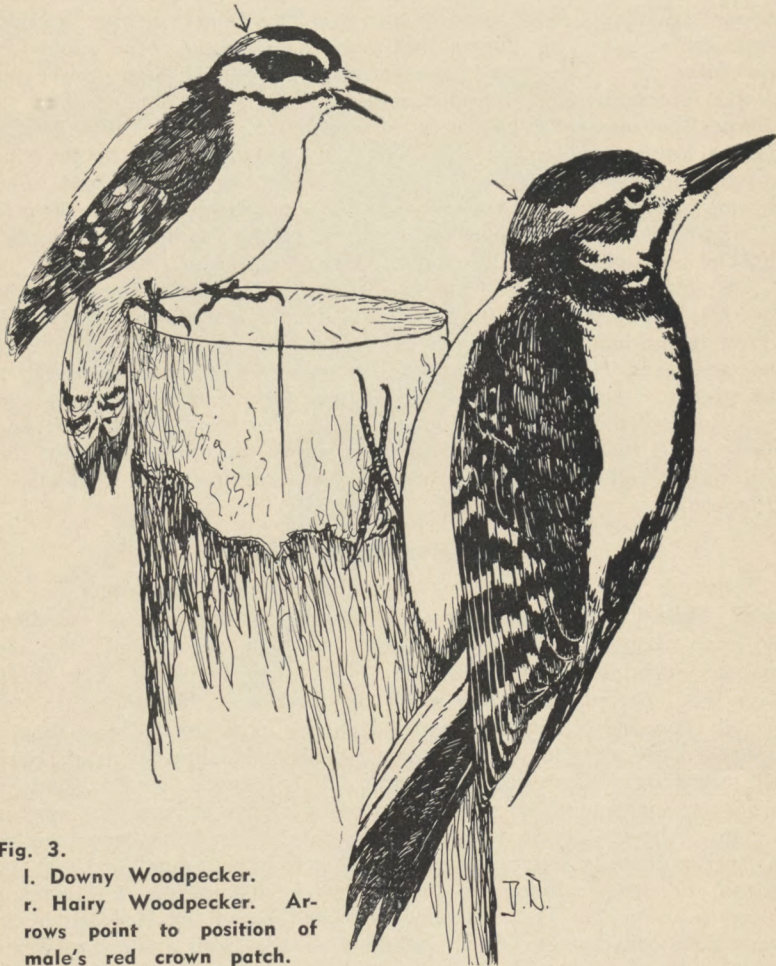


Fig. 3.
l. Downy Woodpecker.
r. Hairy Woodpecker. Arrows point to position of male's red crown patch.

head and no black spots on the outer tail feathers. This species (Fig. 3) is more common in the mountains and westward than the Downy but is less

common on the eastern Colorado plains. Not as sociable as the Downy Woodpecker, the Hairy usually occurs alone or with a mate, seldom mixing with other species of birds. When it does associate, it remains quite aloof. In flight pattern, coloration, and call, as well as in feeding habits, the Downy and Hairy Woodpeckers are quite similar. The Hairy, however, has a much louder call.

The only other woodpeckers which are ordinarily encountered in Colorado during the winter are **Lewis's Woodpecker**, *Asyndesmus lewisi* (11" long), and the **Three-toed Woodpecker**, *Picoides tridactylus* (9" long). The former is our most unusually colored woodpecker, having a *black back, rose-red belly and face, and gray breast and nape*. On the wing the bird *looks and flies like a small crow*. Lewis's Woodpecker occurs on the eastern plains near the mountains and in southwestern Colorado during the winter, especially in the vicinity of old apple orchards. The distribution is very spotty, with the birds often concentrated in certain areas year after year (as around Fort Collins), yet absent in other seemingly suitable localities. Telephone poles are commonly used as perches.

Little is known about the **Three-toed Woodpecker**. It looks much like the Hairy Woodpecker but has *barred rather than plain white sides* and a very *narrow, jagged white stripe down the back*. The male has a *yellow forehead*. This woodpecker appears to remain in the mountain coniferous forests, especially the high spruce-fir woodland, throughout the year, and is nowhere common.

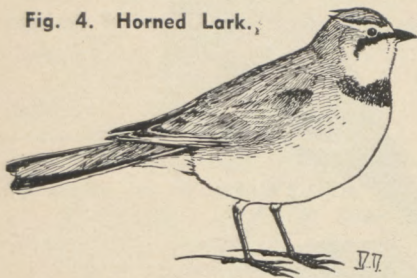
Winter Flycatcher

Say's Phoebe, *Sayornis saya* (7½" long), is a not uncommon winter resident in the southwestern part of Colorado, as around Grand Junction. Its flycatcher habit of perching on wires or weed stalks, flitting out and back periodically, along with its fairly uniform *cinnamon body coloration and black tail*, serve to identify it.

Winter Larks

The **Horned Lark**, *Otocorys alpestris* (7" long), is the most common *sparrow-sized bird* throughout open grassland in winter, especially in eastern Colorado (Fig. 4). Indeed, this

Fig. 4. Horned Lark.



is often the only bird seen from the highway in the eastern plains country during that season. The species can be identified by its *dark head marks* (crown band with erectible "ear" tufts in late winter), *eye mark, and chest band on yellow breast* and the *very dark tail edged with white*.

The head markings are dull in winter. In flight the conspicuously *light belly* (contrasting with the dark tail), *bobbing movement*, and *periodic cheeping* (a two-tone descending "tee tuu" or "tee tuu tuu") are good points of identification. These birds occur in large flocks, often congregating alongside or on snow-packed plains highways and in stubble fields, flying up ahead of the passer-by, only to return quickly to the ground, where they walk or run, rather than hop. Even in

the city they are frequently seen or heard winging overhead. Some of the larks may remain in the high mountains in winter.

Jays and Their Relatives

Easily recognized by its *extremely long tail* and iridescent *green-black and white* coloration, the **American Magpie**, *Pica pica* (19" long), is very

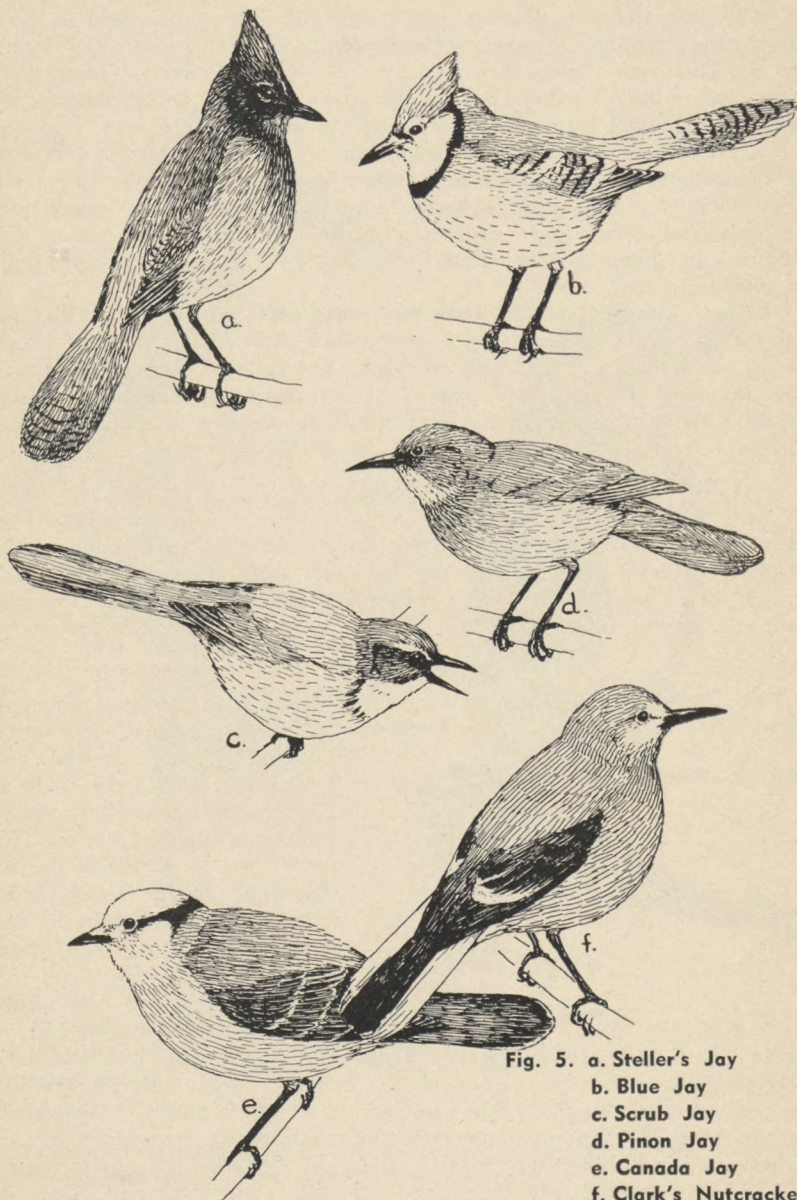


Fig. 5. a. Steller's Jay
b. Blue Jay
c. Scrub Jay
d. Pinon Jay
e. Canada Jay
f. Clark's Nutcracker

common on the plains and, to a much lesser extent, in the mountains, where rural woodland occurs, especially in river-bottoms. These birds (Plate 2) often gather in flocks, occasionally with crows, and mercilessly harass owls, hawks, and other predators, their raucous, excited chatter being heard for some distance. The large round stick nests of the magpie are conspicuous sights in the leafless plains trees of winter. Food preferences are wide, with carrion a favorite item.

One of the most common winter birds in the Colorado mountains is **Steller's Jay**, *Cyanocitta stelleri* (13" long), readily recognized by its *blue-black body with a long head crest* and its *harsh call* and sometimes a soft "mewing" (Plate 3, Fig. 5a). These birds are particularly common (though not abundant) in the ponderosa pine and Douglas fir forests of the lower mountains. During those winters when the Rockies are plagued with severe weather or a poor food crop, these jays will frequently move out onto the plains in large numbers, sometimes traveling more than a hundred miles away from coniferous forest (in 1946-47 they were common around Sterling. in 1950-51 east to Greeley). These birds, like the Magpies and Crows on the plains, are quick to spot and loudly annoy any enemy which approaches nearby.

Much less common than the crested Steller's Jay in Colorado but recently becoming a more frequent sight in northeastern Colorado river-bottoms and city woodlands is the eastern **Blue Jay**, *Cyanocitta cristata* (12" long), *crested*, with a body of *lavender, blue and white* (Fig. 5b). These birds are well established in extreme eastern Colorado, although less common there in winter than in summer, and apparently are of late making a successful westward invasion, with records at least from Drake and Estes Park. They show preference for deciduous woodlands, and hence it is not surprising that they have made little movement into the mountains. There is some indication that the Blue Jay may be more common in habitats where the Magpies, with whom they might compete, are less numerous. The *shrill, nasal, downward slurring "naaaa" call*, often repeated several times, is, once recognized, never to be mistaken for that of any other bird.

Frequently in the piñon-juniper-oak country of southern and northwestern Colorado, and occasionally in the foothills brushland of north-central Colorado, the **Scrub (California or Woodhouse's) Jay**, *Aphelocoma coerulescens* (12" long), is encountered. This is a *slim-bodied bird*, usually solitary or in pairs, which is *bright blue above except for a brownish gray back patch, gray below except for a black-edged white throat*. There is a *fairly long tail but no crest* (Fig. 5c). The call is a rising "shreek," definitely "jayish" but different from that of other species. This jay likes to take shelter in the center of thickets, seldom spending much time in large trees.

The *chunky, slate-blue* **Pinon Jay**, *Gymnorhinus cyanocephalus* (11" long), with *blue-streaked white throat*, is most erratic in its distribution traveling in large flocks haphazardly up and down the foothills and onto the plains, *noisily cawing and flying like small crows*. The birds (Fig. 5d) are very closely associated with piñon trees (for the nuts) and are most common in southern Colorado where piñon-juniper forests are extensive. These jays, unlike the other species, frequently rest and hop about on the ground.

In mountain coniferous forest two relatives of the more common Steller's Jay are occasionally encountered, the **Clark's Nutcracker**, *Nucifraga col-*

umbiana (13" long), conspicuously black, white and gray with a long bill, and the **Canada Jay**, or "Camp Robber", *Perisoreus canadensis* (12" long), gray with a whitish head and fairly short bill. Neither has a crest. These two frequent the higher mountains, the Nutcracker (Fig. 5f) being more common, and they only rarely straggle onto the plains. The Canada Jay (Fig. 5e) begins nesting in late winter, which may account for the lack of nesting observations in the state. Nutcrackers are often seen in flight high overhead, whereas the Canada Jay prefers to remain within the shelter of the forest. Both are quick to take advantage of winter picnickers.

The **Crow**, *Corvus brachyrhynchos* (19" long), and **Raven**, *Corvus corax* (24" long), are all-black birds, the Raven having almost twice the bulk of the crow, a hoarse croak rather than a caw, and humped shoulders (Fig. 6). In flight, the Crow flaps constantly whereas the Raven alternates flapping



Fig. 6. top: Crow. bottom: Raven.

with gliding. The Crow's tail appears squared while the Raven's is wedge-shaped. Neither bird is common throughout all of the state. However, in certain localities on the northeastern plains (as, for example, west of Wellington and south of Longmont) and around Delta in western Colorado there are congregations of Crows reminiscent of eastern crow roosts. In other areas Crows are a rare sight, except, perhaps, in southeastern Colorado. The Raven is one of the common winter birds in the southwestern portion of the state but is not plentiful in the mountains where it breeds. In extreme eastern Colorado grassland a scattering of Ravens is present throughout the winter, especially along highways where road kills are available as food.

