

**BIRDS
OF EASTERN
NORTH AMERICA**



**A COMPLETE ILLUSTRATED
POCKET GUIDE TO ALL SPECIES
BY CHESTER A. REED S.B.**

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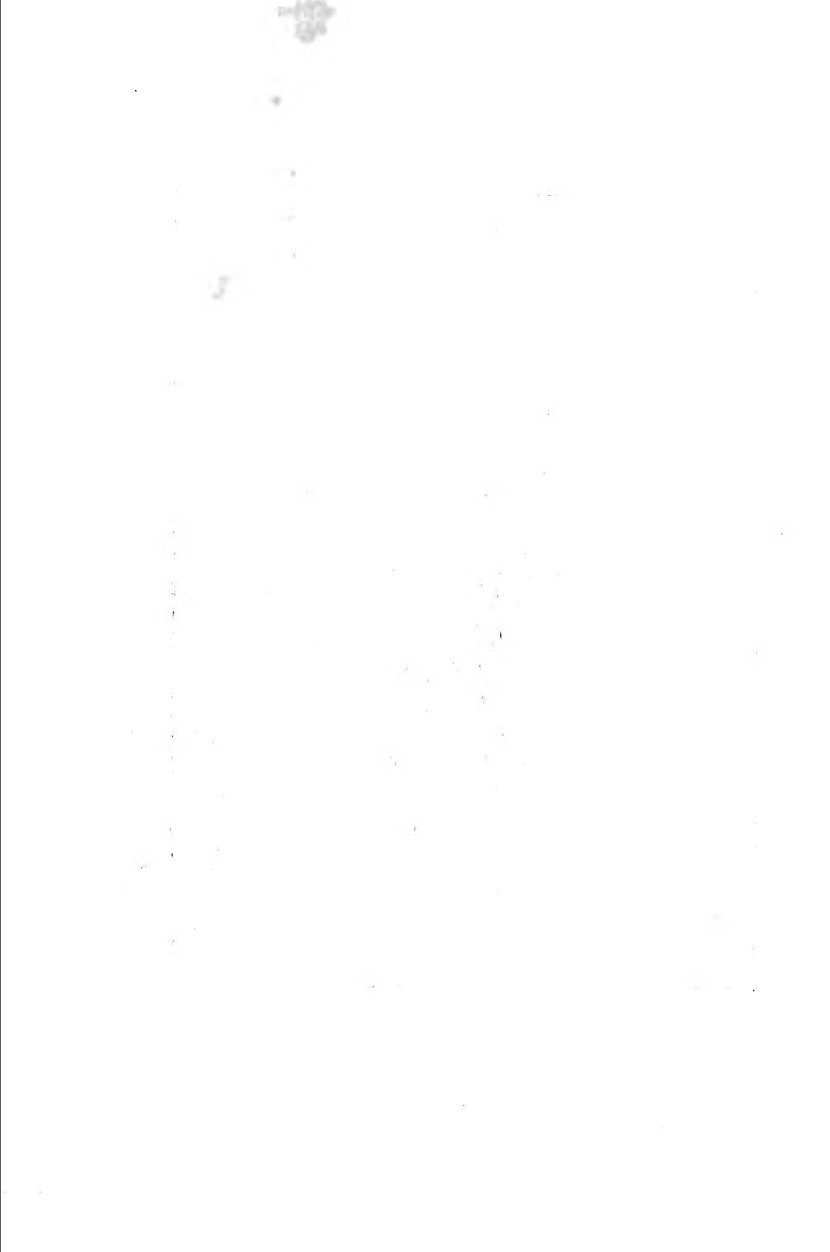




Photo from life

YOUNG BLUE JAYS

BIRDS

of Eastern North America

BY

CHESTER A. REED, S. B.

Author of "Bird Guide," "Flower Guide," "North American Birds'
Eggs," "Nature Studies in Field and Wood," "Camera
Studies of Wild Birds," etc.

WITH COLORED ILLUSTRATIONS OF EVERY SPECIES COMMON TO
THE UNITED STATES AND CANADA FROM THE ATLANTIC
COAST TO THE ROCKIES

GARDEN CITY NEW YORK
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1912

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CHAS. K. REED, Worcester, Mass.

PREFACE

This volume is in reality but an extension of, an enlargement upon and a combining of the "show me" properties of "Bird Guide — Land Birds" and "Bird Guide — Water Birds." The kind reception and enormous sale of these smaller books have fully justified my belief that a good, accurate illustration is worth pages of text for conveying an idea of the appearance of a bird or for identifying one seen in the field.

My schooling in this line was gained in the time when an occasional inaccurate woodcut served only to relieve the monotony of the solid pages of text. In those days the birds were "collected" and, with the specimen in hand, it required only time to discover what it was, from the pages of the old reliable "Coues' Key." Birds were more plentiful then and bird students comparatively few. Obviously such methods are impossible now when the birds are fewer and students numbered by the hundreds of thousands.

A good pair of bird glasses and a good book will enable the bird student now to see and identify hundreds of species, and that without harming the creatures in the least. In fact, several enthusiasts have written me that they became so familiar with the birds by means of pictures that upon visiting new localities and seeing new birds they were able to correctly name nearly all at first sight without referring to a book.

Bird study is not a fad. It is a recreation and a most useful one. Its importance is shown by the fact that it is one of the requirements of teachers in nearly all states. I have endeavored in this volume to incorporate that which will serve the most to the best advantage, omitting nothing that

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seems essential and adding nothing for the sake of "padding." The colored pictures are from water-color paintings made directly from perfectly plumaged specimens and, I believe, faithfully represent each species in a pose commonly assumed in life.

I sincerely hope that "Birds of Eastern North America" may give pleasure and profit to the reader, and that it may be the means of adding many new members to that great fraternal order known as "Friends of the Birds."

CHESTER A. REED.

Worcester, April, 1912.

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Colored pictures of nearly every species named in the Index.

Upper Tail Coverts

Rump

Primaries

Secondaries

Coverts, Greater

" Middle

" Lesser

Back

Nape

Crown

Median Line

Superciliary

Scapulars

Auriculars

Lores

Chin

Throat

Breast

Tertials

Abdomen

Belly

Tibia

Tarsus

Flanks

Sides

TOPOGRAPHY OF A BIRD

♂ = male

♀ = female

INTRODUCTION

ORNITHOLOGY.—The Science of or the Study of Birds is Ornithology, and the student is known as an Ornithologist. By this term, however, we mean not one who only is able to name or identify many species, but the student who knows as well the functions and characters that form the basis of the correct grouping of birds in their proper relation to one another. It is not necessary or even desirable that all bird students become expert ornithologists, for such a course often requires the destruction of bird life. Only those who aim to make ornithology their life work should undertake it, but every one should be conversant with some of the basic principles upon which depend the naming and placing of the different species.

WHAT IS A BIRD?—Birds belong to the class *Aves*, which is one of two groups making up the primary group of *Sauropsida*. The other members of this group are classed as *Reptilia*, and these two classes are linked together because the evidence all points to the presumption that birds are all descended from a reptilian ancestor. In slate formation in Bavaria have been found several fossil remains of a bird which has been named *Archaeopteryx lithographica* and which is very reptile-like in form and structure. Birds are warm-blooded, oviparous animals — that is, their young are hatched from eggs outside the bodies of their parents. They are unique in that they are the only animals possessing feathers. They always have four limbs, of which the fore pair are wings, usually capable of sustaining the creature in flight by means of attached feathers. Some animals and certain fish are also capable of flight, but are sustained by a skin or membrane stretched between the bony fingers.

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NAMING BIRDS.— Since birds have evolved from a reptilian state and are still in the very slow process of evolution to still higher forms, it follows that the natural and proper order in which our present birds should be arranged is from the lowest and most reptile-like form upward. Following such an arrangement our birds are grouped into orders commencing with the Grebes and ending with the Bluebirds. The birds comprising each order agree in certain structural features, even though they may often be quite unlike externally. A comparison of the members of an order shows that the one group can be divided into perhaps several smaller groups of birds which agree structurally in other less important respects. These second divisions are known as Families. For instance, the Order *Pygopodes*, which is composed of certain diving birds, contains Family *Colymbidæ* or Grebes, Family *Gaviidæ* or Loons, and Family *Alcidae*, Auks, Murres, and Puffins. These families may often advantageously be still further divided into Genera, and finally we come down to the individual Species.

When widely distributed, the same species of birds are subject to sometimes great and permanent differences in their plumages. Although widely separated birds sometimes show even greater differences in their plumage than between many other distinct species, the two races cannot be regarded as distinct since birds in the regions between the extremes intergrade gradually with one another; hence the one bird is called a subspecies of the other. In order to distinguish between the subspecies, the trinomial method of naming is used. This may be best illustrated by the following example.

Our common Song Sparrow is a very widely distributed bird; in fact, it is found throughout the United States and the greater part of Canada and Alaska. This bird is apparently very susceptible to climatic changes, for, while in the Eastern States we have but one race, in the West there are a great many subspecies, nineteen at the present time. As a rule, birds of northern climes are larger than the same kind in the South; also birds in regions of large rainfall are much darker colored than the same kind in hot, dry climates.

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Consequently we find that in the deserts of the Southwestern States the Song Sparrows are smaller than our common one and are very much paler colored. Again, in northwestern United States, we find that Song Sparrows are not only larger than ours but are very much darker.

In order that these differences may be properly recorded, our eastern bird, being the type race, is known as *Melospiza melodia melodia*, the first being the generic name, the second the specific name, and the third signifying that this is a type bird of which there are one or more subspecies. The absence of a third name signifies that a bird is a distinct species with no subspecies. The Desert Song Sparrow is *Melospiza melodia fallax*, the Sooty Song Sparrow, *Melospiza melodia rufina*, and so on. Thus our little Song Sparrow to be definitely described would be Class *Aves*, Order *Passeres* (Perching Birds), Family *Fringillidæ* (Finches, Sparrows, etc.), Genus *Melospiza* and Type *Melodia melodia*.

CHARACTERS OF BIRDS.— Birds have straight bills, crooked bills, or bills of unusual shape; webbed feet, lobed toes, or long, straight, slender toes; long wings, short wings, broad wings, or comparatively tiny wings; long tails, short tails, or sharp, spiny-pointed tails. Why these differences? We may safely assume that if a bird has a peculiarly shaped bill, unusual feet or wings out of the ordinary, there is a reason, and the unusual construction is better adapted to its manner of living in some respect even though we cannot see how.

The Crossbill has crooked mandibles that pass by one another when the bill is closed. His food consists of seeds from cones and the construction of his bill enables him to scale off the seeds more rapidly and more easily than if it were of ordinary shape. It would be unreasonable to presume that these birds were made with crossed bills and then had to seek out the food that could be best obtained with such bills, but, from the very nature of evolution, we can safely say that their ancestors, hundreds or thousands of generations ago, had normally shaped bills; that they secured pine seeds, liked them and adopted them as a staple diet, with the result that the continual twisting to scale seeds from the cones has

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brought their bills to the form in which we see them today.

Because a bird is flightless, like the Antarctic Penguins or the Great Auk that formerly lived off our coast, it must not be supposed that their ancestors could not fly. Probably they could, and it is only the long-continued disuse that has rendered them the flightless creatures they are in our day. We may even imagine the prehistoric Ostrich as a bird capable of flight. Few enemies and a life of ease on the ground would gradually decrease the size and power of the wings until flight was impossible. At this stage the appearance of an enemy in the shape of some predatory mammal would have caused the creature to take refuge by running, and after a great lapse of time produce the strong-legged, swift bird that we now know as the Ostrich. I mention these things just to bring to attention the fact that we must not suppose that birds do certain things because of unusual construction adapted to that purpose, for the unusual construction follows and is caused by the fact that the bird lives the life it does.

COLORATION.—Every bird has enemies, to escape which they have to be continually on guard. Very few of them live their full lives and die a natural death. Sick or crippled ones fall early victims to predatory birds and animals. Coloration plays quite an important part in the protection and perpetuation of each species. As a rule, female birds are less conspicuously marked than their mates, a wise provision, since they attract less attention at that important period during which they are sitting upon their nests.

With few exceptions, a notable one of which is the Bobolink, birds are darker on their backs than on the under parts, for the reason that such gradation of tone about balances the shadows caused by the overhead light and renders most of them quite invisible when against the proper background, whereas if they were uniformly colored they would stand out very distinctly.

Usually birds that spend the greater part of the time on the ground are dull-colored and streaked with brown and gray, as shown by the sparrows while those whose lives are mostly

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spent in trees may be any color. The latter have little need of protective colors, for the leaves screen them from above, and, viewed from below, even brightly colored birds like our Scarlet Tanager are less conspicuous than one would think, owing to the kaleidoscopic effect produced by the green leaves, the patches of blue sky and spots of yellow where the sun's rays filter through the openings.

Birds whose plumages are in harmony with their surroundings often trust to this fact for avoiding detection. The Green Heron and Bittern often allow a person to pass within a few feet of them as they stand statue-like beside a few rushes, many doubtless remaining unseen. Sparrows sit upon their eggs in little grass nests on the ground until there is danger of their being trod upon, before they take wing, and the Woodcock is so sure of the efficacy of her plumage as a protection that she will sometimes allow one to touch her.

MIGRATION OF BIRDS.— Twice each year most birds perform their wonderful migratory feats. It seems almost beyond belief that tiny birds can start from their home site here, travel several thousand miles across water and land to northern South America, spend several months there and then, with nothing but their memory and probably some landmarks to guide them, find their way back to the exact place from which they started. A person could not do it; in fact many would become hopelessly lost in a piece of woods a mile across. Birds have a keen sense of direction and, traveling at high elevations as they do, they are able to pick up familiar landmarks far ahead. Birds also have very acute hearing and keen sight, which qualifications enable young and less experienced birds to follow the correct course by sound and sight of the older ones. Doubtless you have noticed that migrating small birds are calling to one another every few minutes, probably for the very purpose of keeping in touch with the ones that do not know the way.

Migration, first performed to escape severe cold or because of lack of food, has become a fixed habit with those species that do regularly migrate. Many of them, long before it is

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necessary for them to go south, gather in flocks preparatory to the journey. Seed-eating birds generally travel only far enough south to make sure of a good supply of food to carry them through the winter, while insect-eating birds usually make quite extended journeys, although Chickadees, which live upon insects, do not migrate at all, but eke out a frugal fare of insect eggs and pupæ which they can gather from the bark of trees.

It is not difficult to see why birds should wish or might be obliged to migrate in fall, but why they should return in spring cannot be so easily demonstrated since they are already in a land of plenty as far as food is concerned. Birds that winter in our Southern States move northward with the rise in temperature, but rise in temperature cannot be the cause of the return of those species that leave our shores and continue to South America. Hudsonian Godwits, shore birds that nest along our Arctic coast, spend our winter months in Patagonia, where the temperature at the time is about the same as our Southern States. Furthermore, for a short time, they there associate on the pampas with other Godwits of the same species which are about to leave for their breeding grounds only a few hundred miles farther south. Why our birds should travel six or seven thousand miles between their summer and winter homes, when places equally as desirable and used by the same species are only as many hundred miles away, is a mystery that cannot be satisfactorily explained and can only be attributed to hereditary instinct.

VALUE OF BIRDS.—Living birds are pretty to look at and they are interesting to watch. The more acquainted one becomes with them the more interested one is in watching them. Our sea beaches would be quite desolate could we not see an occasional tern or gull gracefully winging his way over the water or a sandpiper running along the shore; our ponds and lakes would not be half so interesting if we could not hear the rattle of the kingfisher or see the great herons go slowly flapping away on their large wings; and imagine our orchards and shade trees without the warblers, wrens, robins,

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etc.; they would be lifeless indeed. If the presence and sight of our birds please a great many people they can be said to have a very large æsthetic value.

Certain species of birds, commonly known as Game Birds, have another value in that they are pursued by sportsmen for recreation and food. But by far the greatest value is an economic one. Birds are literally worth their weight in gold, and it behooves every one of us to see that they are kept alive and in good health as far as we are individually and collectively able. Yet it is only within a few years that birds have come into their own and been reckoned at their true worth as destroyers of injurious insects and consequently as saviors of our crops. Only a few years ago one of our large states was offering a bounty of 25 cents on each hawk and owl killed, while as a matter of fact the destruction of each one was costing the farmers in the neighborhood of \$40 per year caused by damage done by the mice and insects that each one of the birds of prey would have consumed in that time.

The temperature of the blood in birds is higher than in other animals and the circulation is double and very rapid. In order to supply fuel to maintain this temperature and rapid circulation birds eat a great deal and the digestion is very rapid. When food is abundant they eat more than necessary and become very fat; when it is scarce they have to cover much ground to find enough for their wants. Not more than 2 per cent. of our native birds are destructive to such a degree that the good they do does not more than make amends. Less than 10 per cent., while not injurious in any way, are of little or no account economically; the remainder, nearly 90 per cent. of all our birds, are very valuable. They are one of the most important balance springs of Nature, and their office is to check any undue increase in any species of insects. If a certain insect pest becomes superabundant, the birds that feed upon it congregate, gorge themselves, raise large families and return the following year in sufficient numbers to quell the outbreak. This check works perfectly upon native insects, but if a foreign one is brought to this

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country and multiplies rapidly it may become a scourge difficult to check because we have no birds accustomed to feeding upon that particular insect. Lest any one might suppose that the remedy for an imported pest to be imported birds, I will add that such remedies wherever tried have invariably proved worse than the disease. Our experience with English Sparrows should be sufficient to deter any experiments with any other species. Valuable birds in their native countries, they are the worst pest that we have to contend with here, for they destroy the balance of Nature by driving from the neighborhood of cities many useful birds, do absolutely no good themselves, and deface our buildings to the extent of millions of dollars' damage annually.

Seed-eating birds are just as important for holding in check the increase of noxious weeds, and even they are all insect eaters during that period during which they are feeding and caring for the young. Many birds, such as gulls, vultures, hawks, crows, etc., feed quite extensively upon refuse and are of considerable value as scavengers.

BIRDS OF EASTERN NORTH AMERICA

GREBES

(1) *Aechmóphorus occi-* *dentális*

(*Lawr.*) (Gr., spear bearing; Lat., western).

WESTERN GREBE; SWAN GREBE. *Ad. in summer* — Bill long and pointed, very slightly recurved, dusky with yellow edges. Iris red. Feet grayish. Top of head and line down the back of the neck, black; back dark gray, the feathers being edged with lighter; entire under parts glossy white. *In winter* — Top of head and back of neck gray like the back. L., 24.00–29.00; W., 8.00; Tar. and B., 3.00. *Eggs* — Three to five, stained bluish-white, 2.40 x 1.55.

Range — Breeds from N. Dak. and northern Cal. north to B. C. and Sask. Winters from B. C. to Mex. Casual east to Neb. and Wis.



ORDER PYGOPODES. DIVING BIRDS

The Pygopodes (Gr., rump, foot) are characterized by the fact that the legs enter the body at the extreme end, at or near the rump, a physical construction that gives them great powers of swimming and diving but makes them almost helpless when on land. With the exception of the Puffin, the birds of this Order sit upon the whole tarsus and foot as a base, either erect or partly reclining on their breasts. Their plumage is very thick and is completely waterproof.

FAMILY COLYMBIDÆ. GREBES

A family comprising about thirty species, six of which are found within our limits. They are all externally characterized by semipalmated feet, broad lobes or flaps on each toe and broad, flat nails. The wings are very short, small

GREBES

(2) *Cólymbus hólþælli*

(*Reinh.*) (Lat., a diving bird; to C Holþæll).



HOLBELL'S GREBE; RED-NECKED GREBE. Bill straight and pointed, black, shading to yellowish at the base. Iris red. *Ad. in summer*—Colored as shown; the silvery-gray cheeks are quite puffy owing to the density of the plumage and the slight lengthening of the feathers; crests short and black; lining of wings and axillars white. *In winter*—No crests; under parts entirely white, slightly tinted with grayish or pale rufous on the neck. L., 19.00; W., 7.60; Tar., 2.50; B., 2.20.

Range—Breeds in the interior from Minn. northward. Migrates south to Neb. and along the Atlantic coast to S. C.

and decidedly concavo-convex. The tail is very rudimentary, consisting only of downy feathers.

The habits of all our grebes are practically identical, except that Pied-billed Grebes, the species most commonly found in the east, are less gregarious than the others. All kinds are usually known by gunners as "Hell-divers" because of the quickness with which they can disappear under water. Of course, however, there is no truth in the common belief that they can dodge shot or dive at the flash of a gun. If one escapes the charge from a modern firearm it is either because of a poor aim or on account of the small portion of a grebe's body that appears above water when the creature is alarmed.

The large Western Grebe commonly swims with the body almost entirely submerged, the only visible portions being a slender head perched at right angles to a more slender neck. By the way, this is the species that furnished most of the "grebe breasts" of commerce until the traffic was wisely stopped, chiefly through the efforts of the Audubon Society.

GREBES

(3) *Colymbus auritus*

(Linn.) (Lat., eared).

HORNED GREBE. *Ad. in summer* — Colored as shown; black cheek feathers lengthened and puffy; crest from back of each eye, quite long and full. *In winter* — Grayish-black above, silvery-white below. L., 14.00; Ex., 24.00; W., 5.50; Tar., 1.75; B., .90. *Eggs* — Three to seven, soiled dull white, 1.70 x 1.20. *Nest* — A floating mass of decaying vegetation, generally attached to the living rushes in sloughs.

Range — Breeds from Me., northern Neb., Min., and B. C. northward. Winters from southern Me., Minn. and B. C. south to Fla., the Gulf coast and Cal.



Grebes very rarely fly unless forced to do so, except during migrations or to pass from one body of water to another. They are such amphibious creatures that it is quite difficult for them to leave the water; their small wings refuse to raise them until they have attained sufficient speed by pattering and running along the surface of the water for several yards. When once a-wing, a swift flight is maintained by very rapid wing beats. The finish of the flight is no more graceful than its beginning; they seem to be wholly unable to check their speed and plump down in the water like so many stones.

They are complete masters of their preferred element. A plunge of the head, a vigorous kick with the feet, and they disappear as though by magic. At other times they settle slowly backward until the bill goes beneath the surface without leaving a ripple. They easily remain under water for two or three minutes, during which time they can swim for considerable distances.

GREBES



(4) *Colymbus nigricollis californicus*

(*Brehm.*) (Lat., black-necked).

EARED GREBE. Bill pointed and slightly recurved. Iris red. *Ad. in summer* — Plumage as shown; long, conspicuous, tawny colored, auricular tufts. *Ad. in winter and Im.* — Blackish-gray above and satiny-white on the under parts; readily distinguished from the Horned Grebe by the differently shaped bill. L., 13.00; W., 5.00; B., 1.00. *Nest* — A heap of wet, decaying rushes floating among the living ones in sloughs. *Eggs* — Three to seven, dull white, 1.70 x 1.15.

Range — Western N. A. Breeds from southern Cal., and northern Neb. north to B. C. and Man. Winters from Cal. southward. Casual east to Mo. and Ind., during migrations.

Their food consists chiefly of small fish, which they pursue and catch under water. This diet is varied to some extent with frogs, tadpoles, water insects and shellfish. The Pied-billed species appears to live less exclusively upon fish than do the others; its flesh is, therefore, not quite as rank but it is a long ways from palatable.

The nesting habits of our grebes differ only in that the Pied-billed and Holboell's are more solitary in their habits. The Western, Eared and Horned Grebes usually nest in communities or colonies, which accounts for the ease with which they used to be shot during nesting time, for millinery purposes. The eggs are practically laid in water, the young are born in water, get their food from the water, often sleep on the water and practically live on the water all their lives.

The nest is formed of a mass of wet, decaying rushes; sometimes located on fairly stable hummocks, but more often floating about on the water, insecurely attached to

GREBES

(5) *Colymbus dominicus brachypterus*

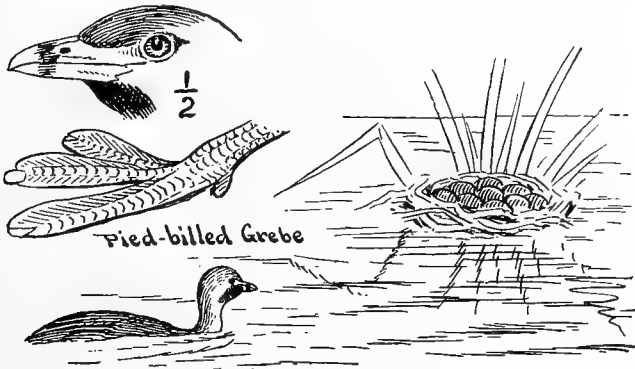
(Chapman) (Of St. Domingo).

LEAST GREBE; ST. DOMINGO GREBE. Bill very short, stout and pointed. Iris orange-red. *Ad. in summer* — Crown glossy, steel-blue; sides of head ashy-gray; throat black; rest of lower parts grayish-white; upper parts blackish. *In winter* — No black on throat; crown and sides of head duller colored. L., 9.50; W., 3.75; Tar., 1.25; B., .70. *Nest* — Of decaying rushes floating on the water. *Eggs* — Four to seven, chalky, greenish-white, so nest stained as to appear brownish; 1.40 x .95.

Range — Throughout Mexico and Central America. In the United States, only in the Rio Grande Valley, southern Texas.



some upright rushes so that the owner on her return may not find that her home has floated away. The top of this decaying mass is barely raised above the water; indeed, the eggs often lay partly in water. It has been said that when a



GREBES

(6) *Podilymbus podiceps*

(Linn.) (Lat., rump, foot).



PIED-BILLED GREBE; DAB-CHICK; DIPPER; HELL-DIVER. Bill short, stout, compressed and obtuse at the tip; in summer whitish with a black band around the middle. *Ad. in summer* — As shown; notice the black throat, the white eye-ring and the absence of white on the wings. *In winter* — Bill plain dusky; no eye-ring; throat white. *Juv.* — Like the winter adult but with more or less conspicuous striping on the head. L., 13.00; W., 5.10; Tar., 1.50; B., .85. *Eggs* — Four to six, dull, soiled white, 1.70 x .95.

Range — Breeds throughout the United States and southern Canada. Winters from Va., Miss. and Wash. southward.

grebe wishes to move, she sits on her nest sticks out one foot and paddles off to another location. While the truth of this is to be doubted, it is a fact that the nests are so insecurely attached to their supports that they are very commonly blown about at the mercies of the winds.

A full complement of eggs numbers from three to seven. These are naturally of a dull white or slightly bluish color, but continual contact with the wet mass upon which they repose soon discolors them, those of the Least Grebe turning to a deep saffron-brown shade. When a grebe leaves her nest, she usually covers the eggs with some of the wet rushes, either to conceal them from the gulls that often nest in the same localities and which are very fond of them, or that the steaming action of the sun on the wet mass may assist in their incubation.

Grebes are nidifugous; their young come from the eggs covered with down, and the little ones leave the nest almost immediately, swimming about after their mothers.

LOONS

(7) *Gavia immer*

(*Brün.*) (*Ital.*, gull; *Swedish*, goose).

LOON; GREAT NORTHERN DIVER. *Ad. in summer* — Bill, long, stout, pointed, black. Iris red. Plumage beautifully patterned as shown. *In winter and Im.* — Bill grayish. Iris brown. Upper parts brownish-black, with gray edging of the feathers on the back; below white; cheeks more or less mottled. L., 31.00-36.00; Ex., 52.00; W., 14.00; Tar., 3.40; B., 2.90. *Nest* — A depression near the water's edge. Two olive-brown eggs, sparingly spotted with black, 3.50 x 2.20.

Range — Breeds from Mass., N. Y., northern Ohio and northern Cal., northward; winters from southern N. E., the Great Lakes and B. C. south to the Gulf coast.



FAMILY GAVIIDÆ. LOONS

Five species of loons compose the Gaviidæ; all five of these are found in North America and three within the territory included by this book. Loons are large, powerful birds; in fact the smallest of the loons is larger than the largest of the grebes. A still greater external difference between the two families is seen, however, in the shapes of the feet. Loon feet are fully webbed, while the toes of grebes have lobes.

Loons have a perfect form for diving and for swimming, either on the surface or below it. The heavy pointed bill cleaves the water like a knife, and the long tapering body offers but little more resistance to a forward motion. The tarsus is narrow and deep, giving great power to the thrust of the legs and allowing them to come to a forward position again with very little effort. The feet are large and the webs broad.

Grebes are skulkers; they have poor weapons either for

LOONS

(9) *Gavia arctica*

(Linn.) (Lat. Arctic).

BLACK-THROATED LOON.

Ad. in summer — Bill black. Iris red. Plumage as shown; the gray crown and smaller size easily distinguish it from the common Loon, and the other markings are quite different too. *In winter* — Blackish above and white below. L., 28.00; W., 12.00; Tar., 2.60; B., 2.00. *Nest* — A depression in the ground within a few feet of the water. *Eggs* — Two, grayish-brown with a few black markings, 3.10 x 2.00.

Range — More northerly distributed than the common Loon. Rarely seen in the United States. Breeds along the Arctic coast. Winters casually south to northern United States.



defence or offence; consequently they prefer rush-grown sloughs, ponds or mud holes, where they can easily hide. Loons are very powerful, fully able to cope with any enemy except man. They like large open bodies of water where they may have plenty of room for enjoyment.

Like grebes, they are almost helpless as far as traveling on land is concerned. Nor can they take flight from the water without considerable space ahead for gaining speed by pattering along the surface with their feet. Their flight is very swift and straight when they do get into the air. When two or more males are on the same lake, especially in spring, they often indulge in friendly speed contests, each trying to outdo the other in running over the water.

The cry of the loon is one of the most weird sounds in nature — a very loud, mournful wail ending in a quavering laugh. It is comparable only to the distant howl of a wolf or the scream of the Great Horned Owl.

During June, two elongated, dark olive-brown, black-

PUFFINS

(11) *Gavia stellata*

(*Pont.*) (Lat., starred or spotted).

RED-THROATED LOON. Bill more slender than that of other loons; slightly concave at the nostrils, giving it a slight up-turned appearance. Plumage as illustrated. Notice that the back of the adult has no white markings while that of the winter adult and immature bird is spotted with white, being just the reverse in this respect from the common Loon. L., 25 00; W., 11.00; Tar., 2.75; B., 2.00. *Nest* — On the ground close by water. *Eggs* — Olive-brown, spotted with black, 3.00 x 1.75.

Range — Breeds from N. B., Que. and Mackenzie, northward. Winters from Me., the Great Lakes and B. C. south to the Gulf.



spotted eggs are laid in a shallow depression, usually under the shelter of some overhanging bush, close to the water's edge, so the owner may slide off to safety should danger approach. The young are covered with a soft brown down and leave the nest as soon as hatched.

In winter loons frequent the larger rivers and the sea-coast. Great numbers of them pass the season in Chesapeake Bay. You can readily distinguish between the Common and the Red-throated species by the smaller size and white-spotted back of the latter. The Black-throated Loon, which is similar to the Common in winter, but smaller, rarely comes as far south as the United States

FAMILY ALCIDÆ. AUKS MURRES PUFFINS

This family contains about thirty species, all strictly maritime. Most of them are found in North America, but chiefly on the Pacific coast. They all agree in having but three

PUFFINS



(13) *Fratércula ártica ártica*

(Linn.) (Lat. to swell up; Arctic).

PUFFIN; SEA PARROT. Bill thin and very deep. *Ad. in summer*—Plumage as shown. *Ad. in winter and Im.*—Bill smaller and less brightly colored; face blackish; feet orange. L., 13.00; W., 6.00; Tar., 1.00; B., 1.85. *Nest*—A burrow in the ground or among crevices of rocks. The single white eggs measure 2.50 x 1.75.

Range—Breeds along the coast from Me. to Ungava. Winters south to Mass.

(13a) *F. a. naúmanni*

(Norton).

LARGE-BILLED PUFFIN. Slightly larger than the common Puffin. L., 14.50; W., 7.25; B., 2.40.

Range—Coasts and islands of the Arctic Ocean.

toes, fully webbed, the hind toe being absent. The young are covered with down, but remain in the nest for some time before leaving.

PUFFINS are very grotesque birds, the most noticeable feature, of course, being the exceedingly large, brightly colored bills. Fishermen usually speak of them as Sea Parrots, because of the size of the bills and also because their walk reminds one of a parrot. Puffins are the only members of this family that stand erect upon the soles of their feet, and also the only ones that can walk with ease.

They are usually quite silent, but utter deep grunts when their homes are invaded. It is a very dangerous operation to attempt to remove by hand a sitting Puffin from its burrow; they can and will bite very severely.

As would be expected of a bird belonging to this Order, Puffins are fine swimmers, very buoyant and sit high in the water. They also fly well and find no difficulty in rising either from land or water.

GUILLEMOTS

(27) *Cépphus grýlle*

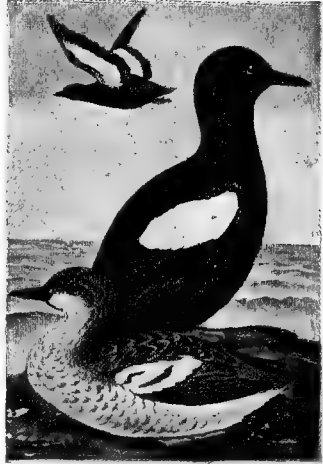
(Linn.) (Gr., a seabird; Swedish name for this bird).

BLACK GUILLEMOT; SEA PIGEON. *Ad. in summer* — Sooty-black, with slight greenish gloss; bases of greater wing coverts black. Feet and inside of mouth red. *In winter* — White below; back more or less gray and white. L., 13.00; W., 6.20; Tar., 1.25; B., 1.20. *Nest* — In crevices along rocky cliffs or shores. Two or three white eggs, handsomely blotched with dark brown; 2.40 x 1.50.

Range — Breeds from Me. to Ungava. Winters south to Cape Cod.

(28) *Cepphus mándti* (Mandt.)

MANDT'S GUILLEMOT. Like the Black Guillemot, but the greater coverts are white to their bases. Coasts and Islands of the Arctic.



BLACK GUILLEMOTS are quite abundant about some of the Maine islands and more so as we go farther north. Their two or three handsomely spotted eggs are laid in fissures of sea-cliffs or crevices between rocks along the shores. They nest in colonies; if disturbed they float off-shore a couple hundred yards, uttering very shrill whistles of protest. The interiors of their mouths are bright red, matching the colors of their legs. Their flight is strong and swift. Incoming birds often have long, reddish worms swinging from their bills; these are gathered from the kelp-covered rocks, and are destined for the little guillemots.

MURRES.— Bird Rock, at the mouth of the St. Lawrence River, stands as the southern breeding limit of several species of sea-birds, one of which is the Murre. The two species, the Common Murre and Brunnich's, appear to be of about equal abundance. The bills of the latter are shorter, thicker and deeper, and the tops and backs of the heads are darker. Some individuals of the Common Murre have white

MURRES



(30) *Úria troille troille*

(Linn.) (Gr., a diving bird).

MURRE; FOOLISH GUILLEMOT. *Ad. in summer* — Head and neck all around, sooty brown as shown. *In winter* — The back of the head is blackish, while the cheeks and throat are white. L., 16.00; W., 8.00 Tar., 1.40; B., 1.75, depth at nostril .50.

Range — Breeds on rocky coasts from Newfoundland to Ungava and Greenland. Winters south to Me.

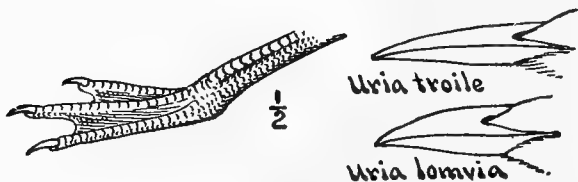
(3) *Uria lomvia lomvia*

(Linn.)

BRUNNICH'S MURRE. Like the Murre, but bill short and stout, 1.25 x .50; back of head darker than the throat, in summer. Winters south to Mass. and casually to S. Car. and in the interior.

rings about the eyes and a line back of it; this irrespective of sex.

Long rows of them line the available ledges of the nesting cliff, each sitting upright and each covering a single, large pear-shaped egg. By the way, Murre eggs present a greater diversity of coloration than those of any other species of bird with which I am familiar; the ground color ranges from a dull white to a deep sea-green, and the black markings are scrawled and spotted on in endless patterns. The eggs are



(32) *Álca tórda*

(Linn.) (Icelandic auk).

RAZOR-BILLED AUK; TINKER.

Ad. in summer — White line from eye to bill; brownish-black throat and cheeks. *In winter* — Without this white line and with white throat and cheeks. Bill thin and quite deep, crossed by a white band. L., 16.50; W., 7.75; Tar., 1.25; B., 1.30. *Nest* — A single creamy or grayish-white egg, laid on ledges of sea-cliffs; not as pointed as those of Murres and spotted with various shades of brown; 3.10 x 2.00.

Range — North Atlantic, breeding on rocky coasts and islands from New Brunswick north to Ungava and Greenland. Winters south regularly to Long Island and casually to N. Car.



laid on the bare rocks, and it is only the fact that they revolve so easily about the small end that more of them do not roll off when the birds move. The birds are very tame, or perhaps stupid, as the name "Foolish Guillemot" given them by fishermen would indicate. Their notes are deep, bass "murrees."

RAZOR-BILLED AUKS nest in the same places and often side by side with Murres. Their eggs are a little less pyriform and are always grayish-white in color, The young remain on the ledges until they are capable of flight and then flutter down, or are carried down to the water by their parents.

Razor-bills swim rather high in the water, with the tail held almost upright. They dive easily and pursue and catch fish under water, propelling themselves by their wings as well as the feet. They also eat shellfish.

Both Murres and Razor-bills spend the winter off the coast regularly as far south as Massachusetts. Occasionally they

AUKS

(33) *Plautus impennis*

(Linn.) (Lat., flat-footed; wingless).



GREAT AUK; GAREFOWL. A very large, stout-bodied, short-winged flightless auk. Plumage entirely black and white. Bill thin and deep, shaped like that of the Razor-bill, but crossed with several lines of white. L., 30.00; W., 6.00; Tar., 1.70; B., 3.15. *Nest* — Eggs laid singly on low, rocky islands or shores; rather pyriform, grayish-white, spotted and lined with brownish-black, 5.00 x 3.00. About 70 of these eggs are in various museums, the Thayer Museum, Lancaster, Mass., probably having the finest series.

Range — Formerly the coast from Virginia to Labrador; now extinct.

are blown farther south by severe storms or even may be carried inland for considerable distances. In these latter instances they are usually found dead or exhausted on the ground, or frozen in the ice ponds; they are practically helpless, and cannot take flight except from water or from an elevation from which to hurl themselves.

The GREAT AUK is one of several birds that have become extinct during the present generation. Its extinction was caused by man, a fact easy of accomplishment because of the communistic habits of the birds and their helplessness when on land. They enjoyed the unenviable distinction of being the only flightless birds in the northern hemisphere. Although the largest of the auks, their wings were as small as those of the smallest — admirably adapted to assist these remarkable swimmers through the water, but useless in the air.

Although one of the largest and most southern breeding grounds was Funk Island, off the coast of Newfoundland,

DOVEKIES

(34) *Álle álle*

(Linn.) (Swedish).

DOVEKIE; SEA-DOVE. Bill small, black, dovelike. *Ad. in summer* — Plumage as shown, throat dark brown, secondaries tipped and scapulars streaked with white. *In winter* — The throat is white, extending around the sides of the neck and sometimes meeting on the nape. L., 8.50; W., 5.00; Tar., .80; B., .50. *Nest* — Single, pale bluish eggs laid on bare ledges of inaccessible sea-cliffs; 1.75 x 1.20.

Range — Breeds on rocky coasts and islands in the North Atlantic, within the Arctic Circle. Winters regularly south to Long Island and casually to N. Car. Accidental in Wis., Mich. and Ont.



they regularly migrated, by swimming, as far south as Massachusetts, and occasionally to Virginia. Vessels journeying between the two continents stopped at the breeding islands to lay in supplies of fresh meat, eggs and oil, a practice that continued and was carried on in a wasteful manner until the last Auk was gone.

