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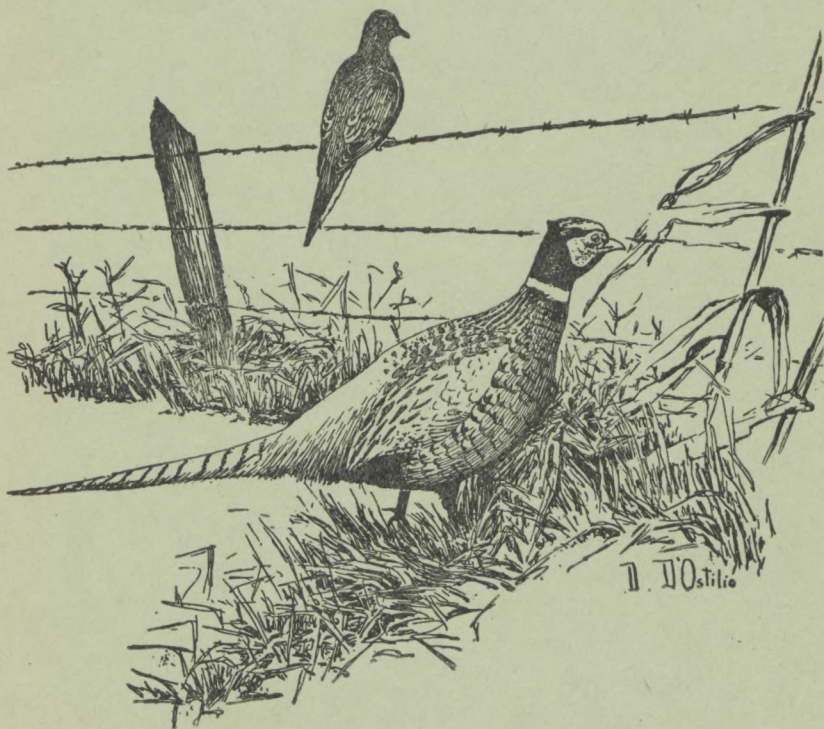
Boulder, Colorado

Leaflet No. 9

February, 1952

GUIDE TO THE UPLAND GAME BIRDS OF COLORADO

LOWELL E. SWENSON



"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)

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GUIDE TO THE UPLAND GAME BIRDS OF COLORADO

LOWELL E. SWENSON

The upland game birds include two distinct orders of birds, the Galliformes or chicken-like birds (Fig. 1) and the Columbiformes or pigeon-like birds (Fig. 2). These two groups, along with the waterfowl and shore birds comprise the game birds of the state. The species of upland game birds of Colorado are not as numerous as the ducks, nor do they so closely resemble one another; consequently their identification is relatively simple.

It should be brought to the attention of the reader that a relative of the cuckoos, called the Road Runner or Chaparral Cock, *Geococcyx californianus* (Lesson), might be confused with the gallinaceous birds. The Road Runner is present in the southern part of Colorado and its coloration, long tail and long legs give it a superficial resemblance to the female Ring-necked Pheasant. More critical observation will reveal that the bill is longer and straighter than is the bill of any of the pheasants or partridges, and the body of the bird is much slimmer than that of the game birds, even to the point of appearing scrawny. In walking, two toes point forward and two to the rear.

At the time this is written the Ring-necked Pheasant, Scaled, California, and Olathe quail, Wild Turkey, and Mourning Dove are plentiful enough to warrant limited hunting seasons. The Department of Game and Fish is experimenting with the introduced Hungarian and Chukar partridges and the Japanese Copper pheasants in the hope that they may be adapted to certain areas and that they eventually will become so well established that they can be legally hunted.

Mr. Harry J. Figge, Biologist for the Department of Game and Fish, has been kind enough to furnish information on the Hungarian and Chukar partridges in the State. Mr. Dominic D'Ostilio of Boulder prepared most of the illustrations for this leaflet. The author is most grateful to both.

As in previous leaflets in this series, those species which are rare in Colorado are marked with an asterisk (*), which is in effect a warning to use special care to avoid an error in identification.

Use of the Identification Key

It requires close observation of the details of size, color and form to become expert in identifying birds. By combining this observation of details with the careful use of the following key little difficulty should be encountered in the identification of the upland game birds.