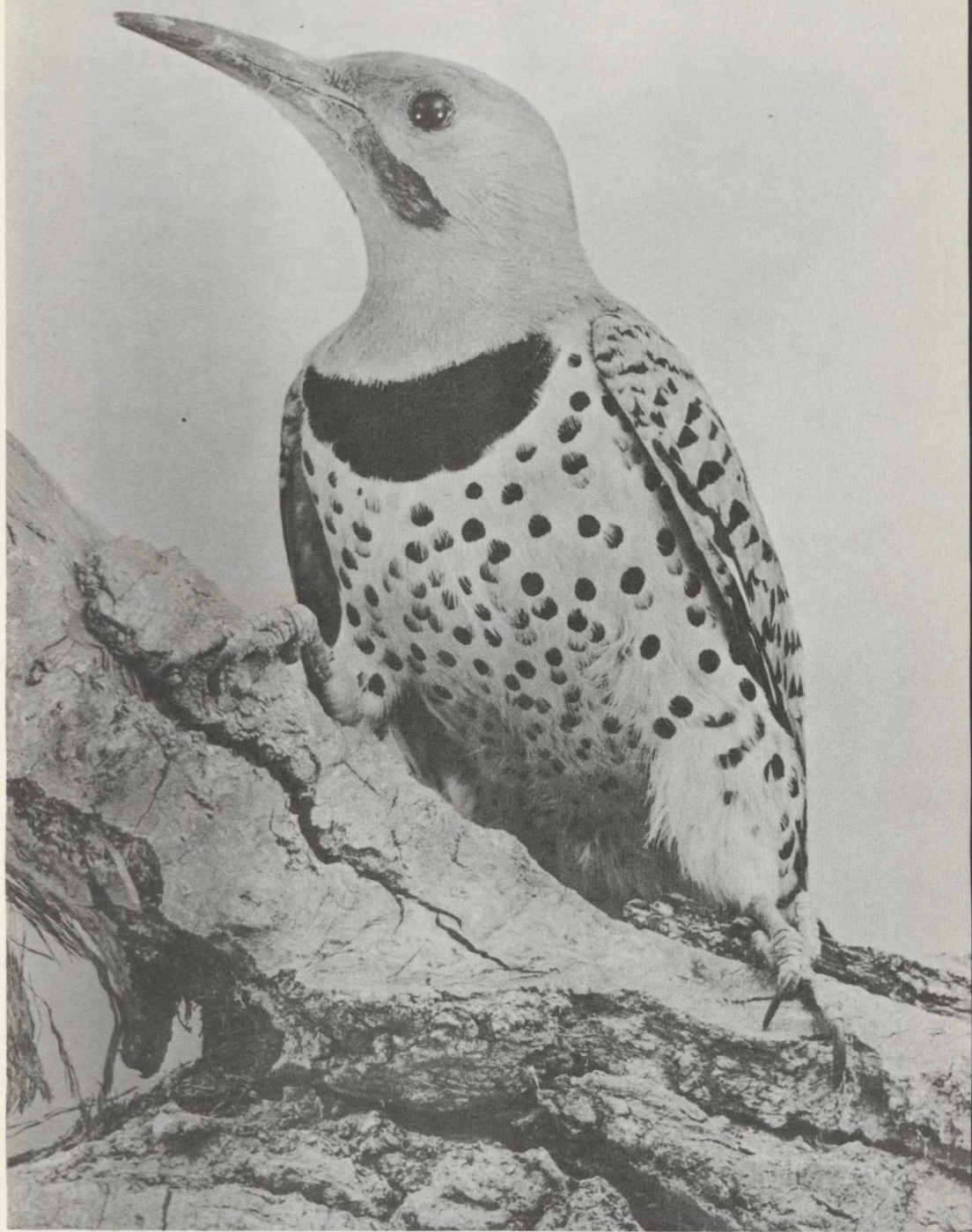


Plate 1. Red-Shafted Flicker, male



Plate 2. American Magpie



Plate 3. Steller's Jay

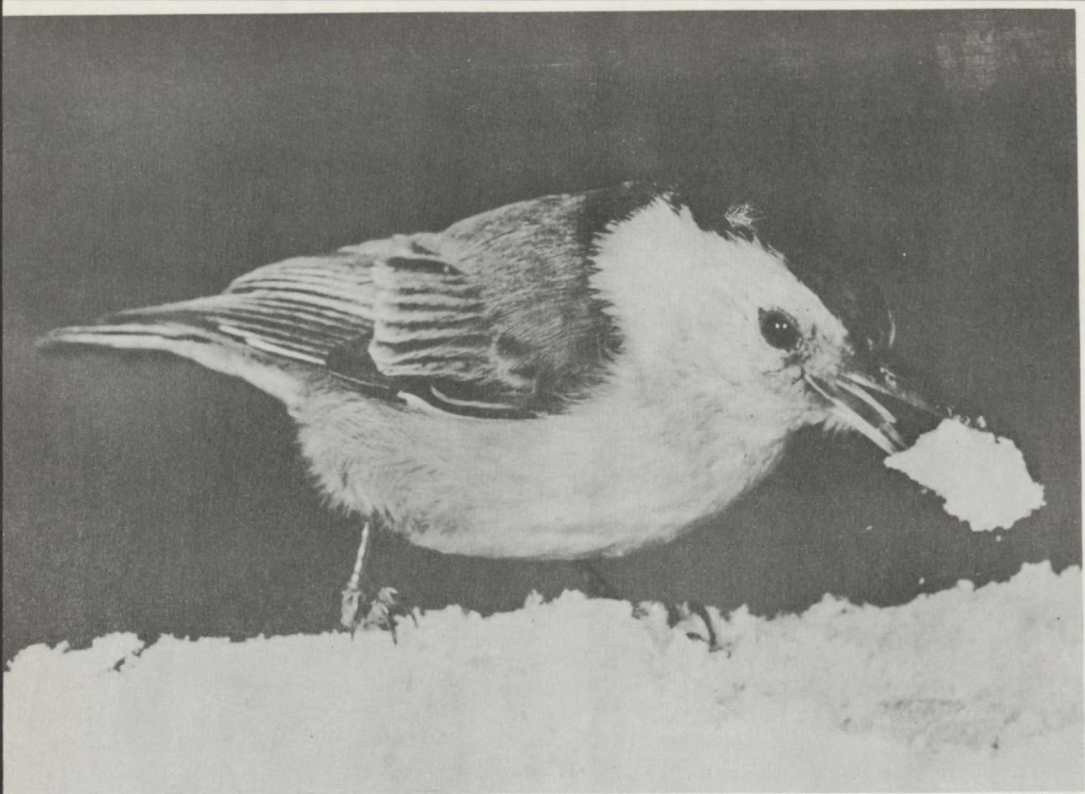


Plate 4. White-breasted Nuthatch

Plate 5. Mountain Chickadee

Plate 6. Brown Creeper





Plate 7. Bohemian Waxing, mounted specimen in University of Colorado Museum



Plate 8. Northern Shrike



Plate 9. Red-winged Blackbird, immature male, brownish streaked but with wing marks visible

Plate 10 Evening Grosbeak, male



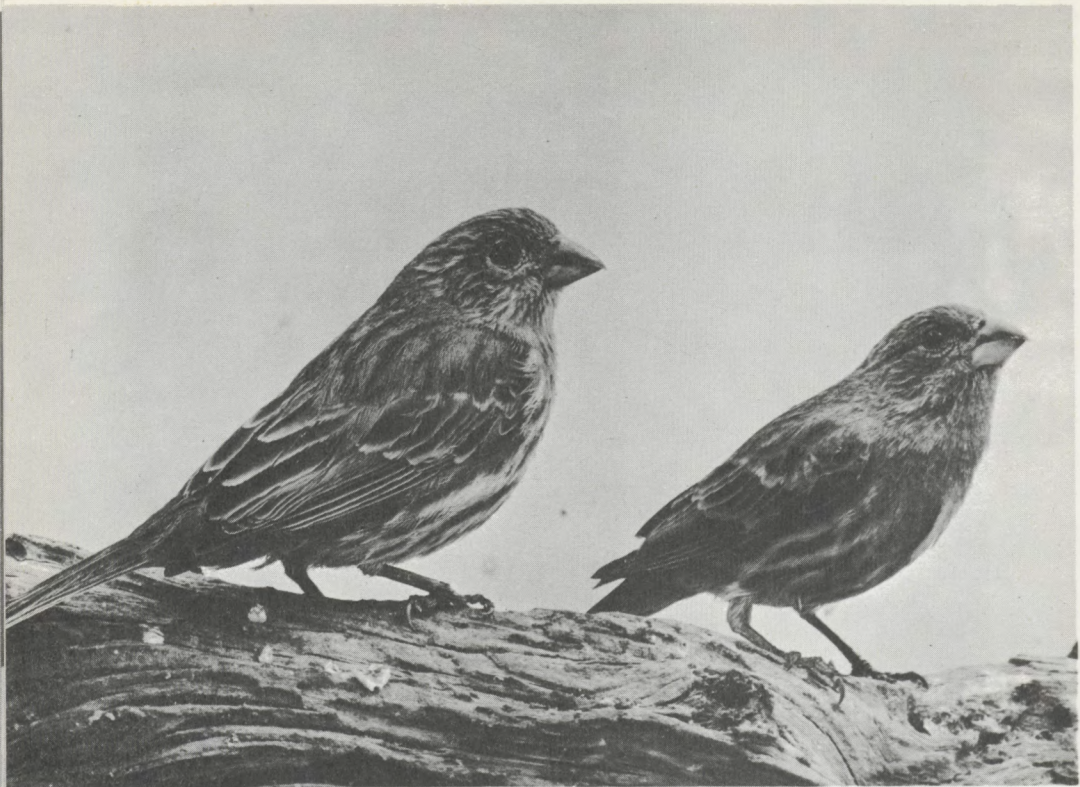


Plate 11. House Finch, left male, right female

Plate 12. Cassin's Purple Finch, female; the streaking is much more clearly defined than in the House Finch





Plate 13. Crossbill



Plate 14. Shufeldt's Junco, (Gray-headed Junco in right rear)

Plate 15. Pink-sided Junco



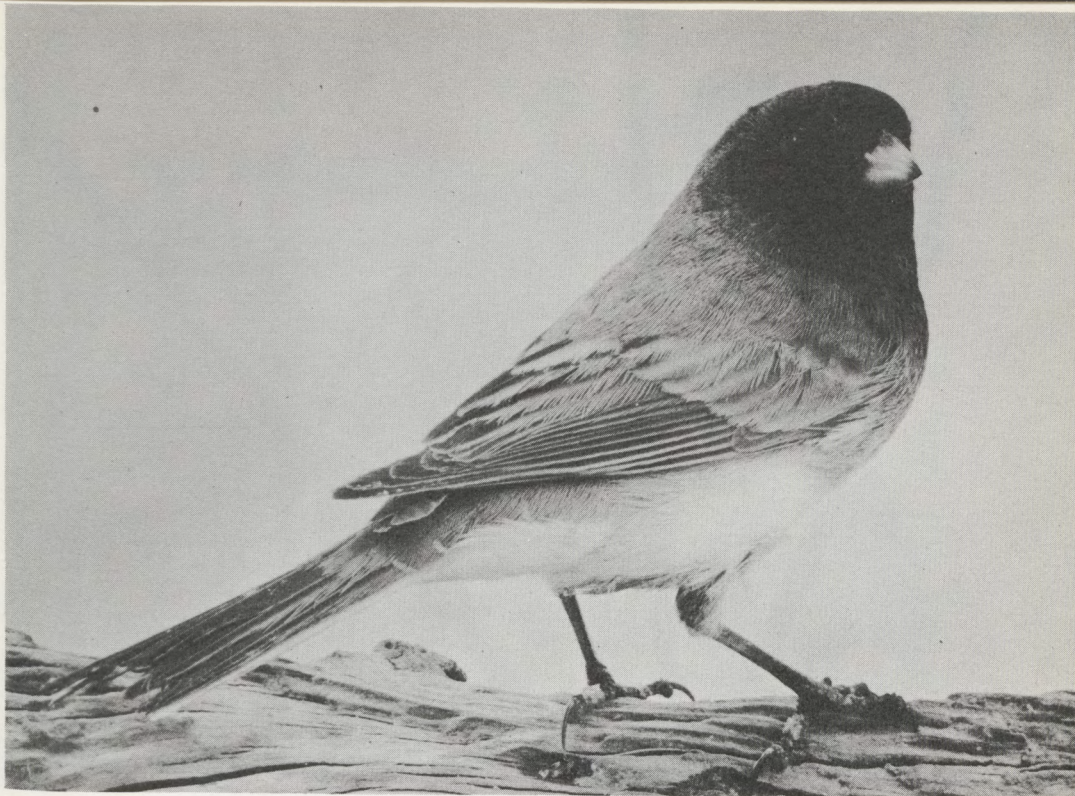


Plate 16. Slate-colored Junco

Plate 17. Gray-headed Junco; note shield-shaped back patch (female House Finch in rear)

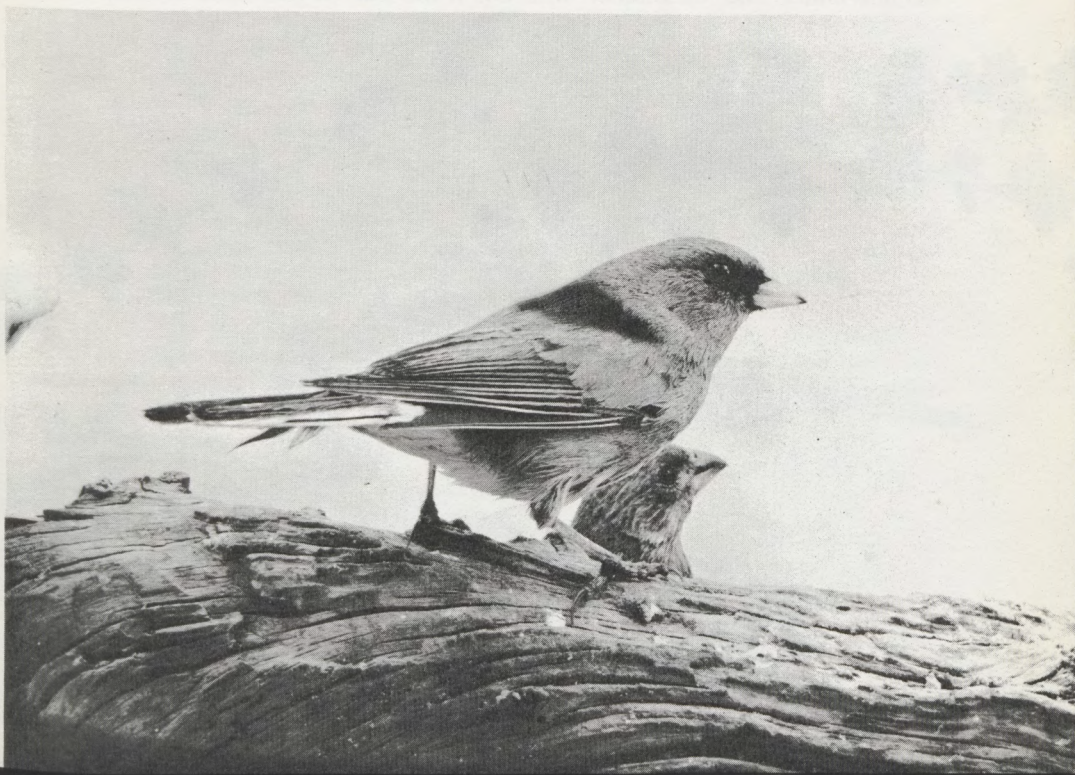
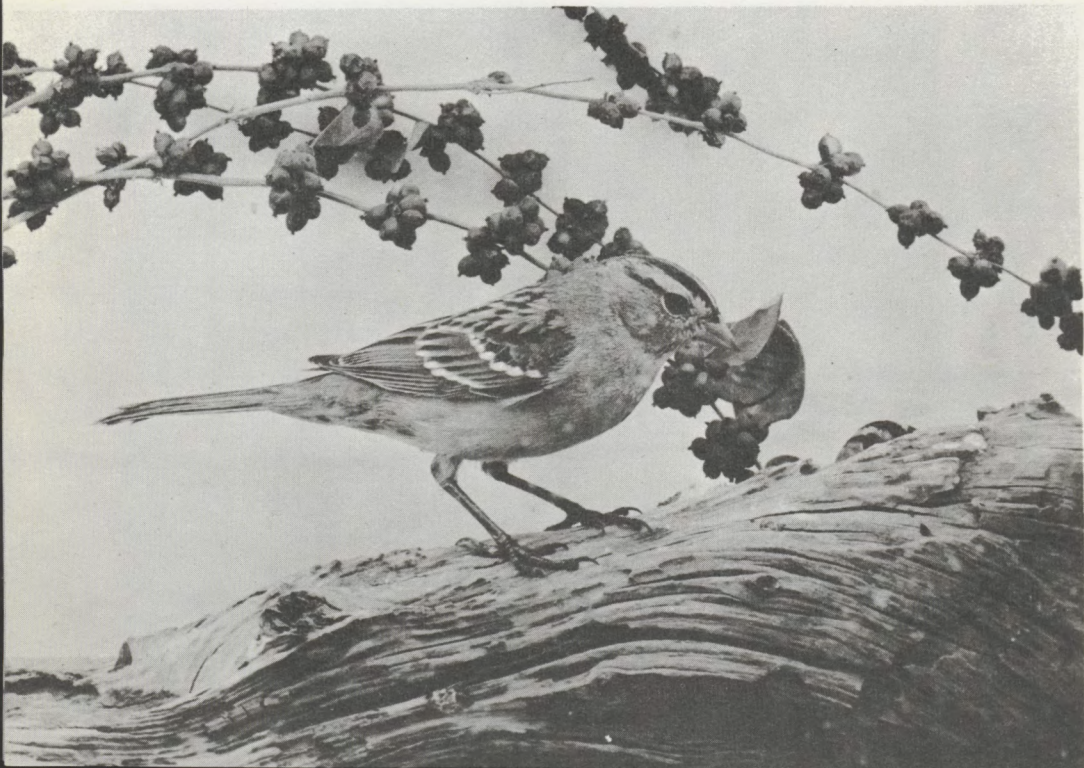