DOVEKIES are the tiniest of the auks — plump little birds called Sea-doves by fisherman, because their bills resemble those of doves. They nest in high latitudes on ledges of inaccessible sea-cliffs. They are very awkward when on land, but not as much so as the larger members of the family. Their flight is swift and performed by very rapid wing-beats.

In winter they are regularly found off the coast as far south as Long Island. In their haste to elude approaching steamers they are often unable to get a-wing and, after pattering along the surface for a few yards, are forced to take refuge by diving.

SKUAS

(35) *Megaléstris skúa*

(Brünn.) (Gr., great robber).



SKUA; ROBBER-GULL. *Ad.*— Entire upper parts, blackish-brown; bases of primaries and shafts of wing and tail feathers, white; under parts a trifle paler and streaked with whitish on the throat. Iris brown. Bill large and strongly hooked. Feet strong, webbed and with talons like those of birds of prey. L., 22.00; W., 16.00; Tar., 2.60; B., 2.10. *Nest*— A cavity in grass or moss on the tops of sea-cliffs. The two eggs are olive-green or drab, spotted with olive-brown, 2.90 x 1.75.

Range— Breeds from Iceland and the Shetland Islands, northward, and occasionally in Greenland and Labrador. Rarely in winter, south to Long Island.

ORDER LONGIPENNES. LONG-WINGED SWIMMERS

Birds of this Order agree in having long wings, nostrils lateral and open, tail fairly long and of twelve feathers.

FAMILY STERCORARIIDÆ. SKUAS AND JAEGERES

A small family of sea-birds having piratical desires that they can readily accomplish, as they are armed with sharp, hooked beaks and hawklike talons. Bill with a horny cere covering the base and nostril. Feet webbed.

The GREAT SKUA is one of the largest and very strongest of the sea-birds. They are not uncommon in northern Scotland and Iceland, but are rarely observed in this country. They have been taken but a few times on the Massachusetts and Long Island coasts in winter. They are protected and encouraged to breed in the Shetland Islands, as the herders believe they drive destructive eagles away from their flocks.

JAEGERS

(36) *Stercorarius pomarinus*

(*Temm.*) (Lat., scavenger; Gr., flap, nose — alluding to the cere).

POMARINE JAEGER. Iris brown. Bill black, sharply hooked; cere blue-gray. Middle tail feathers broad and rounded, projecting one to four in. beyond the rest, with the tips slightly twisted. *Dark phase* — Blackish-brown, lighter below; quills and bases of primaries white. *Light phase* — Dark above; crown black; nape yellowish; whitish below. L., 22.00; W., 13.50; Tar., 2.00; T., 8.00 (*ad.*); B., 1.60. *Nest* — On the ground. Two or three olive-drab eggs, spotted with umber, 2.25 x 1.70.

Range — Breeds within the Arctic Circle. Migrates along the Atlantic coast and through the Great Lakes.



JAEGERS, three species of which are common along our coasts, are of lighter build and more active than skuas. Their food consists largely of dead fish and refuse gathered from the surface of the water or purloined from gulls or terns.

Gulls, themselves powerful birds, have a wholesome respect for the sharp beaks and talons of jaegers and readily relinquish claim to any booty that the latter desire. They congregate about fishing boats in company with gulls or shearwaters, feeding upon refuse that is thrown to them. They often utter piercing whistles as they wheel about a hawklike flight, their sharp eyes keeping a sharp lookout for anything edible.

On several occasions I have seen the three species of jaegers about a boat at the same time. They usually approach sufficiently near to be correctly identified — the Pomarine by its larger size and rounded, lengthened central tail feathers; the Parasitic and Long-tailed species by the comparative lengths of the longer pointed middle tail

JAEGERS



(37) *Stercorarius parasiticus*

(Linn.) (Lat., parasitic).

PARASITIC JAEGER; JIDDY-HAWK. Has a dark phase. The light plumage is like that of the Long-tailed Jaeger shown. Scaly shield, or cere, more than half the length of the bill. Middle tail feathers pointed, about three in. longer than the rest. L., 17.00; W., 13.00; T., 8.50; B., 1.15.

(38) *Stercorarius longicaudus*

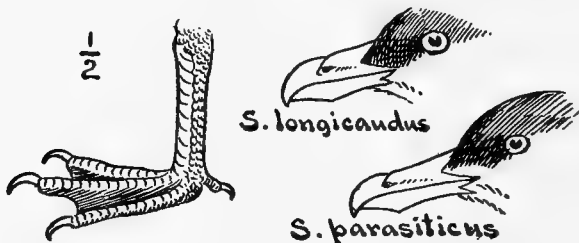
(Vieill.) (Lat., long-tailed)

LONG-TAILED JAEGER. Scaly shield less than half the length of the bill. Middle tail feathers lengthened about seven in. L., 21.00; W., 12.50; T., 12.00 (ad.); B., 1.10.

Range — Breeds within the Arctic Circle. Winters along the coasts from N. E. and B. C., southward.

feathers. Young birds of the two latter species can only be recognized by the differences in the make-up of their bills, as shown here. Their feet are peculiar in that the tarsi are lead-blue in color, while the toes and webs are black.

They appear off our coast regularly during July or August, many staying through the winter as far north as Long Island, while others migrate as far south as Cape Horn. During migrations they also visit the Great Lakes. Their summer



GULLS

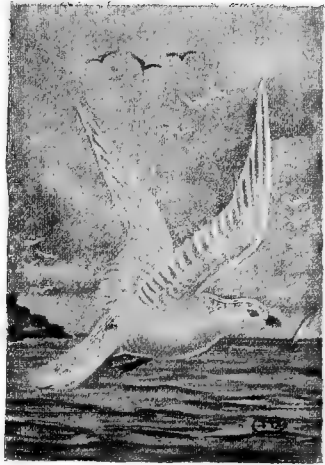
(39) *Pagóphila álba*

(*Gunn.*) (Gr., ice-loving; Lat., white).

IVORY GULL; SNOW GULL.

Ad. — Plumage entirely pure white; shafts of primaries straw color. Bill yellow. Feet black. Iris brown.
Im. — Upper parts spotted with gray; tips of primaries and tail feathers with dusky spots. Plumage otherwise like that of the adults.
L., 17.50; W., 13.25; T., 5.50; Tar., 1.45; B., 1.40. *Nest* — Of grasses, seaweed and feathers; on ledges of sea-cliffs or on low ground; three grayish-buff eggs, spotted with brown and black, 2.30 x 1.70.

Range — Arctic seas, breeding from Melville Island and Baffin Land to northern Greenland. Winters casually south to Long Island, Ontario, and B. C.



home is within the Arctic Circle, where they nest on the ground in the moss-covered tundras.

FAMILY LARIDÆ. GULLS AND TERNS

The sub-family LARINÆ, Gulls, is a large group of chiefly maritime swimmers, whose plumage is largely white. The bills of most species are large and slightly hooked, usually yellow in adults. The tails are usually square-ended.

Gulls are fine swimmers, but do not dive; they get their food from the surface of the water or from the ground. Nearly all are, to a certain extent, carnivorous, for they devour the eggs and young of other smaller sea-birds. Their flight is strong and graceful, but not fast, the head and bill normally being carried in horizontal positions. The plumages of the adults, year olds and young vary greatly. The character of markings on the outer primaries is fairly stable and often serves to distinguish species. The colored

GULLS

(40) *Rissa tridactyla*

(Linn.) (Icelandic name, rissa; Gr., three-toed).



KITTIWAKE. Hind toe appearing only as a minute knob. *Ad. in summer* — Plumage as shown here; primaries shown in sketch below. Bill light yellow. Feet blackish. Iris yellow. *In winter* — Similar but with pearl-gray on top of head and nape, and a small black crescent in front of the eye. *Im.* — Like the winter adult, but with a black spot behind the eye; lesser wing coverts and terminal tail band, black. L., 17.00; W., 12.25; Ex., 36.00; T., 4.50; B., 1.30.

Range — Breeds abundantly on sea-cliffs from the Magdalen Islands, northward. Winters south to N. J. and the Great Lakes.

pictures and drawings of primaries will serve better than words to show the characters of the different species.

IVORY GULLS are birds of high latitude, rarely seen within the borders of the United States. It is our only gull having an entirely white plumage. The yellowish shafts to the feathers give this bird its name. Otherwise it looks very similar to a large white dove, of course with the exceptions of the bill and feet.

KITTIWAKES are also Arctic birds, but not so exclusively so as the last species. They are very abundant at their breeding places, the most southerly one on our coast being Bird Rock, in the Gulf of St. Lawrence. Their nests are quite bulkily constructed of seaweed and moss, placed closely together on narrow ledges of rocky cliffs. They are very noisy, uttering harsh "keet-a-wakes," hence their name.

Great numbers of Kittiwakes pass the winter off the New England coast and in Long Island Sound. They can

GULLS

(42) *Lárus hyperbóreus* Gunn.

(Lat., a gull; Lat., northern).

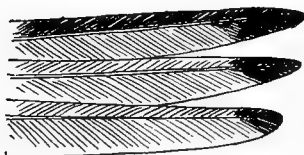
GLAUCOUS GULL; BURGO-MASTER. *Ad. in summer* — White, with a very pale pearl mantle. Bill yellow, with spot of red in angle of lower mandible. Iris yellow. Feet flesh-color. *In winter* — With a wash of brownish on the head. *Im.* — Bill flesh-color, with a black tip. Plumage white, lightly spotted and barred with pale brown. L., 30.00; Ex., 60.00; W., 17.50; T., 8.00; Tar., 2.60; B., 2.35. *Nest* — A bulky structure of grass, seaweed and moss on the ground. Two or three brownish-gray eggs with black and brown markings, 3.00 x 2.20.

Range — Breeds from Ungava, Mackenzie and the Aleutian Islands northward. Winters south to Long Island and the Great Lakes.

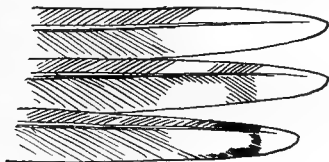


readily be recognized by the solid black tips to the primaries and by the combination of a yellow bill with black feet. They live upon animal matter found floating on the water or upon small fish, schools of which often swim close to the surface.

GLAUCOUS GULLS are among the largest and most powerful of the family. Their bills are large and quite hooked, capable of and executing great destruction of eggs and young of other sea-birds. They are lighter colored than any others of the large gulls; even the primaries are



R. tridactyla



L. kumlieni

GULLS



(43) *Larus leucópterus* *Faber*

(Gr., white wing).

ICELAND GULL. The precise counterpart of the Glaucous Gull in all plumages, but smaller. L., 24.00; W., 17.00; Tar., 2.15; B., 2.00.

Range — Arctic regions. South in winter to Long Island; casual on the Great Lakes.

(45) *Larus kúmlieni* *Brewster*

(To Ludwig Kumlien).

KUMLIEN'S GULL; GRAY-WINGED GULL. Plumage similar to that of the Glaucous Gull, but the primaries have well-defined ashy markings as shown below. L., 24.00; W., 17.00; B., 1.75.

Range — North Atlantic coast, breeding along Cumberland Sound and wintering south to Long Island.

a uniform, pale pearl color. Young birds are very beautifully marked with bars and streaks of pale brown.

A "small edition" of the Glaucous Gull is found in ICELAND GULLS. The plumages of the two species are apparently just the same, the difference being only in the dimensions. Iceland Gulls appear to be rather uncommon on this side of the Atlantic, being more abundant in Europe.

KUMLIEN'S GULLS are of about the same size as Glaucous and the mantle is only a trifle darker. The primaries, however, are conspicuously patterned with ashy-gray.

GREAT BLACK-BACKED GULLS are exceeded in size and strength by none of the Family. They are more solitary in their habits than other gulls, more than a few pairs rarely being seen together either during nesting or migrations. Indeed, in winter, one is more apt to see one or two of this species in company with Herring Gulls.

These gulls are very voracious and destructive. They

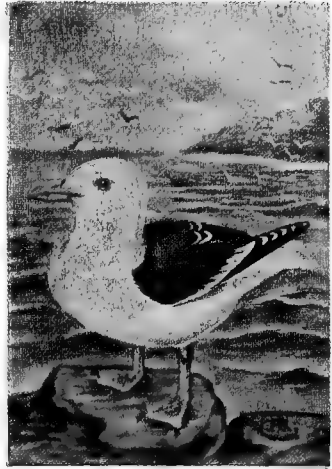
GULLS

(47) *Larus marinus* Linn.

(Lat., marine).

GREAT BLACK-BACKED GULL; SADDLE-BACK. Very large and very powerful. Bill stout and deep at the angle. *Ad. in summer* — Mantle very dark as shown. Iris and bill yellow. Feet flesh-color. *In winter* — The same but with gray streaks on the head. *Im.* — Very variable. Head and nape streaked; back and wings brownish, with buffy spots; under parts grayish, more or less streaked or barred with dusky. L., 30.00; Ex., 65.00; W., 19.00; T., 8.00; Tar., 3.00; B., 2.50. *Eggs* — Two or three, clay-colored, evenly spotted with brownish-black, 3.00 x 2.15.

Range — Breeds from Nova Scotia to central Greenland. Winters south to the Great Lakes, and Long Island.



share with Glaucous Gulls the name of "Burgomasters." They not only eat fish, dead or alive, and refuse matter found floating or beached, but force other gulls to relinquish their "finds"; during the summer, they also devour many eggs and young of smaller gulls and shore birds.

Most abundant of all species along our shores are **HERRING GULLS**. Large breeding colonies occur on islands off the Maine coast and northward, and on many lakes along our northern border and in Canada. When one goes into one of these colonies the noise is deafening, sounding to me most like so many hens each cackling her loudest. The eggs are laid in hollows on the ground, everywhere — sometimes under the shelter of rocks or fallen trees, but, of necessity, most often in the open. The downy little gulls leave the nest soon after hatching and run about everywhere. In fact, those a week old can run so fast that it is quite difficult to catch them; if hard pressed and near the shore, they will plunge into the water and swim out of reach.

GULLS



(50) SIBERIAN GULL (*Larus affinis*), strays to Greenland

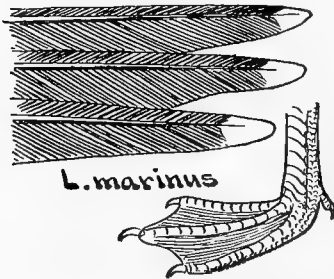
(51) *Larus argentatus* Pont.
(Lat., silvery).

HERRING GULL. *Ad. in summer*

— Plumage and primaries as shown. In winter the head and neck are streaked with gray. *Im.* — Very variable. Head, neck and under parts more or less streaked and mottled; back and wings brownish, with lighter edging of the feathers; primaries and tail blackish. L., 24.00; Ex., 55.00; W., 17.50; B., 2.40. *Nest* — Of moss and grass, on the ground; three olive-gray eggs, spotted with blackish, 2.80 x 1.75.

Range — Breeds from Me., Wis., and B. C., northward. Winters from Me., the Great Lakes and B. C., southward.

From September until May gulls may be seen in numbers all along our coast and on open rivers and lakes. A flock of gulls coursing over a lake, sweeping about docks in harbors or following in the wake of vessels is a beautiful and inspiring sight; but they are useful as well as ornamental. They perform for the surface of the waters the same services that are rendered on land by vultures and under water by various species of crabs, those of scavengers. Thus their



GULLS

(54) *Larus delawarensis* Ord.

RING-BILLED GULL. *Ad. in summer* — As shown. In winter the head and neck are spotted with grayish. *Im.* — Above, mottled with brown and pearl-gray; coverts and primaries dusky; head, neck and under parts mottled gray and white; tail with a broad subterminal band of black, tipped with white. L., 19.00; Ex., 48.00; W., 14.50; Tar., 2.10; B., 1.70. *Nest* — A hollow on the ground, usually lined with grass; the two or three eggs are brownish-gray, boldly spotted with black, 2.80 x 1.75.

Range — Breeds from Quebec, Wis., and Ore., north to Ungava and B. C., Winters from Mass., and the Great Lakes southward.

(56) MEW GULL (*Larus canus*) has been taken at least once in Labrador.



protection from destruction is a matter not of sentiment alone but of economic importance.

RING-BILLED GULLS probably breed more abundantly than any other species in the interior of North America from North Dakota to Manitoba. They also are found and nest, but in diminishing numbers to the seacoasts, both eastern and western. Their habits vary according to their environments. In Labrador, they nest on rocky ledges and feed largely upon fish and refuse, while in North Dakota they nest on the ground on small islands in lakes and feed quite extensively upon grasshoppers. Like other gulls, they also rob terns, cormorants or smaller birds of their eggs.

Great numbers of them pass the winter along the coast south of Massachusetts and about rivers and lakes in the interior. They are quite similar to, and often confused with, Herring Gulls; it requires a very sharp eye to distinguish the difference in size unless the two species are seen together.

LAUGHING GULLS are unique in that they are the

GULLS

(58) *Larus atricilla* Linn.

(Lat., black-tailed — applicable only to young birds).



LAUGHING GULL; BLACK-HEADED GULL. *Ad.* in summer as shown. Primaries black; mantle darker than that of other black-headed gulls. Iris brown. Bill and feet wholly red. In winter the head and neck are white, more or less spotted or streaked with grayish. *Im.* — More or less spotted and barred with ashy-gray; tail with a broad black tip. L., 16.50; W., 13.00; T., 5.00; B., 1.75. *Nest* — Of grass, on the ground, usually in marshes; three or four olive-gray eggs, spotted with blackish, 2.10 x 1.55.

Range — Breeds along the coast from Mass. south to Fla. and Texas.

only species that, during summer, has a southerly distribution in eastern United States. While most species breed only from our northern border, northward, this one nests wholly south of the Canadian border, its most northern point being in Maine, in which state a very small colony has located.

On Muskeget Island, off the south shore of Massachusetts, a very large colony of Laughing Gulls is to be found in summer in company with terns. They are very noisy when one approaches the vicinity of their homes, their protestations quite resembling hysterical laughter, although possibly not more so than the notes of other species under similar circumstances.

This species may readily be distinguished from other black-headed gulls by its larger size, its larger, all red bill, the darker mantle and the solid black primaries. In fall and winter all gulls are much more difficult to identify than when in breeding plumage. Young birds and birds of the first and second year show such a great diversity of coloring,

GULLS

(59) *Larus franklini* Rich.

(To Sir John Franklin).

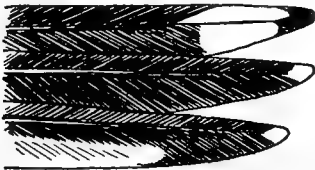
FRANKLIN'S GULL. *Ad. in summer* — Bill and feet red, the former with a black tip. Primaries largely white, as shown in pen sketch. The white under parts usually suffused with a rosy tint. In winter the hood is wanting, being indicated by only a few gray feathers on the auriculars and nape; bill dusky, tipped with yellowish. *Im.* — Mottled with brown, gray and white in varying amounts according to age; tail with a broad black subterminal band. L., 14.00; W., 11.25; B., 1.30. *Nest* — On the ground in marshes; three or four brownish-gray eggs, spotted with umber, 2.00 x 1.40.

Range — Breeds in the interior from S. Dak. and Minn. north to Sask. Winters along the Gulf coast.



shading and marking, that it is often impossible to name with certainty one seen in life.

Just as the last species is found only along the seacoast, so **FRANKLIN'S GULLS** are almost exclusively birds of the interior. During summer, large colonies of them are harbored in many marshes and wooded swamps from Minnesota and the Dakotas northward. Their nests are composed of rushes and grasses placed on reclining masses of



L. delawarensis



L. franklini

L. atricilla - 3 outer primaries black.

GULLS

(60) *Larus philadelphia*

(Ord.)



BONAPARTE'S GULL. *Ad. in summer* — Plumage as shown. Notice that the mantle is paler than that of the previous hooded gulls, the bill is smaller and black, the feet are flesh color. In winter the plumage is similar except that the head is white, washed with gray. *Im.* — Like the winter adult except for a dusky spot on the auriculars, more or less dusky on the lesser coverts and a black, subterminal tail-band. L., 14.00; W., 10.50; T., 4.00; B., 1.15. *Nest* — Of sticks and grasses on elevated ground, on stumps, in bushes or low trees; the three eggs are pale greenish-brown, spotted with umber and lilac.

Range — Breeds in the interior of Canada. Winters from Me. to Fla. and on the Gulf coast.

reeds, so that they are barely raised above water. They are, in fact, little better constructed or placed than the homes of grebes which often nest in the same marshes.

Few, if any other, species have the beauty and grace of **BONAPARTE'S GULLS**. Having a perfect form, well proportioned in every respect, they combine the agility of terns with the charming flight peculiar to all gulls.

These gulls are unusual in several respects: They are one of a very few species that nest in trees or bushes; the majority of their nests are found to be between four and ten feet above ground, often as high as twenty feet. Their preference seems to be evergreen trees when these are to be found in the marshy, wooded districts that they like. Although Bonaparte's Gulls spend the winter in large numbers off the Atlantic coast, from Maine to Florida, none of them nest east of Hudson Bay, but migrate diagonally across to Keewatin, Mackenzie and Alaska for this purpose.

In winter their food consists of small fish, mollusks and dead

GULLS

(60.1) **LITTLE GULL** (*Larus minutus*). Accidental on Long Island. An European species.

(61) **Rhodostêthia rôsea**

(Gr., rose breast).

ROSS'S GULL; ROSY GULL; WEDGE-TAILED GULL. *Ad. in summer* — Plumage as shown. Notice the small black bill and the wedge-shaped tail; the primaries are wholly white except for the black edge of the outer one; the eyelids are red. In winter, they have no black collar nor pink blush on the under parts. L., 12.50; W., 9.50; T., 4.00, the middle feathers about one inch longer than the outer; B., .50.

Range — Arctic regions. Breeds in northern Siberia. Winters from northern Alaska to Greenland.



animal matter, while in summer they devour a great many grasshoppers and other insects, often catching them in the air.

Probably the most remarkable of this interesting family are **ROSS'S GULLS**. They are the most boreal of all birds, never coming south of the Arctic Circle even during winter. They breed on the coast and islands of northeastern Siberia.

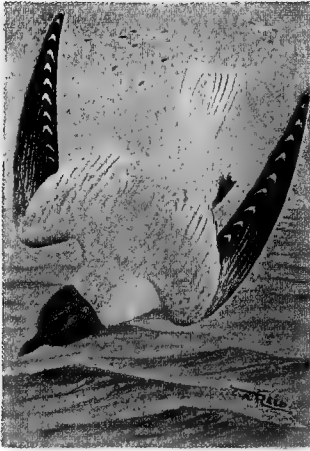
According to Murch (*Auk*, April, 1899), large flocks of them may be seen about Point Barrow, Alaska, during September, but they do not remain for any length of time. In all probability, like the polar whale, they spend most of their time about the loose edges of the pack ice well out at sea.

They still remain one of the very rarest species of birds in collections, not because they are uncommon but because they can be obtained only in such high latitudes. In summer the under parts have a very beautiful rosy blush, a tint that is very evanescent, completely fading in a few months if exposed to the light. A feature that will readily distinguish this species in any plumage is the fact that it is the

GULLS

(62) *Xéma sábina*

(*Sab.*)

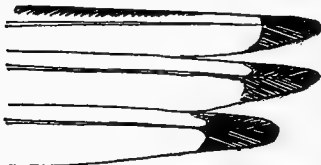


SABINE'S GULL; FORK-TAILED GULL. *Ad. in summer* — Plumage shown. Notice that the small black bill has a yellow tip, the feet are blackish and the eyelids orange. The slaty hood is bordered with black; the edges of the wings are also black along the shoulders. In winter it has neither the hood nor collar, but the head has dusky touches on the auriculars and crown. *Im.* — Similar to the winter adult, but with mottling and barring of dusky on the head and back; tail with a terminal bar of black. L., 13.50; W., 10.25; T., 5.00, forked 1.25; B., 1.00.

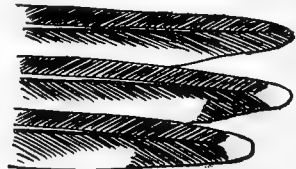
Range — Breeds within the Arctic Circle. Migrates on both coasts of United States and casually through the interior. Winters in Peru.

only known gull that has a wedge-shaped or cuneate tail, the feathers gradually decreasing in length from the middle to the outer ones.

Similarly, **SABINE'S GULLS** may always be identified by their forked tails, the outer feathers being about an inch longer than the middle ones. While not as boreal as Ross's Gulls, they nest within the Arctic Circle in America, Europe and Asia. During migrations, they occur on both our coasts and to some extent in the interior, as they wing their way to their winter quarters in Peru.



L. philadelphia



X. sabini

TERNs

(63) *Gelochelidon nilotica*

(Linn.) (Gr., laughter, a swallow; of the River Nile).

GULL-BILLED TERN: MARSH TERN. Bill black, rather short and stout. Feet black. *Ad. in summer* — Crown and nape black; mantle pale pearl; outer webs of primaries silvery, inner web black at tip and along shaft line; under parts and tail pure white; tail very slightly forked. *In winter* — Crown white; spot in front of eye dusky and more or less dusky on the nape. L., 14.50; Ex., 36.00; W., 12.00; T., 5.50; B., 1.40, its height at base .45. *Eggs* — Three or four, creamy-white with blotches of brown and gray, 1.80 x 1.30; laid on broken flags in marshes.

Range — Breeds along the Gulf coast and along the Atlantic coast to Virginia. Strays rarely to Maine.

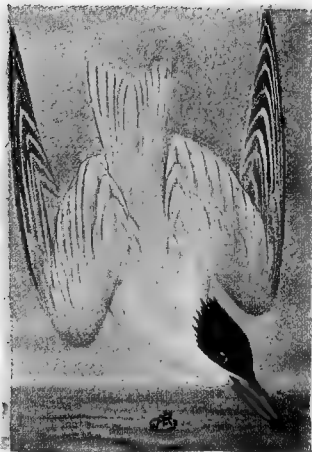


TERNs, Sub-family *Sterninae*, are birds of generally more slender form than gulls. Their bills are relatively longer, slenderer and sharply pointed; the tails are, in all species, more or less deeply forked; and the webbed feet and legs are comparatively small and weak.

They are very graceful and far more active in flight than gulls, and at such times the head and bill are usually carried pointing downward. Although they can swim, they very rarely do so. Their food consists chiefly of insects or small fish; the latter they secure by plunging or hovering just over the surface and dipping the head.

GULL-BILLED TERNS inhabit nearly all temperate parts of the world, but are quite local in their distribution. In North America they are found regularly only on the South Atlantic and Gulf coasts. They can easily be distinguished from any gulls by the ternlike or swallowlike form and flight, and from any others of the terns by the comparatively short, heavy, black bills and nearly square-ended tails.

TERNS



(64) *Stérna cáspia* Pallas

CASPIAN TERN. Bill very large, heavy and vermilion-red. Feet blackish. In winter the forehead is white and the crown streaked with black. L., 22.00; W., 16.00; T., 5.50, forked 1.50; B., 2.75, depth at base .90.

Range — Cosmopolitan; very local. Breeds in Utah, Ore., La., Miss., S. Car., and islands of Lake Michigan.

(65) *Sterna máxima* Bodd.

ROYAL TERN. Bill orange and more slender than the above, crest longer and tail longer and more deeply forked. Primaries with white on inner webs. L., 19.00; T., 7.00; B., 2.50.

Range — Breeds on the South Atlantic and Gulf coasts. Wanders north to Mass.

The name Marsh Terns was given them because they often nest in rather wet portions of lagoons in the marsh grass, often in company with Forster's Terns and Laughing Gulls. The name is rather misleading, however, for they as often deposit their eggs in hollows in the sand. These terns appear to be much more abundant in Europe and Africa than they are on our continent.

CASPIAN TERNS are the giants of this sub-family, exceeding in size many species of gulls. Although nearly cosmopolitan in their range, they are very local in their distribution, small colonies of a few hundred individuals taking up their summer abode yearly in widely separated localities. Islands in Great Slave Lake, Klamath Lake, Lake Michigan, the coasts of Labrador, Texas, Louisiana, South Carolina, etc., each claim one or more small colonies. Their nests are simply hollows scooped in the dry sand to keep the two or three eggs from rolling about.

Only a trifle less in size are the more common ROYAL TERNS. They are also nearly cosmopolitan, but are more

TERNs

(67) *Sterna sandvicensis acuflava* Cabot

(Lat., of Sandwich; slender point, yellowish).

CABOT'S TERN; SANDWICH TERN. Form slender. Bill very slender, black with a yellow tip. *Ad. in summer* — Plumage as shown; crown and crest black. In winter the crown is mixed with white. L., 15.50; W., 12.50; T., 6.00 forked 2.50; B., 2.25. *Eggs* — Two or three, buffy-white with a few small but distinct spots of reddish-brown, 2.10 x 1.40; laid in hollows in the sand.

Range — North and South America. Breeds on the coast of Texas, Fla. to N. Car., the Bahamas and West Indies. Casually north to Mass.

(68) **TRUDEAU'S TERN** (*Sterna trudeaui*). Native to southern South America. Accidental on Long Island and New Jersey.



tropical in their distribution. In the United States they nest on islands along the gulf and South Atlantic coasts, north to Virginia, and rarely stray north as far as Massachusetts. The bill, although large, is more slender than that of the Caspian Tern, the crest is longer and the tail more forked; these differences are not, however, sufficiently great to enable one to positively distinguish the birds in life unless the two species are seen together.

But one other of our species, **CABOT'S TERN**, is adorned with a crest. They are tropical terns, coming north regularly only to the South Atlantic and Gulf coasts. They are much less abundant within our range than either the Caspian or Royal Terns, from which species they may readily be distinguished by their smaller, trimmer forms and black, yellow-tipped bills.

And now we come to a group of terns of the same size and quite similar plumages, the **FORSTER'S**, the **COMMON**, the **ARCTIC** and the **ROSEATE TERNS**. Although

TERNS

(69) *Sterna fôrsteri* Nutt.

(To John R. Forster).



FORSTER'S TERN. No crest on this or any of the following species of terns. Under parts pure white. *Ad. in summer* — Plumage as shown. Bill and feet orange-red, the former with a black tip. Outer web of outer primary silvery-gray like the rest; none of the inner webs of outer primaries with decided white areas as in the two following species. In winter the crown is largely white, but there is a blackish patch embracing each eye. L., 15.00; W., 10.00; T., 5.00-8.00, forked 3.00-5.00; B., 1.60.

Range — Breeds on lakes from Sask. south to Neb., Ill. and Ont. and on coasts of Tex., La. and Va. Wanders to Mass. rarely.

sometimes confusing in their winter and immature plumages, they are all quite easily identified when in their summer dress. A black-tipped orange bill, pure white under parts and very deeply forked tail, the outer feather of which is dusky on the inner web, signifies a Forster's Tern. A black-tipped red bill, grayish breast and forked tail, the outer feather of which is dusky on the outer web, designates the Common Tern. If the bill is wholly red and the tail deeply forked, it is the Arctic Tern. A black bill with reddish base, pure white or pink-tinted under parts and a very deeply forked, pure white tail typify a Roseate Tern.

The nesting habits of these birds are practically the same with the possible exception of Forster's Tern, which often nests in marshy places in company with Laughing Gulls in the south and Black Terns and Franklin's Gulls in the interior. On the south shore of Massachusetts, Common and Roseate Terns may be found nesting on the same islands, and on islands off the Maine coast I have found Common, Arctic and Roseate Terns breeding together.

TERNS

(70) *Sterna hirundo*

(Linn.) (Lat., a swallow).

COMMON TERN; WILSON'S TERN; SEA SWALLOW. Under parts strongly washed with grayish. Bill and feet vermilion-red, the former with a black tip. Outer web of outer tail feathers darker than the inner. L., 14.50; W., 10.50; T., 6.00, forked 3.50; B., 1.35.

Range — Breeds from N. Car., Ohio, and N. Dak., Keewatin and Ungava.

(71) *Sterna paradisæa* Brünn.

(Lat., paradise).

ARCTIC TERN. Feet remarkably small and weak. Bill wholly red in summer. Tail longer and more deeply forked than the last. L., 15.50; W., 10.50; T., 8.00, forked 4.50; Tar., .60; B., 1.30.

Range — Breeds from Mass., Keewatin and B. C. northward.



It is a delightful moment for any nature-lover to stand in the midst of a tern colony; to see the groups of two, three and sometimes four eggs, scattered about in every favorable situation, perhaps every two or three feet, so that he may count fifty or more nests without moving; and to watch the graceful maneuvers of the myriads of black-capped, bright-eyed birds as they dart, dash, swoop and sail about you, each protesting with a strident voice against your presence. The deep, vibrant, purring "tear-r-r-r" proclaims the identity of a Common Tern, even though you do not see him, while the harsher, reedy "cack" gives evidence that Roseate Terns are mingled in the throng of fluttering birds.

The eggs of these four species are practically indistinguishable, and are very variable in color. The markings are blotches of black, brown, gray and lilac, but the ground color may be creamy, bluish, greenish or brownish; sometimes, but rarely, eggs of different colors may be found in the same nest.

TERNs



(72) *Sterna dougalli* Montagu

ROSEATE TERN. Under part in summer with a beautiful rosy blush. Bill black, reddish only at the base. Outer web of outer primary blackish. Tail pure white. In winter the head is white except for a postocular spot of dusky and more or less dusky on the nape. Young birds have more or less dusky or brownish markings on the coverts and back. L., 14.50; W., 9.50; T., 7.50; forked 4.50; Tar., .85; B., 1.50. *Eggs* — Three or four, olive-brown or gray, blotched with black and chocolate, 1.65 x 1.20; in hollows on the ground, sometimes lined with grass or seaweed.

Range — Breeds locally from N. B. to Long Island. Winters from the Bahamas southward.

If possible they will be concealed under weeds or pea vines. The young are handsomely mottled with gray, buff and white. They leave the nest within a day or two from the time they hatch. If disturbed, at a warning from their parents they scamper to hiding places or squat motionless, and it is very difficult to detect them. They catch a great many small insects in the grass and along the beach and also feed upon tiny fish that the old birds bring to them.

The terns along our shores, except the Least Terns, seem to be increasing quite rapidly in numbers since they are receiving better protection, and the practice of wearing their wings is forbidden.

LEAST TERNS are the smallest members of this family to be found within our borders. Colonies of various sizes formerly nested along the whole Atlantic coast from Maine to Florida. It is with the greatest regret that bird lovers have seen most of these colonies disappear and others dwindle to just a few individuals. Probably a dozen breed-

TERNs

(74) *Sterna antillarum*

(Lesson). (Of the Antilles).

LEAST TERN. Size very small.
Ad. in summer — The lower bird in opposite picture. Bill and feet yellow, the former with a black tip; tail moderately forked; outer web of two outer primaries and shaft portion of inner webs, black. *In winter* — As shown by the flying bird opposite. Immature birds are similar, but have the back and tail and particularly the coverts with brown or dusky markings. L., 9.00; Ex., 20.00; W., 6.60; T., 3.50, forked 1.75; Tar., .60; B., 1.20. *Eggs* — Three or four, buffy-white, with black spots, 1.25 x .90.

Range — Breeds very locally on the Atlantic coast north to Mass., on the Gulf coast and north to Mo. Winters from the Gulf coast southward.



ing colonies comprise all that can be found along our Atlantic coast now during summer. They are still, however, fairly common along the Gulf coast. The diminishing number of these birds is due chiefly to the building of summer dwellings along the shores they frequented and to too-late protection from their destruction to serve the ends of fashion.

They lay their three or four eggs in hollows in the sand on the higher portions of low sandy beaches. These eggs are about sand-color, and their spotting serves to make them almost indistinguishable from a distance of a few feet. The terns, too, are scarcely less difficult to see when they are on the ground. Their call is a shrill, "cheep, cheep," with some resemblance to the piping of Semipalmated Plovers.

SOOTY TERNS, having dark brown wings, were not desired by milliners, which fact may account for the almost countless numbers that are still to be found on some of the Bahaman and West Indian Islands. They are known by

TERNs



(75) *Sterna fuscata* Linn.

(Lat., dusky).

SOOTY TERN. *Ad.* — As shown. Bill and feet black; forehead, under parts and outer tail feathers white. *Im.* — Smoky-brown all over, lightest on the under parts; coverts and scapulars tipped with white; feathers of back and rump margined with buffy or dull rufous. L., 16.50; W., 12.00; Tar., 7.50, forked 3.50; B., 1.80.

Range — Breeds along the coast of Texas, La. and Fla., and in the Bahamas and West Indies. Wanders north rarely to Maine.

(76) **BRIDLED TERN** (*Sterna anæthéta*). Accidental in Fla. and S. Car. Breeds in the Bahamas and West Indies. Similar to the last, but white extends back of the eyes instead of just to them.

many of the natives as "Egg-birds," for their eggs are very palatable and quantities of them are collected and eaten. Since the birds will lay a second egg if the first is taken, this practice is not as destructive as it might seem, provided that toll is not taken from the same island but once a season. A single egg constitutes a full set; this is laid in a hollow scooped in the sand either in the open or under the slight protection of grass or shrub.

It is a peculiar coincidence that the two smallest members of the tern family should be respectively the very lightest and the very darkest colored species. **BLACK TERNS** are but a trifle larger than Least Terns and, as shown by the colored picture, are largely black in summer.

The technical name, meaning "Black Water Swallow," is well chosen. Their food consists very largely of insects and their flight as they course over the marshes greatly resembles that of swallows. Dragonflies, large and small, are greedily snapped up by the terns as well as many smaller insects that abound in marshy places. Black Tern nests

TERNs

(77) *Hydrochelidon nigra surinamensis*

(Gmel.) (Gr., water, swallow; Lat., black).

BLACK TERN. *Ad.* — Summer plumage shown by the standing bird and winter plumage by the flying one. While making this remarkable change, all intermediate stages of plumage occur. Immature birds are similar to winter adults, but have a black crescent in front of the eye. L., 9.50; W., 8.25; T., 3.75, forked 1.00; B., 1.00.

Range — Breeds from Ohio, Colo. and Cal. north to Keewatin and B. C. Casual on the Atlantic coast during migrations.

(78) **WHITE-WINGED BLACK TERN.** (*Hydrochelidon leucoptera* (Temm.)). An European species; accidental in Wis.



are usually damp affairs; they choose the tops of sunken muskrat houses, floating piles of decaying rushes, or even pieces of board; just a few grasses are laid down to prevent the three eggs from rolling off and, in these rude domiciles, handsome terns are hatched. They defend their homes by dashing at intruders, uttering sharp, metallic "peeks."

Black Terns are exclusively fresh-water birds during the nesting season. A few pairs nest in New York State, more in Ohio, but the centre of their abundance seems to be in the region from Wisconsin and South Dakota northward, where they are found in numbers, often in company with grebes and Franklin Gulls. Their changes in plumage from summer to winter are very remarkable, but at all times they are so different from other species that they can readily be identified.

The **NODDY** or **NODDY TERN**, as may be seen by the colored picture, is very differently plumaged from other terns and the tail is rounded instead of forked as other terns

TERNs

(79) *Anous stolidus*

(*Linn.*) (Gr., stupid).

NODDY. *Ad.* ← Plumage as shown. The crown is a silvery white, fading to pure white on the forehead. Immature birds are similar, but the head is the color of the back, the silvery gray being limited to the forehead and a narrow line over the eye. L., 16.00; W., 10.50; T., 6.00 (rounded instead of forked as in other terns); B., 1.75. *Nest* — Usually of sticks and grasses, in mangroves, low trees, on the ground or among crevices of rocks. The single egg is cream-colored, sparsely speckled with brown and lavender, 2.00 x 1.30.

Range — Tropical coasts. Breeds on the Florida Keys, coasts of La., and in the Bahamas and West Indies.



are. Noddies are abundant birds on tropical coasts, reaching their northern breeding limits on some of the Florida Keys and the coast of Louisiana. If circumstances permit, they usually nest in mangroves, making platforms of sticks with just hollow enough in the middle to prevent the egg rolling off.