In using the key always start at the beginning. Two alternatives are given. After selecting the alternative which fits your specimen proceed to the number indicated in the right hand column. Continue in this manner until you arrive at the name for the bird. Check this against the description and illustration on the page indicated after the name.

KEY TO THE UPLAND GAME BIRDS OF COLORADO

(Always start at the beginning of the key)

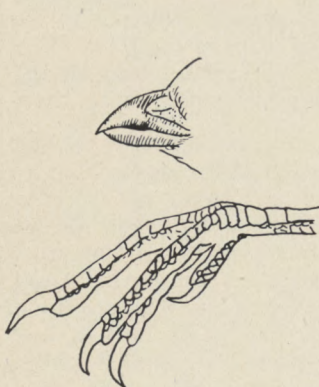


Fig. 1. Beak and foot of a galliform bird



Fig. 2. Beak and foot of a columbiform bird

1. If beak, feet, and legs resemble those of a domestic chicken as in Fig. 1 (note short hind toe and strong beak) go on to key number 2
OR
If beak, feet, and legs resemble those of a domestic pigeon as in Fig. 2 (note long hind toe, and slender beak with soft skin around nostrils) go directly to key number 15
2. Tail 6 inches or more long, and pointed go to number 3
OR
Tail not long and pointed go to number 4
3. Legs bare, not feathered to base of toes **Ring-necked Pheasant**, page 4
Legs feathered to base of toes **Sage Hen**, page 9
4. Length over 26" **Merriam's Turkey**, page 5
Length under 22" go to number 5
5. Legs feathered to toes 6
Legs not feathered to toes 9
6. Color dark, slaty gray **Dusky Grouse**, page 6
Color not dark, not slaty gray 7
7. Toes feathered to claws **Southern White-tailed Ptarmigan**, page 7
Toes not feathered 8



Fig. 3. Streaked breast of Sharp-tailed Grouse



Fig. 4. Barred breast of Prairie Chicken

- | | | | |
|-----|---|-----------------------------|---------|
| 8. | Breast streaked, Fig. 3 | Sharp-tailed Grouse, | page 8 |
| | Breast barred, Fig. 4 | Prairie Chicken, | page 7 |
| 9. | Tuft of longer feathers on sides and back of neck | Gray Ruffed Grouse, | page 6 |
| | No tuft of longer feathers on neck | | 10 |
| 10. | Legs and bill red | Chukar Partridge, | page 10 |
| | Legs and bill not red | | 11 |



Fig. 5. Head of California and Olathe Quail

- | | | | |
|-----|---|-----------------------------------|-----------------|
| 11. | Head with a black, forward curving plume, Fig. 5 | | 12 |
| | Head without a plume | | 13 |
| 12. | Breast feathers edged with black giving a "scaled" appearance | California Quail, | page 12 |
| | Breast feathers not black edged | Olathe Quail, | page 12 |
| 13. | Head with white-tipped crest feathers | Scaled Quail, | page 11 |
| | Head without white-tipped crest feathers | | 14 |
| 14. | Upper breast and flanks gray | Hungarian Partridge, | page 10 |
| | Upper breast and flanks rich brown | Bob-white, | page 11 |
| 15. | Large white patches on the wings | Western White-winged Dove, | page 13 |
| | OR | | |
| | No white wing patches | | go to number 16 |
| 16. | Tail long and tapered | Western Mourning Dove, | page 13 |
| | Tail short and square | Band-tailed Pigeon, | page 14 |

Order GALLIFORMES

Scratching Birds

Ring-necked Pheasant

Phasianus colchicus torquatus Gmelin

Male up to 36 inches long, female up to 23 inches long.

The Ring-necked pheasant (Fig. 6 and cover) is undoubtedly the most important upland game bird of Colorado. This hardy Asiatic import thrives in farming country where the native grouse and quail have not been able to stand the pressure of agriculture and hunting. Almost everyone has seen the brilliantly-colored, long-tailed rooster and his dull-colored hens in fields along the highways.

The male has a dark green head, partial or complete white neck ring, bronze-red breast and a gray-green rump, all feathers showing a great deal of iridescence.