Plate 18. Tree Sparrows

Plate 19. Gambel's Sparrow



Chickadees and Their Relatives

Two species of chickadees occur in Colorado during the winter, the **Black-capped Chickadee**, *Parus atricapillus* (5" long), with *solid black cap and chin*, and the **Mountain**

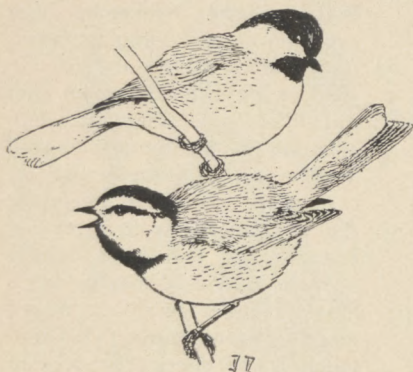


Fig. 7. top: Black-capped Chickadee.
bottom: Mountain Chickadee.

Chickadee, *Parus gambeli* (5" long), whose *black cap is broken by a white line above the eye* (thus producing a *black line through the eye*), the latter species appearing more dingy and with less rufous on the flanks. The Black-capped Chickadee is the more common species at lower elevations, being found far out onto the plains in river-bottoms and towns. The Mountain Chickadee (Plate 5) is more common in the mountains, especially in coniferous forest,

but occasionally moves onto the edge of the plains in winter. Both species may occur together, with the Black-capped dominating the Mountain Chickadee.

Making their presence known by a variety of calls, each with its own special significance, these birds move in groups of one to several families and often occupy the same general territory in which they nest. Chickadees may feed on the ground and in bushes or perched on weed stalks, but they prefer trees where they pick up a variety of insect food. It is amusing to watch them at work, hanging upside down from twigs, pecking like small woodpeckers, chattering to each other, and then trooping on, one behind another in bobbing flight, to a new feeding area. The birds are garrulous and gregarious and, perhaps because of this, apparently provide the leadership for the mixed groups of small birds common during the winter months. The calls of the two species ("chick-a-dee-dee-dee") are similar, but the Mountain Chickadee is less precise in its "enunciation."

There are occasional winter records of the **Plain Titmouse**, *Parus inornatus* (6" long), especially in the piñon-juniper country of southern and western Colorado. There is no mistaking a sight record of this species, as it is the *only small gray bird with a crest*. In behavior it is very similar to the closely related Chickadees. The call, when first heard, reminds one of the Chickadee's but is much less distinct.

The gray-brown **Bush-tit**, *Psaltriparus minimus* (4½" long), is fairly common in the piñon-juniper woodland and the brushland of southern and western Colorado, sometimes getting north of Denver along the foothills. These *tiny, short-billed, long-tailed* birds usually travel in large bands, chattering constantly as they work over twigs for food. They are sometimes accompanied by other small winter birds. Their *drab coloration, diminutive size, and long tail* are good identification features.

The Nuthatches

Three species of nuthatches (Fig. 8) are encountered in Colorado during the winter, especially in the mountains. The largest and most familiar is the

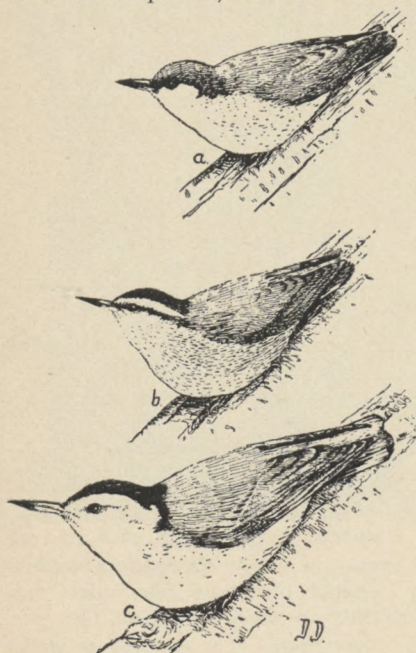


Fig. 8. a. Pygmy Nuthatch
b. Red-breasted Nuthatch
c. White-breasted Nuthatch

White-breasted Nuthatch, *Sitta carolinensis* (6" long), conspicuously *white below and on the sides*, with a *black crown and slate-blue back* (Plate 4). It is common in the mountains and southwestern Colorado and occasionally occurs far out onto the eastern plains in river-bottoms and city woodlands, usually a single individual moving in an aloof manner with a mixed group of small birds. This nuthatch is the species most often seen walking head down on a tree trunk. The other two Colorado species do more trunk swinging and less trunk walking.

The **Red-breasted Nuthatch**, *Sitta canadensis* (4½" long), is smaller, with *bluish back, cinnamon underparts, a black line through and a white line above the eye*. Traveling alone or in small groups, these nuthatches may in some years winter in plains towns close to the moun-

tains but are more common, though never plentiful, in higher coniferous forests. They are occasionally spied clinging to cones high in a treetop (especially spruce), picking off insect food, often in congregation with Mountain Chickadees. During the early fall (September), some of the Red-breasted Nuthatches seen on the plains are migrating individuals. Both the White-breasted and Red-breasted Nuthatches have a distinctive nasal "yank yank" call, in addition to less distinctive vocalizations.

The smallest species is the **Pygmy Nuthatch**, *Sitta pygmaea* (4" long), somewhat resembling the White-breasted Nuthatch but being *dark on the sides as well as on the back, and white beneath*. The *darker feathers around the eye give the bird a masked appearance*. In flight this tiny bird, especially its tail, *appears very stubby*. Pygmy Nuthatches flit in noisy bands through the coniferous forests, particularly ponderosa pine, of our mountains but rarely on the plains, usually associating with other winter birds. This species often frequents the same general area throughout the year and in certain localities may be the most numerous mountain bird encountered (153 were counted in a small section of Rocky Mountain National Park on December 26, 1952). This variety lacks the nasal call of the other nuthatches but makes a continual and very distinctive twittering.

Creepers and Dipper

The **Brown Creeper**, *Certhia familiaris* (5" long). This small bird (Fig. 9, Plate 6) a summer resident of our mountains, winters on the plains, especially in cities and cottonwood river-bottoms, as well as in the lower mountain forests. During some winters this species is very common in eastern Colorado, perhaps being completely absent the following year, the distribution possibly related to mountain climatic conditions. Its *small size, bark-colored back, long curved bill, lispng call, and characteristic movement pattern* (from the top of one tree to the bottom of the next, creeping up looking for food, then flying on to the base of another tree) easily identify the bird. This is one species which is usually heard before it is seen. The Creeper typically occurs in company with other small birds, especially Chickadees, but remains somewhat aloof. Often several Creepers will travel to-



Fig. 9. Brown Creeper

gether. Food consists primarily of wintering bark insect forms.

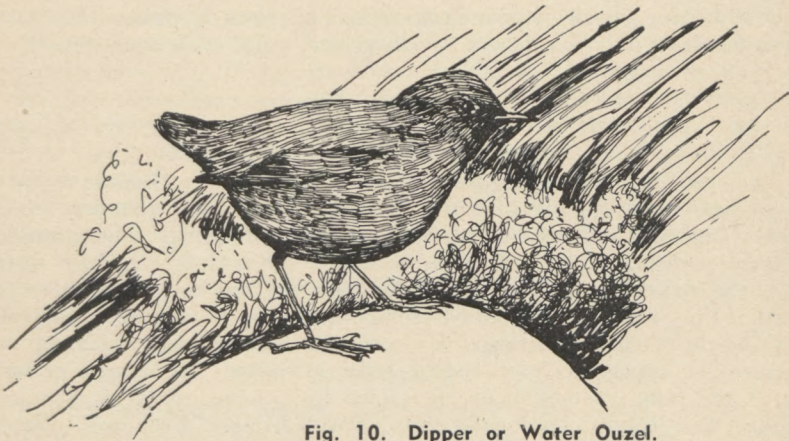


Fig. 10. Dipper or Water Ouzel.

The **Dipper**, *Cinclus mexicanus* (8" long)—One of the most interesting winter birds in Colorado is the Dipper or Water Ouzel (Fig. 10), looking

much like a *slate-gray* robin with a *stubby tail*. This bird frequents the lower mountain streams during the winter months, sometimes venturing a few miles onto the plains along the river-bottoms wherever boulders project out of the water. Bobbing perpetually, the Dipper hunts for aquatic life along and sometimes in the rushing stream, perching on an icy rock or splashing down into a pool to gather food from the bottom. *When flying, the bird invariably follows the course of the stream, just a few feet above the surface, winging rapidly.* Seldom are more than one or two Ouzels found along any particular section of a foothills stream, but a good Ouzel habitat will harbor birds year after year, white-stained rocks in a stream indicating their presence. This is one of the few Colorado winter birds which sings the year around, a clear, unforgettable song, as well as making a *sharp chinking call, especially as it flies.*

Winter Wrens

No wrens are common in Colorado during the winter time, but on occasion the **Marsh Wren**, *Telmatodytes palustris* (5" long), and **Canon Wren**, *Catherpes mexicanus* (5½" long), will be seen. The Marsh Wren, identified by its *small size and short, upright tail, white-striped back, and white line above the eye,* is an inconspicuous winter resident of plains cattail marshes. The Cañon Wren, a larger bird with a *reddish brown body and, particularly, tail, and a conspicuous white throat,* is a relatively permanent resident of steep canyon walls, especially in the sedimentary foothills. These solitary birds will sometimes sing their whistle-like, *descending song,* or a portion of it, in the middle of winter.

On rare occasions the **Rock Wren**, *Salpinctes obsoletus* (6" long), a *large wren with buff edging on the outspread tail and a finely streaked breast,* also occurs in foothills cliff country; and the tiny **Winter Wren**, *Troglodytes troglodytes* (4½" long), has been recorded on the eastern Colorado plains, especially along heavily vegetated ravines. This wren resembles the Marsh Wren but *lacks the whitish back streakings and is barred beneath.*

Thrushes

The **Western Robin**, *Turdus migratorius* (9" long). Despite repeated newspapers stories to the contrary, the Robin is a fairly common winter bird in Colorado and not necessarily a harbinger of spring. Concentrations of these birds occur in foothills orchards and brushland, especially where fruit-bearing vegetation is common, although the species may also be encountered in the mountains and on the plains. Snowy weather has a tendency to drive the Robins into towns where food is more readily available, and their sudden appearance gives rise to stories of spring. To be sure, in early March the resident individuals are joined by a large influx of migratory Robins. The Robins occasionally associate with flocks of Evening Grosbeaks or a Townsend's Solitaire during the winter.

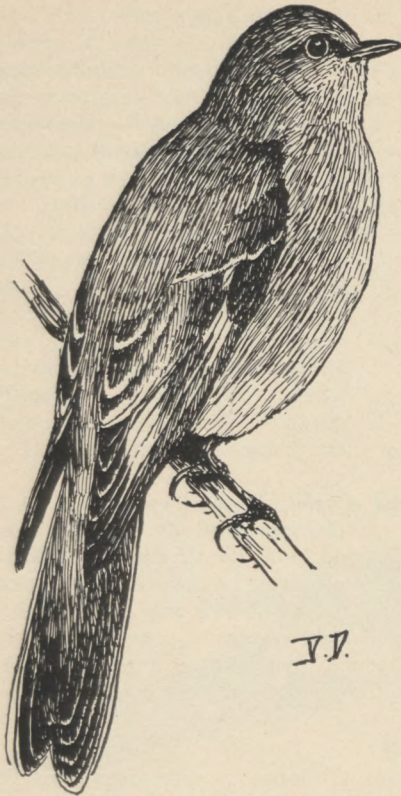


Fig. 11. Townsend's Solitaire.

Townsend's Solitaire, *Myadestes townsendi* (9" long). This slim, slate-gray, robin-sized bird, with its white eye-ring, tan wing bars, and white outer tail feathers, is one of our most characteristic, though not common, winter birds (Fig. 11) in the lower coniferous forests (especially Douglas fir and piñon-juniper) of the Rockies. Here it typically perches atop a tree, in cold weather appearing hunch-backed, and sends forth its clear, whistle-like call. Another favorite habit of the bird is to hide in the dense foliage of juniper trees. On occasions it will straggle into plains towns, particularly in southeastern Colorado, where its furtive actions remind one of an overgrown flycatcher, although the bird is actually in the thrush family. Individuals are usually solitary but may congregate in suitable habitats such as some of our piñon-juniper woodlands, and now and then mingle with flocks of robins.