In large breeding colonies, Noddies are even less suspicious than other tropical birds under similar conditions; they often allow persons to approach near enough to touch them as they sit upon their nest. It is this extreme lack of suspicion that is responsible for their technical names, both of which mean stupid. Their very confidence probably aids in their protection, for it is human nature to treat with kindness animals that trust us. Their flesh is unfit for food and their feathers are not in demand, so there is no occasion to kill them; their eggs, however, are often taken, and they share with Sooty and Bridled Terns the name of "Egg-bird."

SKIMMERS

(80) *Rynchops nigra* Linn.

(Gr., beak, face; Lat., black).

BLACK SKIMMER. Mandibles long and thin, the lower one projecting beyond the upper. *Ad. in summer* — Plumage as shown. Bill bright red, with a black tip. Tail white, slightly forked. Wings very long, folding far beyond the end of the tail. *Im.* — Bill smaller and mandibles more nearly equal. Head and back grayish-brown with lighter edges to the feathers. L., 18.00; W., 15.00; T., 5.00, forked 1.50; B., 4.00 (under), 3.00 (upper). *Eggs* — Three or four, creamy-white, spotted with dark brown and gray, 1.75 x 1.30; laid in hollows in the sand.

Range — Breeds along the Gulf coast and north to Va. Wanders rarely to Maine.



Most curious of this whole Order are **BLACK SKIMMERS**, otherwise known as "Razor-bills," "Cut-waters," and "Sea Dogs," the latter name because the trumpeting of a flock as they charge up the beach are quite similar to the baying of a pack of hounds. They are very swift and graceful while on the wing, but appear to be very clumsy when on the ground; the legs seem too small, the neck too long, the bill much too heavy, and the wings so large that there is no place to fold them. Adults feed by skimming over the water, the lower mandible dropped so that the thin blade is cutting the surface and gathering in tiny fish, upon which they live. The downy young leave the hollow in the sand, that was the nest, a day or two after hatching and wander about the beach, being fed by their parents and also picking up small insects on their own account. Their bills show little abnormal development until after they have acquired the powers of flight.

FULMARS



(86) *Fulmarus glacialis glacialis*

(Linn.) (Lat., icy).

FULMAR. Bill short, stout and hooked; nostrils opening out of a prominent tube. Iris brown. *Ad.* — Normal plumage as shown. Tail gray, like the back. Young birds and some adults, possibly in a dark phase, are blackish-brown all over, lighter below. L., 19.00; W., 13.00; T., 4.75; B., 1.50, depth at base .75. *Nest* — None; single white eggs are deposited on bare ledges of high sea-cliffs or in niches; 2.90 x 2.00.

Range — North Atlantic. Breeds from Cumberland Sound, Greenland, Iceland, and Scotland, northward. Winters south to the fishing banks off Newfoundland and Mass., and casually south to N. J.

ORDER TUBINARES. TUBE-NOSED SWIMMERS

A group of sea-birds ranging in size from that of a swallow up to the gigantic albatrosses, some of which have an expanse of wings of about fourteen feet. All agree in having the nostrils opening in tubes. The albatrosses are not represented in eastern North America, but the largest species, the Wandering Albatross, occurs north to the Caribbean Sea and may yet be positively recorded within our range.

FAMILY PROCELLARIIDÆ. FULMARS, SHEARWATERS AND PETRELS

The nostrils are located in one "double-barreled" tube located on the top of the bill. Albatrosses have two distinct tubes, one for each nostril.

FULMARS are gull-like birds, but the bills are stout, hooked and with a prominent nostril-tube on top; the eyes are brown, and the tails are gray like the backs. They

SHEARWATERS

(88) *Puffinus borealis* Cory

(Lat., puffin, by mistake given to Manx Shearwater; northern).

CORY'S SHEARWATER. *Ad.*— Bill rather large, hooked, yellowish; nostril tube quite prominent. Back gray, slightly darker on the wings and tail and much lighter on the head. Entire under parts and bases of primaries white. L., 21.00; W., 14.50; T., 6.50; B., 2.25, depth at base .75; Tar. 2.20.

Range — Known only from off the coast of Mass. and Long Island Sound, where it is occasionally found from June until October. Somewhat like *P. kuhli*, found in the Mediterranean, but considerably larger and apparently quite distinct.

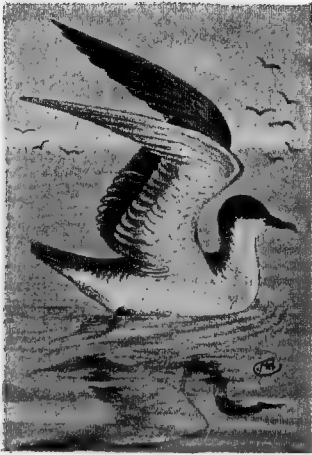


nest in almost countless numbers on the rocky cliffs of the far north. One of the best known and most accessible breeding places is on St. Kilda off the coast of Scotland. Single white eggs are deposited on the bare rocky ledges. The young remain on these ledges, barring accidents, until fully fledged, being fed by the regurgitation by their parents of a clear, amber-colored oil. This oil has a very peculiar and offensive odor that is always evident about the nesting places of birds of this family, and is retained by both eggs and skins for many years.

Shearwaters bear little resemblance to gulls; the back, tail and even the head are quite dark, the bill is comparatively slender and the wings much narrower than those of gulls.

CORY'S SHEARWATERS are the largest as well as the lightest colored of the eastern species. They can readily be distinguished in life from Greater Shearwaters, which are nearly as large, by the lighter colored heads and the pale yellowish bills. Although they are not extremely

SHEARWATERS



(89) **Puffinis gravis**
(O'Reilly). (Lat., heavy).

GREATER SHEARWATER.

Whole upper parts blackish, with some gray edgings; under parts white, sharply defined against the black on the sides of the head; middle of belly and under tail coverts dusky. Bill and feet blackish. L., 20.00; W., 13.00; T., 5.75; B., 2.00.

Range — Summers off the whole Atlantic coast of N. A.

(92) **Puffinus lherminière** Less.

AUDUBON'S SHEARWATER.

Bill small and weak. Upper parts brownish-black; under parts white, with grayish on sides of breast and sooty flanks and under tail coverts. L., 12.00.

Range — Breeds in the Antilles and Bahamas. Wanders north casually to Long Island.

rare, less is known about their habitat than of nearly any other bird. Small numbers appear off the coast of Massachusetts and in Long Island Sound every summer. They have been taken in no other place. Their habits while with us are not different from those of the more common species. I have seen them in groups of from two to six individuals and also with Greater Shearwaters.

GREATER SHEARWATERS are abundant off the Atlantic coast from June until October. They rarely, if ever, alight upon our shores and seldom come within several miles of land. They spend the day wandering over the ocean searching for dead fish or other refuse matter and sleep on the water wherever night may overtake them. While their exact breeding grounds are unknown, they undoubtedly nest during January and February on islands in southern seas.

AUDUBON'S SHEARWATERS, which nest in large numbers on some of the smaller uninhabited islands of the

SHEARWATERS

(95) *Puffinus griseus*

(Gmel.) (Lat., dark).

SOOTY SHEARWATER. Sooty, brownish-black all over, grayer below. L., 17.00; W., 12.00; T., 4.00; B., 1.75.

Range — Occurs in summer on both coasts of N. A. Probably breeds in the South Pacific.

(98) **BLACK-CAPPED PETREL** (*Æstrélata hasitáta*). (Kuhl.) Probably now extinct. Formerly of the Lesser Antilles, straying accidentally to some of our Atlantic states.

(99) **SCALED PETREL** (*Æstrelata scaláris*) Brewster. An Antarctic species known from a specimen taken in Livingston Co., N. Y.

(101) **BULWER'S PETREL** (*Bulweria bulweri*). Temperate North Pacific and North Atlantic (European side). Accidental in Greenland.



Bahamas, wander along the South Atlantic coast in summer as far north as New Jersey. Their single, dull-surfaced, white eggs are laid in holes in the ground or among crevices of rocks, during March; grass or small sticks usually line the nests.

SOOTY SHEARWATERS occur in large numbers off our coast in summer, but are not quite as numerous as Greater Shearwaters. The habits of the two species, while with us, are identical. They often congregate about fishing boats to get scraps or fish-livers that are thrown overboard for them. Their continual squawking and fighting for these prizes has caused them to be known by fishermen



P. glacialis - *P. gravis* - *O. leucorrhoa*

PETRELS



(104) *Thalassidroma pelagica*

(Linn.) (Gr., sea-wanderer; oceanic).

STORM PETREL. Plumage sooty-black; upper tail coverts white, the longer feathers broadly black-tipped; tail square-ended. L., 5.50; W., 4.50; T., 2.50; Tar., .90; B., .45.

Range — An European species said to occur off Newfoundland and New Brunswick.

(106) *Oceanodroma leucorhoa*

(Vieill.) (Gr., ocean-running; white-rump).

LEACH'S PETREL. Plumage as shown in opposite picture. Upper tail coverts almost entirely white; tail forked. L., 8.00; W., 6.25; T., 3.50, forked .75; Tar., 1.00; B., .65.

Range — Breeds along the coast from Me. to Greenland. Winters off the coast south casually to Va.

as "Hags," "Haglets," or "Hagdons." Their flight is usually close to the water, performed by alternating a few flaps of the long wings, then a short sail.

PETRELS are distinctly pelagic birds. Except during the nesting season they rarely come to land, but may be found from a mile or more off shore to several thousand miles. They are truly "ocean-runners," as their technical name designates. Rarely do they rise more than a few feet above the surface, nor is their flight swift, yet it is very easily performed, for their bodies are light and their wings ample in size. They rise and fall with the swell, so closely to the water that they actually seem to be walking upon it.

All petrels found off our shores are very commonly called "Mother Cary's Chickens." Two species regularly occur, Wilson's, which is the most common during the summer months, and Leach's, which is the only one found in late fall.

LEACH'S PETRELS breed on coasts and islands from Maine northward. They nest in colonies, digging burrows

PETRELS

(109) *Oceanites oceanicus*

(Kuhl.)

WILSON'S PETREL. Plumage as shown—darker than that of Leach's Petrel; tail square-ended; coverts white; legs long, webs yellow. L., 7.00; W., 6.00; T., 3.00; Tar., 1.30; B., .50

Range — This is the most common petrel off our coast in summer. Breeds on Antarctic islands in February.

(110) WHITE-BELLIED PETREL (*Fregatta grallaria*) (Vieill.). Southern oceans; accidental in Fla.

(111) WHITE-FACED PETREL (*Pelagódroma marina*) (Lath.). Southern oceans; accidental off Mass. and Great Britain. Regularly occurs north to the Canaries.



from one to two feet in length in soft soil. An enlarged chamber at the end of the burrow is lined with grasses and, on this, a single white egg is laid; about the large end of this egg is usually a wreath of very tiny brown spots. The birds alternate in sitting upon the egg, one always being in the nest during the daytime and the other returning to relieve it at dusk. They are never seen flying about the nesting ground during daylight, the one off duty being at sea feeding.

The young petrels are fed only at night, upon oily yellowish fluid regurgitated by the parents. This fluid has a penetrating, disagreeable odor and is always discernible on petrel skins or eggs.

WILSON'S PETRELS nest on Antarctic islands and spend their winter, which is our summer, off our coast. They course to and fro over the ocean, sometimes following the wakes of steamers or sailing vessels, watching for edible scraps that may be thrown overboard, or again, congrega-

TROPIC-BIRDS



(112) *Phaëthon americanus*

(*Grant*) (Gr., to shine; Lat., American).

YELLOW-BILLED TROPIC-BIRD. Bill stout, tern-like, yellow. Middle tail feathers greatly lengthened. Feet totipalmate. *Ad.*—Plumage as shown. Young birds are similar but extensively barred with black on the back and with spots on the tail. L., about 36.00, including the middle tail feathers, which alone measure 18.00–20.00; W., 11.00; B., 2.00, depth at base .75; Tar., 1.00. *Nest*—Of seaweed and grass on rocky ledges; one cream-colored egg, finely dotted with purplish-chestnut.

Range—Breeds in Bermuda and southward; casual off our coast.

(113) **RED-BILLED TROPIC-BIRD** (*Phaëthon æthereus*). A tropical species' accidental off Newfoundland.

ting about fishing boats for the fish-livers or other scraps that are sure to be thrown to them.

ORDER STEGANOPODES. TOTIPALMATE SWIMMERS

An Order comprising several Families, agreeing externally in having all four toes connected by webs and all except the Tropic-birds having naked gular sacs or pouches.

FAMILY PHAËTHONTIDÆ. TROPIC-BIRDS

But one member of this family, the **YELLOW-BILLED TROPIC-BIRD**, regularly occurs on our southeastern coast. They do not breed on our shores, but in Bermuda, where they are strictly protected, thousands of them nest on the sea-cliffs, sometimes making a nest of seaweed for their single egg and again laying it upon the bare rock; usually, however, they are back in some recess or crevice out of sight. Their food consists of snails that they get from the ledges and beaches and fish which they catch by div-

GANNETS

(114) *Súla cýanops*

(*Sund.*) (Norse, sea-swallow; Gr., blue-face).

BLUE-FACED BOOBY. Bill large and heavy; naked face and pouch livid blue; feet reddish. Plumage as shown, white, except that the primaries and secondaries are wholly black; quite unusual in that the outer tail feathers are black while the inner ones are white. L., 30.00; Ex., 55.00; W., 16.00; T., 8.00; B., 3.75.

Range — Breeds in the Bahamas, West Indies and southward. Accidental in Fla.

(116) **RED-FOOTED BOOBY.** (*Sula piscátor*) (Linn.) A tropical species accidentally occurring in Fla.



ing or dipping the head. On the water they are very buoyant; they hold their slender tails high up to prevent their getting wet. On the wing they are the very embodiment of grace.

FAMILY SULIDÆ. GANNETS

Gannets are large, heavy sea-birds and, with one exception, are found in tropical waters. Two species regularly occur within our range and two others, Blue-faced Boobies and Red-footed Boobies, have been taken in Florida.

The **COMMON** or **BROWN BOOBY** is an abundant species in the Bahamas and West Indies, where they nest in colonies on some of the keys. The name "booby" is applied to these birds because they are so very fearless or tame when nesting. Ordinarily they are as timid as most sea-birds, but their timidity diminishes as the nesting season advances, and when incubation of their eggs is well advanced they will not leave unless forced to do so; they do, however, defend their homes with their bills, and these are such effective weapons that it is well not to venture too close.

GANNETS

(115) *Sula leucogastra*

(Bodd.) (Gr., white belly).



BOOBY; BROWN BOOBY. Bill, face, gular sac, iris and feet yellow. *Ad.* — Plumage as shown. Immature birds are entirely brown, lighter below and with some mixture of white feathers on the parts that are later to become white. L., 29.00; W., 16.00; T., 8.00; B., 3.75; depth at base 1.25. *Nest* — A hollow in the sand or on rocks, usually with no lining; two chalky-white eggs, more or less nest stained; 2.40 x 1.60.

Range — Breeds abundantly in the Bahamas and West Indies; strays along the South Atlantic coast from S. Car. to Fla.

Their food consists chiefly of small fish, which they capture by diving. They often feed their young at night, for then the Frigate Birds, which rob them quite persistently during the daytime, are asleep.

The GANNET is the largest species of this family. Having a northern distribution, it is more often seen by Americans than any other. They are magnificent birds — large, strong and exceedingly graceful when in flight. Their great expanse of wings, about six feet, coupled with the pure white plumage and black primaries, makes it possible to identify them when far off. They are constantly wheeling about over the water, and, upon sighting a fish in favorable position, the wings are half closed and the great bird darts down like a living arrow, piercing the water with a great splash; if the prey is not secured on the plunge it is pursued and caught under water.

In America, Gannets nest only on Bird Rock and Bona-venture Island in the Gulf of St. Lawrence. Here every available ledge not occupied by murres, auks, puffins or gulls

GANNETS

(117) *Sula bassana*

(Linn.) (Of Bass Rock, a famous British nesting place of the species).

GANNET; SOLAN GOOSE. Bill slaty-blue. Feet greenish-black. Iris yellow. Entire plumage white, except the primaries, which are black. *Im.* — Above dark brown, each feather with a wedge-shaped white spot; below grayish-white, each feather with dark edges. L., 36.00; Ex., 70.00; W., 19.00; T., 9.50; B., 4.00. *Nest* — A hollowed pile of seaweed on rocky ledges of sea-cliffs; one white egg covered with a chalky deposit, 3.20 x 1.90.

Range — Breeds on Bird Rock and Bonaventure Island in the Gulf of St. Lawrence. Winters along the South Atlantic coast.



is covered, during summer with the white forms of nesting Gannets, while the air is filled with beating wings and hoarse, rasping croaks of others. The rocks which, in the time of Audubon, were estimated to hold more than one hundred and fifty thousand breeding birds, now have only a few thousand. In marked contrast, the Gannets of Bass Rock, off the Scotch coast, have suffered no appreciable decrease in numbers during the past hundred years, even though they are much more accessible than are our islands.

FAMILY ANHINGIDÆ. DARTERS

The **WATER-TURKEY**, our only representative of this family, is found in swamps of the Southern States and up the Mississippi Valley to Illinois. They swim very swiftly either on the surface or under water. They are called "Darters" because they commonly perch on lookout branches over the water and dart down on passing fish. When alarmed they either drop into the water and swim

DARTERS

(118) *Anhinga anhinga*

(Linn.) (Lat., snakey).



ANHINGA; WATER-TURKEY; SNAKE-BIRD. Form slender, especially the bill, head and neck. Plumage of ♂ shown by the perching bird in the opposite picture. ♀ shown by the diving bird. Tail of 12 feathers, very broad at the tips, the outer webs of the middle ones being curiously crimped. Brownish-white, filamentous plumes on the neck of the male during breeding season. L., 36.00; Ex., 48.00; W., 13.50; T., 10.50; B., 3.25. *Nest* — Of sticks over water in bushes or trees; four bluish eggs, covered with chalky deposit, 2.25 x 1.35.

Range — Tropical America; breeds north to Tex., southern Ill., and N. Car.

away with only the slender head and part of the neck visible (hence the name "Snake-bird"), or else rise and circle about high in the air. Rude platforms of sticks are built in bushes over the water to hold their bluish-white eggs, which are covered with a chalk-like deposit.

The three or four eggs are laid at intervals of several days, so that it is quite usual to find nests containing an egg, a newly hatched chick and another of good size. The young feed, as do probably all the members of this Order, by thrusting their heads into the parent's throat or pouch and taking the food contained there — usually small fish.

FAMILY PHALACROCORACIDÆ. CORMORANTS

A family of water-birds having rather long, strongly hooked bills, full-webbed feet placed far back on the body so that the sitting posture of the birds is nearly erect, and very stiff tails that are of use for steering when swimming under water and as a prop to aid them in sitting. The plumage is close fitting, usually a glossy greenish or bluish-

CORMORANTS

(119) *Phalacrocorax carbo*

(*Linn.*) (Lat., a cormorant; charcoal).

CORMORANT; SHAG. Gular sac heart-shaped behind, bordered by white feathers. Tail with 14 feathers. Plumage of adult shown. The white flank patch, filamentous plumes on the neck and crest are present only during breeding season. *Im.* — Brownish-gray above, with some whitish edgings; grayish-white below mixed with some dark feathers. L., 36.00; Ex., 60.00; W., 13.00; T., 6.50; B., 3.40. *Nest* — Of seaweed and sticks on rocky ledges of sea-cliffs; four greenish-white, chalky eggs; 2.50 x 1.40.

Range — Northern Hemisphere. Breeds from Nova Scotia to Labrador and Greenland. Winters south to Long Island and, casually, S. Car.



black, and many species are adorned with plumes or white patches during the breeding season. Nearly all cormorants have green eyes.

The **COMMON CORMORANT** or **SHAG** is strictly a maritime species and breeds in high latitudes—on our coast from Nova Scotia to Central Greenland. This species, the largest of the family, is found throughout the Northern Hemisphere and is the one formerly used by the Chinese for catching fish. While, at the present time, more modern methods are used for fishing for commercial purposes, many of these trained birds are still kept for the pleasure of the owner or to get money from tourists by exhibiting their prowess.

The swimming powers of cormorants are excelled by no other species of birds; while they can progress rapidly on the surface, it is under water that their phenomenal powers attract the most attention. A fish has small chance to escape a foe so perfectly equipped as these fisher-birds—a form that slides easily through the water; large feet, the full

CORMORANTS

(120) *Phalacrocorax auritus auritus*

(*Less.*) (Lat., eared).



DOUBLE-CRESTED CORMORANT. Gular sac convex behind. Tail of 12 feathers. *Ad. in summer* — As shown; lustrous greenish-black; back coppery-brown; two ear tufts. In winter, similar but lacking the ear tufts. *Im.* — Grayish-brown above; lighter below, with patches of dusky and white. L., 31.00. W., 12.50; T., 7.00; B., 2.30. *Nest* — On ledges on the coast, on the ground or in trees in the interior.

Range — Breeds from Me. and Minn. north to Labrador and Sask.

(120a) *P. a. floridanus* (*Aud.*) FLORIDA CORMORANT. Smaller than the last. L., less than 30.00; W., 12.00. Breeds from N. Car. and Ill. southward.

webbing of which gives the maximum of push; short, stiff wings that, flapped in a half-open position, add greatly to the speed of progress; a perfect tail-rudder to guide them, and a bill that can retain its hold on the most slippery fish.

DOUBLE-CRESTED CORMORANTS and the similar southern form, Florida Cormorants, are the most abundant of the three eastern species. On the coast they nest, as do the larger Common Cormorants, on rocky ledges; in the south they nest in trees in dense swamps; and in the interior of the United States and Canada they commonly nest on the ground. Whatever the locations, cormorant nesting grounds are filthy places, the rocks, the ground or trees being smeared with white excrement and reeking with the odor of decaying fish. They always nest in colonies, every hollow on the ground sometimes containing its quota of eggs or young.

The young birds are fed upon the same diet as their parents — fish. These are brought to the nest in the throats

CORMORANTS

(121) **Phalacrocorax vígua
mexicánus**
(Brandt).

MEXICAN CORMORANT. *Ad.*
— A border of white feathers around the base of the orange gular sac. Plumage lustrous black with purplish rather than green reflections; back and wings slaty, each feather with a black edge. In the breeding season each side of the head has a small packet of white nuptial plumes and others are scattered down the sides of the neck. In winter they lack the white plumes, the white feathers about the pouch, and the black is less lustrous. L., 27.00; W., 10.00; T., 6.50; B., 1.90.

Range — Mexico, Cuba and the Bahamas; north in summer in the Miss. Valley to Kan. and southern Ill.



and pouches of the parents, into which the black-skinned, repulsive looking little cormorants insert their heads and help themselves. Ugly as young cormorants may appear to us, they are regarded as delicacies by gulls that nest near them, and they, as well as the cormorant eggs, are devoured at every opportunity.

MEXICAN CORMORANTS are abundant throughout favorable portions of Mexico and Central America. They regularly occur in our territory in southwestern Texas, where they nest in the dense growths of trees and bushes surrounding numerous lagoons.

FAMILY PELECANIDÆ. PELICANS

Three of the dozen different species of pelicans are found in North America and two of these occur in the eastern half. Pelicans have fully webbed, or totipalmate feet, but the most conspicuous feature about them is the long, large-pouched bill.

WHITE PELICANS are immense, magnificent birds,

PELICANS



(125) *Pelecanus erythrorhynchos* Gmel.

(Gr., a pelican; red beak).

WHITE PELICAN. *Ad.* — Bill, pouch, iris and feet yellow. Plumage white, with black primaries; slightly lengthened feathers on the nape tinged with yellowish. In the breeding season the male has an upright knob near the end of the upper mandible. *Im.* — The lesser wing coverts and the head are tinged with gray. L., 60.00; Ex., 100.00; W., 22.00; T., 6.00 (24 feathers); B., 14.00; Weight about 17 lbs. *Nest* — Of sticks and weeds near water's edge; two or three pure white eggs, 3.45 x 2.30.

Range — Breeds from Keewatin and B. C. south to Utah and Cal. Winters along the Gulf coast. Casual in migration on the Atlantic coast.

having an expanse of wings up to nine feet and a bill more than a foot long. In winter they are abundant along the Gulf coast and in the many entering rivers and their pond or lake sources. In spring they migrate through the interior to their nesting grounds on islands in large lakes throughout the northwest. Shoal Lake, Manitoba, Klamath Lakes in Oregon, and Salt Lake in Utah contain some of the largest known breeding colonies.

These pelicans nest on the ground, preferably on sandy soil. The sand is scooped up in piles four to six inches high, slightly hollowed on top, and these sand nests are scantily lined with twigs or grasses. Usually two, but sometimes three or four, pure white eggs are laid; these are covered with a chalky deposit as usual with eggs of members of this Order.

BROWN PELICANS are maritime birds both during winter and at nesting time. Since these birds are far less timid than White Pelicans, much more has been observed and written about their habits. Pelican Island, in the

PELICANS

(126) *Pelecanus occidentalis*

Linn.

BROWN-PELICAN. *Ad. in summer* — Plumage as shown. In winter, similar but the back of the neck is white instead of brown. *Im.* — Similar to the winter adult, but the head and neck are gray. L., 50.00; Ex., 78.00; W., 19.00; T., 7.00 (22 feathers); B., 11.00. *Nest* — Of sticks and weeds, either on the ground, in bushes or low trees; the three to five eggs are white, with the chalky deposit common to eggs of birds of this Order, 3.00 x 1.95.

Range — Breeds from Fla. and La. south to Brazil; wanders north to N. Car. and casually to Me. and Ill.



Indian River, Florida, is one of the best known and most accessible nesting places of pelicans.

The young are naked when hatched and only become fully clothed in white down after about three weeks. It requires about ten weeks for them to acquire full powers of flight and be able to care for themselves. While the adult pelicans are very silent, their only note being a low groan, the young are extremely noisy and continue to be so until able to fly well. They feed by inserting the head and bill down the capacious throat of their parent and selecting small half-digested fish; they continue to feed in this way until they are larger than their parents. Brown Pelicans catch fish, chiefly menhaden, by diving into schools from the air, while White Pelicans scoop them up while swimming upon the water.

FAMILY FREGATIDÆ. MAN-O'-WAR-BIRDS

MAN-O'-WAR or FRIGATE BIRDS are remarkable sea-birds, having powers of flight excelled by no other species except perhaps albatrosses. They have a greater expanse

MAN-O'-WAR-BIRDS



(128) *Fregata aquila*

(Linn.) (Ital., a frigate; Lat., eagle).

MAN-O'-WAR-BIRD; FRIGATE BIRD. Eye brown. Bill long and slender. Gular sac and feet orange, the latter small and weak. *Ad.* ♂. — As shown by the perching bird; plumage lustrous black, with violet and greenish reflections. *Ad.* ♀. — Less lustrous and browner; foreneck and belly white. L., 40.00; Ex., 90.00; T., 18.00, forked 9.00; Tar., .95; B., 5.00. *Nest* — A frail platform of sticks in low bushes or trees; a single white egg, 2.80 x 1.90.

Range — Tropical coasts, breeding north to Florida Keys; strays to La., Tex. and Cal.; casually north to Nova Scotia and accidentally to Ohio and Wis.

of wing compared to their weight than any other known birds, and are able to float about for hours at a time with no perceptible flapping. Their feet are totipalmate, but are small and weak, and the webbing is of little extent. They rarely alight on the water, but get the fish, upon which they live, by quick dashes at those near the surface, by catching in the air flying-fish or others which have leaped out of water to avoid some enemy below; or by forcing terns, boobies or pelicans to disgorge what they have captured.

They build rude, stick nests on the tops of bushes, sometimes several nests being in a single bush. One egg constitutes a full set. The young are hatched naked, passing through a downy stage to the full plumage. Curiously enough, the back becomes fully feathered before the wing feathers commence to grow.

ORDER ANSERES. LAMELLIROSTRAL SWIMMERS

About two hundred species, separated into five sub-families, are included in this Order. They all agree in

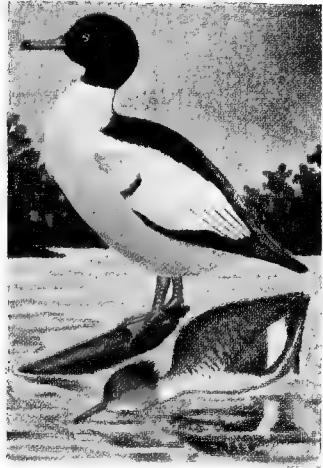
MERGANSERS

(129) *Mergus americanus* Cassin

(Lat., a diver).

MERGANSER; GOOSANDER; SHELDRAKE; SAW-BILL. Bill sharply toothed on the edges; nostril midway along the bill. *Ad.* ♂ — Plumage as shown by bird on the stump. Eye, bill and feet red. Breast and underparts tinted with salmon. *Ad.* ♀ — Plumage as shown by the swimming bird. Eye yellow. Notice that the head of the ♀ is crested, while that of the ♂ is not. L., 25.00; W., 10.50; T., 5.00; B., 2.00; Tar., 1.90. Female somewhat smaller. *Nest* — Of grass, lined with feathers; six to nine creamy-buff eggs, 2.70 x 1.75.

Range — Breeds from Me., Mich. and Ore. northward; winters from Me., Wis. and B. C. south to the Gulf.



having the bill lamellate — that is, with flutings or teeth on the edges of each mandible, these alternating so as to fit together when the bill is closed. The feet are webbed and the hind toe is elevated, and in some species lobed.

Mergansers have the typical duck form, but the long and rather slender bills are round in cross section and the edges are very sharply toothed.

The habits of the two larger species, the MERGANSER and the RED-BREASTED MERGANSER, are quite similar, although the latter during winter are more often found on salt water, while the former delights in frequenting turbulent streams. During summer both species retire to the edges of ponds in the northern United States and Canada to nest. The nests are on the ground, in patches of weeds or sheltered by rocks, and, as usual with duck nests, are warmly lined with downy feathers from the breasts of the females.

As might be judged from the form of their bills, mergan-

MERGANSERS



(130) *Mergus serrator* Linn.

(Lat., a sawyer).

RED-BREASTED MERGANSER. Nostrils nearer to the base than to the end of the bill. *Ad.* ♂ — Plumage as shown. Notice that the head is crested. *Ad.* ♀ — Shown by the flying bird. Head brownish, slightly crested; back and wings grayish. In any plumage easily distinguished from the last species by the position of the nostrils. L., 24.00; W., 9.00; T., 4.00; B., 2.20. *Nest* — Of grass, on the ground; lined with feathers from the breast of the female; five to ten olive-buff eggs, 2.50 x 1.70.

Range — Breeds from Me., Minn. and B. C. north to the Arctic coast; winters from Mass., Ind., and B. C. south to Mexico.

sers feed largely upon fish, a diet that renders their flesh very unpalatable. They secure fish in the same manner as grebes and cormorants — by pursuing and catching them under water. Like these same birds, mergansers are just as likely, if alarmed, to seek safety by diving as by flight; they can get under water as “quick as a flash,” but they usually have to patter a few feet along the surface before rising into the air. Mergansers have a flap or lobe on the hind toe; just how this can be of assistance to a duck in diving or swimming is a mystery, but it is a fact that species that are good divers or that habitually feed at some depth below the surface do have this flap.

Mergansers are very quiet, but it is said that the Red-breasted species utters a low croak at times.

HOODED MERGANSERS are exceedingly beautiful and very interesting ducks. The unique fan-shaped crest of the male is an adornment not only of beauty but is adapted to express the various emotions of the bird, as it may be

MERGANSERS

(131) *Lophodytes cucullatus*

(Linn.) (Gr., a crest, a diver; Lat., wearing a hood).

HOODED MERGANSER ; HAIRY HEAD ; SUMMER SHELDRAKE. *Ad. ♂* — Beautifully plumaged and crested as shown. Bill black. Iris yellow. *Ad. ♀* — Plumage as shown by bird in the distance. Crest brown, with no white patch; neck and back grayish; white speculum and under parts. L., 18.00; W., 7.50; T., 4.00; Tar., 1.20; B., 1.50. *Nest* — In cavities of trees near the water's edge; eight to eighteen pearl-gray eggs, 2.15 x 1.70.

Range — Breeds in the U. S. and southern Canada. Winters in southern U. S.

(131.1) **SMEW** (*Mergellus albellus*) (Linn.). An European species; accidental in northern N. A.

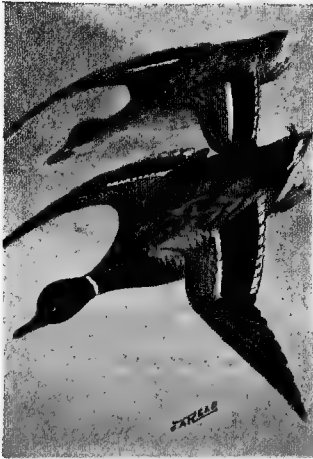


opened and closed at will. This species does not live exclusively upon a fish diet; in fact, they often feed upon tender roots of aquatic plants and mollusks to such an extent that they become quite plump and their flesh is then good.

In summer, Hooded Mergansers seek lakes, ponds or swamps about which are large decayed trees or trunks, for they commonly nest in cavities from six to twenty feet above ground. The bottom of the hollows are lined with grass, on which ten or a dozen, or sometimes as many as eighteen, pearly white eggs are laid. The little mergansers flutter down or are carried to the ground by their mother and immediately led to the water. Until able to fly, they are ever under the watchful eye of their parents, whose vigilance alone saves many of them from untimely ends in the jaws of pickerels, turtles or mink.

MALLARDS, or "Green-heads" and "Wild Ducks" as they are often called, are quite abundantly distributed over the Northern Hemisphere. Because of their abundance,

RIVER DUCKS



(132) *Ánas platyrhýnchos* Linn.

(Lat., duck; Gr., flat beak).

MALLARD; GREEN-HEAD; WILD DUCK. *Ad. ♂* — Plumage shown by the lower bird. Bill greenish. Iris brown. Legs orange. Speculum purple. Long upper tail coverts recurved. *Ad. ♀* — Shown by the upper bird. Legs orange. Bill orange and black. Plumage similar to but lighter and more buffy than that of Black Ducks; speculum always bordered by white and outer tail feathers edged with light buff. L., 23.00; W., 10.50; T., 3.50; Tar., 1.90 B., 2.00. *Nest* — Of grass, among rushes or weeds; six to ten buff eggs. 2.25 x 1.65.

Range — Northern Hemisphere. Breeds in the northern half of United States and Canada. Winters from Md. Ind. and Alaska southward.

the excellence of their flesh and the fact that they are the ancestors of the common domestic ducks, they are justly regarded as one of the most valuable of all birds

Mallards belong to that class of ducks known as "River Ducks" as distinguished from "Sea Ducks." The former secure food, largely vegetable, by dabbling in the shallow water on the edges of ponds or marshes, or by "tipping" where the water is of a depth to allow them to reach bottom without going entirely under water; on the other hand, sea ducks can get food in deep water.

Any marsh or pond-hole, however small, is regarded as a favorable nesting site by Mallards. The cozy, feather-lined nest is usually located several yards from the water's edge, concealed among weeds or brush. The drakes take no part in incubating the eggs or in caring for the ducklings that appear after a period of about twenty-eight days; instead they go into temporary exile and undergo a double moult. The first moult, occurring in June, leaves the drakes garbed

RIVER DUCKS

(133) *Anas rubripes* Brewster

(Lat., red-footed).

BLACK DUCK; DUSKY MALLARD. *Ad.* — As shown. Bill greenish, with a black tip or nail. Feet orange-red, with dusky webs. ♂ usually darker than the ♀ and sometimes with a narrow white border on the speculum. Linings of wings white. Size same as that of the Mallard. *Nest* — Of grass, lined with feathers from the breast of the female; concealed among rushes or weeds near the water; the six to ten buff-colored eggs are laid in May or June; 2.30 x 1.70. Both this species and Mallards utter loud quacks.

Range — Eastern N. A. Breeds from Md. and Wis. north to Ungava and Keewatin. Winters from Nova Scotia south to the Gulf.



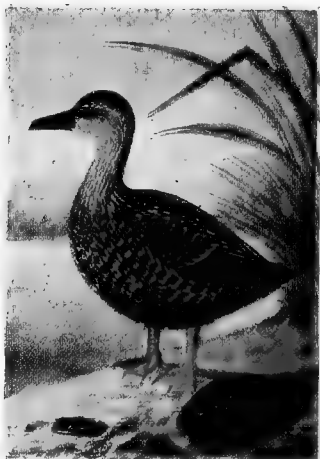
in similar plumage to that of the females; the second, which takes place in July or August, restores the handsome plumage, to remain until the following year.

In fall, local Mallards join or are joined by flocks coming from more northern localities. They usually rest, perhaps, floating at sea during daylight and, at dusk, fly to favorite marshes to feed; it is upon these flights from the resting places to the feeding grounds that gunners do their most effective execution. When disturbed during daytime or while feeding at dusk Mallards are quite noisy, the females doing the loudest quacking.

BLACK DUCKS, or Dusky Mallards, are very closely related to Mallards and have similar habits. Their range is quite restricted, being confined to eastern North America.

It is a beautiful sight to watch a female Black Duck and her brood. She guards them most zealously, turning her head this way and that, ever on the lookout for danger, be it from beast, bird or fish. Should an enemy approach, she will attempt to escape by swimming away with her brood.

RIVER DUCKS



(134) *Anas fulvigula fulvigula*

Ridgway

(Lat., reddish throat).

FLORIDA DUCK. Similar to the Black Duck but lighter colored; chin and throat buffy, with no streaking. Bill greenish, with a black nail and with a blackish spot at the base.

Range — Northwestern to southern Fla.

(134a) *Anas fulvigula maculosa* Sennett

(Lat., spotted).

MOTTLED DUCK. Not as buffy as the Florida Duck; each feather on the under parts with a broad dusky spot near the tip.

Range — Resident in southern Texas and in southern La. Accidental north to Kan.

If this fails, at a warning note from their mother, each duckling scurries for cover among rushes, weeds or lily-pads, while the parent tries to lead the pursuer away by pretending to be wounded. If she and her brood are discovered on shore, this ruse is even more effective, as she trips and stumbles along, with trailing wings and whining voice; man or beast might easily believe her to be so seriously injured that she could go but a few feet farther.

Black Ducks are quite nocturnal in their habits, moving about and feeding a great deal, especially on moonlight nights. Occasionally the silence of the marsh will be broken by the quacking of a single duck, followed almost instantly by that of all the ducks and drakes present, and subsiding as suddenly as it commenced. They feed in shallow water, sifting the mud through the strainer-like serrations of the bill and retaining everything edible.

Black Ducks are quite wary and less easily decoyed than most species. They usually fly high, with no regular formation, and may readily be identified by the contrast

RIVER DUCKS

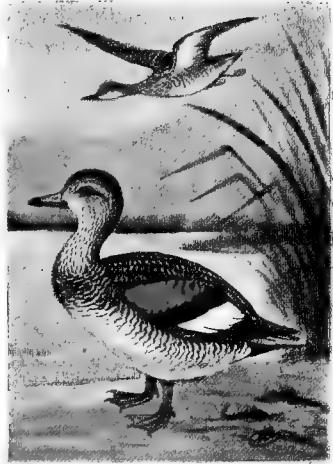
(135) *Chaulelasmus stréperus*

(*Linn.*) (Gr., having protrusive teeth; Lat., noisy).

GADWALL; GRAY WIDGEON.

Teeth or "gutters" on the edges of the mandibles small but very numerous. *Ad.* ♂ — Plumage as shown. Axillars and under wing coverts white; breast feathers with two concentric black bands on each, giving a striking scaled effect. *Ad.* ♀ — Less or no chestnut on the upper coverts; speculum grayish-white; more spotted below. L., 21.00; W., 10.50; T., 4.50; B., 1.60. *Nest* — Seven to ten creamy-buff eggs (2.10 x 1.60) laid in feather-lined hollows.

Range — Cosmopolitan. Breeds from Wis. and Cal. northward. Winters from N. Car., Ill., and B. C. southward. Rare on the N. E. coast during migrations.



of the white under wing coverts with their otherwise dark plumage.