The female is not so long-tailed and is brownish in color, though under favorable light conditions at close range her back and neck feathers show a surprising amount of purple iridescence. The under parts of the female are buffy in color.

In the spring the male bird does a lot of early morning and evening crowing. He stands erect, beats his wings rapidly and gives his two-syllable call. The crow ends abruptly at the loudest part of the second syllable and leaves the impression that it has not been completed. It has more resemblance to the first attempts at crowing by a young leghorn rooster than the sound of any other domestic bird.

A wounded pheasant that is still able to run is almost impossible for a man to catch and one that cannot run has an uncanny ability to hide and escape detection. The use of a good dog is highly desirable in pheasant hunting to keep the loss of crippled birds at a minimum.

The Department of Game and Fish has imported a few pairs of Japanese Copper Pheasants for study to determine whether they may be a suitable game bird for Colorado. The Copper Pheasant (*Phasianus soemmerringii* Temminck) is a coppery-red, and purplish-iridescent bird of mountain habitats and conceivably might become as important a game bird in our mountains as the Ring-neck has on the plains.

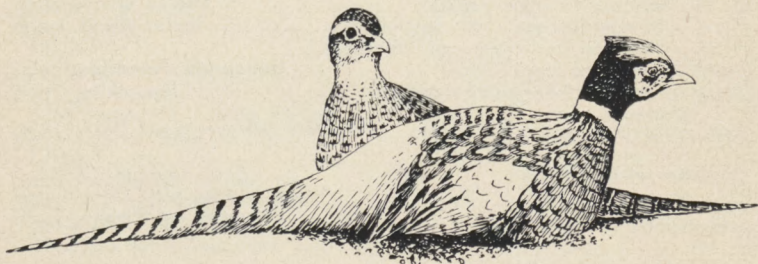


Fig. 6. Ring-necked Pheasant, male and female

Merriam's Turkey

Meleagris gallapavo merriami Nelson

Male up to 48 inches long, female up to 36 inches long.

The Wild Turkey (Fig. 7) is the largest upland game bird in North America and nearly became extinct in Colorado within the past 50 years. Through replanting and wise game management it is again on the increase in some of the suitable areas of the state. In fact it has prospered so well in the San Isabel, San Juan, and Rio Grande National Forests in south-central and southwestern Colorado that a limited hunting season was opened on this grand bird in 1949 for the first time in 64 years.

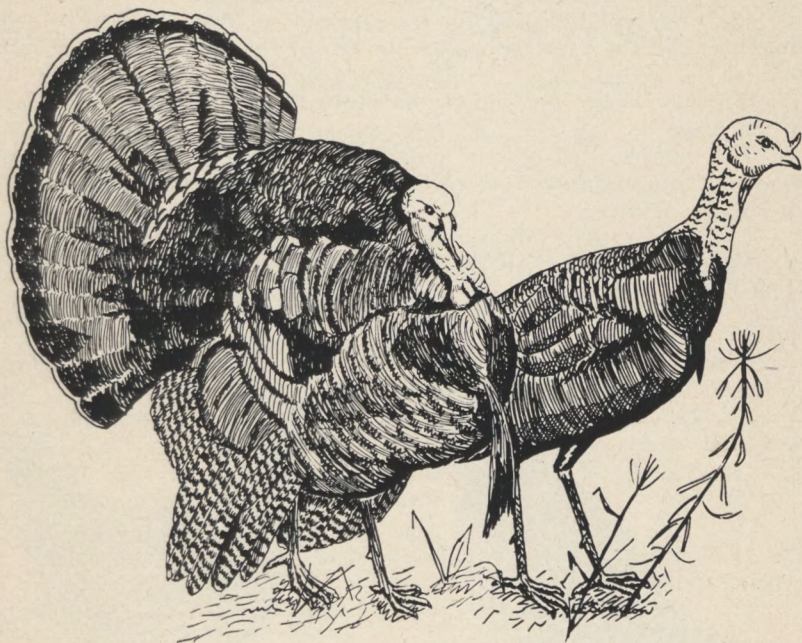


Fig. 7. Merriam's Turkey, male and female

To say that the Wild Turkey resembles the domestic turkey is certainly the simplest, and perhaps the best, description of the bird. It shows a white area over the rump which the domestic bird does not have.