Bluebirds

No bluebirds are common throughout Colorado during the winter, but the **Mountain Bluebird**, *Sialia currucoides* (7" long) and the **Western Bluebird** *Sialia mexicana* (6½" long), have been recorded. The Mountain Bluebird, a slim bird light blue above and below (although in some lights appearing gray), is rarely encountered in winter in northern Colorado but is frequently seen to the south, especially in the southwestern part of the state. It is a bird of plains and mountain grassland, with most individuals migrating. Those who return at winter's end are indeed harbingers of spring, arriving in large numbers as early as the first week in March. The chunkier Western Bluebird, bright blue with rufous on its breast and back, is occasionally seen in southwestern Colorado in open country. The best place to spot both bluebirds is on fence wires and posts, where they love to perch.

Kinglets

The **Golden-crowned Kinglet**, *Regulus satrapa* (3½" long), is one of our smallest winter birds, recognized by its small size, greenish body, stubby tail, white and black lines above a black-striped eye, orange (male) or yellow

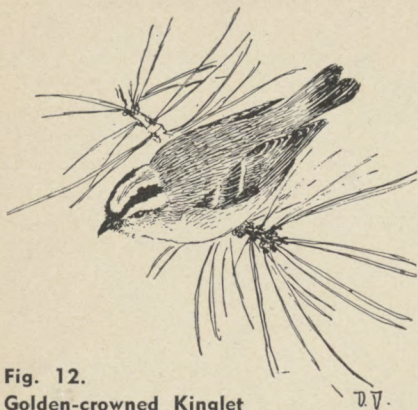


Fig. 12.

Golden-crowned Kinglet

lands are usually very productive areas for these diminutive birds, and spruce trees are also a favorite haunt.

During some years the **Ruby-crowned Kinglet**, *Regulus calendula* (3½" long), may also be present. Similar in size, this species is *olive-green*, with a *partial white eye-ring* and *light wing bars*, and looks for all the world like a small flycatcher. Sometimes the ruby-red crown can be seen on the males. Typically the Ruby-crowned Kinglets are high mountain summer residents and plains migrants, the winter records probably being of stragglers.

A general characteristic of both kinglets is their habit of fluttering about the branches of trees rather than hanging onto twigs or creeping up the trunk like some other small winter species.

Pipit

The **American Pipit**, *Anthus spinoletta* (7" long), is sometimes recorded during the winter in high mountain grassland or even on the plains but is nowhere as common as in summer. These birds are usually in flocks, strutting around on the ground (rather than hopping) or bobbing from place to place much like Bluebirds. The general coloration is *buffy, streaked on the breast*, with *white outer tail feathers*. At close hand the *slender bill* and *long hind toenail* may be detected.

Waxwings

These colorful, *crested* birds, unusually erratic in their occurrence, are among the most beautiful of our winter birds. Both species occurring here are *light brown* with a *yellow band at the end of the tail*. On occasion the red wax spots near the ends of the folded wings can be seen. The **Bohemian Waxwing**, *Bombycilla garrulus* (8" long), is the larger of the two species, being distinguished by the *white in its wings* and the *rufous under the tail* (Plate 7). This bird occurs in large flocks (usually) at unpredictable intervals during the winter, although not every winter, in city woodlands on the plains, particularly congregating in Russian Olive and other fruit-bearing trees. It has also been reported in mountain coniferous forest. The birds may remain in an area for several days, then disappear as quickly as they arrived. Large numbers were seen in northeastern Colorado in the winters of 1946-1948.

The smaller **Cedar Waxwing**, *Bombycilla cedrorum* (7" long), although

more of a fall and spring migrant, has been recorded occasionally during winter in eastern Colorado and in the southwestern part of the state. This species is *white under the tail*, with a *yellowish belly*. Sometimes both species are seen together. Both have among the weakest songs in all the bird world; the Cedar Waxwing a thin, high, almost inaudible lisp, the Bohemian Waxwing a lower, rougher trill; but in large groups their constant chattering produces the impression of a noisy flock.

Shrikes

The **Northern Shrike**, *Lanius excubitor* (10" long), is the most common winter shrike in eastern Colorado (Plate 8, Fig. 13) being *slightly larger than a Robin*, with *hooked beak*, *black eye mask*, *dark wings and tail* which

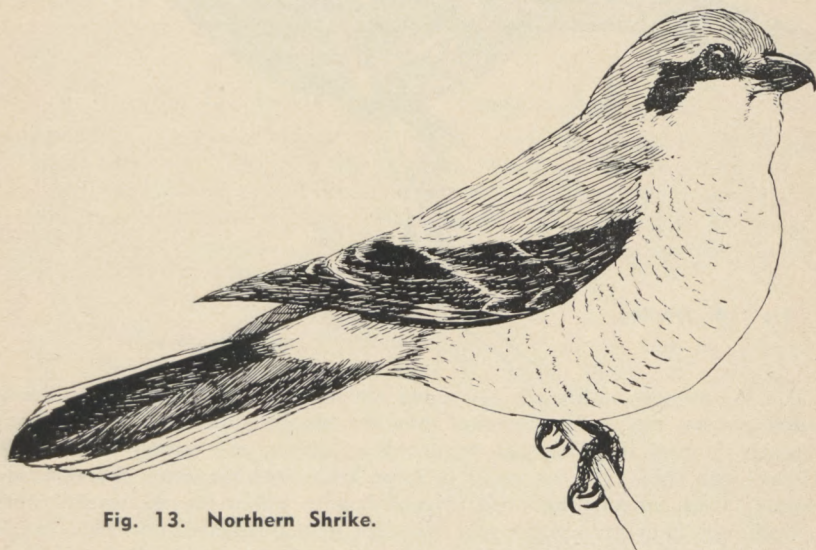


Fig. 13. Northern Shrike.

contrast with the white and gray on the rest of the body, and a finely barred gray breast (the barring may be difficult to discern). The smaller **Loggerhead** or **White-rumped Shrike**, *Lanius ludovicianus* (9" long), more common in southwestern Colorado during winter than the Northern Shrike but in eastern Colorado seen mainly during spring and fall, has a *white breast*.

The Northern Shrikes are not numerous, but there is a winter scattering of them throughout plains and lower mountain grassland, usually perched atop a dead tree, on a telephone wire, or on a fence post. The characteristic shrike flight pattern is to make quick, ground-level swoops from perch to perch, exhibiting conspicuous flashes of white and black. Despite their actions and appearance, the shrikes are more closely related to song birds than to birds of prey. Possessing weak feet unsuited to grasping prey, these birds often impale their victims (insects, rodents, and occasionally small birds) on thorns and barbwire fences.

Starling

The **Starling**, *Sturnus vulgaris* (8" long). This *dark, stub-tailed* European introduction was first reported in Colorado during the winter of 1938-39 and has increased tremendously in abundance since that time. It now breeds



Fig. 14. Starling.

in small numbers within the state, but the winter population is erratically much greater, especially when bad weather blankets the Middle West, apparently forcing the Starlings westward as during the winter of 1948-49. These birds (Fig. 14) may occur in large flocks by themselves (particularly around farms) or may mix with blackbirds with whom they share the *habit of walking*. They are *shorter and chunkier* than blackbirds and have much *longer bills*, which may be yellow in early and late winter. In silhouette they somewhat resemble the Meadowlark. The flight of the Starling is distinctive, with very *steady, rapid movement of short wings set in the middle of a spindle-shaped body*. At close hand the dark body of this species is seen to be covered with lighter spots. These birds are, as yet, uncommon west of the Colorado plains in winter, although they have been reported from the Steamboat Springs and Gunnison areas.

English Sparrow

English or House Sparrow, *Passer domesticus* (5½" long). Flocks of these familiar birds are common around plains dwellings, city and rural, throughout the winter, occurring much less frequently in the open countryside and in mountain communities. These birds, unlike many of the small winter species, spend more time on the ground and atop fences than in treetops and thickets. Competition locally with the native House Finch has probably kept the introduced English Sparrow less abundant than it is in the East.

The *male*, with its *black bib, gray crown, dull chestnut nape, and white cheeks*, is not unattractive, although the plain, brown-streaked *female* is quite *nondescript* (Fig. 15). The latter may be confused with other sparrow-like

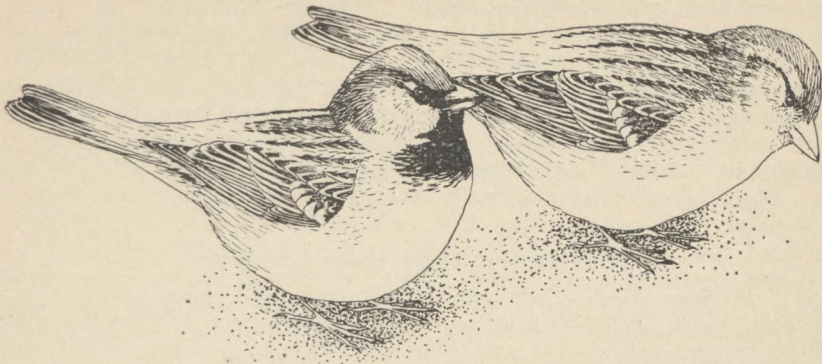


Fig. 15. English Sparrows. l. male. r. female.

birds but *lacks the breast spot* of the Tree Sparrow, the bright rufous crown and white line above the eye of the Chipping Sparrow, and *has a solid rather than the lined brown crown* of the immature White Crowned Sparrows. There is a *dull light line above the eye*. Many people are surprised to learn that this introduced species is not related to our North American sparrows but is one of the Old World Weaver Finches.

Meadowlark

The **Western Meadowlark**, *Sturnella neglecta* (9" long), with *black-banded yellow breast and brown-streaked back*, is familiar to all. It is the *only common robin-sized bird occurring in plains grassland* during the winter but is not often encountered in the Colorado mountains. Most frequently the Meadowlark will be seen perched on a fence post or wire, but occasionally the birds will flock together and feed in open fields or alongside highways. Their flights are short, the conspicuous *white outer tail feathers* of the *chunky birds* readily distinguishing them at such times. During mild winters the Meadowlark may begin its beautiful spring song in February.

Blackbirds

Although the **Red-wing**, *Agelaius phoeniceus* (8" long), nests in Colorado during the summer, typically only the males are present in winter, gathering in large flocks which include both the *black adults with conspicuous red wing markings* and the *brownish-streaked immatures with indistinct reddish wing marks* (Plate 9). On rare occasions a female (no red wing marks) may be included in such a congregation, but usually the females migrate south in the fall. Red-wings cluster in marshes during the winter or crowd treetops alongside plains streams. They are seldom seen in the mountains. There are often great flights into roosting areas at dusk, the swirling movements of a flock reminding one of the antics of a flight of bees. The Red-wings occasionally associate with Starlings, Rusty Blackbirds, Brewer's Blackbirds, and other close relatives during the winter, and are often seen feeding on the ground in cattle yards. It may well be that some of the males wintering here breed to the north rather than in Colorado. Certainly, the first flocks of females which arrive here at the end of winter (late March) appear to be passing through.

On occasions the **Brewer's Blackbird**, *Euphagus cyanocephalus* (9" long),

male all black with a white eye, female brownish-gray with a dark eye, will be seen at lower elevations into the winter, especially in southwestern Colorado where it is fairly common. A relative, the **Rusty Blackbird**, *Euphagus carolinus* (9" long), with long bill, rusty plumage, barred underparts, and yellow eye, has been reported more and more frequently from swampy river-bottom areas on the eastern Colorado plains in recent years, apparently moving in from the Middle West where it is a very common winter resident.

Blackbirds all characteristically walk, rather than hop.

Finches and Their Close Relatives

The **House Finch**, *Carpodacus mexicanus* (5½" long), male finely streaked brown, including belly, with red forehead, breast and rump; female finely streaked brown above and below, is very common in eastern Colorado towns, where it sometimes outnumbered the English Sparrow (Fig 16, Plate 11). It also occurs in western Colorado but very infrequently in the mountains in winter. During the colder months the House Finches often congregate in large flocks, moving through city treetops, particularly blue spruce, and, during mild weather, sometimes out into adjacent wooded countryside, chattering noisily.

The **Cassin's Purple Finch**, *Carpodacus cassinii* (6" long), male (Fig. 16) similar to the male House Finch but with chunkier body, lacking definite brown belly streaks, and having a red forehead which contrasts with brownish top and back of the head; female (Plate 12) larger than House Finch and with darker, more pronounced streakings, is occasionally encountered during the winter in the foothills, especially in brushland and open ponderosa pine forest, on rare occasions straggling onto the nearby plains. These birds may occur singly but are usually seen in flocks which bob when they fly. The deeply forked tails are good identification points. The call is distinctive but difficult to describe, being a "tsuuue . . . eee," slurring down and then rising at the end, quite unlike that of the House Finch.

Four kinds (three species) of **Rosy Finches** occur in Colorado during the winter, pri-

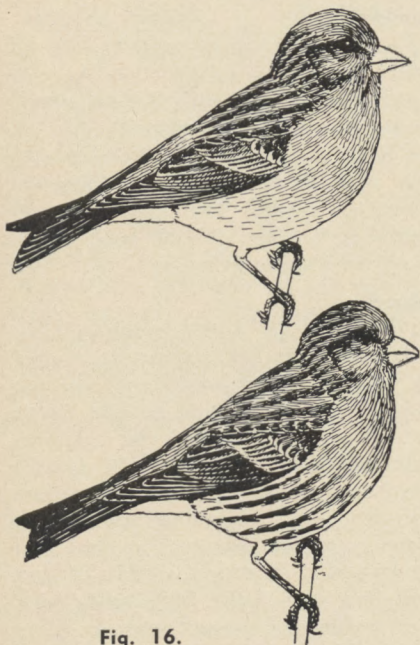


Fig. 16.

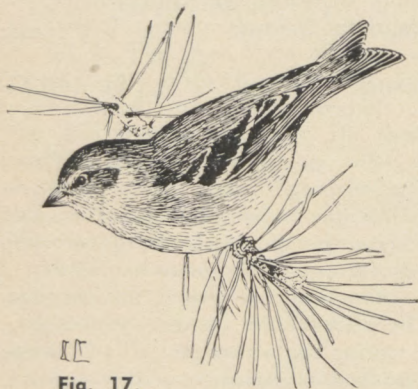
top: Cassin's Purple Finch, male.
bottom: House Finch, male.

Note the more deeply forked tail of the Cassin's Finch and the streaked belly of the House Finch. For contrast between the females see Plates 11 and 12.

marily restricted to the mountains from above timberline down to 8000 feet but during extremely severe weather being forced into the foothills and even onto the local plains. All of these birds, somewhat larger than sparrows, are more or less chocolate-brown in body color, with dull pinkish bellies, rumps, and pink and black wings. The **Brown-capped Rosy Finch**, *Leucosticte australis* (6" long), the only variety which is a year-round resident of the state, has an all-brown head. The **Gray-crowned Rosy Finch**, *Leucosticte tephrocotis tephrocotis* (6" long), has a dark forehead and restricted gray crown, whereas the very similar **Hepburn's Rosy Finch**, *Leucosticte tephrocotis littoralis* (6" long), has gray cheeks as well as crown. The latter is less common than the Gray-crowned, except perhaps in the high country of southwestern Colorado. The **Black Rosy Finch**, *Leucosticte atrata* (6" long), least common of the four, is almost black rather than dark brown and has a gray crown. It occurs mainly on the western slope. These birds typically congregate in mixed flocks and often in large numbers in their rugged mountain retreats, favoring high open grassland and rocks rather than forests. They occasionally gather along the edges of high mountain highways.