The habits of FLORIDA DUCKS and MOTTLED DUCKS, notwithstanding their restricted ranges, do not in any way differ from those of the Black Duck.

GADWALLS, also essentially fresh-water ducks, are by no means abundant and are quite shy. They usually are seen in small flocks or in company with Widgeons, and like to frequent small creeks or the edges of marshes, where the chances of their being disturbed are few and where they can readily get an abundance of the grasses and roots of water plants that they like.

Male Gadwalls are very modestly colored for ducks, especially on the head, which in most other species is quite different from that of the female.

BALDPATES or WIDGEONS, like Gadwalls, only resort to bays and brackish sounds after the ponds and marshes that they like to frequent are frozen. They are

RIVER DUCKS

(136) *Maréca penélope*

(Linn.) (Brazilian, a kind of teal).



EUROPEAN WIDGEON. *Ad.*
♂ — As shown. Crown buffy-white; rest of head reddish-brown, covered with black specks; tertials buffy-white, with a black stripe in the middle. *Ad.* ♀ — Head, neck and upper breast buffy, more or less streaked and barred with dusky; tertials bordered with deep buff; greater coverts brownish-gray, tipped with black. L., 20.00; W., 10.50; B., 1.40.

Range — Northern part of the Eastern Hemisphere. Occurs casually in winter and during migrations on both the Atlantic and Pacific coasts and from Wis. and Mich. southward.

not uncommon and, during fall and winter, quite large flocks of them may be seen flying swiftly, stretched out in a long line, abreast. When migrating, and often when on the water, they utter continuous, soft, mewling whistles.

Widgeons are one of the wariest of ducks and are endowed with very keen sight or insight, as some hunters believe; their suspicions often prevent flocks of other species, with which they are associated, from settling among decoys. On this account they are not kindly regarded by many gunners, although their flesh is excellent. They frequently go with Redheads and Canvas-backs, and, according to Elliot, pilfer food secured by these ducks from depths to which they themselves cannot dive.

Although common along the Atlantic coast of the United States in winter and during migrations, Baldpates, and also many other ducks having similar distribution, do not nest anywhere in the region near this coast, but spend the summer from Minnesota and North Dakota northward and west of Hudson Bay to Alaska. Their nests are built

RIVER DUCKS

(137) *Mareca americana*

(Gmel.)

BALDPATE; WIDGEON. *Ad.*

♂—Plumage as shown. Bill grayish-blue, with a black tip and dusky base. Crown pure white; very broad, metallic greenish stripe from the eye to the nape; throat and face buffy, speckled with black. *Ad. ♀*—Differs from the ♀ of the European Widgeon by having the head and throat white, streaked and barred with black, the wing coverts whiter and the outer webs of the tertials white. L., 20.00; W., 10.50; B., 1.50. Young males may show any degree of plumage between that of the ♂ and ♀.

Range—Breeds from Ind., Colo. and Ore. northward. Winters from Md., (casually Mass.) Ill. and B. C. southward.



on the ground, as is common with most ducks, but usually on high ground under bushes and not necessarily near the water. It is warmly lined with soft down, which is carefully drawn over to conceal the eggs when the female leaves.

EUROPEAN WIDGEONS, although frequently taken in this country, can only be regarded as stragglers. They are not uncommon on the Aleutian Islands and breed there. It is quite probable that most of these birds taken in various parts of the United States are Alaskan ones that have come south in company with some of our native ducks nesting in the same localities, instead of taking their customary migration route to the southwest.

In England, they are commonly called Whewers, because of the shrill whistling notes they utter when flying. Their nesting habits do not differ from those of the American Widgeon. In winter they are abundant on inland lakes and morasses and also on salt marshes.

GREEN-WINGED TEAL share with Buffle-heads the

RIVER DUCKS

(139) *Néttion carolinéense*

(*Gmel.*) (Gr., a duckling).



GREEN-WINGED TEAL. Size very small. *Ad.* ♂ — As shown. Head reddish-brown; speculum and patch back of eye metallic green; white crescent in front of wings. *Ad.* ♀ — Wings as on the ♂; head and neck grayish-white, streaked with dusky; breast and sides more or less streaked or spotted. L., 14.00; W., 7.25; T., 3.00; B., 1.50.

Range — Breeds from New Brunswick, Ill., and central Cal. north to Ungava and Alaska. Winters from N. Y., Ind., and B. C. southward.

(138) **EUROPEAN TEAL** (*Nettion crécca*). Occasional or accidental on both coasts of N. A. The ♂ has no white crescent in front of the wing.

honor of being the smallest American ducks. Besides being one of the most handsomely plumaged species, they are probably, taking everything into consideration, the most graceful. On land they walk easily and run well, with no signs of the waddling that some of the ducks show.

During migrations, they travel in quite large, compact flocks and are most abundant in the interior, because they prefer fresh to salt water, although smaller flocks of them are often seen in marshes and rivers along the coast. Because they are so active they are able to catch a great many insects and feed largely upon such food when it is obtainable, as well as upon roots of various water plants, grasses, etc. In the south they visit rice fields, often in company with Mallards and other large ducks. They are more companionable than most ducks; even when feeding, the flock keeps well grouped instead of scattering as Mallards and Black Ducks will. Green-winged Teal utter shrill piping whistles, not unlike the notes of some plovers.

RIVER DUCKS

(140) *Querquedula discors*

(Linn.) (Lat., a small duck; discordant).

BLUE-WINGED TEAL. Bill broader than that of the preceding species. *Ad. ♂* — Plumage as shown; much variation in the body color, but always more or less buffy or rufous. *Ad. ♀* — Similar to the ♀ of the preceding species but with more buffy coloring of the body and with blue wing coverts as on the ♂. L., 15.50; W., 7.25; T., 3.50; B., 1.50. *Call* — A weak, rapid quacking. *Nest* — on the ground among grass or weeds bordering marshes or ponds; six to ten buffy eggs, 1.90 x 1.30.

Range — Breeds from Me., N. Y., Ind. and Ore. northward. Winters from Md., Ill. and B. C., south to Brazil and Chile.



Their nests are concealed in patches of weeds or tussocks of grass bordering bogs, marshes or creeks. They are made of rushes and weeds, lined with feathers and down. Usually six to eight, but sometimes as many as twelve, ivory-white eggs are laid.

BLUE-WINGED TEAL are but a trifle larger than the Green-wings. They are quite commonly known as Summer Teal because they commonly nest farther south than Green-wings and because they are the first of the ducks to migrate in fall. Early in September those individuals that nest in northern United States move to the south, while their places are taken by others arriving from Canada.

The flight of this species is usually regarded by gunners as more swift than that of any other. Notwithstanding that their speed is often rated as more than one hundred miles per hour, it is very doubtful if they can, by their own efforts, exceed more than sixty miles. Their small size serves two purposes, making their flight seem faster in comparison

RIVER DUCKS



(141) *Querquedula cyanoptera*

(Viell.) (Gr., blue, wing).

CINNAMON TEAL. *Ad.* ♂ — As shown. *Ad.* ♀ — Very similar to that of the last species and not easily identified. Bill larger. More rusty below; throat rather buffy and more or less encroached upon by the streaks and spots of the under parts, while that of the Blue-wing is usually immaculate white. L., 16.50; W., 7.75; T., 3.50; B., 1.70. *Nest* — On the ground near water; compactly woven of grass and lined with feathers; eight to thirteen eggs, buffy-white, 1.85 x 1.35.

Range — North and South America. Breeds from western Kan. and B. C. southward. Casual in Man., Minn., Wis., Ohio, Ia., N. Y., Fla., etc.

with larger ducks, and renders them more difficult to hit. The fact that they also, like the Green-wings, double and twist in their flight when alarmed does not make them easy marks for gunners, and it is not surprising that they should often estimate their speed at more than double.

They are quieter than Green-wings, although the ducks quack weakly and the drakes sometimes utter whistled "peeps," repeated five or six times. Their feeding and nesting habits are practically the same as those of Green-winged Teal, but the eggs are a little lighter in color.

CINNAMON TEAL are a handsome species, common in western United States, but of rather rare occurrence east to the Mississippi Valley, and still less frequently in Florida. Like the other teal, they are quick in all their actions; they spring clear out of water and speed swiftly away when startled. They build more substantial nests than most ducks, twisting rushes firmly together and lining the hollow with down.

SHOVELLERS, or, as they are otherwise called, Spoon-

RIVER DUCKS

(142) *Spátula clypeáta*

(Linn.) (Lat., spoon-shaped; a shield).

SHOVELLER; SPOON-BILL; BROAD-BILL. Bill long and twice as wide at end as at base. Plumage as shown, the ♂ by the upper bird, the ♀ by the lower. Easily identified in any plumage by the size and shape of the bill. L., 20.00; W., 9.50; T., 3.00; Tar., 1.35; B., 2.50, width at end. 1.20. Eggs — Six to ten, grayish, 2.10 x 1.50.

Range — Northern Hemisphere. Breeds from Ind., Texas and Cal. north to Keewatin and Alaska. Winters from Md., Ill. and B. C. southward. Casual on the coast to Newfoundland during migration.

(141.1). RUDDY SHELDRAKE (*Casárca ferrugínea*). An European species; accidental in Greenland.



billed Ducks, are remarkable not only because of the contrasty plumage of the males, but because of the oddly shaped bills; these are not only twice as broad at the end as at the base, but the “strainers” or serrations along the edges are very prominent, especially toward the base. Such a bill implies that its owner feeds upon “mud-siftings,” and such we find to be the case. They reach the muddy bottoms of shallow ponds by “tipping up” or dabble with their bills along the shore. All forms of mollusks and insect larvæ are retained and eaten, while the soft mud and water flow from the sides of the mandibles. As usual, when the parents have peculiarly shaped bills, those of young Shovellers are of ordinary duck-shape, not broadening toward the end until after flight.

Shovellers have a very wide distribution, being found in all temperate parts of the Northern Hemisphere. In England, where they breed sparingly, they are said to usually nest in dry grass fields at some distance from the water, but in America they usually choose swampy, boggy places

RIVER DUCKS

(143) *Dáfila acúta*

(*Lim.*) (Lat., acute, — referring to the pointed tail).



PINTAIL; SPRIG-TAIL. Neck long and slender. Middle tail feathers lengthened. Form slender. *Ad.* ♂ — As shown by the swimming bird. *Ad.* ♀ — Buff-colored, lighter on the throat; darker on the crown and back, and streaked and spotted with dusky; breast and sides more or less mottled; speculum grayish-brown bordered with white; axillars barred with black. L., ♂ 28.00, ♀ 22.00; W., 10.00; T., ♂ 7.50, ♀ 3.60; B., 2.00. *Notes* — A quacking similar to Mallards. *Eggs* — Six to twelve, buffy-white, 2.20 x 1.50.

Range — Northern Hemisphere. Breeds from Ill., Colo. and Cal., north to the Arctic coast. Winters from Del., Wis. and B. C. southward.

that are difficult of access. The eggs, which are from eight to twelve in number, are pale greenish-gray.

PINTAILS, or Springtails as most gunners term them, are also cosmopolitan in their distribution. They are remarkable among our ducks for their very long thin necks. Scattered pairs of Pintails nest in the central and western portions of the United States, but the centre of their abundance during the breeding season is from Keewatin to Alaska. In the latter region Mr. E. W. Nelson has made quite complete observations of their habits.

At mating time, the female will occasionally rise in the air with the male in close pursuit; she leads him a merry chase, often joined in by other males, at one moment being nearly out of sight overhead and the next just skimming the ground. At other times she will plunge at full speed under water, followed by her pursuers, all rising and taking wing a short distance beyond.

WOOD DUCKS are generally conceded to be the most

RIVER DUCKS

(144) *Aix sponsa*

(*Linn.*) (Gr., a water fowl; Lat., betrothed, in reference to the beautiful (bridal) plumage).

WOOD DUCK; SUMMER DUCK; BRIDAL DUCK. *Ad.* ♂ — Handsomely plumaged as shown. Iris red. Bill multicolored. Feet orange. Head with purple and greenish reflections. *Ad.* ♀ — Gray, with white eye-patch, white chin, throat and under parts; breast and sides mottled with grayish-brown; wings like those of the ♂ but grayish-black. L., 19.00; W., 9.00; T., 4.50; B., 1.40. *Nest* — In cavities of trees; eight to fifteen buffy eggs, 2.00 x 1.50.

Range — Breeds throughout the United States and southern Canada. Winters from N. J., Ill. and B. C. south to Mexico and the Gulf.



beautiful species to be found anywhere. For the reason that the bridal dress is supposed to be a most exquisite creation, the species was given a technical name meaning betrothed. It is also often known as the Bridal Duck, although Summer Duck is more frequently applied to it.

Wood Ducks are the only species that nests throughout the United States and in the southern British Provinces. During summer they frequent clear wooded lakes rather than the marshy regions chosen by most ducks. They nest in cavities of trees and never on the ground, although sometimes they choose very peculiar situations, the most remarkable of which I have record being the individual that for several years built her nest in an unused stovepipe projecting from the side of a boat house.

Usually the nesting tree is close to the water, often overhanging it, but sometimes they have to select one several yards away. A surprising feature is that the entrance hole is often not more than half as large as one would think necessary, yet the female enters and leaves readily. The

SEA DUCKS



(146) *Marila americana*

(*Eyton*). (Gr., charcoal?).

REDHEAD; POCHARD. *Ad.* ♂

— As shown. Bill dull blue with black band at end. Iris yellow. Black feathers of breast shading into white under parts; back gray, finely barred with dusky; speculum light gray. *Ad.* ♀ — Grayish-brown darker on the back and whitening on the belly. L., 19.00; W., 9.50; T., 3.00; B., 1.85. *Notes* — Hollow, rapid croakings. *Eggs* — Six to twelve, buffy-white, 2.40 x 1.70.

Range — Breeds from southern Wis. and Cal. north to B. C. and Sask. Winters from Md., Ill. and B. C. southward. "In migrations along the Atlantic coast south of Labrador.

(145) RUFIOUS-CRESTED DUCK (*Netta rufina*). An European species; accidental in eastern United States.

little ducklings scramble out and drop into the water or are carried down in the bill of their mother.

The flight of Wood Ducks is swift and straight when in the open, but they can thread their way through woods with as much ease as pigeons or owls.

REDHEADS belong to the sub-family known as sea ducks (*Fuligulinae*). By sea ducks, it is not meant that the species in this sub-family are exclusively maritime, for many of them most often frequent fresh water just as some of the so-called river ducks often resort to salt marshes or even the open sea. They are externally characterized by having a broad flap or lobe on the hind toe. They are excellent divers, capable of going to great depths to secure mussels or other shellfish upon which they largely subsist.

Redheads nest abundantly in some of the Western States and in that great duck region from Minnesota northward. During migration they are regularly found on the Atlantic coast south of Labrador. They fly in a broad V-shaped line, usually at quite an elevation, and swiftly. They usually

SEA DUCKS

(147) *Marila valisnéria*

(Wils.) (From the water plant upon which they extensively feed).

CANVAS-BACK. Bill high at the base, forming a straight line with the top of the head. *Ad.* ♂ — Bill black. Iris red. Head reddish-brown, blackening toward the base of the bill; black feathers on breast sharply defined against the white of the under parts. *Ad.* ♀ — Grayish-brown like the ♀ Redhead, but readily identified by the larger size and differently shaped bill; head more or less tinged with rusty-brown. L., 21.00; W., 9.50; B., 2.40. *Eggs* — Six to ten grayish-buff, 2.40 x 1.70.

Range — Breeds from southern Minn., Colo. and Ore. north to Keweenaw and Alaska. Winters from Pa. and Ill. southward.

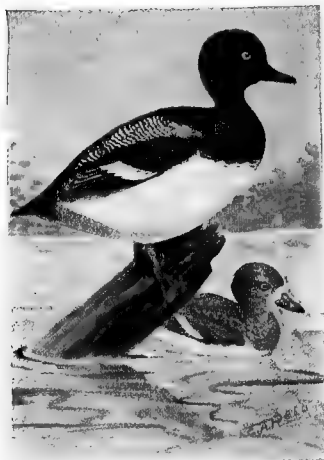


sweep the length of a body of water several times before alighting in order to select the best spot, and then all sail down on set wings, entering the water with great splashes. They come quite readily to decoys and large numbers of them are killed annually from blinds in all parts of the country. Their flesh is regarded as fully equal to that of the more famous Canvas-back.

CANVAS-BACKS are somewhat similar to Redheads in appearance but very easily distinguished; the males by their black bills and very light colored backs; the females by the very differently shaped bills — as one old gunner expressed it, "Canvas-backs have Roman noses, while Redheads have pug noses."

Both species, but more frequently Redheads, are sometimes known as "raft ducks" because they commonly float in large flocks well off shore or in the middle of large bodies of water. They dive in quite deep water and gather mollusks or pull up water plants, the roots of which they are fond of. It is usual to see numbers of Baldpates mixed in

SEA DUCKS



(148) *Marila marila* (Linn.)

SCAUP DUCK; BLACK-HEAD; BLUE-BILL. *Ad.* ♂ — As shown. Iris yellow. Bill dull blue, with black nail. Head glossed with greenish; speculum white; sides very faintly marked with wavy black lines. *Ad.* ♀ — Grayish-brown, lighter on the belly; speculum and region about base of bill white. L., 19.00; W., 8.75; T., 3.00; B., 2.00.

Range — Breeds from N. Dak. and B. C. northward. Winters from Me., Ont., and B. C. southward.

(149) *Marila affinis*

(Eyton). (Lat., allied).

LESSER SCAUP DUCK. Similar but smaller. Head glossed with purple; flanks more conspicuously barred. L., 16.00; W., 7.60.

Range — Breeds from Ind., Ia. and B. C. northward.

with Canvas-backs for, although these birds are not able to secure food themselves in deep water, they get considerable of what is loosened or brought up by the better divers.

After Canvas-backs, or Redheads, either, have fed on wild rice or celery for a few weeks, their flesh is superior to that of any other wild duck. However, under other conditions of feeding, they are no better and may be decidedly inferior to other species.

The flight of Canvas-backs is very swift, their speed probably not being exceeded by any other ducks. The enormous number of them annually slaughtered by market hunters and sportsmen is making them more scarce each year, particularly in the Eastern States.

SCAUP DUCKS are almost universally known as Blue-bills, and only a little less often as Black-heads, the Greater and Lesser Scaups being called respectively Big and Little Blue-bills. The Scaup is found throughout the Northern Hemisphere, while the smaller species is only North Amer-

SEA DUCKS

(150) *Marila collaris*

(Donovan). (Lat., collared).

RING-NECKED DUCK; RING-BILL. *Ad.* ♂ — Bill black, with a broad, light blue band near the end. A band of chestnut around the neck; head glossed with purple; tiny spot on chin white; speculum gray; back black. *Ad.* ♀ — No collar; grayish-brown, white below; cheeks, chin and eye-ring white; speculum gray. Smaller but somewhat like the ♀ Red-head. L., 16.50; W., 7.50; T., 2.75; B., 1.75, not widened at the end as are bills of Scaup Ducks.

Range — Breeds from southern Wis. and northern Cal. north to B. C. and Alberta. Winters from N. J., Ill. and B. C. southward. Occurs during migration on the North Atlantic coast.



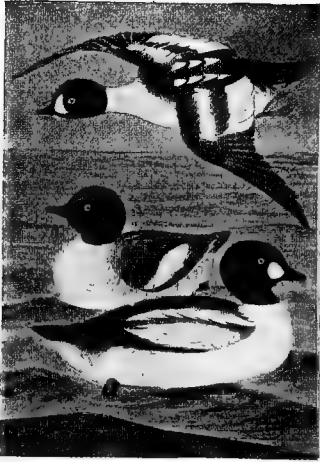
ican. The chief distinction between the two species, other than a slight difference in size, is that the large Scaup has a slight greenish gloss on the otherwise black head, while the Lesser Scaup has a purplish gloss.

Both Scaups have about the same range in this country. If there is any difference, it is that the larger bird is most abundant on the coast during migrations, while the smaller one is more commonly met with inland. The large Scaup usually is found in rather small flocks containing not more than a dozen individuals, while the smaller one very often gathers in immense "rafts."

RING-NECKED DUCKS are of the same size as Lesser Scaups, but the back of the male is wholly black, the bill is banded and the neck has a chestnut ring.

The habits of Ring-necked Ducks are practically the same as those of Scaups, Redheads and other sea ducks. Their flight is very swift, they come to decoys readily, they take wing from the water easily and with a jump and they can secure food at considerable depths.

SEA DUCKS



(151) *Clángula clángula americana* (Bonaparte). (Lat., a noise).

GOLDEN-EYE; WHISTLER; GARROT. *Ad. ♂* — Head glossy green; round white spot before eye. *Ad. ♀* — As shown by middle bird. L., 20.00; W., 9.00; B., 1.30.

Range — Breeds from Me. and Mich. northward. Winters from Me. Minn. and Alaska southward.

(152) *Clangula islándica* (Gmel.)

BARROW'S GOLDEN-EYE. Bill a trifle shorter and higher at the base. *Ad. ♂* — As shown by flying bird. Head glossed with purple; crescent in front of eye. ♀ distinguished from preceding only by shape of bill.

Range — Breeds from Quebec and Ore. northward. Winters south to N. E., Neb. and Cal.

GOLDEN-EYES are among the most active of all ducks. In flight, the wings move so rapidly that the stiff primaries make a loud whistling sound as they rush through the air, on account of which they are commonly known to gunners as Whistlers. This whistling may be heard on a still day, long before a flock comes into view.

There are two species of Golden-eyes, the common, which has a round white spot before the eye, and Barrow's Golden-eye, which has a crescent-shaped spot in the same place. The former also has a greenish metallic iridescence to the head, while the latter is glossed with purple. Barrow's Golden-eyes are less abundant and are more northern in their distribution. In the United States, they nest only along some of the streams in western mountains. Both species nest in holes in trees or stumps, among crevices of rocks or, less often, on the ground.

They are edible or not according to the food upon which they have been living. Coast birds, feeding chiefly upon

SEA DUCKS

(153) *Charitonetta albéola*

(Linn.) (Gr., graceful, duck; Lat., white).

BUFFLE-HEAD; BUTTER-BALL; DIPPER; SPIRIT DUCK. Size very small. Iris yellow. *Ad.* ♂ and ♀ — Plumage as shown, the male being the upper bird. Head very puffy, the dark portion being iridescent with green and purple hues. L., 14.50; W., 6.50; T., 2.75; B., 1.00. *Nest* — In hollow stumps near streams; lined with grass and down; six to fourteen grayish-buff eggs, 2.00 x 1.40.

Range — Breeds from Ontario, northern Mont., and B. C. north to Keewatin and the Yukon River. Winters from N. B., Mich. and B. C. south to the Gulf of Mexico.



shellfish, have very rank flesh while those that feed chiefly upon roots or wild rice in fresh-water ponds are fairly good.

BUFFLE-HEADS are very small ducks, smaller in fact than any others except Green-winged Teal. No other species, large or small, is able to excel them in watermanship. Two of the most used common names, "Spirit Duck" and "Dipper," give evidence of their agility. Like grebes, they are said to be able to dive at the flash of a gun and so escape the charge of shot, a feat that might have been possible in the days of black powder. Certainly they can disappear with a celerity that mystifies, and well justifies their local names.

They can dive to considerable depths and can swim a long way under water before coming to the surface. It is almost impossible to catch a wounded Buffle-head for it can dive repeatedly and, when all other means of escape seem closed, it will, rather than be caught, often drown itself by clinging to vegetation at the bottom. This habit of self-destruction,

SEA DUCKS

(154) *Harélda hyémális*

(Linn.) (An Icelandic name for this bird; Lat., winter).



OLD SQUAW; LONG-TAILED DUCK; OLD WIFE; SOUTH-SOUTHERLY. Bill comparatively short and high at the base. *Ad.* ♂ *in winter* — As shown by the swimming bird. In summer very different as shown by the nearest flying bird. *Ad.* ♀ — Tail pointed but feathers not lengthened; upper parts dusky, the feathers more or less margined with buff; under parts and sides of head whitish, the latter with a dark spot on the cheeks. L., ♂ 21.00, ♀ 16.00; W., 8.60; T., ♂ 8.00, ♀ 3.00; B., 1.05.

Range — Northern Hemisphere. Breeds in the Arctic regions. Winters south to the Great Lakes and N. Car.

rather than submit to capture, is shared by all the sea ducks. Male Buffle-heads are beautiful in plumage and sprightly in manner. Their handsome crests represent their various moods by being opened or closed, more or less, in the same manner as those of Hooded Mergansers, but probably are of the greatest use during the spring match-making. Cavities in trees or stumps furnish nesting places for them and the eggs are often resting on a bed of feathers a foot or more below the entrance.

They are regarded in the United States as cold weather ducks, appearing within our waters only when those of more northern regions are frozen.

OLD-SQUAWS or LONG-TAILED DUCKS are one of the very few species that undergo a marked change between the summer and winter dress. As may be seen from the picture, in this instance the change in plumage is a radical one, the birds figured being perfectly plumaged ones. All intermediate gradations between these plumages occur.

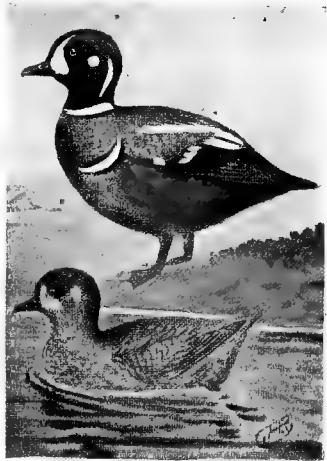
SEA DUCKS

(155) *Histrionicus histrionicus*

(Linn.) (Lat., histrionic, referring to the very odd or "stage dress" of the male).

HARLEQUIN DUCK; PAINTED DUCK. *Ad. ♂* — As shown — the most fantastically marked of all ducks. *Ad. ♀* — As shown by the swimming bird. Front of face and spot on ears white; rest of plumage sooty-gray, lighter on the belly. L., 16.50; W., 7.50; T., 3.50; B., 1.10. ♀ Slightly smaller. *Nest* — On the ground or in hollow stumps near streams; five to eight greenish-buff eggs, 2.30 x 1.60.

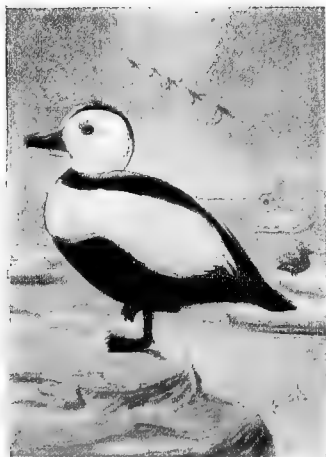
Range — Breeds in Canada and Alaska and south in mountains to Cal. and Colo. Winters south to Me. (casually Long Island), Mich. and Monterey, Cal.



It is rather remarkable that the two species of ducks having long middle tail feathers, the present one and the Pintail, should be the only ones that make a practice of diving into the water while in full flight. During spring, the female Old-squaw is often pursued by her suitor or several of them and, when hard pressed, she will often attempt escape by plunging under water while at full speed, emerging at some distance and taking to the air again.

Old-squaws breed within the Arctic Circle and are one of the last species to appear within our borders in fall. They are most abundant, during winter, in bays and sounds along the Atlantic coast, but are also to be found in numbers on the Great Lakes. They are not found on our west coast except in Alaska. They feed upon various small fish, shellfish and insects, and their flesh is regarded as tough and unpalatable. Their voices are soft and musical, the notes bearing some resemblance to the words "South-south-southerly," on account of which they are often called "South-southerlys." Whether flying, feeding or resting, they

SEA DUCKS



(156) *Camptorhynchus labradorius*

(*Gmel.*) (Gr., flexible, beak).

LABRADOR DUCK; PIED DUCK. *Ad. ♂* — Bill black; orange at the base; widened toward the end by a flexible, leathery expansion. Plumage as shown. *Ad. ♀* — Brownish-gray; a white speculum and white axillars and linings of wings. Iris brown and feet gray as in the male. L., 19.00; W., 9.00; T., 3.50; B., 1.75.

Range — Formerly North Atlantic coasts; supposed to have bred in Labrador. Wintered from Nova Scotia to N. J. Now extinct, the last specimen having been taken about the year 1875.

always seem to be gabbling with one another; hence the names "Old-wive" and Old-squaw.

HARLEQUIN DUCKS are quite remarkable in the fantastic dress of the males and because of the unusual localities that they like to frequent during summer. They apparently nest earlier than most ducks, during March or April, at which time more than one pair are rarely seen together. They repair to swiftly moving streams, even more turbulent than those selected by Barrow's Golden-eyes, where the female deposits six or eight greenish-buff eggs in a cavity of a stump, in a hollow in the bank or even on the ground, well concealed under vegetation. In the United States, they breed only along the dashing torrents so abundant in the Rocky and Sierra Nevada Mountains. The ducklings, as well as the adults, are very agile in the waters, going through seemingly impassable rapids and tumbling over cascades.

In winter, they migrate but little south of their summer quarters — not at all if the season proves to be an open one. At this time they may be found in greater or less numbers off

SEA DUCKS

(160) *Somatéria drésseri* Sharpe
(Gr., body, wool, in reference to eider down).

EIDER; SEA DRAKE ♂; SEA DUCK ♀. Bill with a broad, rounded, lateral frontal process, extending on each side of the forehead. *Ad.* ♂ and ♀ — Plumage as shown, the male being the upper bird. L., 24.00; W., 11.00; T., 4.00; Tar., 1.75; B., 2.10.

Range — Breeds from Me. to Ungava and on Hudson Bay. Winters south to Mass.

(159) *Somateria mollissima borealis*

(*Brehm*). (Lat., very soft; northern).

NORTHERN EIDER. Frontal process pointed.

Range — Breeds on Hudson Bay, Ungava and Greenland; rarely south to Mass., in winter.



the Atlantic coast from Maine to Newfoundland. They feed upon small fish, mollusks and insects — this diet together with their activity making their flesh tough and rank.

LABRADOR DUCKS apparently never were abundant, and it is said that neither Audubon nor Wilson ever saw them alive. Between the years 1850 and 1870 gunners along Long Island and Jersey coasts sometimes shot them and they hung in the Fulton Market together with other species. They were taken less and less often until 1875, when the species apparently became extinct.

EIDERS are probably known throughout our land, but chiefly as a source from which the eider-down of commerce is procured. They are essentially sea-birds, rarely found on fresh water. As they can procure their food from very deep water, they find it necessary to migrate but little to the south during winter. Two species of Atlantic Eiders are practically alike in plumage, but differ in the shape of the soft, basal portion of the bill that extends back on

SEA DUCKS

(162) *Somateria spectabilis*

(Linn.) (Lat., conspicuous).



KING EIDER. *Ad. ♂ in breeding plumage* — Bill with the frontal process greatly developed, square-ended and bulging. Bill proper, quite small. Plumage as shown. For a short period in summer, moults to a plumage similar to that of the ♀. *Ad. ♀* — Plumage almost indistinguishable from that of the common Eider, but usually a little grayer; bill showing little of the development of that of the ♂ but enough to identify it. L., 22.00; W., 11.00; T., 4.00; B., 1.25.

Range — Northern Hemisphere. Breeds along the whole Arctic coast. In winter, south to Long Island; casually to Ga.

either side of the forehead. The Common Eider, the one in which this soft process has a rounded end, is not uncommon off the New England coast during winter.

In parts of Greenland, Iceland and smaller islands in northern waters, the natives protect Eiders and encourage their breeding, gaining considerable revenue from the quantities of down with which the nests are lined. The nest itself is formed of grass and moss, matted together and hollowed to fit the duck's body; after the full complement of five to seven greenish-buff eggs are laid, the female commences plucking the soft down from the under part of her body, placing it under and around the eggs so as to retain the warmth when she leaves the nest to feed. These protected birds become very tame and often allow visitors to stroke their backs without protest. If the first nest and eggs are taken the female will lay a second, the lining of which requires practically all the down she possesses. The down from a single nest weighs about three quarters of an ounce and, when fluffed up, will fill a good-sized hat. Both

SEA DUCKS

(163) *Oidemia americana* Swain.

(Gr., a swelling).

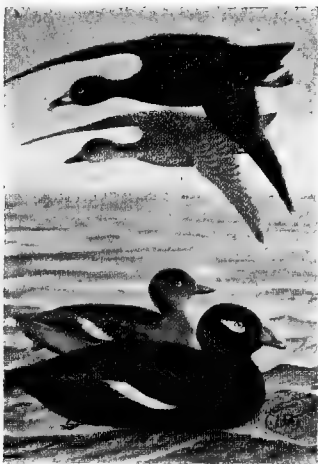
SCOTER; SEA COOT; BUTTER-BILL. *Ad.* ♂ — Bill black, the swollen base orange. Iris brown. *Ad.* ♀ — Sooty-brown, paler below. L., 19.00; W., 9.00; B., 1.75.

Range — Breeds along the Arctic coast and south to Newfoundland. Winters on both coasts of United States, and on the Great Lakes.

(165) *Oidemia deglandi* Bonap.

WHITE-WINGED SCOTER; VELVET SCOTER; MAY-WINGS. Iris yellow. Plumage as shown by the swimming birds. Bill and feet black, orange and yellow. L., 22.00; B., 1.50.

Range — Breeds from Quebec, N. Dak. and B. C. northward. Winters along the Atlantic coast.



parents have to keep sharp watch over eggs and ducklings, for Black-backed and other large gulls are fond of either.

KING EIDERS are found on the northern coasts of both continents, but are less abundant than the other species. Like other Eiders, they fly in Indian file, with rapid wing beats and occasional short sails. The greater part of the year Eiders live upon the open sea, living upon mollusks and small fish which they can secure at depths of thirty or forty feet. In summer, the males moult and for a few months assume a plumage similar to that of their mates. The females also moult at this time and, as usual with ducks, they are unable to fly for a considerable period. They are, however, such adepts at diving that they can easily escape their enemies. Except during nesting time, they are quite wary.

SCOTERS, or "Coots," as they are more frequently called by gunners, are among the most abundant of our ducks. The reason for this abundance is very evident when one examines the tough, rank and fishy flesh of Scoters. Only youthful hunters and those possessed of the mania for killing

SEA DUCKS

(166) *Oidemia perspicillata*

(Linn.) (Lat., conspicuous).

SURF SCOTER; SKUNK-HEAD.

Ad. ♂ — Bill swollen at the base; fantastically colored with orange, black and white. Iris white. Plumage as shown. *Ad.* ♀ — Brownish-gray, lighter below; a white patch in front of the eye. Young birds are similar but also have a white patch on the ears. L., 20.00; W., 9.50. Tar., 2.00; B., 1.50, along gape 2.30. *Nest* — A feather-lined hollow on the ground; five to eight pale buff eggs, 2.40 x 1.70.

Range — Breeds from Quebec, Great Slave Lake and southern Alaska northward. Winters on the coasts south to N. Car. and Lower Cal., and on the Great Lakes; casual in other interior states.



everything that flies ever shoot them. The three American species are of about equal abundance and are essentially salt-water ducks, although a few may be found on fresh-water ponds and rivers and quite large numbers winter on the Great Lakes. Off the coast, however, immense rafts of them congregate, getting their food from the depths and sleeping on the rolling surface of the water.

The latter part of April, these Coot-rafts commence to break up into smaller groups, the birds mate and early in May start on their journey for the far north. The majority of them have their breeding grounds within the Arctic Circle, but a few of the White-winged Scoters nest as far south as North Dakota. The nests are hollows on the ground near marshes or pools; they are well supplied with down, which is pulled over the eggs when the female leaves the nest. As soon as incubation commences, the males leave their mates and congregate in rafts at sea. Nelson mentions one of these rafts of Surf Scoters seen near Stewart's Island, Alaska, as being about ten miles long.

SEA DUCKS

(167) *Erismatúra jamaicénsis*

(Gmel.) (Gr., prop, tail, referring to the very stiff tail feathers).

RUDDY DUCK; BRISTLE-TAIL; BROAD-BILL COOT; BULL NECK. Bill large and broadened toward the end. Tail feathers pointed, stiff and narrow. *Ad. ♂* — Plumage as shown. Less highly plumaged specimens have the reddish-brown parts more or less mixed with gray. *Ad. ♀* — Grayish-brown lightening below; feathers mostly edged with whitish. L., 16.00; W., 5.75; T., 3.50; B., 1.50.

Range — Breeds locally throughout the United States and Canada; more abundantly northward.

(168) *Nomónyx dominicus*

(Linn.)

MASKED DUCK. A tropical species casually occurring in Texas.



Scoters are sombre plumaged birds, the females being grayish and the males chiefly a dead black. The Common Scoter (male) is brightened in appearance by an enlarged, yellow basal portion of the bill, giving it the name of "Butter-bill Coot." Besides having a fantastically colored bill, the Surf Scoter has white on the nape and forehead, these markings causing the species to be known as "Skunk-head Coots."

RUDDY DUCKS are so named because the males, when in faultless summer attire, have the back, wings and breast a bright, ruddy chestnut. They are seldom seen, however, in this perfect plumage, for it requires several years to attain it. Late in summer, they moult to a plumage containing little or no chestnut.

These ducks are very different in form from any of our others; the body is short and stout, the neck very large, the bill large and broad and the tail composed of narrow, stiff feathers. Although their flight is rapid, their wings

GEESE



(169) *Chen hyperboreus hyperboreus pallas*

(Gr., goose; Lat., beyond the north wind.)

SNOW GOOSE. Just like the following sub-species but averaging smaller. L., 25.00; W., 16.00; B., 2.30.

Range — Breeds in Alaska. Winters in western United States.

(169a) *C. h. nivalis*

(Forster). (Lat., snowy).

GREATER SNOW GOOSE. *Ads.* — Plumage as shown. Bill and feet red, the former with a black serrated edge. *Im.* — Grayish, with white edgings to the feathers; rump, tail and belly white. L., 35.00; W., 17.50; B., 2.60. *Eggs* — Dirty chalky-white, 3.40 x 2.40.

Range — Breeds in Arctic America. Winters from Md. and Ill. southward; casual in New England.

are small and move so rapidly that they make a buzzing sound; this sound, together with the fact that they fly in a compact flock or swarm, gives them a local name of "Bumble Bee Coot."

They dive easily and can remain under water for a long time. Sometimes they sink beneath the surface backward, without leaving a ripple, as grebes sometimes do. While they can take flight from the land readily, they find it more difficult to rise from the surface of the water, along which they have to flap and run for a few yards before launching themselves into the air. They breed locally within the United States as far south as Texas, but chiefly north of our borders. Their cream-colored eggs are numerous, ranging from ten to twelve; this accounts for the continued abundance of the species.

GEESE, Sub-family *Anserinae*, differ externally from ducks in having a less flattened body, a bill high at the base and tapering but not flattened at the tip and in having generally longer legs. The sexes are usually very similar

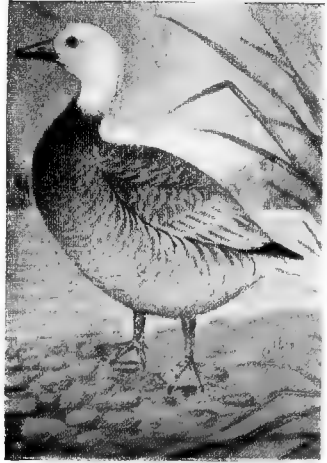
GEESE

(169.1) *Chen caerulescens*

(Linn.) (Lat., bluish).

BLUE GOOSE; WHITE-HEADED GOOSE. Similar in size and form to Snow Geese, of which it was formerly supposed to be the young. *Ads.*— Bill and feet carmine-red, the former with a black straining edge. Plumage as shown; head, tail and belly white, the forehead being tinged with reddish-orange. *Im.*— Similar, but the whole head is dark except for some white on the chin. L., 28.00; W., 16.00; B., 2.25.

Range— Probably breeds in northern Ungava. Winters from Ill. and Neb. south to the Gulf. Rare or casual on both coasts.



in plumage. They can walk easily, and feed chiefly upon plant life.