Turkeys feed largely on vegetable matter, with acorns, pinyon and yellow pine seeds forming an important part of the diet.

Wild Turkeys seem to dislike soft snow and usually remain on the roost during rain, snow and sleet storms. A water supply is very important to Turkeys, and springs are frequented during the winter. A drouth can be very disastrous to these birds and is the most critical weather factor in some areas of the southwest.

Dusky Grouse

Dendragapus obscurus obscurus (Say)

18 to 21 inches long.

This large, slaty-gray grouse (Fig. 9) breeds in our mountain evergreen forests at altitudes ranging from 7,000 to 11,000 feet. It is found throughout the mountains of Colorado from the Wyoming line south to New Mexico.

The male is a dark gray bird, the scapulars, or feathers on the back at the base of the wings, appearing more brownish. The tail is dark gray to black except for a light gray band which is usually present across the tip.

The female is duller in color with more brown mottling on the feathers. Her tail feathers do not appear so black because of this mottling, and the gray bar across the tip of the tail is not so sharply defined.

Both the male and female have the legs feathered to the base of the toes.

The mating call of the male is usually described as a hollow "hooting" sound and the purplish-red neck pouches are inflated when the bird is hooting.

This is a rather solitary bird and is reported to be constantly moving on foot from one place to another. They are frequently flushed from the ground or the trees by hunters during the deer season. At such times they may take off with a startling whirl of wings or sail away down the mountainside without a sound.



Fig. 8. Gray Ruffed Grouse



Fig. 9. Dusky Grouse

*Gray Ruffed Grouse

Bonasa umbellus umbelloides (Douglas)

16 to 19 inches long.

This is a very rare or extinct woodland grouse in Colorado (Fig. 8). It is gray-brown in color and may be distinguished from the other woodland grouse by a black band near the tip of the fan-shaped

tail. It possesses a ruff of black feathers on the sides and across the back of the neck. The legs are partially feathered, but the feathers **do not** extend to the base of the toes.

The Ruffed Grouse is celebrated for its "drumming" in the spring. The male usually stands on a fallen log and vigorously beats the air with its wings in increasingly rapid cadence, producing a hollow booming sound and ending in a whirl.



Fig. 10. Southern White-tailed Ptarmigan, winter plumage at left, summer at right

Southern White-tailed Ptarmigan

Lagopus leucurus altipetens Osgood

12 to 13 inches long.

This small alpine grouse breeds on the tundra above timberline and is the only ptarmigan to breed within the limits of the United States. In the winter it may drift down to elevations as low as 9,000 feet. In summer the bird is mottled brown on the back with a white belly, wings, and tail, but the wings and tail are almost concealed by their brown coverts (Fig. 10). This coloring blends in very well with the alpine tundra habitat. In winter the bird is all white except for the black eye and bill and is extremely difficult to see on the snow. The legs and feet are **feathered to the toe nails**. The ability of these birds to survive the rigors of the elements at these altitudes is truly remarkable.

Ptarmigans live on buds of deciduous trees and shrubs as well as those of the evergreens. In addition to buds they supplement their summer diet with insects and the flowers of alpine plants.

*Prairie Chickens

Tympanuchus cupido americanus (Reichenbach)
and *Tympanuchus pallidicinctus* (Ridgway)

To 18 inches long.

Both the Greater and Lesser Prairie Chicken were once common or abundant on the plains of eastern Colorado (Fig. 11). The Lesser Prairie Chicken, *T. pallidicinctus*, which is a paler form, may be extinct in Colorado and, if present, will be found in the southeastern corner of the state.

The Prairie Chickens and the Sharp-tailed Grouse often have been confused because of a similarity in size, coloration, and habitat.

The Prairie Chickens are mottled yellow-brown on the back, and white with brown **bars** across the belly (Fig. 4). The tail is short and **rounded** and there are tufts of long dark feathers on the sides of the neck which cover areas of bare skin. These bare areas are orange on the Greater Prairie Chicken and pink on the Lesser Prairie Chicken. The legs of both are feathered down to the base of the toes.