The **Redpoll**, *Acanthis flammea* (5" long), goldfinch size, brown streaked, with red forehead, pink breast (male), and black chin, was formerly not uncommon in flocks in the mountains during the winter, occasionally getting onto the eastern plains. There are few recent records, however. The winter distribution in Colorado is probably influenced by weather conditions in wintering areas farther north.

In winter the familiar yellow and black male **American Goldfinch**, *Spinus tristis* (5" long), changes to a



[[

Fig. 17.
American Goldfinch in winter plumage.

subdued olive plumage with dark wings, the same coloration as that of the females and immatures (Fig. 17). Both sexes have conspicuous wing bars. Unlike some other small finches, the Goldfinch has no streaking in its plumage. These birds, traveling in large or small flocks, move erratically throughout wooded plains country, sometimes joined by Siskins and other small birds. Their ascending buzzing calls (at rest), forked tails, and quick

bouncing flight punctuated with cheeping are good identification features. The somewhat similar Siskins are streaked and show light wing bars at rest and in flight. It is a frequent sight to see perhaps a hundred goldfinches crowding noisily into a deciduous treetop perch or clinging to tall weed heads while they extract the seeds for food. Sometimes the **Arkansas (Lesser) Goldfinch**, *Spinus psaltria* (4" long), more greenish, smaller, the males with black caps, is also seen during the winter at lower elevations, especially in southern Colorado, but neither species is common in the mountains.

The **Pine Siskin**, *Spinus pinus* (4½" long), is a small, heavily streaked

Fig. 18. Pine Siskin.



bird with deeply forked tail (Fig. 18). The Siskin's distinctive marking is a pair of yellowish wing bars which are particularly evident when the bird is flying. The bobbing manner of flight, associated with a "chee..ee" for every bob, and the flash of yellow wing bars, will readily identify the flocks of Siskins in the air as they roam across the plains and in the mountains during the winter, often swooping into a treetop where their ascending buzzes betray their presence.

The Siskins occasionally associate with the more common Goldfinches, which they superficially resemble. The latter, however, are not streaked and have no yellow wing bars. Sometimes the Siskins will leave tree perches to cling from weed heads, extracting seeds side by side with Chickadees. Siskins are quite erratic in their movements, seldom frequenting the same locality for any length of time and being numerous one winter, only to be absent the next. They are more common in southern Colorado and, especially, in the mountains than they are on the northeastern Colorado plains. Indeed, in extreme eastern Colorado they are only rarely seen.

The interesting **Red Crossbills**, *Loxia curvirostra* (6" long), traveling in flocks, move erratically throughout the timbered country of the Colorado mountains (rarely onto the plains), especially in ponderosa pine and, secondarily, in lodgepole forest, where they live upon the nuts extracted from cones. At close hand the Crossbills are easily recognized by the *crossed mandibles of the beak*. The males are a dull red, the females dull yellowish. Immatures are streaked like Siskins but are chunkier and lack the yellow wing bars. The Crossbills fly in bobbing flight, uttering staccato calls of "beep," repeated two or three times in a series. The birds are unique not only for their erratic travels but their unusual breeding habits as well. Studies carried out in the Denver Mountain Parks during the winter of 1951-1952 indicated that the birds began nesting at the end of December and continued into April, making this species one of the few song birds in Colorado which nests in the winter (Plate 13).

Grosbeaks

The **Evening Grosbeak**, *Hesperiphona vespertina* (8" long), a large, chunky, yellow, black, and white bird (the female grayer with the yellow and white duller) with a ponderous yellowish bill, may sometimes flock into eastern and southwestern Colorado during the winter, alighting in colorful congregations in Russian olive, box elder, locust, and other fruit-bearing trees, or hopping about on the ground in city woodlands and less commonly in cottonwood river-bottoms (Plate 10). The winter distribution of these birds is unpredictable, with large flocks one week or one year and none the next.

During the Christmas period of 1950, Colorado reported more Evening Grosbeaks (145) to the National Audubon Society than any other state in the country, but the next Christmas only 38 were seen. These birds are usually in a single-species group but occasionally mix with Robins.

Although seldom seen, the **Pine Grosbeak**, *Pinicola enucleator* (9" long), is a permanent resident of the higher coniferous forests, only rarely coming to lower elevations in the winter during extremely severe weather. This large Grosbeak is readily recognized by its *stocky beak*, generally *rose (male) or burnt orange (female) body*, and *dark wings marked with two white wing-bars*.

Towhees

No Towhees are common throughout Colorado during the colder months, but two species are periodically seen locally. The **Spotted Towhee**, *Pipilo maculatus* (7½" long), is closely associated with brushland habitats, especially in the foothills country of southern Colorado. These birds, superficially resembling the Robin in size and coloration, have *dark heads* (black in the male, brown in the female), *dark upper parts splotched with white, rusty sides*, and *white bellies*. *In flight the white patches on the edges of the tail are very conspicuous*. The birds usually scurry about in the underbrush, rustling among the ground cover searching for food, or dash from bush to bush, teetering on a branch with tail held high, raucously cat-calling. It is possible that some of the wintering forms are the subspecies known as the **Arctic Towhee** (*Pipilo maculatus arcticus*), but subspecific identification is difficult in the field.

The **Canyon Towhee**, *Pipilo fuscus mesoleucus* (9" long), is a *drab, brownish bird* with a *rufous crown* and *lightly spotted chest*, fairly frequently encountered in the foothills country of southeastern Colorado, especially in the oak thickets. Its habits are similar to those of the Spotted Towhee.

Juncos

Five kinds (four species) of Juncos, all with *white outer tail feathers* which are conspicuously flicked in flight, occur in Colorado during the winter months, but color variations, age differences, and interbreeding unfortunately provide sources of confusion in identification, even at close hand (Fig. 19).

The most common winter form, in general, is the **Oregon Junco**, *Junco oreganus* (5½" long), distinguished by its *pink sides*, other Juncos having gray sides (Plate 14). The variety of Oregon Junco locally called **Shufeldt's Junco**, *Junco oreganus shufeldti*, has a *black hood* and *dull reddish back*, whereas the closely related **Pink-sided Junco**, *Junco oreganus mearnsi*, has a *gray head*, *dull brownish back*, and *more extensive pink coloration on the breast* (Plate 15). Variations in color frequently make positive separation of these two varieties difficult, and it is perhaps safer to call any Junco with pink sides simply an Oregon Junco. Field studies in northeastern Colorado suggest that the Pink-sided Junco is up to five times as common as the Shufeldt's.

The **Slate-colored Junco**, *Junco hyemalis* (6" long), typical winter Junco of the East (Plate 16), ranks next to the Oregon Junco in abundance in northeastern Colorado away from the foothills (although considerably less common in years gone by) but is much scarcer in southern and western Colorado. This bird is uniformly *gray-black above with a clear white breast*.

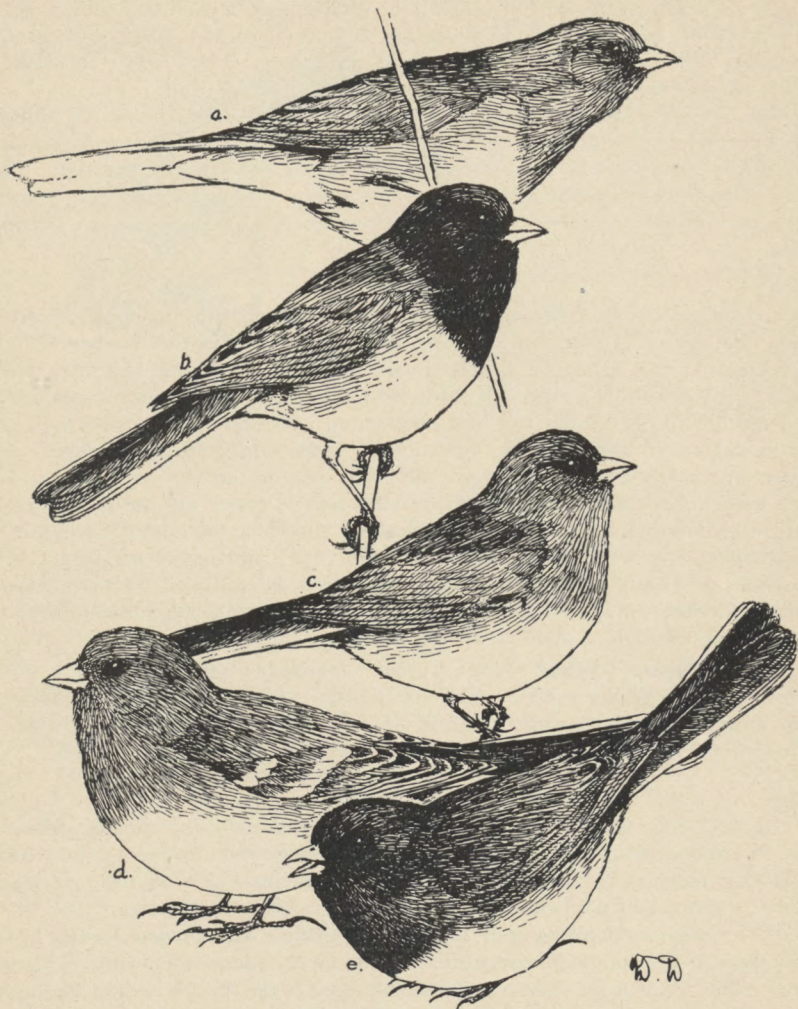


Fig. 19. Juncos. a. Pink-sided. b. Shufeldt's. c. Gray-headed. d. White-winged. e. Slate-colored.

More common in southern and mountainous Colorado than the Slate-colored Junco is the **Gray-headed Junco**, *Junco caniceps* (5½" long), easily recognized because of its contrasting *gray head and rufous back patch* (Plate 17). This particular species, unlike the other Juncos which nest north of Colorado into Canada, summers in the high country of this state. The increased number of these on the plains and in the foothills in the spring is probably due to a migration from the south.

The fifth kind, the **White-winged Junco**, *Junco aikeni* (6½" long), is fairly common in southeastern foothills Colorado (particularly in rocky draws south of Colorado Springs) and at certain spots in the foothills elsewhere (as at Boulder), but in other parts of the state it is infrequently encountered.

However, it has been reported as common in the Sterling area. When seen, it is usually with others of its own kind and is readily recognized by the *gray upper parts* and *white underparts* and by its *two white wing bars*. This is the *largest* and most immaculate-appearing of the Colorado winter Juncos.

Juncos typically occur in mixed flocks containing from one to all five varieties, although the Pink-sided, Shufeldt's and Slate-colored, in that order, are most likely to participate in these aggregations. The flocks, often including other small winter birds such as Chickadees and Sparrows, are quite common in city parks and cemeteries and in plains cottonwood river-bottoms, where the large congregations, averaging 25-50 individuals, remain in one area throughout the winter. In the mountains Juncos seem to favor open ponderosa pine forest, but during snowy or windy weather they may take to the dense foliage of spruce and fir trees.

A good Junco habitat includes an open grove of trees with a scattering of shrubs or standing weeds interspersed with grassland, such favorite areas being frequented by Juncos year after year. The birds generally feed in a scattered group on the ground, usually in the shade, but may feed and move through the crowded branches of conifers or simply flit and perch in the tops of deciduous trees. Snowy weather has a tendency to drive the Juncos from favored grassy or weedy feeding areas into thickets where the seed food is less obscured by snow. The birds appear to move erratically from feeding spot to feeding spot during the course of a day. Rather than being erratic, however, these moves may follow a loose travel schedule which repeats itself daily throughout the winter. The jerky flitting flight of the Juncos is usually accompanied by a rapidly repeated, clipped, clicking call. In addition to this stuttering sound, Juncos may also twitter while feeding and, late in the winter, softly whisper a song.

Juncos begin arriving in Colorado toward the end of September (except for the Gray-headed, most of which are residents and in the winter move to lower elevations rather than south), but the bulk arrive at least a month later, and it may well be that the early arrivals are actually migratory rather than winter residents. The majority of the individuals have left wintering areas by mid-April, although occasionally there will be a later record.

The Juncos represent by far the most commonly encountered group of winter birds in Colorado, and because of their abundance in towns and their inclination to visit feeding trays, they readily become recognized and enjoyed by all who watch birds during the winter time.

The Winter Sparrows

The most common winter sparrow in Colorado is the **Tree Sparrow**, *Spizella arborea* (6" long), easily recognized by its *clear breast marked with a dark central spot* and the *solid rufous crown* (Fig. 20a, Plate 18). There is a thin brown line through the eye and two conspicuous white wing bars, the upper one smaller. The general coloration of the upper body is gray, becoming rusty posteriorly. These birds travel in large flocks, frequenting country weed thickets and hedgerows, and only rarely come into towns. They are less abundant in the mountains and westward than on the eastern plains. The Tree Sparrows typically occur in a single-species group, usually in one spot all winter, but may join mixed flocks of other small winter birds, especially Chickadees and Juncos. Individuals periodically utter a clear high

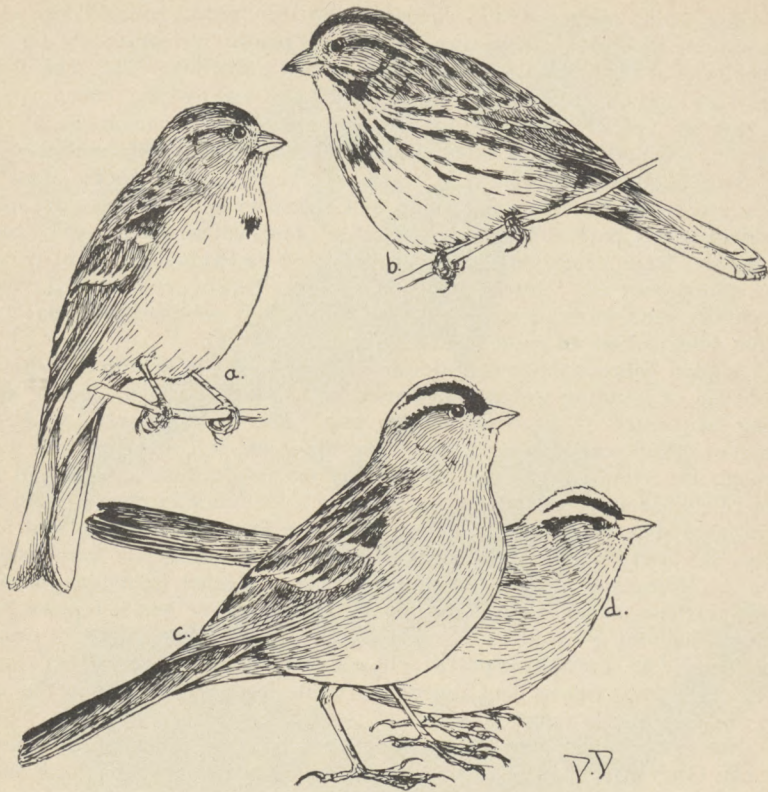


Fig. 20. a. Tree Sparrows. b. Song Sparrow. c. White-crowned. d. Gambel's.