SNOW GEESE are handsome birds, white as the driven snow, except for the black outer wing feathers. Sometimes, too, the face will be tinged with rusty. The two sub-species, one averaging considerably larger than the other, may be found together in winter in the Mississippi Valley, from which region their northern courses diverge, the smaller bird turning to the left of Hudson Bay while the larger one goes to the right. When flying, the flock spreads out in the form of a gentle curve rather than the V-shape used by most geese. If going for a considerable distance they fly high and sail a great deal. They are very wary at all times and rarely can be induced to come to decoys. Their food consists almost wholly of grasses, which they cut off with the sharp edges of their bills, and tender roots of plants. At times they do considerable damage to winter wheat when large flocks of them settle down in a field.

GEESE

(171a) *Ánser álbifrons gámbeli*

(Hart.) (Lat., a goose; white forehead).

WHITE-FRONTED GOOSE.

Ads. — Bill pink. Legs yellowish. Plumage as shown. *Im.* — Similar but without the white forehead or black markings on breast. L., 29.00; W., 16.50; B., 2.00. *Eggs* — Six or seven, buffy, 3.00 x 2.05.

Range — Breeds on the Arctic coast west of Hudson Bay. Winters commonly on the Pacific coast of the U. S.; rarely in the Miss. Valley and on South Atlantic coast.

(171) EUROPEAN WHITE-FRONTED GOOSE, (171.1) BEAN GOOSE, and (171.2) PINK-FOOTED GOOSE, are European species recorded as accidental in northern or eastern Greenland.



BLUE GEESE are peculiar in that they are not, except accidentally, found on either coast of the United States. During winter they are found, often in company with Snow Geese, in the Mississippi Valley from Illinois south to the coast of Texas. In spring, they sweep northward, by the southern portion of Hudson Bay to unknown breeding grounds, probably in northern Ungava.

WHITE-FRONTED GEESE breed throughout the Arctic regions of America but move to the westward during fall migration, so that they are comparatively rare along the Atlantic coast. They are perhaps the noisiest of the geese both during migration and when nesting, their notes being likened to laughter.

Like other geese, they are very wary, this wariness being the cause of the proverbial "Wild goose chase," indicative of failure. They seldom can be attracted to decoys, but numbers of them are taken by gunners who conceal themselves between their routes of travel to and from their feeding grounds.

(172) *Branta canadensis canadensis*

(Linn.) (Gr., for some water bird).

CANADA GOOSE; WILD GOOSE. Bill and feet black. *Ads.*—Plumage as shown. *Im.*—Similar but throat and cheeks more or less mixed with black. L., 38.00; W., 19.00; B., 2.00; T., 7.00; Tar., 3.25. *Nest*—Of sticks, weeds and grass, lined with feathers; four to ten buffy-drab eggs, 3.50 x 2.50.

Range—Breeds from Keewatin and the lower Yukon River south to Ind., Neb. and Ore. Winters from N. J., Ind. and B. C. southward.

(172a) *B. c. hutchinsi* (Rich.)

HUTCHIN'S GOOSE, a smaller western sub-species (L., 30.00; W., 16.00; B., 1.60); winters in the Miss. Valley.



CANADA or WILD GEESE are really the kings of American water fowl. They are favorites with every one; the nature-lover looks with longing eyes for the first, long, thin wavering line, and listens intently for the first honking that indicates the approach of spring; the true sportsman knows no better sport than the stalking of these wary birds; and the gourmand knows no better dish than a properly roasted goose. Stalking, however, is too arduous a game for the ordinary gunner, and does not bring sufficiently great returns. He prefers to build him a blind along the route to their chosen feeding ground, or an ambush on the shore of a favorite resting pond, from which he can pot them as they settle among the living decoys which he anchors near at hand.

During migrations flocks of Wild Geese, numbering from ten to thirty individuals, spread out in a wide V, with some sagacious old gander at the apex, breaking the wind for his followers, each of which is partially shielded by the one preceding. They fly high except when looking for a suitable

GEESE



(173a) *Branta bernicla glaucogastra*

(*Brehm*). (Gr., glaucous, belly).

BRANT; BRENT. *Ads.*—Plumage as shown. Notice that the black extends in front on the body and that a patch of white streaks is on either side of the neck below the throat, thus readily distinguishing it even from small Canada Geese. L., 26.00; W., 13.20; B., 1.35.

Range—Northern Hemisphere. Breeds on Arctic islands. Winters on the Atlantic coast from Mass. to N. Car.

(174) *Branta nigricans*

(*Lawr.*) (Lat., blackish).

BLACK BRANT. Similar but darker and with black extending over much of the under parts. A Pacific coast species, accidental in Mass., N. Y. and N. J.

landing place, upon sighting which, they glide down on motionless wings and, if no danger is apparent, plump into the water with a splash. Sometimes they fly silently, with only an occasional honk from the leader, while at other times they are very noisy, their honking being heard for minutes before the flock appears in sight, and resembling the baying of a pack of hounds.

A few Canada Geese nest in northern United States, but the bulk of them pass on to northern parts of Canada. They build large, bulky nests of weeds, sticks, moss and feathers, usually on the ground near or even surrounded by water. The adult birds moult during July, when the young are hatched, and are then flightless for several weeks. They feed upon grasses, roots of water plants, grain, berries, etc., eating early in the morning and again toward dusk.

BRANT are still common along the Atlantic coast, although not nearly as abundant as formerly, when rafts of thousands of them would collect in bays to shelter them

GEESE

(175) *Branta leucópsis*

(*Bech.*) (Gr., white, appearance).

BARNACLE GOOSE. An Old World, white-faced species occurring in Greenland; casual on the Atlantic coast of the United States.

(177) *Dendrocýgna autumnális*

(*Linn.*) (Gr., a tree; Lat., a swan; Lat., autumnal).

BLACK-BELLIED TREE DUCK. Neck and legs long. Bill and feet flesh-color. Plumage as shown. L., 20.00; W., 10.00; T., 3.00; B., 1.60; Tar., 2.25. *Nest*—In cavities of trees, of grass and feathers; six to fifteen pure white eggs, 2.05 x 1.50.

Range—Breeds from Corpus Christi, Tex., southward.



from storms. They are less wary than other geese and come readily to decoys or to an imitation of their notes, which are a continued, rolling, guttural "car-r-r-up." They feed chiefly upon eel grass or other water plants which they secure by "tipping-up" and pulling up by the roots.

Brant breed as far, or farther, north as any other water fowl, the nest first having been discovered by Captain Fielden in latitude 82° 33'. They appear off the New England coast in October, in quite large flocks, flying massed with no particular style of formation. They keep well off shore during migration, but after they have reached their winter quarters they move about but little except to make their daily flights inland or to mud flats for feeding and then out to sea to sleep at night. With so little exercise and so much food, they fatten rapidly and become excellent table birds; hence they become targets for every sportsman.

TREE DUCKS show some characteristics common to geese, others of ducks and still others peculiar to themselves.

GEESE

(178) *Dendrocygna bicolor*

(Vieill.) (Lat., two colored).



FULVOUS TREE DUCK. *Ads.*— Bill black. Feet slaty-blue. Plumage as shown; a narrow black line extends down the nape and back of the neck. *Im.*— Less chestnut on wing coverts; paler below; tail coverts not pure white. L., 20.00; W., 9.50; T., 3.25; Tar., 2.25; B., 1.50. *Nest*— Feather-lined cavities in trees; eggs pure white, numerous, as many as thirty-two having been found in one nest, 2.10 x 1.50.

Range— From southwestern U. S. south through Mexico, and South America; also in Africa and India. Breeds from central Cal., Nev. and Texas southward. Casual in La. Accidental in Mo., Wash. and B. C.

They are unique among our ducks in the length of their legs and the ease with which they can perch even upon small branches.

BLACK-BELLIED TREE DUCKS are found in the United States only in southern Texas, where they are not uncommon in summer along the Mexican border. They are not shy and are very easily domesticated, in fact in Cuba I have seen them running about houses with fowl and having no water other than that set out for them.

Although they swim well, they are more often seen running along the borders of marshes or pools, than in the water. Their long legs give them a graceful carriage very different from that of other ducks when upon land.

Their nests are in cavities of trees, at the bottom of which they lay a dozen or more ivory-white eggs. When hatched, the young are carried to the ground in the bills of their parents.

FULVOUS TREE DUCKS do not differ in their habits

SWANS

(180) *Olor columbiánus*

(Ord.) (Lat., a swan).

WHISTLING SWAN. Bill and feet black. Plumage pure white. Nostril is nearer tip of bill than it is the eye. A yellow spot on bill in front of eye. L., 55.00; Ex., about seven feet; W., 22.00; T., 7.50; Tar., 4.25; B., 4.00.

Range — Breeds on the Arctic coast from Hudson Bay to Alaska. Winters from Md., Lake Erie and B. C. south to the Gulf and Cal. Rarely north on the Atlantic coast.

(181) *Olor buccinátor*

(Rich.) (Lat., a trumpeter).

TRUMPETER SWAN. No yellow on bill. Nostril nearer eye than it is the end of bill. Breeds west of Hudson Bay. Winters from Ill. to Texas and from B. C. southward.



from those of the Black-bellied, and their range is the same except that they casually stray to Louisiana.

SWANS are the largest of all our water fowl, weighing twenty or thirty pounds and with an expanse of six or seven feet. Of our two species, the Whistling, which is the most abundant, breeds near the Arctic coast, west of Hudson Bay to Alaska, while the Trumpeter nests east of Hudson Bay. During migration the paths of the two species cross, for the former is most abundant from the Mississippi Valley to the South Atlantic coast, while the latter is commonest on the Pacific coast. They build enormous nests, measuring perhaps five feet across by two feet high, on islands in Arctic ponds and lakes.

Their migrations are performed in long converging lines, at high elevations and with but slight movement of the enormous wings, although they progress at a rapid rate. The Whistler has a high-pitched, flageolet-like note, while that of the Trumpeter is loud, sonorous and horn-like.

FLAMINGOES



(182) *Phoenicópterus rúber*

Linn.

(Lat., a flamingo; red).

FLAMINGO. *Ads.*— Bill yellowish, with a black tip; large and box-like with a bent-down end; with strainers on the sides. Plumage rosy-red as shown. *Im.*— Grayish-white, the wings more or less marked with gray and dusky. L., 48.00; Ex., 65.00; W., 16.25; T., 6.00; Tar., 13.00; Tibia, 9.00; B., 5.50. *Nest*— A mud-cone, hollowed on top; two dull-white eggs, with a chalky covering, 3.40 x 2.15.

Range— Atlantic coast of tropical and sub-tropical America, from the Bahamas, Florida Keys and Yucatan to Brazil; accidental in S. Car.

Both species are very wary at all times. They feed upon water plants which they reach by immersing the head and neck or by tipping-up.

ORDER ODONTOGLOSSÆ. LAMELLIROSTRAL GRALLATORES

FAMILY PHOENICOPTERIDÆ. FLAMINGOES

These great birds are found only casually on the Florida Keys, but are more or less abundant in the Bahamas, West Indies and southward to Brazil. Attention is first attracted by their beautiful plumage, as though dyed by the rays of the setting sun; then by the extremely long legs and neck; and lastly by the curiously bent, box-like bill. This bill is in reality a crude form of suction pump and is used by pressing the bent end of the upper mandible into the mud and dabbling with the lower one. Water and mud run out the strainers on the edges, while solid, edible food is retained.

They nest in large colonies on muddy flats, scraping up the

SPOONBILLS

(183) *Ajáia ajája*

(Linn.) (A barbaric South American name).

ROSEATE SPOONBILL. Bill long, flat and widened toward the end. *Ads.* — Naked head and bill varied with green, yellow and blackish. Legs carmine. Plumage as shown; lesser wing coverts, base of tail and slightly lengthened feathers on nape and breast, bright carmine. *Im.* — Similar to adult but top and sides of head feathered and with no bright carmine in the plumage. L., 32.00; W., 15.50; T., 4.50; Tar., 4.00; Tibia, 3.00; B., 7.00, about 2.00 across the spoon. *Nest* — Of sticks in mangroves; three to five white eggs, blotched with brown, 2.50 x 1.70.

Range — From Ga., La. and Texas, southward. Accidental in Cal., Wis. and Kan.



marl to make a hollowed mound about sixteen inches high. A single, white, chalky egg comprises the set. They sit upon this with the legs folded beneath them and not straddling the nest as sometimes pictured. In flight, the neck is carried fully extended, while the legs trail behind.

ORDER HERODIONES. HERONS, STORKS, IBISES, ETC.

FAMILY PLATALEIDÆ. SPOONBILLS

ROSEATE SPOONBILLS are our only representative of the five or six species distributed over the tropical portions of the world. In form, spoonbills are very similar to herons but their bills are very flat and much widened toward the end. They formerly were quite abundant, but their numbers have been greatly reduced by plume hunters, as is the case with most other herons in the Southern States. However, they are to-day not uncommon in Florida and Texas.

They usually travel in small flocks of six to a dozen,

IBISES

(184) *Guára álba*

(*Linn.*) (A South American name).



WHITE IBIS; SPANISH CURLEW. Bare face, bill and legs yellow or orange. Iris pale blue or white. Bill long and curved downward. *Ads.* — Plumage as shown; entirely white except for the primaries, which are black. L., 26.00; W., 12.00; T., 5.00; B., 6.00; Tar., 3.50. *Nest* — Of twigs and weeds in trees, bushes or in marshes; three to five pale, greenish-white eggs, blotched with chocolate, 2.25 x 1.50.

Range — North and South America, breeding north to Texas, the Gulf States and S. Car. Casually to S. Dak., Ill., Vt., and Conn.

flying in diagonal, straight-line formations with slow and continuous beats of their broad wings, and with the necks fully extended in front. They feed by immersing the head and swinging the bill from side to side, searching for small crustacea or insects.

FAMILY IBIDIDÆ. IBISES

About thirty species of ibises inhabit the warmer portions of the globe, of which three are common within our range and one exceedingly rare. They have heron-like forms, but long, cylindrical, decurved bills, the upper mandible of which is deeply grooved on the sides.

WHITE IBISES are abundant in our Southern States — handsome waders, clothed in pure white except for the tips of the primaries, which are black; a touch of color is added by the bill and legs, which vary from a deep yellow to orange-red or carmine.

These ibises nest in colonies, with other herons, in bushes

IBISES

(185) *Guara rúbra*

(Linn.) (Lat., red).

SCARLET IBIS. Bill long and curved downward. Bare parts of head, bill and legs pale lake-red. *Ads.* — Plumage as shown; wholly bright scarlet, except the primaries, which are black. *Im.* — Brownish-gray, lighter or whitish below. Between this plumage and that of fully plumaged adults, all stages occur, the head and neck being the last to take on the bright scarlet feathers. Dimensions the same as of the White Ibis. *Nest* — In rushes or bushes; eggs rather brighter colored than those of White Ibises.

Range — Tropical South America. Recorded from Colo., Ariz., N. M., La. and Fla., but has not been seen in recent years.



or mangroves in swampy places, difficult of access. The nests are platforms of twigs, hollowed barely enough to prevent the eggs from rolling out.

Their flight is performed in Indian file, with short sails at frequent intervals between the beating of the wings. They feed along the edges of lagoons, lakes or mud flats, picking up small fish, shellfish, insects or frogs.

SCARLET IBISES only have a place in our present avifauna, upon the strength of their former casual occurrence along the Gulf coast. They have not been seen there for years, in fact they are now rare everywhere except possibly in northern South America. They are in demand and their feathers bring good prices for use in tying trout flies — one of the few cases in which a handsome species is being exterminated not for fashion but to further an entirely different branch of sport.

GLOSSY IBISES are of cosmopolitan distribution. They inhabit the tropical and subtropical regions of the

IBISES



(186) *Plégradis autumnális*

(Linn.) (Gr., a scythe or sickle).

GLOSSY IBIS. *Ads.*— Plumage as shown, but without white on the face. *Im.*— Head, neck and under parts grayish-brown, the two former streaked with white; back dusky, with a greenish tinge. L., 24.00; W., 11.50; Tar., 3.10; B., 5.00.

Range— Rare and local from Fla. to La., and in the West Indies. Accidental north to N. S. and Mich.

(187) *Plegadis guaraúna*

(Linn.) (A S. Am. name for this species).

WHITE-FACED GLOSSY IBIS. *Ads.*— As figured. Size same as the last. *Nest*— Of rushes in swamps; three or four greenish-blue eggs, 1.95 x 1.35.

Range— Breeds from Fla., Tex. and Ore. southward. Casual north to Neb.

Old World and are of local occurrence in our Southeastern States. Their habits are the same in every respect as those of the WHITE-FACED GLOSSY IBIS, which is an abundant species in certain parts of the United States. They frequent mud flats, lagoons and marshes, building their nests in the latter places. The nests are quite substantial in construction and are attached to living rushes so that their bottoms just clear the surface of the water, or are placed on piles of floating, decaying reeds of the previous year. They are made by twisting rushes into compact, deeply cupped structures in which usually three deep, greenish-blue eggs are deposited. Both eggs and nests are very different from any of our herons or other ibises.

Ibises are gregarious at all seasons. Large colonies of them nest in the same marshes—indeed, their homes are frequently but a few feet apart. While feeding, six to twenty birds make up the usual company. They eat shellfish, crustacea, small fish, frogs, lizards, etc.

STORKS

(188) *Myctéria americana*

(Licht.) (Gr., to turn up the nose).

WOOD IBIS. *Ads.*— Bill very large and slightly decurved. Whole head naked, pale bluish and covered with scales. Plumage as shown; tail and primaries black; the under tail coverts usually project somewhat beyond the ends of the tail feathers.

Im.— Head downy-feathered; plumage dark gray, with blackish wings and tail. L., 48.00; Ex., 66.00; W., 19.00; T., 6.00; Tar., 8.00; B. 9.00, depth at base 2.00 or more. *Nest*— Platform of sticks at low elevation; three or four, white, granular eggs, 2.75 x 1.75.

Range— Breeds from S. Car., Ohio and southern Cal. southward. Casual in N. E., N. Y. and Wis.



FAMILY CICONIIDÆ. STORKS AND WOOD IBISES

WOOD IBISES are so called unfortunately, because they are not ibises at all, but storks differing from the common Old World species chiefly in the form of the windpipe. Although large, ungainly appearing birds, their flight is exceedingly graceful. At times flocks of them will mount in the air and, sweeping around in widening circles on wings, apparently motionless, climb to heights almost beyond our vision — a beautiful sight and a feat accomplished with a grace and ease not excelled by any flying creature. Apparently performed just for love of flying, these daily pilgrimages to the upper world are probably taken as a matter of exercise, for they are at most times very indolent.

For hours at a time they will stand motionless in the shallow water of lagoons waiting for the fish or frog that is sure to pass them sooner or later; a sudden plunge of the great beak and an ibis appetite is satisfied for a short time.

BITTERN



(190) *Botaurus lentiginosus*

(*Montagu*) (Lat., a bittern; freckled).

BITTERN; STAKE-DRIVER.

Plumage as shown, much mottled with brown, black, buff and white. A broad glossy-black stripe on the side of the neck, very prominent on males, less so on females and inclined to brownish on young birds. Very variable in size. Av. L., 28.00; W., 11.50; Tar., 3.50; B., 3.00. *Nest* — A grass-lined hollow, usually on hummocks in bogs or swamps; three to five brownish-drab eggs, 1.95 x 1.50.

Range — North America. Breeds from N. Car., Kan. and southern Cal. north to Ungava, Keewatin and B. C. Winters from Va., Ohio Valley and Cal. southward.

FAMILY ARDEIDÆ. HERONS, BITTERN, ETC.

A large family of waders, agreeing externally in having long, pointed bills, naked lores (rest of head fully feathered), long necks, long legs, and long slender toes, the hind one of which leaves the foot on a level with the front ones. In flight, all birds of this family carry the neck folded so that the head comes back to the shoulders.

BITTERNS are interesting, dead-grass colored waders that fly up ahead of us as we approach ponds, or traverse marshes. More often, however, we pass them by unnoticed, for they adopt the cunning trick of palming themselves off for some of the surrounding sticks or rushes by posing motionless, with body erect and neck stretched at full length, terminated by the sharp bill pointing toward the zenith. It requires very sharp eyes to discover a Bittern under these conditions.

Not less difficult to see are the four brownish eggs that are laid in the midst of tussocks of grass. If we suddenly

BITTERNS

(191) *Ixobrychus exilis*

(Gmel.) (Lat., small).

LEAST BITTERN. *Ad* ♂ — As shown by the upper, right-hand bird. *Ad.* ♀ — As shown by the left-hand bird; duller colored and with the black largely replaced by brown. Bill, legs, and iris yellowish. L., 13.00; W., 4.60; Tar., 1.60; B., 1.80. *Eggs* — Three to five, pale blue, 1.20 x .90. Nest a platform of rushes attached to living stalks.

Range — Breeds from N. S., Man. and Ore. southward. Winters from Fla. and the Gulf States southward.

(191.1) *Ixobrychus neoxenus*

(Cory) (Gr., new guest, a stranger).

CORY'S LEAST BITTERN. Plumage as shown. Known to breed in Ont. and Fla. Casual in Mass., Mich. and Wis.



come upon this nest when the eggs are nearly ready to hatch, the owner will sometimes remain and, with outspread wings, blazing eyes and head drawn back, defy the intruder. At such times it is well to be careful about getting within range of a blow from that sharp beak. Those who frequent marsh or pond in the spring may occasionally have the opportunity of witnessing that most interesting performance, the "pumping" of the Bittern. This is in reality the love song of male Bitterns. The hollow, deep-toned syllables "punk-err-lunk" are ejected from the throat in chunks, accompanied by violent contortions of the bird's neck.

LEAST BITTERNS, the smallest of the family, live in marshes in company with rails, marsh wrens and black-birds. They are gregarious and often several of their rush-platform nests may be found attached to reeds in small marshes even close to habitations, but they are so secretive in their habits that their presence is known only to those who seek them. They have a soft cooing song, and a harsh

HERONS



(192) *Ardea occidentalis* Audubon

(Lat., a heron; western).

GREAT WHITE HERON. Largest of our herons. Bill, iris, and legs yellowish. Plumage pure white at all ages. Adults with white plumes on the back of the head and on the breast. L., 50.00; W., 20.00; Tar., 8.50; B., 6.50. *Nest*—A platform of twigs and sticks in mangroves; nests in colonies; three or four pale bluish eggs, 2.50 x 1.80.

Range—Southern Fla. south to Cuba, Jamaica and Yucatan. Casually north to the Anclote River on the west coast and Micco on the east coast. Not uncommon about Cape Sable.

croaking "qua," the latter being uttered when they are disturbed. Their flight is weak and listless; in fact, unless very suddenly frightened, they rarely take wing. When they do, it is usually just for a few yards, with fluttering wings and dangling legs.

CORY'S LEAST BITTERNs are still very imperfectly known. About two dozen specimens have been captured, none of which intergrade with the common species. Most of these birds have been secured in Florida and in marshes in southern Ontario.

GREAT WHITE HERONS are the largest members of this family, being an inch or two longer than the largest of the Great Blue Herons, which they resemble in form. While apparently not abundant anywhere, these beautiful birds are not uncommon along the Gulf coast of southern Florida. Their rude stick nests are usually built in mangroves not more than five or ten feet up; otherwise their nesting and habits do not differ from those of the Great

HERONS

(194) *Ardea herodias herodias*

(Linn.) (Lat., a heron).

GREAT BLUE HERON;
"BLUE CRANE." *Ads.*—Plumage as shown, this being the perfect dress attained only after the third year. *Im.*—Without plumes on head, back or breast; whole top of the head blackish; whole plumage paler and rather tinged with rusty on the back. L., 48.00; Ex., 70.00; W., 19.00; T., 7.50; Tar., 7.00; B., 5.50.

Range — Breeds throughout United States and southern Canada. Winters in southern United States.

(194b) *A. h. wardi* Ridgway

WARD'S HERON. Slightly larger and with darker neck. Fla. and the Gulf coast to Texas.



Blue Heron, which is a familiar species in all parts of the United States.

GREAT BLUE HERONS are very commonly, but of course erroneously, called Cranes. They are generally seen only at a distance, for they are always wary. They are not often flushed at close range, for their height allows them to see any one approaching while they are yet far away. They are less gregarious than most herons, but even they often nest in small colonies. As a rule they locate their nests, mere platforms of sticks, in the tops of tall trees in swamps.

Like all herons, their supply of patience is unlimited; they can and will stand absolutely motionless for very long periods until fish, frog, newt, or insect comes within striking distance. A coiled spring could not impart more rapid motion to their spear-like bills than that produced by the long, sinuous neck as they make a lightning-like dart for their quarry. While these herons might do considerable damage in a hatchery if

HERONS

(196) *Heródias egrétta*

(*Gmel.*) (Lat., a heron, also a plume).

EGRET; GREAT WHITE EGRET. Plumage entirely white at all seasons. During the breeding season, back with a magnificent train of long white, finely decomposed plumes, extending far beyond the tail; no plumes on the head or neck at any time. L., 40.00, not including the train; Ex., 55.00; W., 16.50; T., 6.00; B., 4.75. *Nest*—A frail platform of sticks in bushes over water; three to five dull greenish-blue eggs, 2.25 x 1.45.

Range—Breeds from N. Car. and the Gulf coast southward, and in Cal. and Ore.; formerly north in the Miss. Valley to Wis. Casual along the coast north to Nova Scotia.



allowed to fish there, the ones they consume ordinarily are of little value, and certainly not as much as the sight of these great birds slowly and majestically flapping their way across the sky. Along the coast, they often may be seen standing on the edge of fish weirs or, at low tide, wading about in the nets spearing the smaller fish caught therein.

EGRETS are still to be found in very small scattered colonies in the most impenetrable swamps of some of the South Atlantic and Gulf States. But never again will man see, in this country, the sights recorded by travelers down the St. John's, Indian, or St. Lucie rivers, Florida, thirty years or even twenty years ago; whole islands would appear as though covered with a snowy mantle and shores of lagoons were lined with hundreds of beautiful white egrets. The destruction of these and the most exquisite SNOWY EGRETS is a painful subject, but it is one that cannot be impressed too strongly or too often upon the people in order to help preserve the few of these birds now left and to prevent others from sharing a like fate from a like cause.

HERONS

(197) *Egr etta candid issima* *candid issima*

(Gmel.) (Lat., very white).

SNOWY EGRET; SNOWY HERON. Plumage always entirely white; in breeding season as shown on plate, with a beautiful train of recurved plumes on the back and straight ones on the breast and back of the head. Bill black, yellow at the base and on the lores. Legs black but feet yellowish. L., 24.00; W., 10.00; Tar., 3.75; Tibia (bare), 2.50; B., 3.00 *Nest*—A frail platform in bushes or trees in swamps; three to five pale, greenish-blue eggs, 1.65 x 1.25.

Range—Breeds very locally from N. Car. and Fla. to La.; formerly bred north to N. J., Ind. and Ore. Casual north to Ont., N. S. and B. C.



Thirty years ago these egrets were equally as abundant as other small herons found in the same places. To-day the other herons are still abundant but the "white ones" have disappeared—solely because "fashion" put a price on their plumes; a plain case of their very beauty proving their curse. Despite falsehoods, circulated by wholesale milliners, to the effect that cast-off, moulted plumes are gathered from the bushes upon which they have fallen, the fact remains, proven by scores of reputable ornithologists who have visited these heronries and actually seen the plume hunters at work, that the birds are slaughtered in their rookeries; the back, containing the plumes, is torn off and the mangled bodies thrown in piles to decompose, while the young egrets perish from starvation in their nests overhead. The root of the evil lies, not with the hunters, who are ignorant, and do this only to earn a living, but with society which puts a premium on such slaughter.

As the illustrations show, the Great White Egret has a long train of about thirty straight plumes, while the Snowy

HERONS



(198) *Dichromanassa rufescens*

(*Gmel.*) (Gr., twice, color (referring to the two color phases); Lat., reddish).

REDDISH EGRET. *Ads.*—Dark phase as shown; with lengthened feathers on the head and breast and plumes on the back. The light phase is entirely white, except usually for some mottling on the primaries.

Im.—Plain grayish, with some rusty touches and without plumes. L., 30.00; W., 13.00; T., 4.50; Tar., 3.50; B., 4.00. *Nest*—A platform of sticks; in colonies usually with other species; three to five greenish-blue eggs, 1.90 x 1.45.

Range—Breeds from the Gulf States southward. Casual in southern Ill. and Col.

Egret has about an equal number of shorter ones with the ends recurved. These plumes are present only for a few months; before the breeding season they are undeveloped and lack firmness, while after nesting has finished they are much worn and frayed. Both species may be found nesting together in company with other small herons. The larger egret is the more shy and usually builds its larger nest a little higher than the smaller species.

REDDISH EGRETS also bear plumes which, fortunately for the birds, are comparatively homely both in color and texture. Consequently this species is nearly as abundant now as it was years ago. Of course advancing civilization is driving them farther and farther into the wildernesses, whither we must go if we expect to see them. This species is dichromatic—that is, it has two color phases: the dark phase, which is the most common, is shown in our illustration; in the light phase the plumage is entirely white, but easily distinguishable from the other egrets by the lengthened feathers on the head and breast and the straight plumes on

HERONS

(199) *Hydranassa tricolor ruficollis*

(*Gosse*) (Gr., water, a queen; Lat., three-colored; rufous-necked).

LOUISIANA HERON. A tall, slender and stately species. Iris red. Bill and legs blackish-blue. *Ads.* — Plumage in summer as shown; back plumes extending little if any beyond the tail; rump white; longest crest feathers white. *Im.* — Neck, back and wings brownish; under parts and line down front of neck white. L., 26.00; W., 10.00; Tar., 4.00; B., 4.50. *Nest* — Of sticks, in mangroves or other bushes, in colonies; three to five pale greenish-blue eggs, 1.75 x 1.35.

Range — Breeds from N. Car. and the Gulf States southward. Casual north to Long Island.



the back. As usual with Southern herons, this species is very gregarious at all times of the year.

LOUISIANA HERONS and LITTLE BLUE HERONS may well be considered together in a book since they are nearly always associated in life. They are the most abundant of Southern herons and, of course, are highly gregarious. All Southern rookeries are similar in character, surroundings, and in the inhabitants, yet, so great is their fascination, a bird lover is never satisfied with his first exploration of one. He is always longing and planning for a return visit to the same or other rookeries.

Most rookeries are so located that they can be reached only by hours or even days of wearisome toiling through bogs, jungles, saw-grass, etc., obstacles often requiring skilful wielding of the hatchet or machete, to penetrate. What a sight greets the eyes of the naturalist as, the last barrier broken down, he stands on the edge of the mangrove-fringed bayou. Everywhere are Louisiana Herons, "Loosies," as the guide calls them, "Little Blues," and "White Curlews,"

HERONS



(200) *Flórida cærúlea*

(*Linn.*) (*Lat.*, blue).

LITTLE BLUE HERON. *Ad.* — Plumage as shown. Feathers of back much lengthened and pointed, reaching beyond the ends of the folded wings; breast feathers also lengthened and plumes from the back of the head. *Im.*— Pure white all over, but always with traces of bluish somewhere, usually on the primaries. Legs and feet greenish-black, these always distinguishing it from the young or winter Snowy Egret, which has yellowish feet. L., 22.00; W., 10.25; Tar., 3.70; B., 3.00.

Range — Breeds from S. Car. and the Gulf States southward; formerly bred north to Ill. Wanders casually to N. S. and Wis.

as White Ibises are known to the natives. We may even see a vision of pink as a Roseate Spoonbill, or "Pink Curlew," retreats into the distance. A few steps more and two or three great egrets are startled from their nests a hundred yards away — "Long Whites," the guide whispers in our ear. Snowy Egrets are less wary than the larger ones.

The nests of the Louisiana and Little Blue Herons and those of Snowy Egrets are practically the same, and all three may be in the same tree. The eggs also are so nearly alike that only an expert can distinguish them, and even he not always with certainty. Young Little Blue Herons are clothed in white, on which account they are very often mistaken for the rare egrets; their plumage shows some traces of bluish, even in the first year, chiefly on the tips of the wings and the top of the head; the second year they are often quite mottled, and it is not until they have lived for three years that their adult plumage is attained. Snowy Egrets and Louisiana Herons are not great wanderers, but

HERONS

(201) *Butorides virescens virescens*

(*Linm.*) (Lat., bittern, Gr., a resemblance; Lat., becoming green).

GREEN HERON. Smallest of our herons. *Ad.*— Shown in full plumage, it requiring several years to attain the glaucous-blue color of the back feathers. *Im.*— Head less crested; back greenish-black, with no plumes; neck dull brownish. L., 17.00; W., 7.00; Tar., 2.00; B., 2.50. *Nest*— Of sticks, in low trees or bushes, usually in colonies in the south and singly in northern states; three to five pale bluish-green eggs, 1.45 x 1.10.

Range— Eastern N. A. Breeds from N. S., Quebec, Wis. and S. Dak. southward. Winters from the West Indies southward.



young "Little Blues" often appear in the New England States during fall.

GREEN HERONS are quite evenly distributed throughout eastern United States. Unlike those species confined to the Southern States, they are not to any extent gregarious. We are more apt to find single pairs, or, at the most, two or three, living along sluggish brooks or about ponds or lakes. One of its many vernacular names, "Fly-up-the-Creek," was in all probability first applied to this species by rural fishermen before whose advance they literally fly up the creek, starting such flight with their characteristic single shriek.

Their nests are not necessarily located near their feeding grounds and even may be remote from water. Every year the same pair of birds returns to a certain small clump of pines and constructs a new nest on the lower outer branches. A brook happens to flow within a hundred yards of this particular place, but I have never seen either bird frequent it; their regular feeding place is a pond a half mile away. So shabbily is the flat platform of sticks put together that

HERONS



(202) *Nycticorax nycticorax*
nævius

(*Bodd.*) (Lat., the night raven; spotted, referring to the plumage of the young).

BLACK-CROWNED NIGHT HERON; QUAWK. *Ads.*— Iris red. Legs greenish-yellow. plumage as shown; three long slender plumes from the back of the head, these usually clasping each other so as to appear as one. *Im*— Iris yellow. Above grayish-brown, edged and spotted with white; below whitish, streaked with brown. L., 25.00; W., 12.50; T., 5.00; Tar., 3.00; B., 3.00. *Nest*— Of sticks in trees, or of rushes on the ground in marshes; in colonies; three to five pale bluish-green eggs, 2.00 x 1.40.

Range— Breeds from N. S., Manitoba and Ore. south to Patagonia.

the eggs may be seen through the bottom; it holds together barely long enough to accommodate the young until they are able to fly, and long before winter every vestige of it is gone.

The young are fed quite regularly, so that it is an easy matter to locate nests after the eggs have hatched by following the line of flight taken by the herons.

BLACK-CROWNED NIGHT HERONS, otherwise known as Quawks or Qua-birds, are abundant in all parts of the United States and the southern British Provinces. During the breeding season they exhibit communistic habits in a very marked degree. All the quawks for miles around settle in some wooded swamp, preferably of coniferous trees. They return to this same location year after year unless driven out. The hours of daylight they usually spend in the heronry dozing, but at dusk they may be seen slowly flapping away in all directions to their favorite fishing pools.

These heronries, after continued use, become very filthy places, the trees and ground reeking with decaying fish, frogs, etc., and excrement. Usually they are sufficiently

HERONS

(203) *Nyctanassa violacea*

(Linn.) (Gr., night, queen; Lat., violet-colored).

YELLOW-CROWNED NIGHT HERON. *Ads.*— Plumage as shown, crown white, tinged with tawny; the long slender feathers on the back black, edged with light gray. Iris red. Legs greenish-black. *Im.*— Above grayish-brown, streaked and spotted with lighter; below streaked with brown and white. L., 24.00; W., 12.00; Tar., 4.00; B., 3.00, slightly stouter than that of the last species. *Nest*— In trees or bushes in swamps; three or four pale bluish-green eggs, 2.00 x 1.40.

Range— Breeds from S. Car., southern Ill. and Kan. southward. Casual in fall north to Maine, Mass., Ont. and Col.



remote from villages so as not to be objectionable, but occasionally they will select woods close to houses and it will shortly be necessary to drive them away. Three or four years of occupancy will kill all the trees in which are nests.

They are abroad so little during daylight and are so silent, except in the immediate vicinity of the heronry, that its presence is often unknown, even though near large cities. Immediately upon our entering the colony, however, the greatest confusion arises. To the beating wings and harsh squawks of the adult herons is added the loud "ticking" or "clicking" notes of the young. As long as we are in sight or moving about, the uproar will continue, but a few moments after we conceal ourselves the clock-like notes of the young will cease, the disagreeable squawks of the parents will be silenced, and one by one they will drop down to their homes, some to cover their eggs and others to perch beside their offspring until dusk, when feeding time occurs. Most of the nests are well up toward the tops of the trees — just

CRANES



(204) *Grus americana*

(Linn.) (Lat., a crane).

WHOOPING CRANE; WHITE CRANE. *Ads.*—Plumage as shown, pure white except for the black primaries. Top of head bare, red and hairy, this extending to a point on the occiput and below the eyes. Inner wing feathers lengthened and flowing. *Im.*—Head feathered all over; general plumage whitish mixed with brownish. L., 50.00; Ex., 90.00; W., 24.00; T., 9.00; Tar., 12.00; B., 6.00; depth at base 1.40. *Nest*—A bulky mass of weeds on the ground in marshes; two brownish-buff eggs, spotted with brown, 3.75 x 2.50.

Range—Breeds in Mackenzie and Sask.; formerly south to Ill. Winters from the Gulf States to South America.

rude piles of sticks laid haphazard in the crotches. The fear of man is inherent even with young in the nest; if we risk our clothes, ignore the squalid surroundings, and climb one of the trees, we will find that all little herons that are able will crawl out on the branches as far from us as possible.

If we keep our ears open, on nearly any summer night, we may hear the oft-repeated "quarks" of Night Herons as they pass from one pond to another. A crude imitation of this sound will usually bring the real heron circling about to investigate the sham one.

ORDER PALUDICOLÆ. CRANES, RAILS, ETC.

An order comprising several groups of somewhat dissimilar members, represented within our range by the Cranes, Courlans and Rails. However much they may differ in other respects, all the Paludicolæ are precocial—that is, they are hatched covered with down and run from the nest almost as soon as out of the egg.

CRANES

(205) *Grus canadensis*

(Linn.)

LITTLE BROWN CRANE.

Similar to the next and most common species, but smaller and browner. Breeds from Hudson Bay to Alaska; winters from Texas to Ariz. Very rare east of the Miss. River. L., 36.00; W., 18.50; B., 4.00.

(206) *Grus mexicana*

(Miller)

SANDHILL CRANE; COMMON BROWN CRANE. Plumage as shown; feathers of occiput extending forward in a point on the bare, red skin of the head. Young birds have the head fully feathered and are more rusty. L., 46.00; W., 22.00; T., 9.00; Tar., 10.00; B., 5.50.

Range — Resident in Fla. and La. Breeds also in interior Canada.



FAMILY GRUIDÆ. CRANES

Our cranes are large birds, as large or larger than herons, which they resemble in form. They differ externally, however, in the shape of the bill, in the more or less bald head, in having closer, firmer plumage, and in the elevation of the hind toe above the level of the front ones.

The WHOOPING CRANE is the largest of our cranes—a truly magnificent creature standing as tall as a good-sized boy, and with a plumage of immaculate white, save for the outer feathers of the enormous wings, which have an expanse of nearly eight feet. Except during migrations, when several families unite for the southern journey, they are solitary wanderers over marsh and plain. Living in open country, where their stature enables them to see for great distances, they are naturally very wary, to which fact and the added one that they repair to northern fur countries to breed, they probably owe their continued existence.



(207) *Aramus vociferus*

(Lath.) (Lat., noisy).

LIMPKIN. A species with characters common to both cranes and rails, but chiefly favoring the latter. Plumage as shown, chiefly brownish, spotted and streaked with white. Immature birds are paler colored. Downy young are jet black. L., 26.00; W., 13.00; T., 6.50; Tar., 4.50; B., 4.00. *Nest*—A platform of sticks and grasses close to the ground in marshes or swamps; four to twelve buffy-white eggs, blotched with brown, 2.30 x 1.70.