The Prairie Chicken is noted for a peculiar mating "dance" performed at daybreak in the spring. The males gather on a selected "dancing ground" to strut and pose and to go through a courting procedure involving the erection of the tail feathers and neck tufts and inflation of the air sacs located beneath the areas of bare skin on the neck. A resonant booming note is produced when the air is expelled from these sacs. Prairie Chickens and Sharp-tailed Grouse feed on a diet of insects, weed seed and cultivated grains. During the summer grasshoppers are consumed in large numbers by both species and during the winter weed seed, rose hips, sumac seed and waste grain are the predominant foods.



Fig. 11. Prairie Chicken, male



Fig. 12. Sharp-tailed Grouse, male

*Sharp-tailed Grouse

Pedioecetes phasianellus columbianus (Ord)

Pedioecetes phasianellus campestris Ridgway

To 19 inches long.

The Columbian Sharp-tailed Grouse, *P. p. columbianus*, is still present west of the Continental Divide in Colorado. The Prairie Sharp-tailed Grouse, *P. p. campestris*, of the eastern plains of Colorado is now rare.

In contrast to the Prairie Chicken, these birds have longitudinally **streaked** breasts (Fig. 3) and short **pointed** tails (Fig. 12). Also, they lack the neck tufts of the Prairie Chicken. The general coloration is buffy-brown as in the Prairie Chicken, and the legs are feathered

down to the base of the toes. They possess patches of distensible skin on the sides of the neck but these are hidden unless the air sacs are inflated.

The Sharp-tailed Grouse has a mating dance very similar to that of the Prairie Chicken and a booming sound is produced in the same way. The dance is said to take place at sunset as well as at daybreak.

Agriculture and grazing, along with a heavy hunting pressure have reduced the Prairie Chicken and Sharp-tailed Grouse to mere remnants of their former populations. It is doubtful that they will ever again return in numbers even approaching those of former times in Colorado.

Sage Hen

Centrocercus urophasianus (Bonaparte)

Male up to 30 inches long, female up to 22 inches long.

Among the upland game birds the Sage Hen (Fig. 13) is second in size only to the Wild Turkey. It is a mottled gray color with a

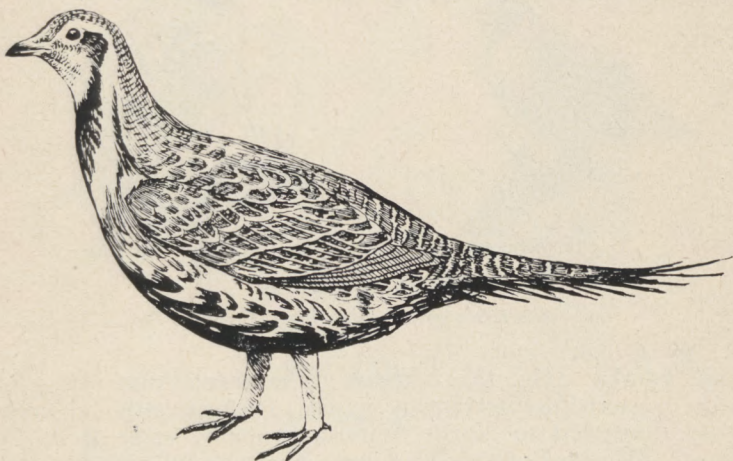


Fig. 13. Sage Hen

large **black** belly patch. The tail is long and triangular and the tail feathers are spike-like. The male bird has patches of bare yellow skin on the sides of the neck which are capable of distension to surprising dimensions. This area is surrounded by spike-like feathers and white down. The neck of the female lacks the bare areas or the specialized feathers. The legs are feathered down to the base of the toes.

The habitat of the Sage Hen is the open sage-covered areas of the plains and high plateaus. The Sage Hen has dwindled in numbers with the clearing of sage brush, and with over-grazing and over-shooting. It is still to be found in fair abundance in places along the northern border of the state.

The mating antics of this large grouse are perhaps even more spectacular than those of the two preceding species but the sounds produced are not as loud or resonant.

*Hungarian or European Partridge

Perdix perdix perdix (Linnaeus)

12 to 14 inches long.

This gray-colored partridge (Fig. 14) has been introduced into the United States and Canada from Europe, and a number of plantings have been made in Colorado. According to the Department of Game and Fish they have not been very successful but there are occasional reports from people who have seen specimens of the Hungarian Partridge.