"cheep" as they perch in bushes or hop around on the ground searching for food, and may twitter a distinctive but tuneless song. These birds ordinarily arrive in Colorado for the winter in late October, returning to their northern nesting grounds by mid-April.

The **Song Sparrow**, *Melospiza melodia* (6" long), is also common throughout the winter on the plains, where it is more frequently encountered at this season than during the summer. The furtive habits of the bird, its *heavily streaked breast, dark central breast spot and mustache marks*, and the relatively long tail which is nervously flicked are good points of identification (Fig. 20b). This sparrow typically occurs in cattail marshes and near water-courses where there is an abundance of underbrush, often being seen flitting through tangled vegetation or heard scratching in the dead leaves. The dense thickets of snowberry in plains river-bottoms are favorite haunts. Although usually solitary, the Song Sparrows sometimes group together in small bands which generally remain in the same locality throughout the winter. On occasions one or several of these birds will join groups of other birds, especially White-crowned Sparrows. Many of the individuals which winter on the plains may migrate into the nearby mountains for the summer nesting season, returning to the plains in September. Others apparently winter and

summer in the same plains locality, especially cattail marshes. A mild winter may call forth song from the Song Sparrows as early as February. The typical winter call is a throaty "chimp."

The **White-crowned Sparrow**, *Zonotrichia leucophrys leucophrys* (6½" long), and its close relative, **Gambel's Sparrow**, *Zonotrichia leucophrys gambelii* (6½" long), occur in the foothills and on the plains during the winter, especially in the cottonwood river-bottoms and in brushy country. It is possible, though difficult, to distinguish (Fig. 20c, d) these subspecies (both young and adults) by noting whether the *white stripe above the eye goes to the base of the bill* (Gambel's Plate 19) or *stops at the front edge of the eye* (White-crowned). Both kinds are fairly large sparrows and have *clear breasts*, with, *in adults*, the conspicuous *black and white striping on the crown*. *Immature birds have brown, rather than black, head stripes*, and, although usually with adults, are often mistaken for other species.

The winter status of these subspecies in Colorado is in question. Around Denver the White-crowned Sparrow is reported to be the common winter form, the Gambel's occurring during spring and fall migration. Farther north the opposite is usually true, while during some winters neither form may be commonly encountered in the state. Both seem more common in southern Colorado than to the north. In general, the birds arrive on the plains late in September, the last leaving in May. These individuals occurring early or late may well be migrants rather than winter residents. Although both subspecies are known to breed north into Alaska, it is entirely possible that at least some of the White-crowned Sparrows encountered on the plains in the winter are those which will nest in our higher Colorado mountains.

These two subspecies occasionally are seen together or may flock with Song Sparrows and Juncos. Typically, however, each forms a single-subspecies flock which has a tendency to remain in a particular thicket for days at a time. These birds, like most of the wintering sparrows, are ground feeders on weed seeds. Quite often, especially during late winter, they can be heard softly rendering all, or a portion, of their lyrical summer song.

In recent years there have been increasing records of **Harris's Sparrow**, *Zonotrichia querula* (7½" long), on the eastern Colorado plains, especially in river-bottoms. This *large* sparrow, whether immature or adult, male or female, has all or portions of a *black bib showing on the breast*. Adults have, as well, solid black extending across the face and crown, with *gray cheeks*. *Immatures have buff cheeks*. Rarely are more than one or two of these birds seen in one spot, and then usually with other species of sparrows. In extreme eastern Colorado they may be rather common, and, on the western slope, they have been seen many winters around Fruita.

The **Chipping Sparrow**, *Spizella passerina* (5½" long), is typically a mountain summer resident and plains migrant, but some individuals are seen in winter, especially in southeastern Colorado. Adults superficially resemble Tree Sparrows but have *no black spot on their clear breast*. There is a distinct *white line below the rufous cap* and above the eye. Probably many of the state's Chipping Sparrow records are actually of Tree Sparrows whose breast feathers had been ruffled and hence did not show the solitary spot to advantage.

The Longspurs

Intrepid bird watchers of the wind-swept eastern Colorado plains grassland occasionally come across one or several of the species of Longspurs (Fig. 21) which inhabit that country during the winter. All are buffy, sparrow-sized, ground-feeding birds with tails marked laterally with white, the central portions of the tail being dark. At close hand the long nail on the posterior toe of the foot can be seen. These birds, like some of the other grassland

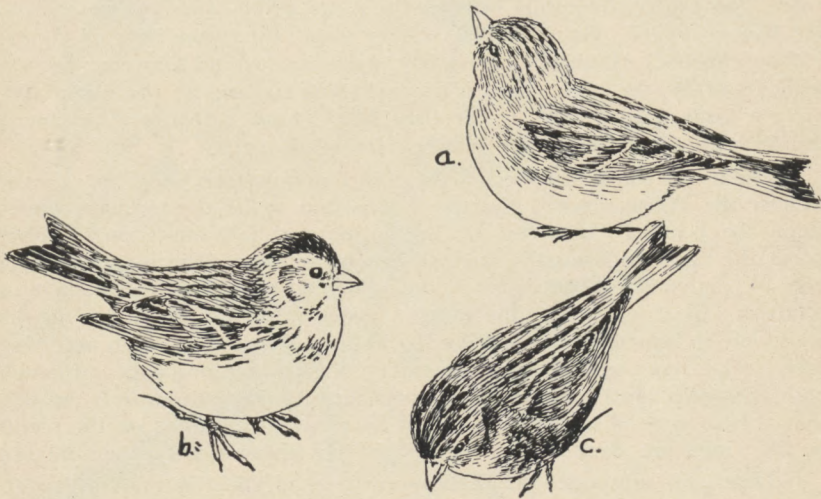


Fig. 21. Longspurs. a. McCown's. b. Alaska. c. Chestnut-collared.

species, walk rather than hop, and congregate in large flocks, often alongside highways.

The variety with only a small "V" of black on its tail, the white showing conspicuously, is the **Chestnut-collared Longspur**, *Calcarius ornatus* (6" long). Seen more commonly are **McCown's Longspur**, *Rhyncophanes mccownii* (6" long), which has white outer tail feathers, the black on the tail forming a "T", and rufous shoulder patches. The **Alaska Longspur**, *Calcarius lapponicus* (6" long), which has been reported from northern foothills areas, as well as the plains, has partially white outer tail feathers, which are rather inconspicuous in flight, so that the tail appears almost entirely black. Head and throat markings on this species are darker and more evident. None of the Longspurs is common in western Colorado.

Snow Bunting

The **Snow Bunting**, *Plectrophenax nivalis* (7" long), very rarely encountered in northern Colorado during winter, is identified by its generally white wings and body, with buff on the head and shoulders, black on the wings and tail. This arctic species has been seen in flocks on the plains, especially in southeastern Colorado, but only on a few occasions in the mountains. In flight the birds appear completely white underneath.

SUGGESTED BIBLIOGRAPHY

The following is a list of the books mentioned in the preceding pages. At least one of the more recent bird guides should be in the library of anyone who takes more than passing interest in the birds.

Audubon Field Notes, published by National Audubon Society, 1130 Fifth Avenue, New York 28, New York

Beidleman, Richard G., see inside front cover of this Guide

Niedrach and Rockwell, *The Birds of Denver and Mountain Parks*
Denver Museum of Natural History, City Park, Denver

Pearson, T. Gilbert, *Birds of America*
Garden City Publishing Co., New York

Peterson, Roger Tory, *A Field Guide to Western Birds*
Houghton Mifflin Co., Boston, Massachusetts

Peterson, Roger Tory, *A Field Guide to the [Eastern] Birds*
Houghton Mifflin Co., Boston, Massachusetts

Pough, Richard H., *Audubon Bird Guide—Land Birds*
Doubleday and Company Inc., Garden City, New York

Terres, John K., *Songbirds in Your Garden*
Crowell Publishing Co., New York

Slater, William, L., *A History of the Birds of Colorado*
Witherby and Co., London, England

Swenson, Lowell E., see inside front cover of this Guide

IDENTIFICATION SERVICE

The University of Colorado Museum is anxious to receive specimens for identification, especially of forms which are rare in Colorado, or which do not seem to fit satisfactorily into the keys and descriptions in this Guide. The Museum will pay transportation on specimens sent to it, and identification will be supplied to the sender.

Packages should be marked "Rush" and sent by *Express Collect* to
University of Colorado Museum
Boulder, Colorado

Appendix A

Distributional Checklist of Colorado Winter Birds

It is helpful for the bird watcher to have some indication of what species occur in an area and how frequently each might be encountered. The following checklist, based primarily upon Christmas bird counts and winter bird-population studies conducted in Colorado since 1900 under the auspices of the National Audubon Society, can be used as a guide. In essence, the higher a bird's number (with the range from 1 to 10), the more frequently it may be expected to occur in suitable habitat in any part of the state. Species which occur infrequently (less than 5% of the time in the field) are designated by an "X".

Northeastern Colorado includes the plains and lower foothills north of the Arkansas River drainage, especially the country (like Denver) adjacent to the mountains; *southeastern Colorado* includes the plains, lower foothills, and butte country south of the Platte River drainage; *southwestern Colorado* includes the sedimentary canyon and mesa country south from

Grand Junction; and the *mountains* include the montane country above 6000 feet, especially the Colorado Front Range overlooking the Great Plains.

The species in this list are arranged in A. O. U. Checklist order, such as is found in Peterson's *Field Guide to Western Birds*. They do *not* represent a complete listing of the birds which have been recorded in Colorado during the winter.

	NE	SE	Mt.	SW		NE	SE	Mt.	SW
Loon, Common	X				Ptarmigan, White-t.				1
Grebe, Horned	X				Chicken, Prairie	X			
Eared	X			1	Grouse, Sharp-t.	X			
Pied-billed	X				Sage Hen	X			
Cormorant,					Bob-white	1	2		
Double-cr.	X				Quail, California				2
Heron, Great Blue	2	1		2	Gambel's				5
Bl-cr. Night	X				Scaled		3		
Swan, Whistling	X				Pheasant, Ring-n.	8	3		4
Goose, Canada	1				Rail, Virginia	X			
Snow	X				Sora		1		
Mallard	6	4		5	Coot	1			
Gadwall	1				Killdeer	5	4		4
Baldpate	1	1		1	Snipe, Wilson's	5	6		
Pintail	2			1	Sandpiper, Spotted	X			
Teal, Green-winged	3	4		1	Gull, Herring	1	1		
Blue-winged	X	1		1	Ring-billed		2		
Cinnamon	X				Franklin's	X			
Shoveller	1			1	Bonaparte's	X			
Wood Duck	X				Dove, Rock	1	2		
Redhead	1			1	Mourning	1	2		1
Ring-necked Duck	X	1		1	Road-runner		X		
Canvas-back	1			1	Owl, Barn	X			
Scaup, Lesser	1				Screech	1			2
Goldeneye, American	2			2	Horned	3	1	1	2
Buffle-head	1				Pygmy	X			
Scoter, White-winged	X				Long-eared	1	1		
Ruddy Duck	X			1	Short-eared	1	2		
Merganser, Hooded	X				Saw-whet	X			
American	3	1		3	Kingfisher, Belted	4	4		
Red-br.	X	1		1	Flicker, Yellow-sh.	X			
Vulture, Turkey	X			1	Red-sh.	10	10	2	9
Goshawk	1			1	Gilded				1
Hawk, Sharp-sh.	1	3		2	Woodpecker, Lewis's	3	4		5
Cooper's	1	2	1		Sapsucker				
Red-tailed	3	5	1	5	Red-naped	X			
Swainson's	1	1	1	2	Woodpecker, Hairy	4	5	5	4
Am. Rough-l.	3	3	1	2	Downy	6	4	3	2
Rough-leg, Ferrug.	2	3	1		Ladder-b.	1			
Eagle, Golden	1	3	2	2	Three-t.	X		1	
Bald	1	1	1	2	Phoebe, Say's				4
Hawk, Marsh	6	3		5	Lark, Horned	7	7		8
Falcon, Prairie	2	1	1	1	Jay, Canada	X			2
Hawk, Duck	X			1	Blue	1			
Pigeon	2	2		X	Steller's	4	7	7	4
Sparrow	4	4		7	Scrub	1	7	1	3
Grouse, Dusky	X				Magpie, American	10	10	9	9

	NE	SE	Mt.	SW		NE	SE	Mt.	SW
Raven, American	X	1	1	6	Meadowlark, West.	8	6		6
White-necked	X				Blackbird, Yellow-h.	X			
Crow	2	5	2	2	Red-wing, Common	8	6		6
Jay, Piñon	X	3		4	Blackbird, Rusty	1			
Nutcracker, Clark's	X	1	5	1	Brewer's	1	1		4
Chickadee, Black-c.	8	6	2	4	Cowbird, Common	X			
Mountain	4	6	9	4	Grosbeak, Evening	1	3		2
Titmouse, Plain		3		2	Finch, Cassin's Pur.	2	3	2	2
Bush-tit	X	1		2	House	8	10		6
Nuthatch, White-br.	2	3	6	3	Grosbeak, Pine	X			1
Red-br.	1	2	3		Rosy Finch, Hep.	X			1
Pygmy	1	3	5	1	Gray-cr.	X			1
Creepers, Brown	5	5	6	2	Black	X			
Dipper	2	3	1	2	Brown-c.	X			
Wren, House	X	1			Redpoll	X	2		
Winter	X				Siskin, Pine	2	6	4	6
Bewick's	X			1	Goldfinch, American	4	3	1	8
Marsh	1	2			Arkansas	X	1		1
Cañon	1	2			Crossbill, Red	X		3	
Rock	X				Towhee, Green-tail.		1		
Thrasher, Brown	X				Spot Arctic	1	3/2		2
Robin	4	5	2	7	Cañon		4		
Thrush,					Sparrow, Lark	X			
Olive-backed	X				Junco, White-winged	2	8	2	
Bluebird, Western				2	Slate-color.	5	6	2	1
Mountain	X	3		5	Oregon	9	10	4	9
Solitaire, Townsend	2	7	6	2	Gray-headed	5	8	4	6
Kinglet, Golden-cr.	1	3	5		Sparrow, Tree	9	8	1	4
Ruby-cr.	X	2	1		Chipping	X	3		1
Pipit, American	X	1			Field	X			
Waxwing, Bohemian	X	1			Harris's	X			1
Cedar	X	1		1	White-cr.	3	6		7
Shrike, Northern	3	5		2	White-th.	X			
Loggerhead	1	2		4	Song	8	8		8
Starling	2	3		3	Fox	X			2
Vireo, Solitary	X				Longspur, Lapland	X			
Warbler, Myrtle	X				Alaska	X			
Sparrow, House	5	4		6	Bunting, Snow	X	3		
Bobolink				1					
TOTAL SPECIES 167: NE-154; SE-92; Mt.-44; SW-67									

Appendix B Representative Winter Birding Areas in Colorado

Northeastern Colorado (Hellstern, Thatcher, Beidleman)

Around Boulder: The *University of Colorado campus* (especially around Varsity Lake), *Bluebell Canyon* at the southwest edge of town, the *river-bottom north of Valmont Butte*, and the large warm-water *reservoir at Valmont Power Plant* represent good birding areas. In the *University Museum* there are mounts and study skins of Colorado birds.