Range—Resident in marshes of Fla., the West Indies and both coasts of Central America. Casual north to S. Car.

The smaller SANDHILL CRANES are more abundant and have not yet been wholly banished from the United States as residents, for a few still remain to nest in Florida and Louisiana, although the bulk of them pass through the interior to the wilds of Manitoba and Saskatchewan before settling down for the summer. Their nests are built in open marshes or grassy ponds, grass, weeds and roots being piled up until the top is elevated several inches above the water; the two large eggs are laid on the slightly hollowed top.

Cranes feed upon field mice, snakes, lizards, frogs, shellfish, berries or seeds. During migrations they may often be seen feeding with companies of geese—a combination of wariness that renders undetected approach by a hunter impossible. Cranes have very raucous, resonant voices which they are fond of testing after dusk. A glance at a crane's windpipe would convince any one of the power of their voices, even though they lack musical quality, that of the Whooping Crane being more than four feet in length. During spring, parties of cranes, including both sexes, go

RAILS

(208) *Rallus élegans* Audubon

(Lat., a rail; elegant).

KING RAIL. The largest of our true rails. Plumage as shown; richly colored on the breast with bright rufous, on the wing coverts with chestnut, and sharply marked on the back with brownish-black and tawny-olive; flanks and linings of wings blackish, broadly barred with white. Downy young glossy black. L., 17.00; W., 6.50; Tar., 2.30; B., 2.40. *Nest* — Of grasses, on the ground in fresh water marshes; seven to twelve buffy-white eggs, specked with reddish-brown, 1.60 x 1.20.

Range — Breeds from Conn., Ont. and southern Minn. southward. Winters in southern United States. Casual north to Maine.



through the most extraordinary antics — bowing, leaping, and pirouetting about in a manner most ridiculous.

The Family ARAMIDÆ consists of but two species, of which our LIMPKIN, or COURLAN, is one. These gigantic semi-rails are most peculiar birds, with a weak, mincing, limping gait that gives good reason for their common name. They frequent large marshes, moving about and feeding almost wholly at night. They have loud voices, said to resemble the cry of a child in distress, from which they are sometimes called “Crying-birds.” Such a combination of voice, weak legs, weaker wings and odd appearance we might reasonably expect to find only as a caricature; yet it is a species not uncommon in Florida marshes and sometimes strays along the Atlantic coast as far as South Carolina.

FAMILY RALLIDÆ. RAILS, GALLINULES, COOTS, ETC.

A large family, comprising many species of marsh-inhabiting birds of rather slender build, but with long, strong legs

RAILS

(211) *Railus crépitans crépitans*

(*Gmel.*) (Lat., clattering, noisy).

CLAPPER RAIL. Plumage as shown; much duller than that of the last species; back indistinctly marked and flanks barred with gray and white. L., 14.50; W., 5.00; Tar., 2.00; B., 2.50.

Range — Breeds in salt marshes from Conn. to N. Car. Casual in Maine. Winters south of N. J.

(211a) *R. c. saturátus* Ridgway

LOUISIANA CLAPPER RAIL.
"Coast of La." Slightly darker.

(211b) *R. c. scótti* Sennett

FLORIDA CLAPPER RAIL.
Gulf coast of Fla. Much darker above.

(211c) *R. c. waynei* Brewster

WAYNE'S CLAPPER RAIL.
Coast from N. Car. to Fla. Midway between *crepitans* and *scotti*.



and very long, slender toes to enable them to run rapidly through the marshes without sinking into the mire.

KING RAILS, the largest of our rails, are locally distributed throughout eastern United States, frequenting fresh-water marshes. They can readily be identified, when seen, by their comparatively large size and bright coloration. They are, however, so secretive in their habits that they are seldom observed except by the gunner who poles his skiff through the marshes trying to flush them. During twilight, and often during the night — for they feed chiefly after dark — their voices may be heard over the marshes in all directions. These night marsh voices are very difficult to identify, a fact that might be judged by the widely differing notes ascribed to this and other species by various authors. My own belief is that it is a loud, metallic "klink, klink," etc., repeated many times, first at slow, measured intervals, and then faster and faster, and finally dying away.

(212) *Rallus virginianus* Linn.

VIRGINIA RAIL. Plumage as shown. A smaller but perfect miniature of the King Rail; if anything the plumage is a trifle brighter. Downy young a glossy greenish-black, with a black-banded white bill. L., 9.50; W., 4.50; T., 2.00; Tar., 1.45; B., .85. *Nest* — Of grasses on the ground in marshy places; six to twelve pale buffy-white eggs, sparingly spotted with reddish-brown, 1.25 x .90. *Notes* — A guttural, rattling, "cut-cut-cut-ee," repeated at frequent intervals, especially at night.

Range — Breeds from N. B., Ont., Sask. and B. C. south to N. J., Mo., and Cal. Winters chiefly in the southern half of United States.



CLAPPER RAILS are much more abundant than the preceding species, but they frequent, almost entirely, salt-water marshes, which of course confines them to the immediate vicinity of the sea-coast. They are somewhat smaller than the last species and duller colored, lacking any decided markings.

Unless disturbed they spend most of their time during daylight in dozing among the thick sedge grasses. At dusk they become exceedingly active and the marshes resound with their loud, long, rolling, clattering cries. They travel swiftly about in their search for food, threading their way through the coarse, stiff marsh grass with amazing ease, and running across open spaces of water and mud.

Hardly ever, unless driven to it, do they take flight during daylight, nor at night except during migrations. Their safety lies in their long, strong legs and their arts of concealment. However, quantities of them are shot for the table, although they are not nearly as desirable for an article of food as the smaller Soras. Ordinarily it would be practically

RAILS



(214) *Porzana carolina*

(*Linn.*) (Ital., name for the Crake).

SORA RAIL; CAROLINA RAIL; COMMON RAIL. Bill stouter than that of any of the preceding rails. *Ads.*—Plumage as shown by the upper bird; face black. *Im.*—As shown by the lower bird; more yellowish and with no black on the head. Downy young black, with a beard of orange bristles about the face and throat. L., 8.50; W., 4.25; Tar., 1.30; B., .70.

Range—Breeds from N. B., Mackenzie and B. C. south to N. J., Ill. and Cal. Winters in southern half of U. S.

(213) SPOTTED CRAKE (*Porzana porzana*). An Old World species, occurring occasionally in Greenland.

impossible to make them fly, but at high tide their marshes are flooded and they are forced to cling to the taller grasses. It is at flood tide that they are hunted, men polling through the marshes in skiffs and dropping the rails as they are forced to leave their refuges. Their flight is so slow and fluttering that even a tyro could not miss them.

VIRGINIA RAILS are not only miniature of King Rails in appearance, but their habits are similar, especially in that they both prefer and live almost exclusively in fresh-water marshes.

During spring, in cloudy weather, early mornings and in the evening the love song of the male comes from the marshes—a guttural “cut, cut, cutta-cutta-cutta,” repeated at frequent intervals. Their nests are in the dryer portions of the marsh, well concealed under dense grass or brush.

SORAS are apparently the most abundant of our rails. Small in size and with a thin body, they readily recall the saying “as thin as a rail.” Yet during fall thousands of

RAILS

(215) *Coturnicops noveboracensis*

(*Gmel.*) (Lat., a quail).

YELLOW RAIL. Plumage as shown; the feathers everywhere having a gloss. L., 6.50; W., 3.25; T., 1.50; Tar., .85; B., .50. *Nest* — In grassy marshes; six to twelve rich buff-colored eggs, speckled with brown in a wreath about the large end, 1.10 x .80.

Range — Breeds from Maine and Minn. north to Ungava and Mackenzie. Winters in the Gulf States.

(216) *Creciscus jamaicensis*

(*Gmel.*) (Lat., crane).

BLACK RAIL. The smallest and blackest of our rails. Plumage as figured. L., 5.00; W., 2.80; Tar., .80; B., .50.

Range — Breeds from Mass. and Ont. south to S. Car. and Kan.



Soras, a little fattened by high living upon wild rice, are bagged by gunners and sold with Bobolinks as "ortolans."

Soras live in the same marshes with Virginia Rails, but they build their nests in wetter portions. These nests are made by piling up reeds and grasses until the top of the mass is a few inches above the water, which is usually a few inches deep at the spot selected. On the hollowed top of this nest, sheltered by the tops of living grasses which are drawn over to form an arch, the dozen or so brownish-spotted eggs are laid. The little chicks are hatched covered with down, glossy jet black, and can follow their mother as soon as they leave the egg.

When alarmed, both sexes utter a sharp, explosive note, and both have a pleasing whinnying song, sounding much like the trill a woodchuck sometimes utters.

YELLOW RAILS and that smallest member of the family, the little **BLACK RAIL**, although found throughout eastern United States, are regarded as of rare occurrence. Possibly they are, and certainly their small size and habits of skulking

GALLINULES



(217) CORN CRAKE (*Crex crex*).
An Old World species; casual from
N. S. to N. J.

(218) *Isonornis martinicus*

(*Linn.*). (Gr., violet bird).

PURPLE GALLINULE. *Ads.*
— Plumage as shown. Bill carmine,
tipped with yellow. Frontal plate
bluish. Legs yellowish. *Im.*— Up-
per parts more or less brownish;
under parts mixed brown and
white. L., 13.00; Ex., 22.00; W.,
7.00; T., 2.75; Tar., 2.25; B.,
along gape 1.25. *Nest*— Woven of
grasses or rushes, on the ground
or attached to upright stalks in
marshes; five to ten rich, cream-
colored eggs, spotted with reddish-
brown, 1.60 x 1.15.

Range— Breeds from S. Car. and
the Gulf coast southward. North
casually in summer to Nova Scotia.

through sedges like so many mice would tend to make them seem rare even if they were not. It seems to be almost impossible to kick them out of their retreats. Both species have songs, uttered at dusk, sounding somewhat like the voices of tree frogs, but that of the smaller species is rather more energetic, having a peculiar clicking quality.

PURPLE GALLINULES are handsomely plumaged marsh birds residing in our Southern States and casually wandering to the Northern ones. Gallinules are rail-like in form, but have a horny plate on the forehead — a continuation of the upper mandible. Some of the tropical species are very brilliantly hued. The present one is, as our picture shows, handsomely shaded with purples, blues, and greens. Aside from their plumage, Purple Gallinules are but little different in nesting or any of their habits from the more common and more widely distributed.

FLORIDA GALLINULES. Gallinules, although not having webbed feet, are excellent swimmers and skilful divers. They frequently escape observation by diving and

GALLINULES

(219) *Gallinula galeáta*

(Licht.) (Lat., a small hen; helmeted).

FLORIDA GALLINULE. *Ads.*—Plumage as figured. Bill and frontal plate red. Legs greenish-black, but with a red ring around the base of the bare tibia, this distinguishing it from the Purple Gallinule in any plumage. *Im.*—Extensively white below. Downy young black, with a silvery beard. L., 13.00; W., 7.00; Tar., 2.25; B., 1.50 along the gape. *Nest*—Of rushes and grass, in marshes; eight to fourteen buffy eggs, spotted with dark brown, 1.75 x 1.20.

Range—Breeds from Vt., Ont., Minn. and central Cal. southward. Winters from the Gulf States and Cal. southward. Casual north to N. B.



clinging to reeds with their toes, allowing but the tips of their bills to protrude above water. While swimming the head is usually nodding in unison with the motion of the legs and is turned from side to side on the lookout for danger, for these birds are fully as timid as rails. When standing on land the head is usually carried low and the tail elevated, but one seldom gets a chance to catch more than a fleeting glimpse of them, as they flee through the rushes.

Their flight—and it is a difficult matter to force them to fly without the aid of a good dog—is very weak and fluttering; the legs are carried dangling awkwardly and the birds soon drop out of sight in the reeds as though their strength were spent. Yet they must, at times, be capable of more or less protracted flight, for they summer as far north as southern Canada, but none winter north of our Southern States.

The name Gallinule, meaning a small hen, was applied to these birds because so many of their habits are hen-like. Their notes, and they are very noisy at dusk, imitate about

COOTS



(221) *Fúlíca americána* Gmel.

(Lat., coot).

COOT; MUD-HEN; MOOR-HEN; BLUE PETER; and quantities of other more local names. Feet lobate-webbed; each joint on each toe has a lobe, that is, there are one, two, three, and four lobes respectively on the hind, first, middle, and outer toes. Bill whitish, with a blackish spot near the tip. Plumage as shown. L., 15.00; W., 7.50; Tar., 2.00; B., 1.40 along the gape. *Nest* — Of reeds and grasses in rushes; six to fifteen grayish-buff eggs, finely specked with black, 1.80 x 1.30.

Range — Breeds from N. B., Man. and B. C. southward. Winters from Va., Ill. and B. C. southward.

(220) EUROPEAN COOT (*Fulica atra*) is accidental in Greenland.

all that a well-bred hen utters, from cackles to squawks and cluckings, with a few peeps thrown in for good measure. Their flight, too, is no more graceful nor usually more protracted than that of hens. They walk daintily, lifting each foot high and closing the long toes, like a proud little bantam rooster. Their food consists of seeds, grasses, and various aquatic insects, shellfish, etc.

COOTS are well known throughout the United States and southern Canada. In the north they are very commonly called Mud or Meadow Hens, and in Southern States are spoken of as Blue Peters. They are very interesting because they combine a body similar to that of the gallinules with webbed feet, each long toe having a scalloped webbing. They can swim excellently and are often seen in flocks in ponds, frequently among ducks. On the water they are quite grebe-like; they sit rather low, can dive deeply in search of food, and when about to take flight have to patter along the surface for a distance. Their flight is much stronger than that of gallinules or rails.

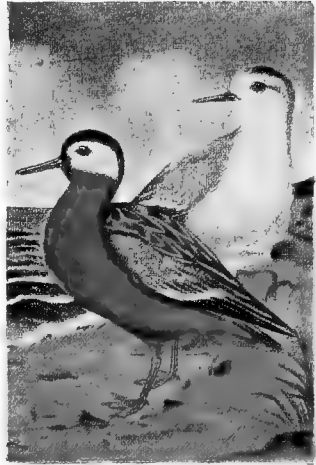
PHALAROPES

(222) *Phaláropus fulicárius*

(Linn.) (Gr., coot, foot; Lat., coot-like).

RED PHALAROPE. Feet lobate-webbed. *Ad.* ♀—Plumage as shown by the nearest bird; the chestnut parts have a somewhat hoary or frosty appearance. The ♂ is smaller and not so brightly colored. *In winter*—Plumage as shown by the bird in the background; quite variable but chiefly white on the head and under parts. The young are similar, below, to winter adults, but are streaked brown, black and gray above. L., 7.75; W., 5.25; Tar., .75; B., .90. *Eggs*—Three or four, greenish-buff, spotted and blotched with black, 1.20 x .85.*

Range—Breeds in the Arctic regions. Migrates off both coasts of the U. S.



During nesting time they are very noisy and upon the slightest provocation all the Coots in the marsh will break out into noisy, high-pitched cackling. The nests are built of reeds and grasses on reclining masses of rushes, in the hollow of which the numerous finely specked eggs are laid.

ORDER LIMICOLÆ. SHORE BIRDS

FAMILY PHALAROPODIDÆ. PHALAROPES

A small family of small shore birds having thick, duck-like plumage and lobate-webbed feet — consequently being good swimmers.

RED PHALAROPES are quite abundant as breeding birds in the northern half of Canada. Within our borders they are found only as migrants and then chiefly along the sea-coasts. We see them only in their winter dress, in which plumage they are generally known as Gray Phalaropes, or "Sea Snipe." Most of them migrate well off shore, not

PHALAROPES

(223) *Lóbipes lobátus*

(Linn.) (Lat., a flap, foot; lobed).



NORTHERN PHALAROPE;
RED-NECKED PHALAROPE. *Ad.*
♀ *in summer* — Plumage as shown
by the bird in foreground; sides of
neck reddish, this color sometimes
extending nearly around the neck;
greater coverts tipped with white;
scapulars edged with buff. The ♂
is much duller plumaged and the
back streaked with ochre. *In winter*
— More or less gray above and
white below; greater coverts and
part of secondaries white. L., 7.25
W., 4.40; Tar., .80; B., .85. *Nest*
— A grass-lined hollow on the ground;
eggs greenish-buff, spotted with black.

Range — Breeds from Ungava,
Keewatin and Aleutian Islands north-
ward. Migrates throughout the U. S.
to its winter home in southern oceans.

touching our coast unless blown in by adverse winds until they reach Virginia. Thence they pass to Cuba, Brazil, and to their winter quarters in southern oceans.

They rest on the ocean and get their food from its surface. Steamers, hundreds of miles from land, often pass through large flocks of them floating on the water, during August and again in May. Of similar migration habits are the more common.

NORTHERN PHALAROPES. These birds are also known within our borders only as migrants, chiefly in their gray dress, although red-necked individuals of this species are more often found than red-breasted ones of the last.

The habits of phalaropes are unique in that they are our only birds in which the females usurp all the usual rights of the males. They are larger and much more brightly plumaged, the male being clothed comparatively about as we would expect, judging from all other birds, the female should be. She does all the love-making, being no more like the shy, coy birds of her sex to which we are accustomed than is

PHALAROPES

(224) *Stegánopus tricolor* Vieill.

(Gr., web-foot; Lat., three-colored).

WILSON'S PHALAROPE. Feet lobate-webbed, but not as conspicuously as those of the preceding two species. *Ad.* ♀ — Plumage in summer as shown. The ♂ is smaller and paler, the black being replaced by brownish, and the chestnut paler and less extensive. In winter both sexes and young are plain gray above and white below. L., 9.00; W., 5.00; Tar., 1.30; B., 1.25. *Nest* — A shallow depression lined with a few grasses; three or four cream-colored eggs, heavily blotched with black, 1.30 x .90.

Range — Breeds from northwestern Ind., Ia., Col. and central Cal. north to Alberta and central Wash.



the modern suffragette who possibly may have conceived her unwomanly ideas from these very birds.

A place for the nests having been selected by the male, just a depression in the ground, scantily or not at all lined, the female deposits four heavily blotched eggs, after which she enjoys a period of leisure while the male incubates the eggs. He also takes the greater part of the care of the chicks when they emerge.

On the water they float as lightly as feathers; they are exceedingly active, always in motion, and each stroke of the feet is accompanied by a graceful nod of the small head. They feed on minute particles from the surface of the water or on shore, along which they run as swiftly and as easily as sandpipers, which are not favored with webbed feet.

WILSON'S PHALAROPES, which dwell in the interior and western parts of our country, have the lobes of the toes less developed than the two preceding species. Consequently they are not so aquatic. They can, however, swim easily if they desire, but they usually content themselves by

AVOCETS AND STILTS



(225) *Recurvirostra americana*

Gmel.

(Lat., bent upward, bill)

AVOCET. Bill long, slender and curved upward. Legs long, dull blue. Feet webbed. Feathers on the under parts very thick and duck-like. *Ads. in summer* — Plumage as shown. In winter with none of the rusty wash on the head. Young birds are very similar to winter adults but have more or less rusty edging to the feathers on the back and wings. L., 17.00; W., 9.00; Tar., 3.75; B., 3.75. *Nest* — A depression in the ground, often in marshy places; three to five olive-buff eggs, heavily spotted with black, 1.90 x 1.30.

Range — Breeds from central Wis., Ia., Texas and southern Cal., north to Manitoba and Ore. Casual in eastern U. S.

feeding about the edges of pools or wading into the water up to their bellies and feeding from the surface. As with the other phalaropes, the female of this species is in most respects "the man of the house"; she makes all the advances during the mating season, and often several of them unfortunately take a liking to the same swain, with the result that the strongest and handsomest one usually gets him.

FAMILY RECURVIROSTRIDÆ. AVOCETS AND STILTS

A small Family comprising species with very long, slender legs and very slender bills which may be either straight or upturned. The plumage underneath is thickened as on water birds. The feet are either webbed or semipalmate and all the species comprising the Family can swim quite well.

AVOCETS are quite remarkable in the amount of curvature of their upturned bills, which are very slender and as flexible as whalebone. The plumage on their under parts is exceedingly close and duck-like, and is impervious to water.

(226) *Himántopus mexicánus**(Müller)* (Gr., strap leg).

BLACK-NECKED STILT. Legs extremely long and slender; bright red. Only three toes. Bill slender and black. *Ads.*—Plumage as shown, pure white below and glossy black above. The back of the ♀ usually inclined toward brownish. *Im.*—Upper parts brownish black, the feathers more or less edged with buffy. L., 15.00; W., 9.00; T., 3.00; Tar., 4.25; Bare Tib., 3.25; B., 2.25. *Nest*—A depression in the ground, usually near the water's edge; three or four pyriform, greenish-buff eggs, blotched with black, 1.80 x 1.25.

Range—Breeds from central Fla., coast of La., Tex., Col. and central Ore. southward. Casual in migrations north to N. B. and Wis.



The toes are full-webbed and the birds are excellent swimmers; in fact they often alight in deep water.

They are not at all shy except when hunted, and often allow a quite near approach as small bands of them are feeding in the shallow water on mud flats. They feed upon insects, their larvæ and small crustacea, which they get, not by probing but by swinging the bill regularly sidewise through the soft mud. They very frequently wade in water up to their bodies and feed in this manner, with the head immersed.

Their nests are usually located in grass in rather moist places, the hollow being lined with grasses or, occasionally, with small twigs. The note of Avocets is a loud, not unmusical "klee-eek," having a sharp clinking quality.

BLACK-NECKED STILTS have bright red legs of exceedingly great length and slenderness, and long, narrow wings that, when folded, reach beyond the end of the tail. They are by no means as good swimmers as Avocets and rarely do so unless they get beyond their depth while wading. Their toes are only partially webbed, which, together with

SNIPES



(228) *Philohela minor*

(Gmel.) (Gr., loving, a bog; Lat., smaller).

WOODCOCK. Bill very long, soft and flexible at the tip. Ears beneath the very large eyes, which are set near the upper corner of the head. Plumage as shown, much mottled with black, grays, browns, and buffy. Downy young handsomely marbled with black, brown and buff. L., 11.00; W., 5.00; Tar., 1.25; B., 2.90. *Nest*—A hollow in the leaves on the ground, in woods; four buff eggs, spotted with yellowish-brown, 1.50 x 1.15.

Range—Breeds from N. S. and Man. south to Fla. and Kans. Winters in southeastern U. S.

(227) **EUROPEAN WOODCOCK** (*Scolopax rusticola*) Linn. Casual from N. B. to Va.

their long legs, accounts for their poor ability as aquatic birds.

FAMILY SCOLOPACIDÆ. SNIPES, SANDPIPERS, ETC.

WOODCOCK are birds that will well repay one to study. I know of no one bird that is of greater interest. They are borers and consequently must have soft soil to work in. Northern birds go just far enough south in winter to keep below the frost line and, in spring, return to their summer haunts just as soon as the condition of the ground will allow. If they come too early, they have to probe among the leaves and feed upon larvæ until warmer temperatures lure the worms upon which they usually live, nearer the surface.

Woodcock toes are long to support him on the oozy banks of streams; his legs are short so he can easily reach the ground; his bill is long so he can probe deeply; its end is sensitive, flexible and under his control so that, having discovered a worm, he can open the tip of the bill and capture it, though the bill is buried even up to his head; his eyes are

SNIPES

(230) Gallinágo delicáta

(Ord) (Lat., a hen; delicate).

WILSON'S SNIPE; ENGLISH SNIPE; JACK SNIPE. Bill very long but not as stout as that of the Woodcock. Plumage as shown; flanks barred; tail chiefly rufous; back feathers broadly edged with buffy-white. L., 11.25; W., 5.00; Tar., 1.25; B., 2.50. Eggs—Three or four, olive-gray, blotched with black, 1.50 x 1.10.

Range—Breeds from N. J., Ill., Ia. and Cal. north to Ungava, Keewatin and Alaska. Winters south from N. Car., Ark. and Cal.

(229) EUROPEAN SNIPE (*G. gallinago*) (Linn.). Casual in Greenland.

(230.1) GREAT SNIPE (*G. media*) (Lath.). An Old World species; accidental in Canada.



far back on his head so that when the bill is buried as aforesaid, he can see all that is going on about him; they are large and have owl-like qualities of vision so that he may see after dusk, for feeding then is safer and worms come nearer the surface. Our Woodcock gets his worms in the easiest way. After a rain he does not dig, but searches under the leaves, for he knows they will be there. He even often comes to well-watered gardens or lawns for the same purpose; that is why house cats so often catch Woodcock, and why they are often found maimed or dead in cities, after they have flown into unseen wires while on their nightly forages.

Woodcock are quite silent, but they do utter peeping whistles. When rising in their sudden, tortuous flight, the three small, very narrow outer primaries make a characteristic whistling sound. Their four eggs are laid among the leaves on the ground in thickets or woods.

WILSON'S SNIPE, just plain Snipe or English Snipe, by which names they are almost universally known, are the

SANDPIPERS



(231) *Macrorhampus griseus* *griseus*

(Gmel.) (Gr., long, beak; Lat., gray).

DOWITCHER; RED-BREASTED SNIPE; GRAY SNIPE (winter). Bill very long. *Ads. in summer* — Plumage as shown, chiefly rich, rusty red; rump and upper tail coverts white, more or less barred; *In winter* — Dark gray above, the feathers with lighter edges; below white, the breast being washed and spotted with gray. L., 10.50; W., 5.75; Tar., 1.30; B., 2.05 to 2.50.

Range — Breeds within the Arctic Circle. Migrates along the Atlantic coast and in the interior.

(231a) *M. g. scolopáceus*

(Lat., snipe-like).

LONG-BILLED DOWITCHER.
Chiefly west of the Mississippi.

connecting links between Woodcock and the many species of sandpipers. They have more slender forms than the former, but have similar, long sensitive bills.

On taking wing, Snipe utter a sharp, grating "scaipe," repeated several times as they zigzag away. Often, after going to a considerable distance, they will suddenly turn and return to the same spot from which they flushed. At other times they will at once leave the meadow and, by their cries, induce all others there to go with them. A few Snipe nest within northern United States, but the majority of them make their summer homes in the northern parts of Canada. They are almost as highly esteemed by sportsmen as Woodcock, both for the excellence of their flesh and the high degree of skill necessary to bring them down.

DOWITCHERS are birds that we know best during migrations. Sportsmen usually term them Red-breasted Snipe, or Gray Snipe when they are in the winter plumage. They are separated into two varieties, the Long-billed Dowitchers, which are supposed to keep to the west of the

SANDPIPERS

(233) *Micropálama himántopus*

(Bonap.) (Gr., small web strap-legged)

STILT SANDPIPER. Bill slender. Legs slender and long. Toes semipalmated, the two outer ones having a conspicuous webbing. *Ads. in summer* — Plumage as shown; crown and ear coverts with patches of chestnut; rest of upper and under parts more or less washed with rusty; heavily barred below; upper tail coverts white, with dusky bars. *In winter* — Gray above and white below; breast more or less streaked with dusky. L., 8.25; W., 5.00; Tar., 1.60; B., 1.60.

Range — Breeds in Mackenzie and Keewatin. Migrates through the interior, casually on the coasts to West Indies and Central America.



Mississippi River, and to breed in the extreme northwest, and the common Dowitcher, which is presumed to keep on the east side of that great river and nest in northern Ungava. While the average of those taken in the west, or at least the ones selected for measurement, shows a slight increase in size over the eastern ones, unfortunately the birds do not always stop to measure their bills and often get on the wrong side of this technical fence. They are sociable birds, usually seen in small flocks, which keep closely together, both when feeding and while in flight. When in the air, they have the habit, shared by a number of other sandpipers, of turning so as to alternately show the upper and under sides; as the whole flock acts in unison, the movement is a very pretty one. They are quite unsuspecting and usually allow a near approach to them as they feed near the water's edge — too unsuspecting oftentimes for their own good.

Flocks are also easily lured by a crude imitation of their musical "peet-a-weet" and come readily to the decoys of the hidden shooter.

SANDPIPERS



(234) *Tringa canutus* Linn.

(Lat., a sandpiper; for King Canute).

KNOT; RED-BREASTED SANDPIPER; ROBIN-SNIPE; GRAY-BACK (winter). Bill rather long, straight and stout. *Ads. in summer* — Plumage as shown; under parts uniform brownish-red, fading to white on the flanks and under tail coverts; back with broad buffy edges to the feathers; rump and upper tail coverts whitish, barred with dusky. *In winter* — Ashy-gray above; mostly, white below. Young, similar but the back feathers are edged with white, outside a dusky border, giving the bird a characteristic scaly appearance. L., 10.50; W., 6.75; Tar., 1.20.

Range — Breeds in circumpolar regions. Migrates, chiefly along the Atlantic coast, as far south as Patagonia.

STILT SANDPIPERS, apparently never have been abundant, and judging from the records of old-time observers, seem to be found about as commonly now as in the olden days. They are sometimes seen in bands of four or five, but more often single ones are to be found with other species of small sandpipers. They can easily be identified among others by the noticeably long legs. I have found them a number of times feeding with companies of Least, Semipalmated, White-rumped and Baird's Sandpipers. During migrations they are most common in the Mississippi Valley, which is the direct route from their breeding grounds in Mackenzie to their winter quarters in South America.

KNOTS are one of the most abundant species of sandpipers migrating along our eastern coast, in spite of the fact that they are shown no mercy by sportsmen, whose blinds are so closely placed along our shores as to scarcely allow room for a bird to alight without being in range of one of them. Breeding conditions must be unusually good in the extreme Arctic regions where these shore birds nest, for a very

SANDPIPERS

(235) **Arquatélla marítima**
marítima (*Brünn.*) (Lat., little bowed
or curved; maritime.)

PURPLE SANDPIPER; ROCK
SNIPE. *Ads. in winter* — Plumage
as shown by the upper bird. In
summer, the feathers on upper parts
are largely edged with buff or chest-
nut; breast tawny, streaked and
spotted with dusky. L., 9.00; W.,
5.00; Tar., .95; B., 1.20.

Range — Breeds in Arctic regions.
Winters south to the Great Lakes
and on the coast to Long Island.

(239) **Pisóbia maculáta**

(*Vicill.*) (Lat., spotted).

PECTORAL SANDPIPER;
Plumage as shown. L., 9.00; W.,
5.25; Tar., 1.10; B., 1.10.

Range — Breeds on the Arctic
coast; migrates on the Atlantic coast
and interior to South America.



large percentage of the south-going ones are immature. In fall, they are known chiefly as Gray-backs, for both the adults and young are gray and white, the latter with the feathers peculiarly edged with concentric rings of white and dusky. In spring, they are commonly called Robin Snipe, as many of them have attained their summer dress before they reach our shores. They winter to the southern point of Patagonia, a journey of about six thousand miles performed twice a year.

PURPLE SANDPIPERS are quite unusual in that they remain on our northern shores during winter and that they prefer rocky to sandy coasts. They are not uncommon at this season on the shores of the Great Lakes, but they are most abundant on the coast from New Brunswick to Long Island. When the tide is high, they may be seen standing on the rocks, sleeping or preening their feathers; as soon as it commences to fall, they follow it closely, picking up insects and tiny shellfish left on the rocks or in little pools.

These Rock Snipe, as they are often termed, nest along

SANDPIPERS



(240) *Pisobia fuscicollis*

(*Vieill.*) (Lat., dusky neck).

WHITE-RUMPED SANDPIPER.

Plumage as shown; rump white; breast and sides conspicuously streaked. In winter, the rufous edgings on the upper parts are largely replaced by gray. L., 7.50; W., 4.90; Tar., .90. B., .95.

Range—Breeds on the Arctic coast. Migrates through the Miss. Valley and on Atlantic coast to South America.

(241) *Pisobia bairdii* (*Coues*).

BAIRD'S SANDPIPER. Upper tail coverts and rump grayish; breast and sides indistinctly streaked.

Range—Breeds along the Arctic coast. Migrates through the interior and less often on the Atlantic coast to South America.

our Arctic coast, laying four eggs in a slight depression lined with moss or grasses. These eggs are of a grayish color, very handsomely splashed with gray, brown, and lilac.

PECTORAL SANDPIPERS, or, as they are more commonly called when with us, Grass or Jack Snipe, frequent ponds, rivers, marshes, and meadows throughout the interior as well as the Atlantic coast during their biannual migrations. As we see them in the states, they appear to be just ordinary small sandpipers, but if we follow them to their northern homes from Mackenzie to Alaska we shall find that they are quite remarkable. During the mating season, the skin on the breast of the male becomes soft and flabby, hanging down like a dewlap. This skin is capable of being distended with air so as to puff out as large as the bird's body, at which time strange, hollow, resonant notes come from his throat, similar to the syllables "tooo-u; tooo-u," repeatedly uttered.

WHITE-RUMPED and BAIRD'S SANDPIPERS are two not uncommon species of a size intermediate between

SANDPIPERS

(242) *Pisobia minutilla*

(*Vieill.*) (Lat., very small).

LEAST SANDPIPER; PEEP. Feathers of upper parts edged with bright rusty; breast distinctly streaked with dusky. L., 6.00; W., 3.50; Tar., .70; B., .75.

Range — Breeds from N. S. and Keewatin northward. Winters from southern U. S. southward.

(246) *Ereunètes pusillus*

(*Lin.*) (Gr., a searcher; Lat., small).

SEMIPALMATED SANDPIPER; PEEP. Slightly grayer than the last; breast indistinctly streaked. Feet with partial webs.

Range — Same as preceding.

(247) *E. maúri* Cabanis

WESTERN SANDPIPER. Bill averaging a trifle longer; Chiefly west of the Rockies.



that of the Pectoral and Least Sandpipers. The former is the more abundant during migrations on the Atlantic coast, while the latter is much more common in the interior.

Their habits are not different in any way from the more common smaller sandpipers with which they are often associated. The difference in size is quite evident when they are seen together.

“Peeps,” by which name both LEAST and SEMIPALMATED SANDPIPERS are most often called, are by far the most abundant as well as the smallest species of sandpipers that we have. Although of different genera, they may well be considered together, for their habits are the same, and in life they are usually associated during nesting, migrations, and in their winter quarters.

As we usually see them, the upper parts of the Little Stint are quite rusty, while the back of the Semipalmated species is inclined to grayish. The breast of the former is distinctly streaked, while that of the latter is very indistinctly so.

SANDPIPERS

(243a) *Pelidna alpina sakhalina*

(*Vieill.*) (Gr., gray; Lat., alpine).

RED-BACKED SANDPIPER; AMERICAN DUNLIN. Bill long, stout, slightly decurved and somewhat expanded at the tip. *Ads. in summer*—Plumage as shown by the nearest bird. In winter, the top and sides of the head are darker, the rufous on the back is replaced by gray, and the black patch disappears from beneath. L., 8.50; W., 4.75; Tar., 1.10; B., 1.60. *Eggs*—Pale-greenish or brownish-gray, blotched with blackish, 1.40 x 1.00.

Range—Breeds on the Arctic coast. Winters from N. J. to the Gulf coast and from Wash. to Lower Cal. Rare in the interior during migrations.



They are very gentle and confiding, allowing a close approach or feeding near any one seated on the beach. If alarmed, the flock moves away in a compact body, uttering their soft, sweet whistles, which notes they also give occasionally while feeding. It is an exceedingly interesting sight to watch sandpipers at their meals; they run so swiftly, are never still, and every movement is one of grace. The abundance of these little "Peeps" is probably due to the fact that they are not large enough to be hunted, although often misguided gunners may shoot into a large flock of them just to "see how many they can get." As usual with so many of our sandpipers, "Peeps" nest only in the northern half of Canada.

RED-BACKED SANDPIPERS, or American Dunlins, also make their homes in Arctic regions, but individuals may sometimes be seen along our shores during the latter part of July, while in August they become quite numerous. They keep chiefly along our sea-coasts, in the interior being only rarely found on the south shores of Lake Michigan.

SANDPIPERS

(244) *Erólia ferrugínea*

(Brünn.) (Lat., rusty or reddish).

CURLEW SANDPIPER. A boreal, Old World species, having a slightly decurved bill and, in summer, rufous under parts. Casual on the Atlantic coast.

(248) *Calidris leucophæa*

(Pallas) (Gr., a beach bird; light gray).

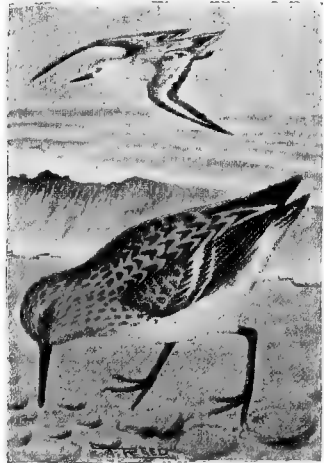
SANDERLING. Bill rather stout and with slightly expanded tip. Plumage in summer as shown; washed on the head, neck and back with rusty. In winter, the rusty wash disappears, leaving the plumage largely white. L., 7.75; W., 4.90; T., 2.25; Tar., .95; B., 1.00.

Range — Abundant in Northern and Southern Hemispheres. Breeds within the Arctic Circle. Winters from N. Y. and Cal. south to Patagonia.

In spring we sometimes see them in the red-backed, black-bellied plumage, but in fall nearly all of them are immature or winter-plumaged birds. They can easily be distinguished by the long bill, which is slightly decurved at the end.

They usually travel in flocks of their own kind, well massed and keeping perfect time in all their maneuvers. When feeding, they keep well grouped, running rapidly along the beach, now stopping to pick up an insect or scrap of animal matter, again following down the beach in the wake of a receding wave or boring in the soft soil for worms. Naturally unsuspecting, as are most boreal birds, they pay little heed to mankind on their first arrival, and their ranks are greatly decimated before they learn to beware of all humans.

SANDERLING, or Beach Birds, are nearly as abundant along our sea-coasts as are the little "Peeps." They may sometimes be seen along the margins of mud flats and pools back from the beach, but usually they must be looked for on the open ocean beach, where they run about, looking at a distance like so many ants, each busily trying to get more



SANDPIPERS

(249) *Limosa fêdoa*

(Linn.) (Lat., muddy).



MARBLED GODWIT; COMMON MARLIN. Large birds with very long, slightly curved bills and long legs. *Ads.*—Plumage as shown; general tone a deep buff; rump and tail barred with blackish. The plumage differs but little either in summer or winter. Young birds are whiter below and have few bars. Size quite variable as usual with shore birds. L., 20.00; Ex., 35.00; W., 9.00; T., 3.50; Tar., 3.00; B., 4.00. *Nest*—A grass-lined depression in the ground, not necessarily near water; three or four, clay-color, blotched with blackish, 2.15 x 1.60.

Range—Breeds from N. Dak. to Sask. Winters from Fla. and La. southward. Casual in migrations north to Me. and B. C.

than his share of the tiny insects and shellfish cast up by the waves. They fly in compact flocks and make a very handsome appearance as they wheel in unison, now showing the under parts of their bodies, glistening like snow in the sunlight, then turning so that the darker upper parts come into view.

They are birds of cosmopolitan distribution, breeding only within the Arctic Circle. Although many of them winter along our South Atlantic and Gulf coasts, some of them make the long journey to Patagonia and South Africa.

MARBLED GODWITS are large sandpipers, nearly as large as curlews; in fact, they are quite often called Straight-billed Curlews, but are perhaps more frequently known as Marlines. During migrations, they may be found on both coasts of the United States, but during the summer they live about the borders of ponds and marshes in the interior, from North Dakota to Saskatchewan. Although usually in the neighborhood of water, their nests are not necessarily near the water's edge. In fact, they are very apt to choose a

SANDPIPERS

(251) *Limosa hæmástica*

(Linn.) (Gr., bloody red).

HUDSONIAN GODWIT; BLACK-TAIL, WHITE-RUMP or RING-TAILED MARLIN. *Ads. in summer* — Plumage as shown, bright reddish below, barred with blackish; rump black; tail chiefly black, but the coverts white. *In winter* — Markings similar but general tone gray above and lighter below. L., 16.00; W., 8.00; Tar., 2.50; B., 3.25.