This bird is about the size of a ptarmigan, and the short, chestnut-brown tail is a good identifying mark when in flight. It has buff-colored cheeks and a mottled brown back. The throat, breast and abdomen are gray. There is a **brown horseshoe-shaped** mark on the belly and the flanks are broadly barred with brown. The legs are unfeathered, the beak and legs tan in color.



Fig. 14. Hungarian Partridge



Fig. 15. Chukar Partridge

*Chukar Partridge

Alectoris graeca chukar (Gray)

13 to 16 inches long.

The Chukar (Fig. 15) is native to southern Asia, being found from the western Mediterranean region to China, although most of the stock imported to North America probably came from India. Numerous plantings of this bird have been made in Colorado and at the present time the Chukar partridge seems to have established itself with reasonable success in some areas. Escalante Canyon in Mesa County appears to have the most thriving population of Chukars at the present time, although there are numerous other colonies which seem at least to be maintaining themselves.

The Chukar has a naked eye patch and the plumage is unmottled. The legs and the bill are **red** in color. The crown is gray, the lores (areas immediately behind and at each side of the bill) are buffy-brown and the feathers covering the ear openings are chestnut in color. A black band extends across the forehead, to behind the eye, and encircles the throat. The back is gray or reddish-brown, the breast is ashy-gray, and the flanks are gray with transverse bars of black, buff or chestnut.

Both sexes are similarly colored but the males are somewhat brighter and slightly larger in size.

Bob-white

Colinus virginianus virginianus (Linnaeus)

8½ to 10¾ inches long.

Most everyone has at least heard of this quail whose call and name are so similar. The Bob-white (Fig. 16) is a bird of the eastern and southern United States and reaches the northwestern limit of its range in eastern Colorado. Consequently it is not abundant within the State.

This is a rather plump-looking bird with a short, partially erectile crest on its head. The back is brown, mottled with black, gray, and buff. The belly is white with small black V-shaped markings and the flanks are brown-striped. The male (Fig. 16) has a white stripe above the eye and extending down the neck, and a white throat patch bordered with black. On the female the stripe over the eye and the throat patch are buffy-brown instead of white and the black border is reduced. The bill and legs of both birds are tan in color.



Fig. 16. Bob-white, male



Fig. 17. Scaled Quail

Scaled Quail

Callipepla squamata pallida Brewster

9½ to 12 inches long.

The Scaled Quail or "Cottontop" is an inhabitant of arid regions from southern Colorado south into Mexico.

This quail (Fig. 17) is blue-gray above with a short, white-tipped crest. The belly and face are buffy-brown in color and the wings are brown. The feathers of the belly, breast and upper back are prominently edged with black and dark brown giving a "scaled" appearance, hence the name. The bill and legs are dusky in color.

The Scaled Quail is found from the Arkansas River south in Colorado and from the foothills east on the plains to Kansas. It seldom flies but usually escapes by running. This is very effective for a bird of such subdued colors in a habitat of sage, yucca and cactus.

California Quail

Lophortyx californica californica (Shaw)

Up to 11 inches long.

The California Quail (Fig. 18) has been introduced and has prospered in localities on the Western Slope.

This quail, like the next, has a black, forward-curving plume on the head. The male has a russet-brown crown, a white line over the eye and a black face and throat bordered by a white stripe. The back of the neck is black, speckled with small white dots and the back is an unmottled olive-brown. The upper breast is ashy gray. The lower breast and abdomen feathers are buffy-brown edged with black with the exception of a clear chestnut belly patch. The flanks are olive-brown like the back but are striped with white.

The female has a short plume but lacks the black and white head marking and the chestnut belly patch. Except for these features she is colored like her mate. Both have dusky colored bill and legs.



Fig. 18. California Quail,
male

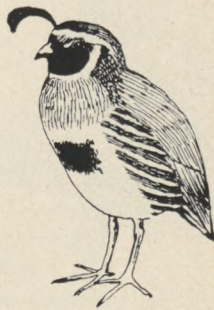


Fig. 19. Olathe Quail,
male

Olathe Quail

Lophortyx gambeli sanus Mearns

Up to 10 inches long.