Around Denver: *Barr Lake*, about twenty miles northeast of Denver off U. S. Highway 6, offers excellent winter birding, especially for water birds, but access is sometimes difficult for the transient bird watcher.

City Park on the east edge of the city is also good, and the visitor there should not fail to see the bird exhibits, particularly the wonderful habitat groups, at the *Denver Museum of Natural History*. Here is also housed a large collection of study skins.

Red Rocks Park, twelve miles southwest of Denver, near Morrison, includes about 200 acres of sedimentary outcrops, at an elevation of approximately 6200 feet, which form a series of high rugged cliffs running north-south through the center of the park. West of the Red Rocks, extending to the top of Mt. Morrison (elevation, 7880 feet), is a steep, dry slope, covered sparsely with juniper and a few ponderosa pines, and a small stand of north-slope Douglas-fir. East of the outcroppings are extensive, gently sloping, dry open areas, broken by brushy gullies, a few large patches of wild plum and occasional scrub oak, and stream-bottom cottonwoods. Red-shafted Flicker, Hairy and Downy Woodpeckers, Magpie, Robin, Townsend's Solitaire, Pine Siskin, Slate-colored, Oregon, and Gray-headed Juncos are found in winter throughout the park. The Cañon Wren and abundant Rock Doves occur in the Red Rocks, and flocks of Rosy Finches sometimes roost at night in some of the caves. On the steep slope west of the rocks, the more common winter birds include Steller's Jay, Mountain Chickadee, Brown Creeper, Cañon Wren and Golden-crowned Kinglet, and occasionally Goshawk, Sharp-shinned and Cooper's Hawks, Red-tailed and Rough-legged Hawks, Golden Eagle, Prairie Falcon, Pigeon and Sparrow Hawks, Dusky Grouse, Pygmy and Long-eared Owls, Red-breasted Nuthatch and Red Crossbill. In the lower area, east of the rocks, the Black-capped Chickadee, House Finch, and Tree Sparrow are common, and Scrub Jay, Northern Shrike, American Goldfinch, Spotted Towhee, and White-crowned Sparrow occur less frequently.

Genesee Mountain Park, about fifteen miles west of Denver on U. S. Highway 40, includes about 2400 acres: about 1700 acres of ponderosa pine forest, 500 acres of north-slope Douglas fir with some pure lodgepole pine, and 200 acres of open grassland. An enclosure for elk and bison, of about 450 acres, containing most of the open area, is closed to the public. All parts of the park are easily accessible from good roads. Elevation of the park is mostly 7000 to 8200 feet. Most abundant winter birds are the Pygmy Nuthatch and Mountain Chickadee. Other common species are Steller's Jay, Magpie, Crow, White-breasted Nuthatch, Brown Creeper, Golden-crowned Kinglet, Cassin's Finch, Pine Siskin, Red Crossbill, and White-winged Junco. Species seen occasionally include the Goshawk, Bald Eagle, Dusky Grouse, Horned Owl, Hairy and Downy Woodpeckers, Raven, Clark's Nutcracker, Red-breasted Nuthatch, Robin, Townsend's Solitaire, Bohemian Waxwing, Evening Grosbeak, Pine Grosbeak, American Goldfinch, Slate-colored, Oregon, and Gray-headed Juncos.

Around Estes Park: The *trail to Gem Lake*, starting on the Devil's Gulch Road about $1\frac{1}{2}$ miles northeast of Estes Park, is usually accessible and provides good montane birding, especially for Nuthatches, Golden-crowned Kinglets, Mountain Chickadees, Juncos, Hawks, Pine Siskins, Crossbills, Townsend's Solitaire, and others. There is a similar pine woodland on the *hillside north of Stead's Ranch*, in Moraine Park (with-

in Rocky Mountain National Park). *Camp Woods*, inside the Big Thompson park entrance, is excellent for winter birds, as feeding tables are maintained in the vicinity during the winter. High country birds can be reached from the *Hidden Valley* ski area along Trail Ridge Road.

Around Fort Collins: The isolated *piñon-juniper woodland* at *Owl Canyon*, seventeen miles northwest of Fort Collins east of U. S. Highway 287, is a very good spot at which to see the Golden-crowned Kinglet, Townsend's Solitaire, Piñon Jay, Robin, Brown Creeper, and Golden Eagle.

From the entrance of *Poudre Canyon* to the Fort Collins Water Works is excellent for Water Ouzels (State Highway 14).

Shields Street south from Fort Collins to Loveland and the back road (Sunset Drive) from Fort Collins to Laporte are good for Lewis's Woodpecker and other winter birds.

The small cottonwood grove at the entrance to *Spring Canyon*, five miles southwest of Fort Collins on the Horsetooth Reservoir road, is excellent for many species of winter birds, including occasional rarities.

Tinnath Reservoir, about eight miles southeast of Fort Collins, is good for water birds and Bald Eagles.

Around Fort Morgan: Good winter birding areas include the surrounding farmland, the South Platte river-bottom, lower part of Bijou Creek, Jackson Lake, Empire Reservoir, and Wildcat Creek. Of particular interest in this region are occasional wintering Barn Owls, Lapland and McCown's Longspurs, Cedar and Bohemian Waxwings, Mountain Bluebird, American Merganser, Bob-white, and Doublecrested Cormorant.

Around Wray: *Black Wolf Creek*, sixteen miles southeast of Wray near Beecher's Island, is a small cottonwood creek-bottom rich in underbrush and bird life. Harris's Sparrows, Winter Wrens, Tree Sparrows, Gambel's Sparrows, Downy Woodpeckers, Horned Owls, Slate-colored Juncos, Blue Jays, Northern Flickers, Bob-white, and others are here to be encountered. This area is of particular interest because of its invasion by eastern species of birds.

Northwestern Colorado (Wampole, Beidleman)

Around Steamboat Springs: Around the city there is good birding for Juncos, Tree Sparrow, Chickadees, Red-naped Sapsucker (on occasion), Downy and Hairy Woodpeckers; on the *Yampa River* at the lower edge of town where warm springs keep open water are to be seen Mallards, Goldeneyes, and Water Ouzels.

Elk River road north to Clark (State Highway 129), *Yellow-jacket* and *Pleasant Valley* south of Steamboat Springs (State 131), and *Twenty-mile* and *Cow Creek* drainages are also good for the above species, and, in addition, for Townsend's Solitaire, Rough-legged Hawk, Goshawk, and occasionally a Sparrow Hawk.

Along the *Yampa River* between Steamboat Springs and Craig (U. S. 40), and upstream (south) as far as *Toponas* (State Highway 131) is good birding for roadside flocks of Rosy Finches and Horned Larks and in the woods the Red-tailed Hawk. Sharp-tailed Grouse can often be seen two miles west of *Mt. Harris* where U. S. 40 crosses the *Yampa River*, at the foot of *Deer Mountain* about four miles northwest of Steamboat

Springs, and near Grouse Creek, north of Yellow-jacket Pass, about eight miles south of Steamboat Springs.

The trip *south on State Highway 131* from Steamboat Springs to McCoy, and the canyon-ridge country around McCoy, are especially good for the Plain Titmouse, Scrub and Steller's Jay. Clark's Nutcracker, Sage Grouse, Robin, and others.

Around Walden: This area of North Park is somewhat inaccessible during bad weather, but birders here can find Rosy Finches, Horned Larks, and Sage Hens, among a few others.

Southeastern Colorado (Pillmore, Griffin, Knorr)

Around Colorado Springs: The plains *east of the Fountain Valley School* are good for Longspurs. The *rocky draws south of the city* provide fine birding for White-winged Juncos. State Highway 115 from *Colorado Springs to Florence* through much piñon-juniper woodland is good for Townsend's Solitaire, Robins, Piñon Jays, Mountain Bluebirds, and others, many of which can be seen from the car.

Around Ordway: Common winter birds in this area include the Mallard, Pintail, Canada Goose, Golden Eagle, Sparrow Hawk, Marsh Hawk, American Rough-legged Hawk, Pheasant, Bob-white, Scaled Quail, Crow, Magpie, English Sparrow, White-crowned Sparrow, Tree Sparrow, Song Sparrow, Starling, Meadowlark, Horned Lark, Red-shafted Flicker, Gray-headed Junco, Pink-sided Junco, Red-wing, Cañon Towhee, and American Goldfinch. The Road-runner is to be watched for in the piñon-juniper country south of La Junta.

Extreme southeastern Colorado: *Two Buttes Reservoir* is good for ducks and geese. Along *Carrizo Creek* in Las Animas county, canyon country vegetated with piñon-juniper and scrub oak, there is good winter birding, sometimes for species not encountered farther north.

Southwestern Colorado (Hyde, Pillmore, Beidleman)

There is good birding in the *vicinity of La Jara and Antonito* along U. S. 285 south into New Mexico and also along the *river near Del Norte* on U. S. 160. The mountainous country around Gunnison is poor for birding, except that Gray-crowned and Brown-capped Rosy Finches are common near melted places along the highways and at local garbage dumps. In extreme southwestern Colorado, *Mesa Verde National Park*, with its mesa-canyon, pine-juniper country, offers good birding in an area unmolested by human interference.

Delta, Grand Junction, and Fruita are good winter birding areas where are found many species uncommon in other parts of Colorado. Here, for example, the Say's Phoebe, Red-naped Sapsucker, Yellow-headed Blackbird, Mountain Bluebird, Harris's Sparrow, Virginia Rail, Brewer's Blackbird, Cañon Wren, have been reported occasionally in the winter, along with many more common species.

NOTE: Further information on good birding areas in Colorado can be found in Pettingill's *A Guide to Bird Finding West of the Mississippi*.

Appendix C

Glossary of Scientific Names

Compiled by John N. Hough

(G or L indicates whether the word is from Greek or Latin)

Acanthis	G	thistle-bird
flammea	L	flame-colored
Accipiter	L	hawk
cooperii		James G. Cooper
gentilis	L	belonging to same family
striatus	L	striped
Agelaius	G	gregarious
phoenicus	L	red
Anas	L	duck
acuta	L	sharp-pointed
carolinensis	L	of Carolina
platyrhynchos	G	flat-beaked
Anthus	L	bright colored (flower)
spinoletta	L	spined (projection from sternum)
Aphelocoma	G	smooth hair
coerulescens	L	sky-blue
Aquila	L	eagle
chrysaetos	G	golden eagle
Ardea	L	heron
herodias	G	heron
Asio	L	horned owl
flammeus	L	fiery
otus	L	horned owl
Asyndesmus	G	loosened (texture of feathers)
lewis		Merriwether Lewis (named not Latinized)
Bombycilla	L	silkworm (silky feathers)
cedrorum	L	of cedar trees
garrulus	L	talkative
Branta	L	burned (colored, reddish brown)
canadensis		of Canada
Bubo	L	owl
virginianus		of Virginia
Bucephalus	G	broad (ox-like) head
clangula	L	noisy
Buteo	L	hawk
jamaicensis		of Jamaica
lagopus	G	hare's foot
regalis	L	royal
swainsoni		William Swainson
Calcarius	L	spurred
lapponicus		of Lapland
ornatus	L	ornate
Callipepla	G	beautiful robe
squamata	L	scaly
Capella	L	she-goat (bleating noise suggested by sound of its flying in spring flight)

gallinago	L	poultry
Carpodacus	G	fruit biter
cassinii		John Cassin
mexicanus		Mexican
Catherpes	G	down creeper
mexicanus		Mexican
Centrocercus	G	pointed-tail
urophasianus	G	tail pheasant
Certhia	G	small bird (probably a creeper)
familiaris	L	common
Charadrius	G	cleft-dwelling
vociferus	L	voice-carrying (loud)
Cinclus	G	a bird (probably an ouzel)
mexicanus		Mexican
Circus	L	circling
cyaneus	G	blue
Colaptes	G	a pecking (bird)
cafer		misnamed after Kaffir tribe
Colinus	L	quail
virginianus		Virginian
Corvus	L	crow
brachyrhyncos	G	short-beaked
corax	G	crow
Cyanocitta	G	blue chattering bird
cristata	L	crested
stelleri		George W. Steller
Dendragapus	G	tree-loving
obscurus	L	dark
Dendrocopus	G	tree-cutting
pubescens	L	coming to puberty (hairy)
villosus	L	hairy
Euphagus	G	good eater
carolinus		of Carolina
cyanocephalus	G	blue-headed
Falco	L	hawk
columbarius	L	pigeon
mexicanus		Mexican
sparverius	L	sparrow
Geococcyx	G	ground cuckoo
californianus		Californian
Gymnorhinus	G	bare-nosed
cyanocephalus	G	blue-headed
Haliaeetus	G	sea eagle
leucocephalus	G	white-headed
Hesperiphona	G	evening song
vespertina	L	evening
Junco		origin uncertain, perhaps L reed
aikeni		Charles E. H. Aiken
caniceps	L	gray-headed
hyemalis	L	winter

oreganus	of Oregon
mearnsi	Edgar A. Mearns
shufeldti	R. W. Shufeldt
Lagopus	G hare's foot
leucurus	G white-tailed
Lanius	L butcher
excubitor	L sentinel
ludovicianus	of Louisiana
Larus	L gull
argentatus	L silver
delawarensis	of Delaware
Leucosticte	G white spots
atrata	L black
australis	L southern
tephrocotis	G ash-colored head
littoralis	L of the shore
Lophortyx	G crested quail
californica	of California
gambeli	William Gambel
Loxia	G crosswise
curvirostra	L curved bill
Megaceryle	G large kingfisher
alcyon	G kingfisher
Meleagris	G guinea fowl
gallopavo	L cock peafowl
Mergus	L diver
merganser	L diving goose
Myadestes	G fly eater
townsendi	John K. Townsend
Nucifraga	L nut-breaker
columbiana	Columbia River
Nyctea	G nocturnal
scandiaca	Scandia (Alberta)
Otocorys	G ear helmet
alpestris	L alpine (mountain)
Otus	L horned owl
asio	L horned owl
Parus	L titmouse (chickadee)
atricapillus	L black-headed
gambeli	William Gambel
inornatus	L plain
Passer	L sparrow
domesticus	L pertaining to the house
Perisoreus	G one who heaps up
canadensis	of Canada
Phasianus	L pheasant
colchicus	L Colchis, an area in the Caucasus
Pica pica	L magpie, magpie
Picoides	L magpie-like

tridactylus	G three-toed
Pinicola	L pine dweller
enucleator	L one who takes out kernels
Pipilio	L chirper
fuscus	L dark
mesoleucus	G white in middle
maculatus	L spotted
arcticus	G northern
Plectrophenax	G spur, false (i.e. not a Longspur)
nivalis	L snowy
Psaltriparus	G lute playing titmouse
minimus	L very small
Regulus	L little king
calendula	Ital. little lark
satrapa	G ruler (with golden crown)
Rhyncophanes	G beak prominent
mccowni	J. P. McCown
Salpinctes	G trumpeter
obsoletus	L indistinct
Sayornis	G Say's bird (see next line)
saya	Thomas Say
Sialia	G a kind of bird (unknown)
currucoides	Spanish: linnet, like a linnet
mexicana	Mexican
Sitta	G a kind of bird whose call was probably similar to "sitta", a call of drovers to their flocks probably "chattering"
canadensis	of Canada
carolinensis	of Carolina
pygmaea	G pygmy
Spinus	G finch type bird
pinus	L pine
psaltria	G lute-player
tristis	L sad
Spizella	L little sparrow
arborea	L tree
melodia	G melodious
passerina	L sparrow-like
Sturnella	L little starling
neglecta	L neglected (overlooked as different species from Eastern Meadowlark)
Sturnus	L starling
vulgaris	L common
Telmatodytes	G marsh diver
palustris	L marshy
Troglodytes	G cave creeper
Turdus	L thrush
migratorius	L migratory