Range — Breeds on the Arctic coast. Migrates chiefly along the Atlantic coast in fall and up the Miss. Valley in spring. Winters in South America.

(252) BLACK-TAILED GODWIT (*L. limosa*). An Old World species occurring accidentally in Greenland.



higher and dryer location, lining some shallow depression with grasses, on which the four-spotted and blotched, buff-colored eggs are laid. The female is very solicitous when the nest is discovered and will often hover over the spot until the intruder leaves. They seem to be about as anxious about their comrades, for, if one is wounded and calls out, or the gunner imitates their cry, the flock will continually return, only to lose one or two more of their number each time. As they are of fair size and quite toothsome, most hunters lose no opportunity to bag as many as possible of them, with the usual result that they are yearly becoming rarer.

HUDSONIAN GODWITS, or Ring-tailed Marlines, are only a little smaller than the last species. They are much more abundant and will probably be found for years after the last of the others are seen, because they nest along our barren Arctic coasts, where nothing but beasts and birds of prey can harm them; and they spend the winter months in southern South America, where the deadly shotgun and blind is not an ever-present menace. They are said to breed

SANDPIPERS



(254) **Tótanus melanoleúcus**

(Gmel.) (Italian; Gr., black, white).

GREATER YELLOW-LEGS; WINTER YELLOW-LEGS. Bill straight and slender. Legs very long, slender, bright yellow. *Ads. in winter* — Plumage as shown. In summer, the upper parts are rather darker and the markings on the breast and sides more pronounced. L., 14.00; W., 7.70; Tar., 2.40; B., 2.20.

(255) **Tótanus flávipes**

(Gmel.) (Lat., yellow foot).

YELLOW-LEGS; SUMMER YELLOW-LEGS. Like the last except in size. L., 10.50; W., under 7.00; Tar., 2.00; B., 1.50.

Range — Both species breed in northern Canada and winter from the Gulf States southward.

also in the Antarctic regions, so that, for a short time each season, birds from the north and others from the south meet on the pampas of Argentina. The long bills of Godwits are used for dabbling in shallow water of mud flats or in boring for worms that are below the surface. They are known as “bay birds” as distinguished from “beach birds,” for they are always found about bays, ponds, or lagoons, and rarely if ever on sea beaches.

YELLOW-LEGS are familiar birds to sportsmen the country over, and also to bird-lovers who stroll in the vicinity of our many beautiful ponds and lakes during August and again in May. There are two distinct species, the Greater or Winter Yellow-leg, and the Lesser or Summer Yellow-leg. About the only point of difference is the considerable one of size, although the smaller species may appear within our borders a week or so earlier in fall.

Their notes are a series of shrill whistles in groups of threes, like “wheu-wheu-wheu; wheu-wheu-wheu.” They repeat these quite frequently when in flight, and can by an imitation

SANDPIPERS

(256) *Helódromas solitárius solitárius*

(Wilson) (Gr., marsh runner; Lat., solitary).

SOLITARY SANDPIPER. Bill and legs slender and both dark colored. Plumage as shown; the tone of upper parts being a lustrous olive-brown; rump dark; outer tail feathers and under surfaces of wings, conspicuously barred. L., 8.50; W., 5.00; Tar., 1.25; B., 1.20. *Eggs* — Grayish or bluish-green, spotted with blackish, 1.40 x .95; laid in deserted nests from three to thirty feet above ground.

Range — In summer, from Mass., Pa., Ill. and Neb. north to Newfoundland and Keewatin. Winters south of the U. S.

(257) **GREEN SANDPIPER** (*H. crophus*). An European species, accidentally straying to Nova Scotia.



of it be brought down from the heights at which they like to travel. They are always on the alert for danger, however industriously they may appear to be feeding; if their suspicions are aroused, they become very noisy. As they frequently start up from marshes in which ducks like to feed, they are not very kindly regarded by duck hunters.

SOLITARY SANDPIPERS are so called because they rarely, if ever, go in flocks. During spring and summer, single ones or pairs are usually seen, while in fall as many as half a dozen may form a company, representing probably the parents and their offspring. They frequent fresh-water ponds and meadows, preferring those surrounded by woods or underbrush. They run swiftly to and fro along the edges, gathering anything edible from the soft soil or the surface of the water. Occasionally they cross the pond, their fluttering wings down-curved in sandpiper fashion and tail spread so that their distinguishing marks, the white outer tail feathers with black barring, may be distinctly seen. As they alight, the wings are elevated perpendicularly

SANDPIPERS



(258) *Catoptrophorus semipalmatus semipalmatus*

(*Gmel.*) (Gr., mirror, to carry, referring to the white wing patch; Lat., half-webbed).

WILLET. Bill rather stout. Feet partially webbed. Plumage in summer as shown; quite variable however. In winter, with all black markings showing very faintly if at all. L., 16.00; W., 8.00; Tar., 2.50; B., 2.25.

Range — Breeds from Va. to Fla.

(258a) *C. s. inornatus*

(*Brewster*).

WESTERN WILLET. A slightly larger variety breeding from Man. and Ore. south to the Gulf and Cal. In migrations, casual on the Atlantic coast to New England.

(260) **RUFF** (*Machetes pugnax*). An European species casual from Greenland to N. Car.

over the back, showing the characteristic barring on the under surface, and then carefully tucked into place.

For years they were birds of mystery even to ornithologists. Although the birds were present during summer in northern United States and southern Canada, their nests could not be found. The most mysterious feature, as we look at it now, is that the solution was not found sooner, for their breeding habits are now known to be the same as those of the very similar European species, the Green Sandpiper. Instead of nesting on the ground, as all our other shore birds do, they lay their eggs in deserted nests of some of the land birds, either in trees or bushes. They have been found in Waxwing and Robin nests and may be looked for in any nest of similar size.

WILLETS are large shore birds, exceeding in size the Greater Yellow-legs and approaching that of the large Curlew. They are separated into two races, the Eastern and Western, but the differences are so very slight that the distinctions are quite unsatisfactory.

SANDPIPERS

(261) *Bartrámia longicaúda*

(*Bech.*) (Lat., long-tailed).

UPLAND PLOVER; BARTRAMIAN SANDPIPER; FIELD PLOVER. Tail long, for a shore bird. Neck and legs rather long. Head small. Plumage as shown. Tail feathers shading from dark brown on the middle pair to light orange-brown on the outer, all barred with black, with a broad subterminal black band and white tips. Plumage changes but little with the seasons. L., 12.00; W., 6.50; T., 3.50; Tar., 1.90; B., 1.15. *Nest* — A grass-lined hollow in fields or on prairies; three or four buff eggs, blotched with yellowish — brown, 1.75 x 1.25.

Range — Breeds from Va., Ind. and Ore. north to Me., Ont., Mich., Keewatin and Alaska. Winters in South America.



Willetts are very suspicious and they are exceedingly noisy when their suspicions are aroused. In marshes and flats where they are feeding you can at nearly all times hear their shrill cries of "pill-will willet." When disturbed on their breeding grounds they are extremely vociferous. They formerly nested all along our Atlantic coast, as well as in the Mississippi Valley, but now they are only wanderers north of Virginia. They are usually to be found in flocks of greater or less size; when individuals become detached from bands of their own kind, they usually associate with other species. I have frequently, along our New England shores, seen single Willetts in flocks of Least Sandpipers — a most ludicrous sight to see this comparative giant endeavoring to keep pace with the agile and fleet "Peeps."

UPLAND PLOVER, or Bartramian Sandpipers, are of peculiar interest because, except during the breeding season, they frequent plains and uplands, often remote from water. On western prairies, where they are more abundant than

SANDPIPERS



(262) *Tringites subruficollis*

(*Vieill.*) (Gr., a sandpiper; Lat., below, reddish, neck).

BUFF-BREASTED SAND-PIPER. Bill rather short, slender and tapering. *Ads. in summer* — Plumage as shown, the under parts being a nearly uniform buff color, unmarked save for a few black specks on the sides. Primaries with the inner webs peculiarly traced and marbled with black, differing from any other known species. *In winter* — Whitish below; back darker, the broad, brownish edgings being replaced by narrow whitish ones. L. 8.00; W., 5.25; Tar., .20; B., .75. *Range* — Breeds along the Arctic coast. Winters in southern South America. Migrates chiefly through the interior of U. S.

in the east, they are usually known as Prairie Pigeons; the latter part of the name because the flight is somewhat pigeon-like. In the Eastern States they have been hunted so persistently during August, their migration month, that only comparatively few are left.

Many a time, during the nineties, I have crouched behind a wall and watched flocks of from two to twenty Upland Plover feeding on a hillside. If not disturbed they will remain on the same ground for the whole day, during which time they will have scoured a considerable area in their hunt for insects. It is very amusing to see them chasing grasshoppers, of which they are very fond, and they have to step lively to catch some of the old hoppers; often they will spring into the air and catch them on the wing; at other times they make longer flights after moths that they have startled from their retreats. Every little while they will call to one another with a mellow, flute-like whistle — sweeter and more musical than that of any other shore bird with which I am familiar. This call is not loud, but is very clear and

SANDPIPERS

(263) *Actitis maculária*

(Linn.) (Gr., sea-shore frequenter; Lat., spotted).

SPOTTED SANDPIPER; TEE-TER-TAIL; TILT-UP. *Ads. in summer*—Plumage as shown, the upper parts being glossy, olive-brownish crossed by wavy black bars; a white superciliary stripe and a blackish line through the eye; the white under parts are covered with bold, round spots. *In winter and Im.*—Unspotted white below, with a grayish wash on the breast; upper parts without black markings. L., 7.50; W., 4.20; Tar., .90; B., .95. *Nest*—Of grasses, concealed under weeds; three to five buff eggs, spotted with blackish-brown.

Range—Breeds throughout the U. S. and southern Canada. Winters in southern U. S.



has great carrying power. An individual can often be heard coming from another ground, long before he comes into view; he descends rapidly on set, often decurved, wings and may alight on the ground or on wall or fence post.

Upland Plover are apt to be found nesting anywhere throughout their northern range.

SPOTTED SANDPIPERS are one of our best known and most familiar species of birds, being found during the warm months throughout our country. The country boy knows them as "Tip-ups" or "Teeter-tails," because while at rest they are continually bowing the head and jerking the tail upward in a grotesque manner, as though they were the most subservient creatures in the world. Ponds, meadows, and cultivated land are their favorite abiding places, and their rather plaintively whistled "peet-weet" is one of the most familiar bird sounds from such places.

They rarely, if ever, zigzag in their flight, their method of progression being in gentle curves. If one wishes to reach a spot farther along shore, instead of travelling in a straight

SANDPIPERS



(264) *Numenius americanus* Bech.

(Gr., new moon — from the crescent shape of the bill).

LONG-BILLED CURLEW; BIG CURLEW; SICKLE-BILL. Bill exceedingly long and much decurved. Little difference between summer and winter plumages. General tone a rich buff, similar to that of the Marbled Godwit. L., 24.00; Ex., 38.00; W., 11.00; Tar., 3.20; B., from 4.00 to 8.00. *Nest*—A grass-lined hollow on the ground; three or four greenish-buff eggs, covered evenly with small blackish spots.

Range—Breeds from Tex. and northern Cal. north to Sask. and B. C. Winters from southern U. S. southward. Casually north to Mass. during migrations. Formerly bred on the South Atlantic coast.

line, he will make a wide detour over the water, greeting with a cheery whistle any of his kind that he passes. In spite of their numerous pauses for salutations as they run along the edge of the water or follow the furrow of a plow, they find time to gather quantities of insects.

Their nests are built on the ground anywhere within a hundred yards or so of their favorite pools; sometimes in patches of weeds near the water's edge; again in fields bordering cultivated land; or in tufts of grass in pine groves. Wherever located, it is artfully concealed, and still better hidden by the skill of the female in leading an intruder away. If discovery seems unavoidable, the sitting bird will run across the path of the intruder, whining, with wings dragging on the ground, and giving an excellent impression of a badly wounded bird. It is an artifice that seldom fails in causing reptile, man, or beast to follow her in a vain attempt to capture, only to be foiled when she considers that her treasures are safe. Little sandpipers are prettily clothed in soft gray and white down, with a few black stripes. Soon after

SANDPIPERS

(265) **Numenius hudsonicus**
Latham

HUDSONIAN CURLEW; JACK CURLEW. Much smaller than the last species and with only a moderately long, curved bill. General coloration blackish-brown and grayish, with little or no ruddy or buffy. Little seasonal change in the plumage. Crown solid blackish-brown, with a whitish median stripe and superciliary stripes on either side. L., 17.00; Ex., 32.00; W., 9.50; T., 3.50; Tar., 2.50; B., 3.00 to 4.00. *Eggs* — Three or four, buffy, blotched with brownish-black, 2.25 x 1.60.

Range — Breeds on the coast of Mackenzie and Alaska. Winters on both coasts of South America. Migrates chiefly along the coasts and is rather rare in the interior.



leaving the eggs, they are led to the best feeding grounds and taught by their parents what food is best for them and how to pick it up.

LONG-BILLED CURLEWS, or "Sickle-bills," are the largest of our shore birds. Like so many other waders which were common in the Eastern States a few years ago, these are now of casual or accidental occurrence on the coasts of New England and the Middle States. In the interior and western portions of our country, however, they continue to be found in numbers, but much less abundantly than formerly. Unfortunately they decoy very easily to lifeless imitations set up on the shore or to flute-like whistles similar to their own — a clear "ker-loo." They are very sympathetic, for if one of their number is shot from a flock, the remainder will wheel about and circle over the fallen member.

Their food consists of small shellfish, worms, insects, berries, etc. They often wade in shallow water, their long bills enabling them to feed from the bottom without wetting their heads, and also to probe deeply on soft muddy flats.

SANDPIPERS

(266) *Numenius borealis*

(Forster) (Lat., northern).



ESKIMO CURLEW; DOE BIRD. Smallest of the curlews. Bill short, slender and little curved. Readily distinguished from the Hudsonian Curlew, not only by the difference in size, but because the crown of this species is brownish, streaked with lighter and with no median line; the superciliary stripes are quite prominent. L., 13.50; W., 8.50; Tar., 1.75; B., 2.40.

Range—Breeds on the barren grounds of Mackenzie and migrates chiefly through the interior to southern South America.

(267) WHIMBREL (*Numenius phaeopus*). (*Linn.*) An Old World species breeding in northern Europe, accidentally occurring in Greenland and Nova Scotia.

HUDSONIAN CURLEWS, or Jack Curlews, reside in summer along our northwestern Arctic coast and in fall migrate along both the Atlantic and Pacific coasts, where they are at present more plentiful than the last species. Only a limited number touch New England shores unless driven in by storms, for they usually fly well off shore from Nova Scotia until the Virginia coast is reached.

ESKIMO CURLEWS, or Dough-birds, only a few years ago were regarded as much more abundant than other curlews; to-day they are regarded as quite extinct. Flocks numbering into the thousands swept up the Mississippi Valley or stopped to feed on the plains; to-day the capture of an individual is an event to be chronicled in all ornithological papers. They nested on the barren grounds of northern Mackenzie. On their southern migration, they moved eastward to Labrador, where they fattened on the crow-berry, which grows there in abundance; leaving our shores at that point, they swept southward over the ocean, not stopping this side of the West Indies unless storms were

PLOVERS

(269) **Vanéllus vanéllus** (Linn.)

LAPWING; PEWIT. A common European species. Casual in Greenland, Nova Scotia, and Long Island.

(270) **Squatárola squatárola**

(Linn.) (Ital. name for this species).

BLACK-BELLIED PLOVER; BEETLE-HEAD; BULL-HEAD. Hind toe very small, this being our only plover having a hind toe. Axillars black, showing conspicuously against the gray under wing surfaces. *Ads. in summer* — Plumage as shown. *In winter* — Above gray, spotted with white; below whitish, indistinctly streaked with gray. Young birds often have the back washed with yellowish. L., 11.50; W., 7.25; Tar., 2.00; B., 1.15.

Range — Breeds in Arctic regions. Migrates through the U. S.



encountered. It is more than likely that storms against which they could not prevail drove most of them to destruction. Their northward flight was performed chiefly through the interior of the United States. They flew in compact flocks and decoyed readily, with the result that quantities of them were slaughtered annually, but certainly not enough to have caused such a sudden, almost total extinction.

FAMILY CHARADRIIDÆ. PLOVERS

A large and important family agreeing in having plump bodies, short, thick necks, and stout bills of moderate length. The toes are generally three in number, and the tarsus is reticulate, while that of sandpipers is scutellate.

BLACK-BELLIED PLOVER, in their breeding plumage, are very handsome birds. Although breeding along the Arctic coast, many individuals pass through the United States before they have donned their less brilliant winter plumage. Immature birds, Bull-heads as they are then

PLOVERS



(272) *Charadrius dominicus dominicus*

(Müller) (Lat., a plover).

GOLDEN PLOVER. No hind toe. Bill more slender than that of the last species. Axillars gray in all plumages. *Ads. in summer*—Plumage as shown; the upper parts being handsomely marked with golden-brown. The black on under parts extends along the flanks to the tail. *In winter*—Upper parts duller; under parts grayish-white, indistinctly mottled with gray. L., 10.50; W., 7.00; Tar., 1.75; T., 3.00; B., .90.

Range—Breeds in Arctic regions. Migrates south chiefly over the Atlantic Ocean from Nova Scotia; a few through the Miss. Valley and nearly all pass north by that route.

termed by some hunters, and Beetle-heads by others, bear considerable resemblance to young Golden Plover, but can at once be distinguished when in the hand or on the wing by the fact that the axillars, the long inner feathers under the wings, are black, while those of the other species are gray. The present species also has a tiny hind toe.

Their flight is less graceful than any of the sandpipers and most of the plover, as their bodies are quite heavy; they fly rapidly, in a direct line, with rapid beatings of the wings. They have a clear, mellow whistle, one easily imitated, so it is an easy matter for the gunner in his blind to call a flock down to the painted decoys.

GOLDEN PLOVER are even handsomer than the Black-bellied species, as the black on the under parts is more extensive and the back is covered with golden-yellow spots. Full-plumaged birds are rarely seen in the United States during the fall migration; in fact, few are seen anyway, for they follow closely the path of the little Eskimo Curlews, the bulk of them leaving our coast at Labrador and flying

PLOVERS

(273) *Oxyechus vociferus*

(*Linn.*) (Gr., sharp-sounding; Lat., noisy).

KILLDEER. Toes three. *Ads.* — Plumage as shown. Notice that the breast is crossed by two black bands. *Im.* — Paler; the breast bands are gray; the tail is dull brown instead of rufous, and the back may be marked with buffy edges of the feathers. L., 9.50; W., 6.50; T., 4.00; Tar., 1.35; B., .75. *Nest* — A hollow on the ground, usually concealed under weeds; three or four greenish-buff eggs, heavily spotted and blotched with black, 1.50 x 1.10.

Range — Breeds from Quebec, Keewatin and B. C. south to the Gulf coast and central Mexico. Winters southward from N. J., Ind., Tex. and Cal.



south, well out over the ocean. They seem to be following the path of these other birds in another respect too, for compared to the large flocks that formerly went north through the Mississippi Valley there are very few now. They feed quite extensively upon insects, and are fully as likely to settle down to feed on plains or in fields far from water as in marshes.

It is a beautiful sight to see a large flock of Golden Plover coming down to a feeding ground from the heights at which they migrate; their coming heralded by softly trilled whistles, they descend on set, decurved wings, very swiftly, until swooping over the grass tops, they bring the wings forward to check their speed and drop lightly to the ground; their wings are elevated again as though with a feeling of relief after their long journey, then carefully folded on the back.

KILLDEER are of unusual interest because, like Spotted Sandpipers, they breed over a large part of the States and Canada. Their name has no reference to their prowess as

PLOVERS



(274) *Aegialitis semipalmata*

(Bonap.) (Gr., a seashore worker; Lat., half-webbed).

SEMI PALMATED PLOVER; RING PLOVER; RING-NECK. Toes conspicuously half-webbed. Bill orange, with a black tip. Legs flesh-color. *Ads. in summer* — Plumage as shown; the black neck-band making a complete collar, although narrow on the back of the neck. Immature birds and winter adults differ in having the head and neck markings more or less grayish. L., 7.00; W., 4.80; Tar., .90; B., .50.

Range — Breeds in the northern half of Canada. Winters from the Southern States, southward.

(275) *Aegialitis hiaticula*

RINGED PLOVER. An European species, breeding in Greenland.

hunters, but is solely because of their loud, strident and often incessant vocal efforts, which are best likened to the syllables "kill-dee." When they are angry — and during the nesting season it requires no provocation to make them that way — the usual note is changed to a harsh, almost screaming "dee-dee-dee," etc., repeated as long as an intruder is near, with an energy that seemingly might burst their throats. Where they are not very common, these notes always prove welcome to farmers or any one strolling the fields, but where they are so numerous that the complaining calls can be heard practically all the time, they may become a nuisance.

Just a hollow on the ground, anywhere in a meadow, cornfield, or pasture, provided that water is not far off, suffices them for a nest; sometimes a slight lining is provided for the boldly spotted greenish-buff eggs. If a nest is in danger of discovery, the owners and those of every other nest in the vicinity join forces to lead the dangerous element away, making as much noise as is possible.

PLOVERS

(277) *Ægialitis melóda*

(Ord.) (Lat., musical).

PIPING PLOVER. The palest colored of all our plovers. *Ad. ♂* — Plumage as shown. In the highest plumage, particularly on birds in the Miss. Valley, the black crescents on the sides of the neck meet, forming a complete collar. The ♀ in summer and both sexes in winter, have the coronal bar brownish, and less black on the neck. L., 7.00; W., 4.75; Tar., .85; B., .50. *Eggs* — Three or four, clay-color, with fine black specks 1.25 x .95.

Range — Breeds locally from N. S., Ont. and Sask. south to Va. and Kan. Winters on the South Atlantic and Gulf coasts. Now quite rare and very local on the Atlantic coast.



SEMIPALMATED PLOVER, or Ring-necks, as they are more often called, are quiet, unobtrusive shore birds which visit our ponds, marshes, or beaches during August, and again in May. They have a clear, two-syllabled whistle that they utter when disturbed, and sometimes while a flock is flying past. An imitation of the call will usually halt a flock and bring it circling to the beach near the mimic. They show little timidity and, if the observer remains motionless, will run along the water's edge within a few feet of him.

They may be seen about equally often in flocks of their own species and in mixed flocks containing any of the small sandpipers, with which they are always friendly.

PIPING PLOVER are a beautiful sand-colored species, locally distributed along shores and beaches of eastern North America. No birds of their size are more nimble of foot; they can run for long distances faster than a man can walk. Their color matches the sand so closely that it is almost impossible to see a motionless one; they know this and often escape detection because of it. High-plumaged

PLOVERS



(278) *Aegialitis nivosa* Cassin

(Lat., snowy).

SNOWY PLOVER. Very small and light colored. *Ad♂.*—Plumage as shown by the upper bird. Black patches on crown, ears and sides of neck, these being brownish on the ♀. L., 6.75; W., 4.20; B., .60.

Range—Western U. S., breeding east to Kan. and Texas. Casual in Fla. and La.

(280) *Ochthodromus wilsonius*

(Ord.) (Gr., bank running).

WILSON'S PLOVER. Plumage as shown by the lower bird, the ♀ having the breast band brownish. L., 7.50; W., 4.75; B., .90; large and stout. *Eggs*—Grayish, specked with blackish, 1.25 x .95.

Range—Breeds from Va. southward and along the Gulf coast. Casually north to New England.

specimens from the Mississippi Valley are apt to have the black patches on the sides of the neck joined in front. This was the basis for making them a sub-species of the eastern bird, but was found not to be tenable.

The building of summer resorts near the beaches upon which they nest is rapidly diminishing their numbers along the Atlantic coast. The four clay-colored eggs, which are sparsely but evenly dotted with black specks, are laid in hollows on the shingle of beaches; they are very difficult to see even when only a few feet away. When their nests or young are discovered, the parents show as much concern as any other species, but they utter only their mellow, flute-like whistles in protest.

SNOWY PLOVER, an abundant species on the Pacific coast, are found within the range included in this book only from southwestern Kansas to Texas.

WILSON'S PLOVER are found only on tidewater flats or beaches. While they nest only on our South Atlantic coast, they often stray north to Long Island. Their appear-

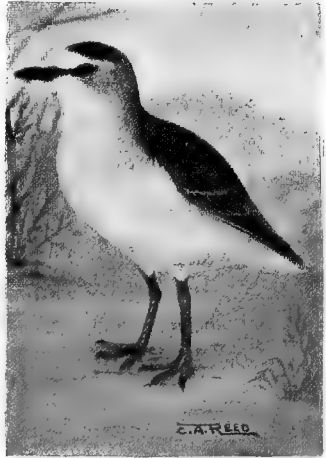
PLOVERS

(281) *Podasócy's montánus*

(Townsend) (Gr., swift-footed; Lat., mountain).

MOUNTAIN PLOVER; PRAIRIE PLOVER. No black on the breast at any season. *Ads. in summer* — Plumage as shown. A prominent black coronal patch and a line through the eye; upper parts uniform grayish-brown. Immature birds and adults in winter lack both the loreal stripe and the coronal patch; the upper parts are also more rusty. L., 9.00; W., 5.75; Tar., 1.60; B., .90. *Nest* — A depression on the ground anywhere on prairies, regardless of the distance from water; three or four brownish-gray eggs, blotched with blackish, 1.50 x 1.10.

Range — Western N. A., breeding east to Neb. and Tex.



ance is like that of a rather large Ring-neck, but the bill is exceedingly large for a bird of its size and is wholly black. Neither has it a colored eye-ring nor does the black on breast extend around the neck, as does that of the Ring-neck. Their eggs are deposited in hollows in the sand among short beach grass; there is little chance of their discovery except by flushing the sitting bird, and she will allow herself to be almost trodden upon before she leaves; she knows well that it is almost impossible for the eye to detect a still bird amid such surroundings. If, however, they should be discovered, both birds fly or run wildly about you, uttering their short whistles — so short as to almost be regarded as chirps.

MOUNTAIN PLOVER might more appropriately be termed Prairie Plover, for it is upon dry, grassy or sagebrush plains that they are most abundantly found. During summer they are to be found distributed over the prairies in pairs. After the young are able to fly, several families unite and in large flocks wander about, feeding, playing, or dozing at will. Their food is almost wholly of various insects and

TURNSTONES



(283a) *Arenaria interpres morinella*

(Linn.) (Lat., a sandy place; agent).

RUDDY TURNSTONE; CALICO BACK. Bill short, rather stout and tapering to a slightly up-turned point. Legs short and stout; bright orange. *Ads. in summer* — Plumage shown in its highest development; usually the back is more or less mixed with brownish. *In winter* — The back with little or no chestnut and the black markings underneath replaced by grays. L., 9.50; W., 5.75; Tar., 1.00; B., .90.

Range — Breeds on the Arctic coast. Winters south from S. Car.

(283) *A. interpres interpres*

TURNSTONE. A common Old World species breeding in Alaska and in Greenland.

berries. Their flight is very rapid and quite erratic; they often twist and turn, the whole flock in unison, so as to expose to view alternately the upper and under parts.

FAMILY APHRIZIDÆ. SURF-BIRDS AND TURNSTONES

TURNSTONES breed along our Arctic coast and winter from the Gulf coast southward. They appear in numbers along our shores in August and remain in the Northern States until the latter part of September. They are also with us during the greater part of May. Comparatively few pass through the interior, but quantities are to be found on the coasts.

The variety we commonly see is now known as the Ruddy Turnstone; the common Turnstone, which is a trifle larger and not as rusty above, although breeding along our Arctic coast, migrates through the Old World. Our species is often known as the Calico-back.

Turnstone bills have a slight upturn, due, we may presume,

OYSTER-CATCHERS

(286) *Hæmátopus palliátus*

Temm (Gr., red-footed; Lat., a cloak).

OYSTER-CATCHER. Large and stocky. Bill long, heavy and compressed toward the tip which is almost like a knife blade; bright red. Legs stout, coarse and flesh-colored; three-toed. *Ads.*—Plumage as shown, the back being brownish while the head and neck are dead black; base of tail and part of coverts white. *Im.*—Head and neck brownish and feathers of back with buff edges. L., 20.00; W., 10.25; Tar., 2.40; B., 3.50. *Eggs*—Three or four, buffy, evenly spotted with black, 2.20 x 1.55; laid on beaches.

Range—Breeds from Va. and the Gulf coast southward.

(285) **EUROPEAN OYSTER-CATCHER** (*H. ostralegus*) is occasionally found in Greenland.



from their habits of turning over shells, small turfs, stones, etc., to get the insects, worms and minute shellfish usually to be found there. They sometimes tackle objects that require all their strength to pry over, and do not get disgruntled even if they are unable to, but unconcernedly walk to the next likely one. They are rather more deliberate in their actions than other plover, but they have the usual habit of running a few steps, then stopping short and standing erect to look about them. They frequent bold and rocky shores fully as often as sandy beaches.

FAMILY HÆMATOPODIDÆ. OYSTER-CATCHERS

A small but remarkable Family of large waders, containing about a dozen species distributed over the globe, one of which breeds along our South Atlantic and Gulf coasts. Aside from their large size, their chief claim to distinction is in the long, large, bright red bill, the end of which is compressed so as to be thin as a knife blade. This peculiar tool is used for cleaving open mussels and other bivalves (but not

JACANAS



(288) *Jacana spinosa*

(*Linn.*) (A Brazilian name; Lat., spiny, referring to the spur on the wing).

MEXICAN JACANA. Wing with a sharp horny spur on the shoulder. A large leaf-like plate, free at the edges, extends from the base of the bill on the forehead. Legs long and slender; toes very long and the nails, especially of the hind toe, straight and extremely long. *Ads.* — Plumage as shown. Young birds are grayish-brown above and more or less buffy-white below; the wings are similar to those of the adults. L., 8.50; W., 5.00; Tar., 2.00; middle toe 2.00; B., 1.25. *Nest* — Of weeds on floating piles of trash or lily pads; three to five olive eggs, scrawled with black, 1.20 x .95.

Range — Rio Grande Valley and southern Fla. southward.

oysters), and for digging up fiddler crabs, of which they are very fond. They travel in small flocks and are very wary. Their flight is swift and unusually conspicuous because of the glistening black and white plumage. Our species apparently is never seen away from tidewater. They can swim well, but rarely do so unless wounded; they do, however, often wade in water up to their bodies hunting for shrimps or detaching limpets from rocks. When flying or on the beach, they often utter shrill cries or whistles.

FAMILY JACANIDÆ. JACANAS

MEXICAN JACANAS, which reach our borders in southern Texas and the extreme point of Florida, may easily be regarded as the most peculiar of all our waders. They are quite pugnacious, as might be presumed from the appearance of a spur on the bend of the wings. The males fight among themselves, chiefly during the mating season, but of course are not nearly as warlike as the European Ruff, a

QUAILS, PARTRIDGES, GROUSE

(289) *Colinus virginianus virginianus* (Linn.)

BOB-WHITE; QUAIL; VIRGINIA PARTRIDGE. Feathers of crown lengthened but not sufficiently so to form a true crest. Tail short, 12-feathered. ♂ — Plumage as shown by middle bird. Throat and superciliary stripe pure white. The ♀, shown by the lower right hand bird, differs in having the throat buffy, and black markings of head replaced by brown. L., 10.00; W., 4.50; Tar., 1.20; B., .50. Eggs — Eight to sixteen, white, 1.20 x .95.

Range — Resident from Me., Ont. and Minn. southward. In Fla., replaced by **FLORIDA BOB-WHITE** (*floridanus*), a dark type as shown by the upper bird. In Tex. and N. Mex. by the **TEXAS BOB-WHITE** (*texanus*).



shore bird which always engages in combat for the sheer love of fighting. We may suppose that the leaf-like shield at the base of the bill offers some protection to the eyes against the spurs of their adversaries. The toes and claws are of very unusual length and slenderness, enabling Jacanas to run easily over floating vegetation. Their nests are made of weeds and decaying vegetation floating among rushes or lily pads after the fashion of grebes. The eggs are as curious as the birds — a bright tawny-olive, scrawled all over the surface with blackish lines.

ORDER GALLINÆ. GALLINACEOUS BIRDS

FAMILY ODONTOPHORIDÆ. BOB-WHITES, QUAILS, ETC.

BOB-WHITES, so called because their usual note of two clear whistles sounds most like those words, are almost always known in eastern United States as Quail. Quail are birds of the open, birds of civilization. The farmer hears their calls during the warmer months and rejoices in them;

QUAILS, PARTRIDGES, GROUSE



(293) *Callipepla squamata* *squamata*

(Vigors) (Gr. beautifully arrayed; Lat., scale-like).

SCALED QUAIL; BLUE QUAIL.

A sombre-colored but handsome species the ♂ of which is shown. The feathers on the neck and breast are margined with dusky, giving a scale-like appearance. The female is duller colored, the back being inclined to brownish. L., 10.50; W., 4.50; T., 3.75.

Range — Ariz., N. Mex., western Tex. and southern Col., southward.

(293a) *C. s. castanogastris*

Brewster (*Chestnut-belly*).

CHESTNUT-BELLIED SCALED QUAIL. Differs only in the chestnut coloring on the abdomen. Found in southern Texas and southward.

he knows they are good friends of his, for they destroy great quantities of injurious beetles. The sportsman hears their call and rejoices, for he thinks of the sport he is to have in fall, with his dog and gun.

During May, the coveys have scattered and are divided into pairs, or perhaps some of the cock birds will have several hens, for they are more or less polygamous. A favorable spot is selected, perhaps along a stone wall or beside an old rail fence, where the grass is tall and heavy. An entrance is tunnelled out and the selected hollow in the ground lined with dead grasses. In this improvised cradle, a white egg, large and round at one end and pointed at the other, is deposited daily until from eight to sixteen fill the hollow. Sometimes as many as thirty are found in a single nest, probably indicating that Sir Bob has more than one wife. The eggs are always assembled neatly, with the pointed ends downward. Should a nest be discovered, the eggs must not be handled, for mother Quail will know it instantly she returns and is very apt to desert them.

QUAILS, PARTRIDGES, GROUSE

(295) *Lophortyx gambeli*

Gambel (Gr., a crest, a quail).

GAMBEL'S QUAIL. *Ad.* ♂ — Plumage as shown. Head with a handsome crest of recurved feathers about eight of them usually carried in one packet but capable of being separated at will. Notice that the forehead is black, the crown chestnut and the flanks chestnut, thus differing decidedly from the crested California Quail, which has these areas whitish, brown and gray respectively. The ♀ has a smaller crest and lacks the black on head and belly but has the chestnut flanks. L., 10.50; W., 4.25; Tar., 1.25; T., 3.75. *Eggs* — Eight to sixteen, buff, spotted and splashed with brown, 1.25 x 1.00.

Range — Western Tex., Utah, Nev. and southern Cal. southward.



The little buff-colored, striped chicks are led through the fields and taught how to catch the insects that are best for them. They have a very watchful mother, who never allows them to stray far from the protection of tall grass or brush. If surprised during one of their rambles, at a warning cluck, every chick dives for shelter, while the mother runs ahead of you squealing and giving a beautiful imitation of the way a wounded bird should act. Each chick, meanwhile is absolutely motionless — practically out of sight, even though protected by but a single blade of grass; nor will they move until touched. When the danger is removed, a single whistle from the hen brings every little one scampering to her as fast as their little legs can carry them, and they can run very swiftly. Many times I have followed the mother until she had decoyed me to what she thought a safe distance and, as soon as she took wing, hastened back and concealed myself so as to witness the assembling of the little family — or perhaps I should say the large family of little ones.

QUAILS, PARTRIDGES, GROUSE



(296) *Cyrtonyx montezumæ mearnsi* Nelson

(Gr., bent nail).

MEARN'S QUAIL; MASSENA QUAIL; FOOL QUAIL. Bill very stout and compressed. Toes short but the claws greatly developed. Crest broad, flat and full-feathered. Plumage quite unique as shown, the male being the upper bird. The black and white markings on the head are of feathers having a velvety texture. L., 9.00; W., 4.75; T., 2.00; Tar., 1.20. *Nest* — A grass-lined depression, concealed in clumps of weeds or grass; six to twelve pure white eggs, 1.25 x .95, not as pointed as those of the Bob-White.

Range — Arid Upper Sonoran and Transition zones from central Ariz., N. Mex. and central Tex. south to central Mexico.

In fall, several families join to form large coveys, which roam about feeding upon various weed seeds, grain and berries, remaining banded until the next spring unless, unfortunately, some hunter and his dog may have discovered and annihilated them. In New England the combination of dog, gun, and ice storms have made the quail almost only a memory, but in the south and middle west, where they have more room and not so many gunners per square foot, they are still abundant. When a covey is approached they all squat in the stubble, trusting to escape detection — a thing impossible when the man is armed with a good bird dog. When kicked out of cover, all rumble off in different directions, but in straight lines presenting easy marks.

Not so with the western quail. They have good strong legs to which they intrust their safety rather than by hiding. The man who hunts them gets a lot of hunting and tramping, but not such a great many quail. Gambel's Quail and the Blue or Scaled Quail, both found in western Texas, are good examples of running quail. That peculiar species, the

GROUSE, PTARMIGAN

(297) *Dendragapus obscurus obscurus*

(Say) (Gr., a tree, I love; Lat., dark).

DUSKY GROUSE; BLUE-GROUSE. Tail normally with twenty feathers. Plumage as shown, the hen being smaller and a little lighter colored than the cock; tail with a broad gray tip; back finely vermiculated with gray and flank feathers with white tips and shaft lines. L., 20.00; W., 9.50; T., 7.50; weight up to 3½ lbs.

Range — Rocky Mountains from Col. to N. Mex

(297b) *D. o. richardsoni* (Douglas).

RICHARDSON'S DUSKY GROUSE. A rather darker variety with the gray tail bar reduced in width or wanting. Found in the Rocky Mountains from Mackenzie to Montana.



Mearn's, Massena or Fool Quail, also in western Texas, shows an indifference to mankind that is astonishing, to say the least. In remote places in the mountains they often stand stock still and gaze at a man in wonder, or will simply squat down in plain view and not move until touched. When they do fly, they go swiftly, making a sort of clucking sound at the same time.

FAMILY TETRAONIDÆ. GROUSE, PTARMIGANS, ETC.

The members of this family usually have a bare strip of skin over the eye; the tarsi are quite perfectly feathered, and sometimes the toes; the toes when naked have horny, fringe-like projections on the sides; many have bare spaces or unusual development of the feathers on the sides of the neck; the tail is of sixteen to twenty feathers, never folded as in pheasants, nor of unusual length.

DUSKY GROUSE are among the largest of the family, a good cock bird weighing upward of three and a half pounds.

GROUSE, PTARMIGAN



(298) *Canachites canadensis canadensis*

(*Linn.*) (Gr., a noise maker).

HUDSONIAN SPRUCE PARTRIDGE. Similar to the next and better known variety; female said to be less rusty. Found in Labrador and west to the Rocky Mountains.

(298c) *C. c. canace* (*Linn.*)

CANADA SPRUCE PARTRIDGE; CEDAR PARTRIDGE; CANADA GROUSE. Tarsi feathered to the toes. A bare strip of red skin over the eyes. Plumage as figured, the male being the upper bird. L., 16.00; W., 7.00; T., 5.50. Eggs — Nine to sixteen, buff, boldly dotted and blotched with chestnut.

Range — N. B., Ont. and Man. south to northern New England, N. Y., Mich., Wis. and Minn.

They are perhaps more often known in the western region that they inhabit as Blue Grouse. They are of a peculiar color that harmonizes almost perfectly with the bark of the gigantic trees, the shadows of the immense ferns and the rocky ground; consequently they are very difficult to detect either while on the ground or in trees. When any one approaches, they usually hop up among the branches and remain motionless, hoping the intruder will pass without noticing them; usually they are not seen, but when they are, (young birds especially) they may still remain and allow themselves to be stricken down with sticks. Because of this foolish habit, they are locally termed "Fool Grouse." Older birds, however, when discovered disappear with a rush and speed that are bewildering.