The Olathe is a Colorado subspecies of Gambel's Quail and native to the southwestern portion of the state. It is very similar to the California Quail, having the same black head plume and general coloration (Fig. 19). The back of the neck of the male is a plain gray, the crown is more red-brown, and the lower breast and abdomen are clear light buff-brown with a central **black patch**. The flank patches are a brighter chestnut-brown but have the same white stripes as the California Quail.

The female differs from the preceding species in the brighter flank patches and the absence of the scale-like breast and belly marking. She does not have the central black patch of the male. Both sexes have black bills and dark-colored legs.

Order COLUMBIFORMES

Pigeons and Doves.

*Western White-winged Dove

Melopelia asiatica mearnsi Ridgway

11 to 12½ inches long.

The White-winged Dove (Fig. 20) is a bird of the southwestern United States and Mexico and has been recorded as a straggler in southern Colorado a few times.

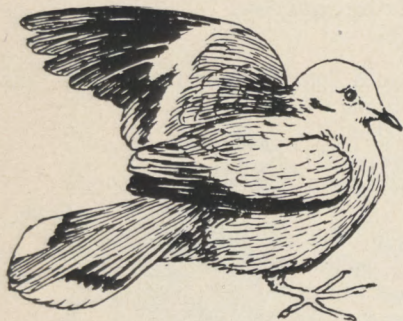


Fig. 20. Western White-winged Dove

This dove has a broad, rounded tail with white "corners". The overall color is brownish gray like the Mourning Dove but there is a conspicuous **white bar** on the outer surface of each wing which distinguishes this dove from all others.

Western Mourning Dove

Zenaidura macroura marginella (Woodhouse)

11 to 13 inches long.

This is the common dove of the west and is distinguished by its **long, tapering, pointed tail**, soft brown and gray plumage, persistent cooing, and swift, erratic flight.



Fig. 21. Western Mourning Dove

The Mourning Dove is common and abundant in the summer but often has migrated south by the time the hunting season arrives.

The upper parts (Fig. 21 and cover) are brownish-gray with black spots on the outer wing coverts. The forehead and lower parts are tan to reddish tan with a dark spot over the ear. There is an over-all soft iridescence to the plumage. The tail feathers, excepting the long central ones, are white-tipped with a dark spot separating the white from the gray basal portion.

None of the pigeons and doves are noted for the excellence of

their nests and the Mourning Dove is no exception. The nest is usually the frailest platform of twigs in a tree or on the ground, the eggs often visible through the bottom of the nest and the whole structure is so shallow and flimsy one wonders how either eggs or young are ever retained within it.

* Band-tailed Pigeon

Columba fasciata fasciata Say

13¼ to 15¾ inches long.

This large pigeon (Fig. 22) could hardly be mistaken for any bird other than the common pigeon of city and farmyard. It is an unmottled blue-gray above with an iridescent green patch on the nape of the neck bordered by a white bar above. The head and lower parts are tinged with purple, shading almost to white on the lower abdomen in some specimens. The tail is **square** and usually has a broad, light gray band across the outer end with an indistinct dark band separating it from the basal portion of the feathers. The plumage of the female tends to be more gray than that of the male and she may lack the white neck marking.

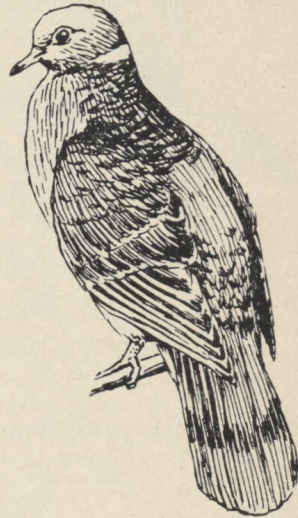


Fig. 22. Band-tailed Pigeon

The Band-tailed Pigeon is not a common summer bird in Colorado at the present time, nor is it showing immediate signs of increase. When it is in Colorado in the summer it is found in the foothills and up to about 9000 feet in the mountains. In the fall it migrates south to New Mexico and Arizona and into Mexico. Acorns and pine seeds are very important items of diet to the Band-tail but it feeds on most of the wild fruits; on the Pacific coast it is at times destructive to cultivated fruits and seeds.