Zenaidura

macroura

Zonotrichia

leucophrys

gambeli

querula

French: Zenaide (wife of namer, Naturalist

Charles Bonaparte)

G long-tailed

G belt hair

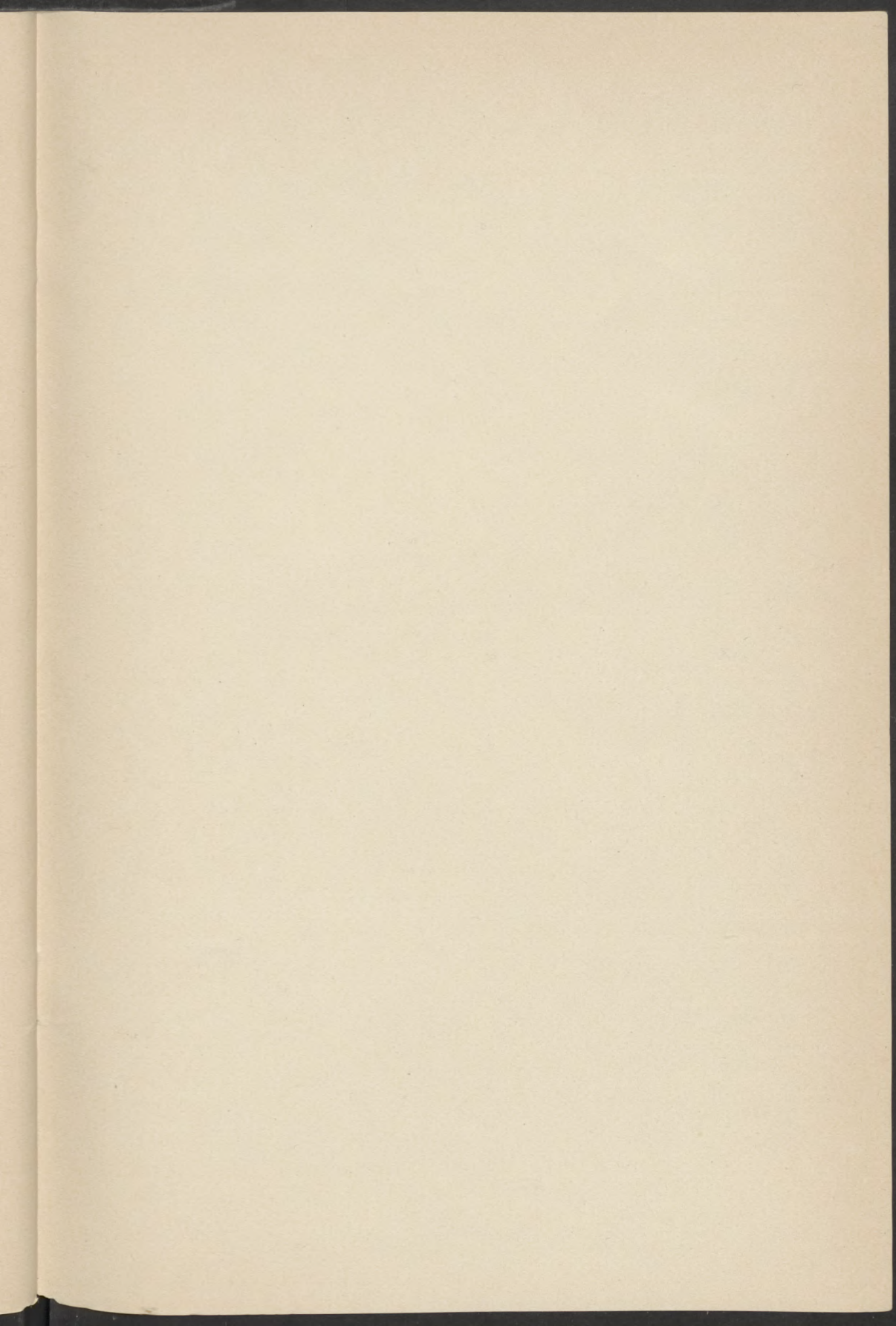
G white-browed

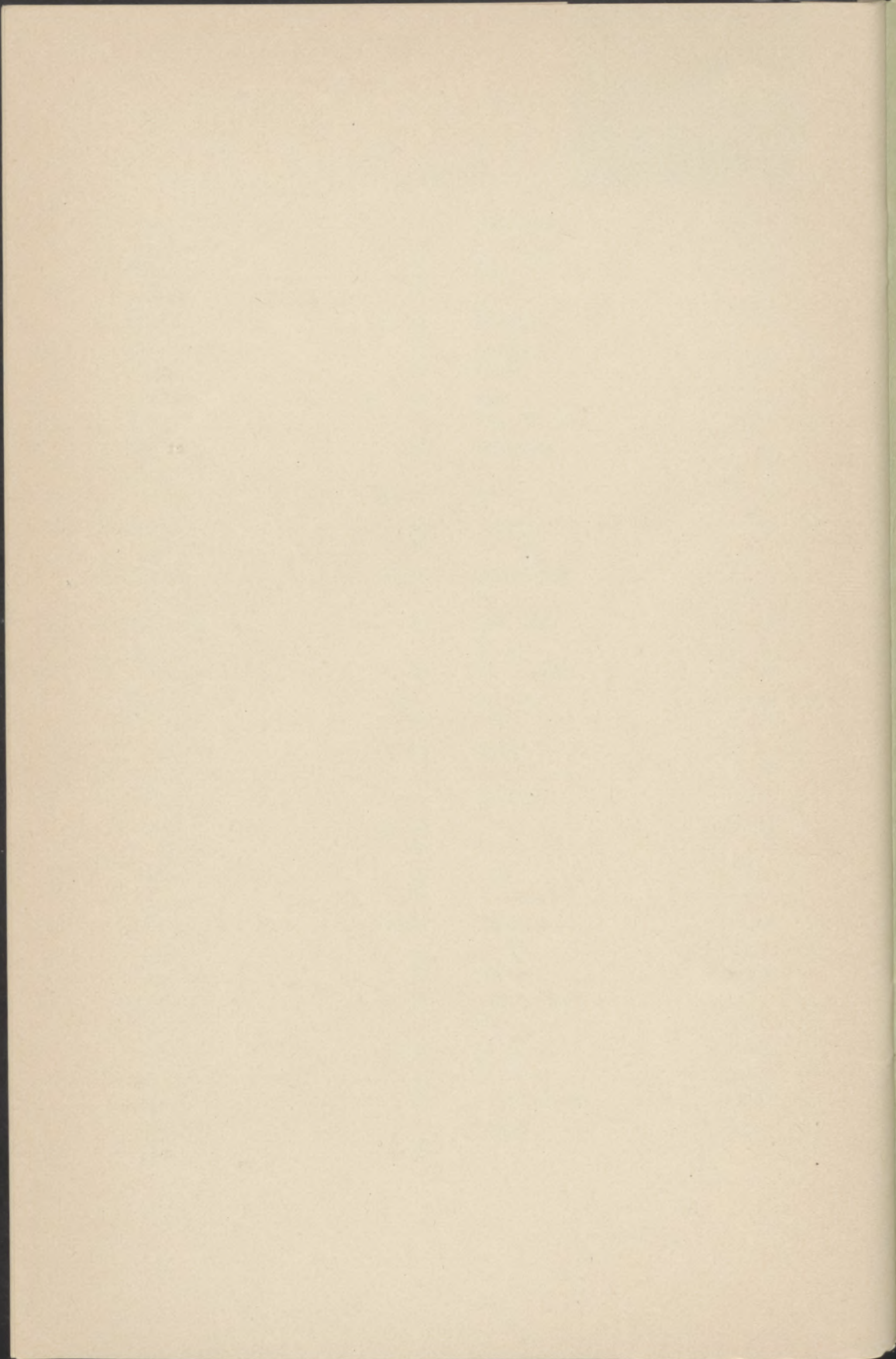
William Gambel

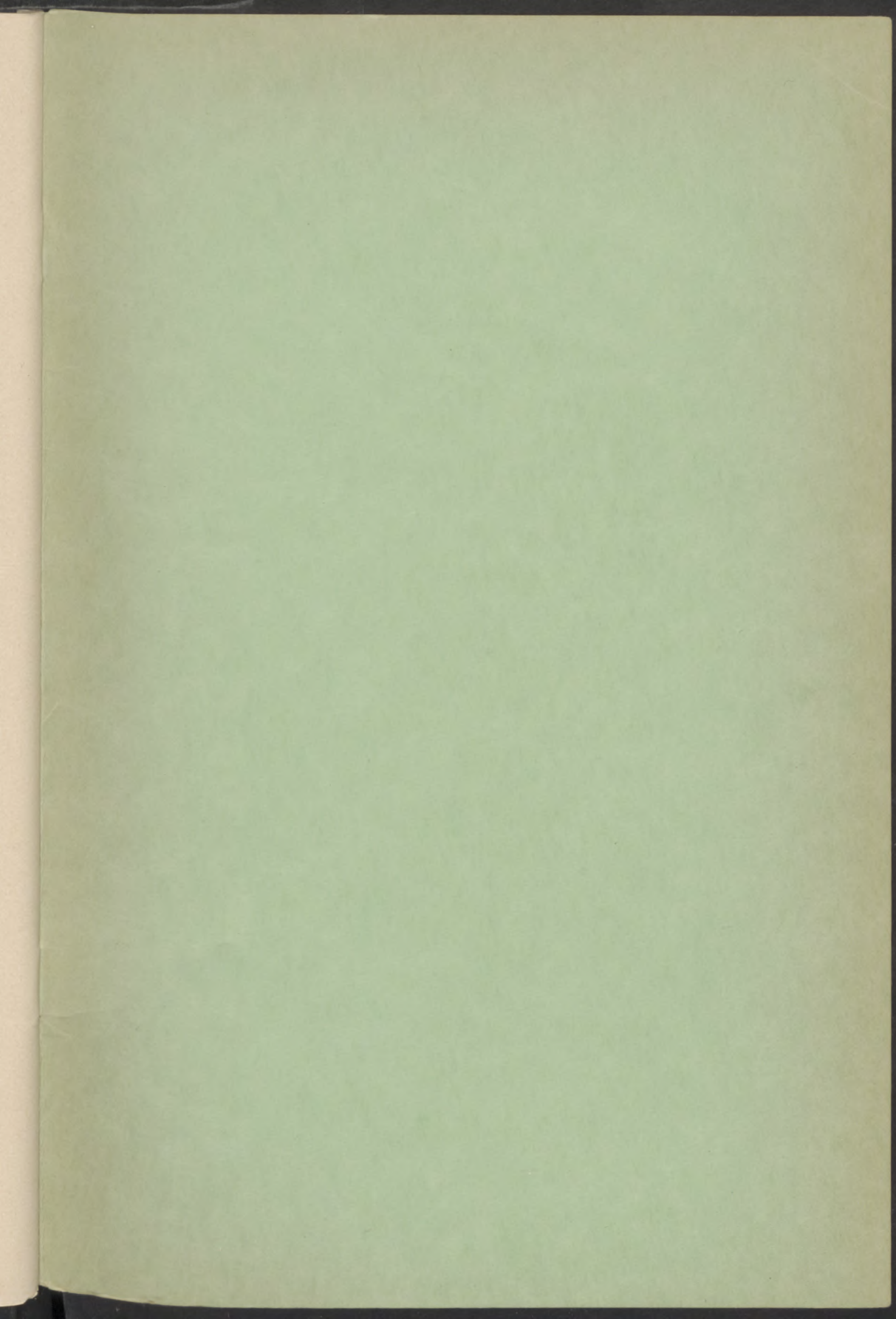
L complaining (song)

INDEX

Birds of Prey	21-24	Nutcracker	31
Blackbirds	41-42	Nuthatches	34
Bluebirds	37	Ouzel	35
Bunting	50	Owls	24
Bush-tit	33	Pheasant	24
Chickadees	33	Phoebe	29
Creeper	35	Pintail	20
Crossbill	44	Pipit	38
Crow	32	Prey, Birds of	21-24
Dipper	35	Ptarmigan	25
Dove	27	Quails	24-25
Ducks	20-21	Raven	32
Eagles	23	Redpoll	43
Falcons	22	Red-wing	41
Finches	42-44	Road-runner	27
Flicker	27	Robin	36
Flycatcher	29	Sage Hen	25
Goldeneye	21	Scaup	20
Goldfinch	43	Shore Birds	25-26
Goose	21	Shrikes	39
Goshawk	22	Siskin	43
Grosbeaks	44-45	Snipe	26
Grouse	25	Snow Bunting	50
Gulls	26-27	Solitaire	37
Hawks	21-23	Sparrows	40, 47-49
Heron	20	Starling	39
Horned Lark	29	Teal	21
Jays	30-32	Thrushes	36-37
Juncos	45-47	Titmouse	33
Killdeer	25	Towhees	45
Kingfisher	27	Turkey	25
Kinglets	37-38	Wading Birds	20, 25-26
Larks	29	Waterfowl	20-21
Longspurs	50	Waxwings	38-39
Magpie	30	Wildfowl	24-25
Mallard	20	Woodpeckers	27-29
Meadowlark	41	Wrens	36
Mergansers	21		







RECEIVED

SEP 21 2000

STATE PUBLICATIONS
Colorado State Library