Some books which give additional information on appearance and habits are:

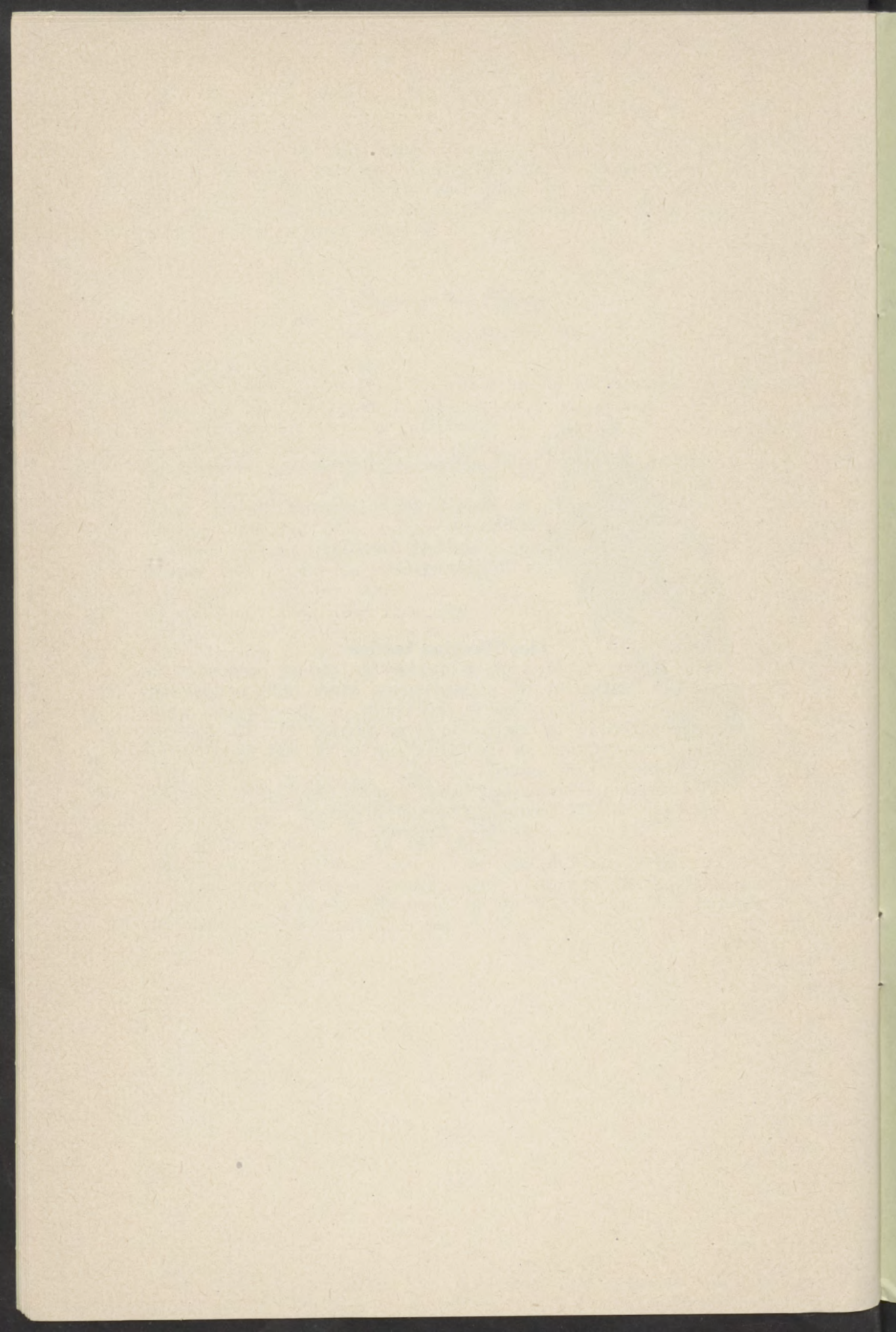
Peterson, Roger T., "A Field Guide to Western Birds,"
Houghton Mifflin Co.

Pearson, T. G., Editor, "Birds of America,"
Garden City Publishing Co.

Identification Service

The University Museum is anxious to receive specimens for identification, especially when they do not seem to fit satisfactorily into the keys and descriptions in this Guide, or those species whose names are marked in the description by an asterisk (*). 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
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