During spring love-making, the males strut about like little turkey cocks, then hopping to low branches, stumps or logs, they fill air sacs on the sides of the neck and produce a low booming of a penetrating character such as to greatly deceive any one as to the distance of the performer.

GROUSE, PTARMIGAN

(300) *Bonása umbéllus umbéllus*

(*Linn.*) (Gr., bison or bull, to the bellowing of which their drumming is likened; Lat., umbel, referring to the umbrella-like ruffs).

RUFFED GROUSE; "PARTRIDGE" (in New England); "PHEASANT" (in Southern States). Head slightly crested. Two large neck ruffs, black on the cock and brownish-black on the hen. Tail of eighteen broad feathers. The tone of plumage may be either reddish-brown or gray irrespective of age or sex of the bird. L., 17.00; W., 7.50; T., 7.50.

Range — Mass., N. Y., Mich. and Minn. south to Va. and Kan. From this northern limit northward is found the CANADIAN RUFFED GROUSE (*B. u. togata*), a variety with brighter, blacker markings.



CANADA SPRUCE GROUSE, which are found along our northern border and in Canada, are excellent examples of the tameness of wild birds when not hunted or shot at. In this case the flesh is not regarded as fit to eat; consequently neither sportsmen nor trappers kill them except rarely for amusement. They prefer and are most abundant in dense growths of spruce, or tamarack swamps. In remote places they show such indifference to human beings that they are often caught in the hands, and lumbermen amuse themselves by catching them in a small noose at the end of a switch.

RUFFED GROUSE, "Partridge," as they are called in the north, or "Pheasants," as they are named in the south, are regarded by sportsmen as "Kings of American Game Birds." Birds of handsome plumage and stately mien, they well deserve the title. They hold to the ground until discovery is unavoidable and then depart with a thunderous roar of wings and a speed, as they thread their way among the

GROUSE, PTARMIGAN



(301) *Lagopus lagopus lagopus*
(*Lin.*) (Lat., hare-foot).

WILLOW PTARMIGAN. Tarsi and toes densely feathered. In winter, pure white, with black tail feathers. In summer, mottled with reddish-brown, black and white as figured by middle bird. L., 16.00.

Range—Breeds in northern and winters in southern Canada. (301a) **ALLEN'S PTARMIGAN** (*L. L. alleni*), is found in Newfoundland.

(302) *Lagopus rupéstris rupéstris* (*Gmel*)

ROCK PTARMIGAN. Has a smaller bill than the last and always a black spot in front of the eye. Plumage in summer, grayer and more barred. Found in northern Canada. (303) **WELCH'S PTARMIGAN** (*L. wélchi*), found in Newfoundland.

tree trunks, that defies any but the best of shots. This suddenness of flight and the celerity with which they put a tree between themselves and their enemies are all that has enabled them to withstand the annual hunting.

The cock grouse have favorite drumming logs to which they resort each spring. With tail erect and spread in a semicircle, head thrown back and completely encircled with the black ruff, he proudly struts back and forth. Suddenly he stops, the tail is lowered, he stands erect or leaning slightly forward, and the wings commence to fan the air; first slowly, but with rapidly increasing speed until the air vibrates with a hollow, rumbling, drumming sound. It has been photographically proven that the wings touch neither above the back nor on the sides, but are brought well forward in front of the breast. The object of this performance is twofold: to attract his lady-love to him and to challenge to combat any other cock grouse that might be within his domains. Her numerous, plain buff-colored eggs are laid in a hollow among dead leaves under a log or at the base of a

GROUSE, PTARMIGAN

(305) *Tympanuchus americanus americanus*

(Reich.) (Lat., a kind of kettle-drum).

PRAIRIE HEN; PRAIRIE CHICKEN; PINNATED GROUSE.

Tarsus scantily feathered to the toes. Head slightly crested. Neck with a tuft of lengthened feathers on either side, beneath which is a tympanum of bare yellowish skin capable, on the male, of being inflated to the size of a small orange. The hen differs from the cock in smaller size and shorter pinnates. L., 17.00; W., 8.50; T., 4.50.

Range—Plains from Sask. and Man. south, west of the Miss. River to Tex. Rare in Ind.

(305a) *T. a. áttwateri* Bendire

ATTWATER'S PRAIRIE CHICKEN. A smaller variety in La. and Tex.



tree or stone. When discovered, her actions and those of the chicks are nearly like those of the Bob-Whites.

PTARMIGAN are northern forms of grouse with completely feathered toes, whose plumage is almost wholly white in winter, but in summer is largely mottled or barred with blacks, grays, and browns. In either season, the dress perfectly matches the surroundings. This protective dress is a necessity, especially during the long winters, when many a bird, many a beast, and many humans depend for food largely upon the plump bodies of these snow grouse. In order to avoid being tracked and captured by night-prowling mammals, Ptarmigan, like our Ruffed Grouse, plunge into the snow from the air, thereby leaving no telltale tracks leading to their hiding places — just a hole in the snow, that the prowler must discover by sight before he can scent his quarry.

Ptarmigan are in an almost continual state of moulting; nearly every month in the year shows a different plumage for the same species. There are several species and many sub-

GROUSE, PTARMIGAN



(306) *Tympanuchus cupido*

(Linn.) (The pinnates being likened to "Cupid's wings").

HEATH HEN. Resembling the common **Prairie Chicken**, but slightly smaller, with larger buffy-white spots on the scapulars, the crown more rufous and the pinnates of less than ten pointed feathers.

Range — The wooded portions of island of Martha's Vineyard, Mass.

(307) *Tympanuchus pallidicinctus* (Ridgway).

LESSER PRAIRIE CHICKEN. Slightly smaller and paler than the **Prairie Chicken**; the bars, both above and below, instead of being solid are composed of a brown body bordered on either edge with black.

Range — Plains from Kan. south to Tex.

species, including three very distinct types. The **Willow Ptarmigan** has quite a stout bill and black outer tail feathers; the **Rock Ptarmigan** has a much smaller bill, black outer tail feathers and a black spot in front of the eye; and **White-tailed Ptarmigan**, in all seasons, have pure white tails.

PRAIRIE CHICKENS are to the hunters of the plains what **Ruffed Grouse** are to those of wooded regions, "Kings of Game Birds." From a sporting point of view, they entail few of the hardships often found in successfully hunting the eastern grouse, for they can easily be hunted from horseback, in carriages, or even from automobiles. They flush from the grass or low-brush covered plains singly or not more than two at a time, so that the gunner has time to sometimes "bag" the whole flock. Their flight is swift and low, but in a straight line and interspersed with short sailings.

The courtship of **Prairie Chickens** is a unique and entertaining performance. The place selected for the amphitheatre is usually a rather bare rise on the prairie. To this spot the actors, the cock birds, and the spectators, the hens, repair every morning for a week or more. The males will strut

(308) *Pediocetes phasianellus phasianellus*

(Linn.) (Gr., a plain inhabitant; Lat., a small pheasant).

SHARP-TAILED GROUSE; PINTAIL GROUSE. Legs and feet feathered to the bases of the toes. A slight crest, but no ruffs or pinnates. Slightly larger and considerably darker colored than the next.

Range — From Ungava west to Alaska.

(308b) *P. p. campestris* Ridgway. (Lat., relating to a plain).

(Lat., relating to a plain).

PRAIRIE SHARP-TAILED GROUSE. Plumage as shown. Central tail feathers elongated. L., 19.00; W., 8.50; T., 1.50 (outer to 6.00 (middle)).

Range — Southern Man. and Alberta south to Ill., Kan. and Wyo.



about with orange sacs puffed out and pinnates elevated so that the head is concealed, tail erect and fan-shaped, and wings trailing on the ground. As they dance about, at frequent intervals will come rumbling, booming noises as some of the sacs are deflated. After the strutting exhibition they engage in general conflict, two or more birds usually contending for the favor of each hen, until one of the warriors is vanquished.

HEATH HENS differ from the western chickens in plumage only in having fewer-feathered, pointed instead of square-ended pinnates, larger spots on the scapulars, and a browner crown. It is the most locally distributed bird that we have, now being confined to the one island of Martha's Vineyard, Mass. Here it frequents the scrubby oaks that cover parts of the interior.

PRAIRIE SHARP-TAILED GROUSE are also abundant on the plains and prairies of interior United States and Canada, but their range is rather to the westward of that of the Prairie Chickens, for the reason that while the latter

GROUSE, PTARMIGAN



(309) **Centrocercus urophasianus** (*Bonap.*) (Gr., spine tail; Lat., tail pheasant).

SAGE COCK; **SAGE HEN**. Largest of American grouse, weighing up to eight pounds. Tail long and of stiff, narrow pointed feathers; neck capable of great distension by means of numerous air cells; in full breeding plumage, the lower neck of the male is adorned with a fringe of hair-like filaments, below which are scale-like white feathers. The hen is much smaller and with no peculiar feathers on the neck; the throat is also white. L., 28.00; W., 12.00; T., 12.00. *Eggs*—Six to twelve, grayish-drab, specked with brown, narrow, 2.20 x 1.55.

Range—Sagebrush plains from Sask. and B. C. south to Kan. and eastern Cal.

species will, like quail, live on or near cultivated land, the former retreat before the advance of civilization. Their habits are in all respects quite similar to those of the Chickens; they utter similar booming sounds in spring.

SAGE HENS are the very largest of the grouse family. They get their name from the fact that they are habitually found on sage plains in the west, and also feed almost entirely upon sage leaves and various berries. Their colors are such as to harmonize wonderfully with their surroundings; while a walking or strutting bird looms up plainly because of its size, one crouched on the ground can with difficulty be discerned at a distance of but a few feet. The hen, when incubating, sits very closely and will allow any one to pass within a few feet without moving. After the eggs are laid, the cock birds band together and leave all housekeeping cares to the hens. They are quite wary and get up one at a time with considerable noise of the wings as well as loud cackling; it is quite difficult for them to get under way because of their weight.

TURKEYS

(310a) *Meleágris gallopávo silvéstris* Vieill. (Lat., a Guinea-fowl; a cock, a pea-fowl; of the woodland).

WILD TURKEY. Head and neck naked and warty; a dewlap on the throat and a soft, erectile process on the forehead. Plumage as shown; notice that the tail coverts are coppery, without white edging. The hen is smaller, less lustrous and without spurs. L., 40.00; weight of ♂ up to 30 lbs.; ♀ averaging about 12 lbs. *Eggs* — Ten to fourteen, buff, regularly spotted with reddish-brown, 2.45 x 1.85.

Range — From Pa. and Neb. south to the Gulf; formerly north to Ont. and Me.

(310b) *M. g. oscéola* Scott

FLORIDA TURKEY. A smaller variety with lighter tips to the upper tail coverts. Found in Fla.



Their antics during the spring match-making are even more ludicrous than those of other grouse. The big air-sacs on the sides of the neck are filled almost to the bursting point, causing the stiff, bristly feathers to stand out like the quills of a porcupine; the tail is erect, and the stiff, pointed feathers spread to their limit; with wings dragging on the ground, the bird struts about, so swelled up with pride that his breast bumps along the ground. To us, such a performance, especially by such large birds, seems rather foolish, but the hens like it, and it decides them as to which individuals they will have for partners, even though they know the old fellows will desert them at the first opportunity.

FAMILY MELEAGRIDÆ. TURKEYS

WILD TURKEYS, by virtue of their great size, their wariness and their great gift to the human race in the shape of domestic turkeys, are really entitled to be called the real kings of all birds. 'Twas not our eastern bird that was

PHEASANTS



(***) **Phasiánus torquátus**
Gmel.

(Lat., the bird of the river Phasis; collared).

RING-NECKED PHEASANT.

A Chinese species introduced into various parts of this country apparently with success. Well established in the east, particularly in Mass. and in the west, especially in Ore. and Wash. It apparently thrives much better here than the English, Green or Golden Pheasant, all of which have been liberated here. Plumage as shown, the cock very handsomely and brilliantly colored, while the hen is clothed in demure browns. L., ♂ up to 36.00, half of which is in the tail; ♀ about 22.00. Eggs — Eight to fifteen, plain brownish-drab; in tall grass usually bordering fields.

first domesticated, but the slightly larger variety found in Texas and Mexico, which was first sent across the water, there to be kept as barnyard fowl. While the Wild Turkey is exceedingly shy, in some respects he is quite foolish, for, with no thought of the consequences, he would follow the trail of corn down a shallow trench and up into the log pen provided for his capture. It was this method of trapping, more than the rifles of our ancestors, that made the wild bird a thing of the past in New England.

Turkeys have extraordinary eyesight; it is to their eyes that they trust to discover danger and upon their legs that they depend to escape it. A hunter and his dog may follow one a merry chase before he finally puts it to flight and then it will probably rise beyond the reach of his gun. The most experienced and successful hunters are those who can lie in wait in a turkey haunt and call them into view by clever imitation of their gobbling. The gobblers have the same propensities as are shown by the barnyard birds, but the conflict between males in spring is far more furious.

CURASSOWS, GUANS

(311) *Órtalis vétula mccálli* Baird

(Gr., a pullet).

CHACHALACA; TEXAN GUAN. Head crested. Space about the eyes and on each side of the chin, naked, orange-colored. Wings short and convex. Tail very long, broad and rounded. Plumage as shown; the back has a brassy lustre and the tail is more or less glossed with greenish. Sexes alike in plumage. L., 23.00; W., 8.00; T., 11.00; Tar. 2.00. *Nest*—A frail platform of sticks placed in bushes a few feet above ground. The three or four white eggs have a rough, granular surface, like those of a Guinea-fowl, 2.30 x 1.60.

Range—Abundant in Lower Rio Grande Valley, Texas; south through Mexico.



FAMILY PHASIANIDÆ. PHEASANTS

A Family represented in this country only by introduced species, best established of which are

RING-NECKED PHEASANTS. These beautiful fowls were first liberated in Oregon, where they thrived exceedingly well. They were then introduced into various sections of the Eastern States, in some of which they have apparently taken a permanent foothold. Beyond a little dignified strutting, they have no eccentricities during the mating season. The cock birds do, however, often indulge in battles in which the sharp spurs are used with telling effect, the loser running away like a vanquished rooster, with his victor close on his heels.

FAMILY CRACIDÆ. CURASSOWS AND GUANS

A Family so differing from all the preceding fowls that it is placed under a sub-order, PENELOPES.

PIGEONS, DOVES



(314) *Colúmba leucocéphala*

Linn. (Lat., a pigeon; Gr., white head).

WHITE-CROWNED PIGEON. A slaty-gray species having the whole top of the head white. A Cuban pigeon, casual on the Florida Keys.

(315) *Ectopistes migratórius*

(Linn.) (Gr., a wanderer; Lat., migratory).

PASSENGER PIGEON; WILD PIGEON. Tail long, of twelve graduated, pointed feathers. *Ad.* ♂ — Plumage as shown; blue-gray above and rusty-brown below; a metallic green and purple patch on the sides of the neck; no black spots on the head. *Ad.* ♀ — Duller above and brownish-gray below; tail shorter.

Range — From Quebec and Keewatin south to the Gulf. Now perhaps extinct.

CHACHALACAS, our only representatives of this Family, are abundant in southern Texas. They combine an exceedingly long, broad tail and long legs with a comparatively small body. They can run with great rapidity, but their flight is rather weak and accompanied by considerable sailing, in which the broad tail is of great assistance. While tourists do not regard them as very edible, they are hunted by natives and sold in the markets. They are quite readily domesticated and often kept with other fowls, but their harsh, discordant voices, with qualities similar to those of Guinea-fowls, make them far from desirable.

ORDER COLUMBÆ. PIGEONS AND DOVES

FAMILY COLUMBIDÆ. PIGEONS AND DOVES

PASSENGER PIGEONS, or Wild Pigeons, according to the tales handed down to us by our ancestors and our famous early naturalists, must have been one of the most abundant species of birds that ever lived in this or any other country.

PIGEONS, DOVES

(316) *Zenaidúra macroúra carolinénsis* (Linn.) (Gr., long tail).

MOURNING DOVE; CAROLINA DOVE; TURTLE DOVE. Tail long and graduated. Always a black spot under the ear coverts and often one back of the eye. *Ad. ♂* — Plumage as figured, brownish above and vinaceous or pinkish-brown below. The ♀ is similar but plain brownish-gray below. Immature birds have the back more or less edged with whitish. L., under 13.00; W., 5.75; T., 5.75. *Nest* — A frail structure of twigs in trees, bushes or on the ground; the two eggs are pure white, 1.15 x .80.

Range — Breeds from southern Canada south throughout the U. S.

(317) *Zenaída zenaída* (Bonap.)

ZENAIDA DOVE. A West Indian species, casual in summer on the Florida Keys.



We, a hundred years later, cannot discover a single nesting place, although thousands of dollars have been offered as rewards for such discovery.

The passing of the Wild Pigeon from our fauna is parallel with the exit of the buffalo. Apparently limitless in numbers, they were slaughtered without restraint. Guns were not effective enough; where they might get fifty or more at a single shot from a gun, they could catch a thousand with a single throw of the net. The killings took place throughout eastern United States. Men stood on the bluffs at the edge of the Great Lakes armed with poles or clubs, and struck down migrating birds, weary with the flight across the water, until their arms ached from the exertion. Birds were barreled and sold in Boston and New York markets; many of them were shipped abroad. The last great nesting was at Petosky, Mich., in 1878. Nearly every tree in a tract forty miles long and three to ten miles wide, contained one or more nests. Suffice it to say that this nesting was entirely wiped out.

PIGEONS, DOVES



(318) *Leptótıla fulvivéntris brachýptera* -Salvadori

(Lat., fulvous belly; Gr., short wing).

WHITE-FRONTED DOVE. A Mexican species reaching our boundaries in southern Tex. Tail rounded, only slightly tipped with white; face white, shading into the olive-brownish upper parts a coppery, purplish iridescence on the back and sides of neck. L., 12.25; T., 4.25.

(319) *Melopelia asiática*

(Linn.) (Gr., melody dove).

WHITE-WINGED DOVE; SINGING DOVE. A Mexican species reaching southern Tex., N. Mex. and southern Fla. and casually to southern Cal. and Col. It has a rounded tail of twelve feathers, the outer ones being broadly white-tipped; the wing coverts are largely white, as figured. L., 12.00; T., 4.25.

At the present time there may be a few scattered pairs of Wild Pigeons left; if so, they may be found nesting in any of our Northern States or in interior Canada. Any nest below ten feet from the ground and any in which the parent shows any black on the side of the head is assuredly that of the next species.

MOURNING DOVES are rather abundant in most of the United States and southern Canada. They show little fear of man and will nest in his orchard trees just as readily as in woodland. The nests, very shallow, frail structures of twigs, may be found in almost any situation from the tops of tall trees down to the ground; occasionally the two eggs are laid in a bare hollow on a log, stone or stump, with no lining. As usual with members of this Family, their flight is very swift and accompanied by a whistling of the wings as they rapidly fan the air. The dove song is, as their name indicates, a long-drawn, mournful cooing, not loud, but with a penetrating quality that carries it for a long distance.

PIGEONS, DOVES

(321) *Scardafella inca*

(Less.) (Ital., scaly-feathered).

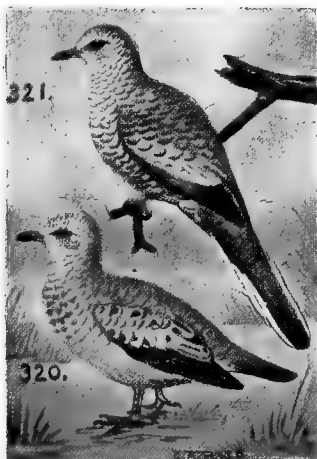
INCA DOVE. Tail long and graduated, the outer feathers broadly tipped with white; bases of primaries largely chestnut; the black edging of feathers gives the bird a scaly appearance as shown. L., 8.00; T., 4.00. A Mexican species reaching southern Tex. and Ariz.

(320) *Chæmepelia passerina terrestris*

(Chapman) (Lat., sparrow-like; terrestrial).

GROUND DOVE. Very small. Tail short and nearly square-ended. Plumage as shown, the general tone being vinaceous below and brown above. L., 6.50; T., 2.75.

Range — South Atlantic and Gulf States from Tex. to N. Car. Casual north to N. Y.



WHITE-FRONTED and **WHITE-WINGED DOVES** are Mexican species, the former of which occurs in southern Texas and the latter along our southwestern border. The latter species has a peculiar call note — more varied than that of any other of our doves; put to words, it is usually represented as “cook-for-you” — a strange but not unmusical sound, somewhat like the first crowing attempts of a young rooster. In Mexico they are called singing doves and are often kept caged because the natives fancy their song.

GROUND DOVES, our smallest species, are rather common in the South Atlantic and Gulf States. They are not at all shy; in fact, they seem to prefer the neighborhood of dwellings. While they do all their feeding on the ground, where they scratch about like tiny chickens, they nest a few feet above, in vines or bushes. The nests are more substantial than those of Mourning Doves.

INCA DOVES are slightly larger, owing to their longer tails; their plumage is very scaly in appearance, because all feathers are sharply edged with dusky; the primaries are

BIRDS OF PREY

(325) *Cathartes aura septentrionalis* Wied

(Gr., a purifier; Lat., northern)

TURKEY VULTURE; TURKEY BUZZARD. Whole head and upper neck naked and red, as shown by the upper bird. Tip of bill horn-color. Wings long, folding beyond the tail. L., 28.00; Ex., 72.00; W., 23.00; T., 12.00. Eggs — Two whitish, handsomely marked with brownish-black, 2.90 x 1.90; on the ground or in hollow logs or trees.

(326) *Catharista úrubu* (Vieill.)

BLACK VULTURE; CARRION CROW. Naked head, black. A smaller but heavier bird than the last. Wings shorter; under surface of wings white. L., 24.00; Ex., 54.00; W., 17.00. Found north regularly only to Va. and Ind. while the preceding reaches N. Y., Ont. and Man.



conspicuously reddish-brown. Their habits are quite like those of the far more common Ground Doves, but they construct even better and more deeply cupped nests located in bushes a few feet from the ground. They are found within our range only casually in southern Texas and a little more frequently along the Arizona border.

ORDER RAPTORES. BIRDS OF PREY

FAMILY CATHARTIDÆ. AMERICAN VULTURES

TURKEY VULTURES are our most abundant representatives of this interesting and quite useful Family — found throughout the United States, except in New England, and in the south-central portion of Canada. They are scavengers, wholly; they kill nothing themselves, unless possibly it be very sick or badly wounded. Their eyesight is remarkable and their sense of smell no less acute. Let any creature die or be shot and left in the woods and, within

BIRDS OF PREY

(327) *Elanoides forficatus*

(*Lin.*) (Lat., a kite, Gr., resemblance; Lat., deeply forked).

SWALLOW-TAILED KITE. Tail long and deeply forked. Wings long and narrow. Legs short but feet strong. Plumage as shown; head and under parts pure white; back, wings and tail glossy blue-black. Linings of wings white. Immature birds are less lustrous and the wing and tail feathers are tipped with white. L., 24.00; Ex., 50.00; W., 16.50; T., 12.00 or more, cleft for half its length; Tar., 1.25. *Nest* — Of twigs, lined with moss and rootlets; located in the tops of tall trees; three or four bluish-white eggs, blotched with brown, 1.85 x 1.50.

Range — Breeds locally from S. Car., Ind., Minn. and Sask. south through Mexico.



a very few hours, vultures will be cleaning up the remains. The present species can readily be identified from any hawk or eagle at a distance, when in flight, because the tips of the wings are curved upward.

BLACK VULTURES, which are abundant in our Southern States, are heavier than the preceding, although they have less expanse of wing; consequently their flight lacks the ease and grace always associated with that of the Turkey Vulture. Its black, naked head and white under surfaces of the wings will readily distinguish it from the latter. Both species are usually to be found along our southern coasts feeding upon dead fish that are cast upon the shore. They are also often seen even in the streets of some southern cities, where they perform the offices of the garbage collectors of northern cities.

FAMILY BUTEONIDÆ. KITES, HAWKS, EAGLES, ETC.

SWALLOW-TAILED KITES inhabit the warmer portions of America, in the United States chiefly along the south-

BIRDS OF PREY



(328) *Elanus leucurus*

(*Vieill.*) (Lat., a kite; Gr., white-tailed).

WHITE-TAILED KITE. Plumage as figured by the bird on the left; head, under parts and tail white; back pearl-gray; primaries and shoulders black. Legs and cere yellow. L., 16.00; Ex., 40.00; W., 12.50; T., 7.50; Tar., 1.30. *Nest* — Of sticks and weeds at high elevations; three or four white eggs, profusely blotched with brown, 1.65 x 1.35.

Range — Breeds along the South Atlantic and Gulf coasts.

(329) *Ictinia mississippiensis* (*Wilson*).

MISSISSIPPI KITE. Plumage lead-gray, with blackish wings and tail. L., 14.00.

Range — Breeds from S. Car., Ind. and Ia. south to Tex. and Fla.

ern border, but extending casually to Virginia and up the Mississippi Valley to Minnesota. They are exceedingly handsome birds and, as would be suspected from their form, in aerial manœuvres, they are excelled by no bird that flies.

Their food consists chiefly of small reptiles, frogs and various insects. They are very often seen flying with long, slender snakes dangling from their rather weak talons. They are fond of dragon flies, which they catch easily despite their speed and erratic flight.

WHITE-TAILED KITES are found from our southern border south to Argentine Republic. Their flight, while perhaps not as swift as that of the preceding species, is very gracefully performed. They may frequently be seen stooping over the meadows, at heights of fifty or more feet; suddenly one will pause on quivering wings, like the hover of a Kingfisher, and then dash to earth and secure a mouse or reptile that his keen eyes have discovered in the grass. The nests of this species are but little more accessible than those of the last, but they average to be considerably lower.

BIRDS OF PREY

(330) *Rostrhâmus sociâbilis*

(*Viell.*) (Lat., a beak, a hook; gregarious).

EVERGLADE KITE; SNAIL HAWK. Bill long, slender and hooked into a sickle-shape; cutting edges smooth, with no notches. Legs, cere and bare loreal space yellow. General color slaty-black, lighter on the wings and blacker on the head. Rump, tip of tail and bases of the lateral feathers white. L., 17.00; Ex., 44.00; W., 14.50; T., 7.00; Tar., 2.00. *Nest* — Of twigs, lined with leaves and weeds; placed in bushes, usually over water; two or three greenish-white eggs, heavily blotched with brown, 1.70 x 1.45.

Range — Resident in the southern half of Fla., the West Indies, eastern Mexico, and eastern South America to Argentina.



MISSISSIPPI KITES breed chiefly in those states bordering on the Gulf coast and occasionally north to Kansas. They are very active and, like the other kites, have wonderful powers of flight, often soaring to such heights as to be almost invisible. Their notes are shrill, broken whistles, very similar to those of the two preceding species.

EVERGLADE KITES are common throughout tropical America, but reach our borders only in the Everglades of Florida. Their form is peculiar, somewhat suggestive of that of the Marsh Hawk, but the wings are even longer than those of that species. In most parts of their range they are known as Snail Hawks, because their food consists almost wholly of a certain species of snail. The bill, with its long, rounded, hooked tip, is peculiarly adapted to drawing these creatures from their houses. As each pair of birds claims a section of swamp as its own, and have favorite perches to which most of their captures are brought to be dissected, the discarded shells often collect in quite large mounds. These lookout places are usually on small islands where the

BIRDS OF PREY

(331) *Circus hudsonius*

(Linn.) (Lat., a kind of hawk; of Hudson's Bay).



MARSH HAWK or **HARRIER**; **BLUE HAWK**. Bill, at the base, thickly set with long, curved bristles. Face surrounded with an incomplete ruff of short feathers, similar to owls. Ear opening very large. *Ad.* ♂ — In perfect plumage, as shown by the nearer bird, a light blue-gray above with white rump. *Ad.* ♀ and *Im.* — As shown by the farther bird; under parts rusty; head and upper parts reddish-brown; rump white. L., 18.50; Ex., 42.00; W., 13.50; T., 9.50; Tar., 3.00. *Eggs* — Three to five, plain bluish-white, 1.80 x 1.40; laid on the ground in marshy places.

Range — Breeds throughout the U. S. and temperate Canada. Winters in southern U. S.

bushes or trees are taller, so they can see more of the surrounding country and keep tabs upon their nests, which are located in the tops of bushes or saw-grass within three or four feet of the water. The nests are made of small sticks and dry grasses and measure about a foot across.

MARSH HAWKS, in summer, are pretty well distributed throughout the United States, Canada, and Alaska. During early morning or toward dusk they may usually be seen sweeping in wide circles over most marshes or meadows, searching for meadow mice and moles, which constitute the greater part of their bill of fare. The poor mouse has pretty good prospects of sooner or later finding a final resting place in the stomach of some carnivorous or raptorial creature; if it ventures abroad during daylight, it finds scores of hawks and herons ready to pounce upon it; if it emerges from its retreat at dusk, the present hawk, the Night Heron, or the Short-eared Owl may at any instant spy it; or if it comes forth in the dead of night, other owls or predatory mammals are still lurking about with unappeased appetites.

BIRDS OF PREY

(332) *Accipiter vélox*

(Wils.) (Lat., a hawk; swift).

SHARP-SHINNED HAWK.

Tail long and square-ended (this is the most infallible distinction between this and the next species), crossed by about four blackish bars. Adults in perfect plumage are bluish-gray above, and below are barred with rusty. Young birds have blackish-brown upper parts, and below are striped lengthwise with brown. The feathers of the crown and nape show whitish bases when disturbed. L., 10.00-14.00, the ♀ being the larger; W., 6.00-7.00; T., 5.00-6.00. *Nest*—A frail structure of twigs in trees; three to five whitish eggs, beautifully marked with brown 1.45 x 1.15.

Range—Breeds throughout the U. S. and Canada.



Marsh Hawks, whether in the light, blue-gray plumage or the dark, reddish-brown dress, may readily be recognized in flight by the prominent white upper tail coverts. This species not only alights upon the ground more often than any other of our hawks, but builds its nests in the marshes or meadows. These nests are made chiefly of grasses or rushes, quite well hollowed out to receive the four to seven unmarked bluish-white eggs. The eggs are covered by one of the adults nearly all the time and hatch in about three weeks. The parents seem to share about equally the task of feeding the young. The whole family usually remains united until they migrate.

SHARP-SHINNED HAWKS, although of small size, are reckoned as among our most destructive birds of prey. Although they undeniably do good by the mice and squirrels that they destroy, they do a much greater amount of harm by killing a great many insect and seed-eating birds; they attack and kill birds as large or larger than themselves, such as Pigeons, Mourning Doves, Bob-Whites, etc. They also

BIRDS OF PREY

(333) *Accipiter cooperi*

(Bonap.)



COOPER'S HAWK. This species is almost the same as the last in all respects save size, and large specimens of the last may be as large as small ones of the present bird. The tail is rounded in all plumages; this is a sure identification, and the crown is also darker, being darker than the back, while that of the last species is the same color as the back. L., 16.00-20.00; W., 9.00-11.00; T., 7.00-9.00; *Nest*—Of sticks and twigs in crotches of trees; old crow or hawk nests are often used; the three or four eggs are bluish-white.

Range—Breeds from Quebec, Keewatin and southern B. C. south to the southern border of the U. S. Winters from Mass., Ind. and B. C. southward.

pay frequent visits to poultry yards, with the result that a young pullet is missing after nearly every visit. They do not circle about in the air searching for prey, as larger hawks do, but quietly and unobtrusively slip in and out along the edges of woods until a hapless bird is sighted at close range; a sudden and swift dash ends with the little hawk the victor.

Their nests are placed in crotches close to the main trunks of woodland trees; often old crow nests are used. The eggs of this species are regarded as among the most beautifully marked of any of the *Raptores*—a bluish-white, very boldly splashed with dark brown.

COOPER'S HAWKS are, in plumage, nearly perfect enlargements of the last species, but the crown is darker than the back, and the end of the tail is always rounded, while that of the last species is rather square-ended. In their feeding habits, there is even more similarity between the two species, for this is, like the Sharp-shinned species, exceedingly destructive to valuable birds and poultry. Cooper's Hawks probably use old crow nests oftener than they build

BIRDS OF PREY

(334) *Ástur atricapillus atricapillus*

(Wilson) (Lat., a hawk; black-haired).

GOSHAWK; BLUE HEN HAWK.

Tarsi strong, feathered halfway down in front. *Ads.*—Above dark bluish-slate color, each feather with a black shaft line; below whitish, closely barred with zigzag blackish lines and penciled with black shaft streaks. Top of the head blackish as shown, being separated from the dark sides of the head by a whitish superciliary line. *Im.*—Above dark brown, varied with whitish and rusty; below streaked with dark brown. L., 20.00-24.00; Ex., 42.00; T., 9.00-12.00; Tar., 2.75.

Range—Breeds from N. H. and Mich. north to Ungava, Keewatin and Alaska. Winters in northern United States.



new ones of their own; consequently their nests are most often found in coniferous trees. When they make their own home, it is usually placed at no great height and most often against the trunk of the tree. The eggs are bluish-white, either plain or with indistinct brownish markings. When their homes are molested, Cooper's Hawks often dash toward the intruder, uttering shrill cries. At other times they are very silent birds. When hunting, they follow a devious path through the woods just over the underbrush or along some creek bottom, ready to pounce upon grouse or any other birds that they may discover.

GOSHAWKS, large, handsome creatures, are the most destructive of any of our birds of prey. They might be termed sportsmen among birds, for their prey is chiefly of those species that are generally considered as game. They are boreal birds, so the greater part of the year they live north of the United States, but they visit us in greater or less numbers every winter according to the severity of the weather and game conditions farther north. When hungry,

BIRDS OF PREY



(335) *Parabuteo unicinctus*

harrisii (*Aud.*) (Gr., near, Lat., buzzard-hawk; Lat., once girdled).

HARRIS'S HAWK. Loral region quite bare and set with short stiff hairs. Five outer primaries emarginate or notched. Plumage as shown, chiefly blackish-brown; shoulders, linings of wings and tibia bright chestnut; upper and under tail coverts and base of tail broadly white and end of tail narrowly tipped with the same. Immature birds are lighter, the under parts spotted or streaked with tawny and the tibia are buffy, barred with dusky. L., 21.00; Ex., 45.00; W., 13.50; T., 9.50; Tar., 3.00. *Nest*—Of sticks and weeds in trees or bushes; three or four white eggs, 2.10 x 1.65.

Range—Southern La., Tex., N. Mex., Ariz. and Cal.

a condition they are in a great deal of the time, they are fearless beyond comparison. A farmer feeding his fowls may hear a swish of wings, and see one of his favorite hens borne off before his eyes; so sudden and unexpected is the rush that he is wholly powerless to prevent it. Unfortunately our farmers are not usually well versed in ornithology. They know no distinction between hawks save Hen Hawks (large) and Chicken Hawks (small). As a matter of fact, this species and the two preceding ones are the *only* ones that really do harm poultry or our bird life.

Ptarmigan, grouse, poultry, ducks, rabbits, and lemmings are the principle staples in the order of the Goshawk preference. Sir Goshawk may play a waiting game and sit patiently on his perch until some delectable morsel passes within range of his sudden dash; but when hunger spurs him, he slowly and silently wings his way through the woods, along creeks or across fields. The creature that betrays its presence is doomed, for his sharp talons will strike it down

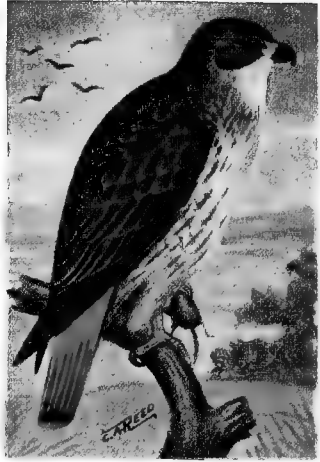
BIRDS OF PREY

(337) *Buteo borealis borealis*

(Gmel.) (Lat., northern).

RED-TAILED HAWK; "HEN HAWK." Four outer primaries emarginate or notched. *Ads.*—Plumage as shown; the tail bright rufous, crossed near the tip by a narrow black band. *Im.*—Back with some whitish mottling; tail the same color as back, crossed by numerous dark bars; sides and breast more heavily streaked and barred than in the adults. L., 22.00; Ex., 52.00; W., 16.00; T., 9.50; Tar., 2.75.

Range—North America, east of the Rockies. A lighter form, **KRIDER'S HAWK** (*B. b. krideri*), is found on the plains from Minn. and N. Dak. south to Mo. **HARLAN'S HAWK** (*B. b. harlani*), found in the Gulf States, has the tail of the adults mottled with dusky.



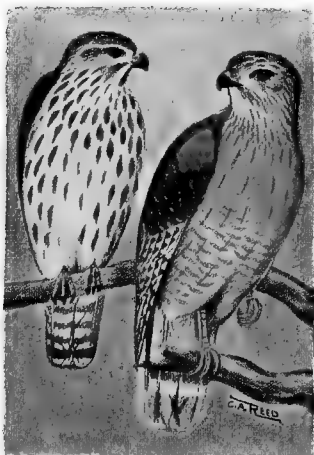
before it has fairly started in flight. The Goshawk strikes with such swiftness and strength that the whole side of his victim is often torn out at the first impact.

HARRIS'S HAWKS are sluggish species whose habits are largely of the same character as those of vultures—scavengers. They are Mexican hawks, but are found along our southwestern border.

RED-TAILED HAWKS are one of our largest, handsomest and best known species. As they frequent the open chiefly, when engaged in hunting, they suffer greatly from the shotguns of farmers who suppose them to be the hawks that have so persistently been taking their poultry. In reality, a pair of Red-tails would be an excellent investment for every farmer to have on his acres, for they live almost wholly on small mammals and reptiles, seldom touching any form of bird life unless their regular food supply is exhausted.

Red-tails are powerful, although not speedy, in flight. During migrations, and often in play, they soar to great

BIRDS OF PREY



(339) *Buteo lineatus lineatus*

(Gmel.) (Lat., striped).

RED-SHOULDERED HAWK.

Four outer primaries notched; all barred conspicuously with black and white. *Ads.*—Plumage as shown by the bird on the right, very heavily barred with rusty below; lesser wing coverts more or less bright chestnut. *Im.*—Above, including the shoulders, dark brown; below streaked with brown. L., 20.00; Ex. 42.00; T., 8.50; Tar., 3.00. *Eggs*—White, blotched with brown, 2.15 x 1.75.

Range—Breeds from N. S., Quebec, and Keewatin south nearly to the Gulf. Winters from Mass. and Mich. south to the Gulf. A smaller, paler species, FLORIDA RED-SHOULDERED HAWK (*N. l. alleni*), is found in the South Atlantic and Gulf States.

heights, moving slowly with the wind or in wide circles on apparently motionless wings. At such times they frequently give utterance to their shrill, piercing whistles.

Their nests are usually placed quite high in any kind of woodland trees. I have found more in chestnuts than in any others, but probably only because these trees are abundant in New England woods. Smaller woods with open fields and swamps near at hand are preferred by these birds. Their nests are rather bulkily constructed, but are well made, for they are used year after year if not molested too often; they are lined with strips of bark, fine twigs, and usually some feathers. The eggs are dull white, usually blotched with brown, but very variable.

RED-SHOULDERED HAWKS, which are slightly smaller and even more common and better known than Red-tails, are very similar in their food habits to the latter—that is, they may be regarded as excellent hawks to have about from an economic standpoint. Too many of them would not be desirable, because a shortage of rodents would

BIRDS OF PREY

(341) **Buteo albicaudatus sennetti** Allen (Lat. white-tailed).

SENNETT'S WHITE-TAILED HAWK. Three outer primaries notched. *Ads.*— Plumage as shown; upper parts plumbeous except the rump and tail, which are white, the latter with a subterminal black band and numerous indistinct wavy lines; lesser wings coverts bright chestnut. *Im.*— General plumage blackish-brown, varied with white and buff underneath; L., 23.00; W., 17.00; T., 7.50. *Eggs*— Dull white, with a few brown spots.

Range— From middle Tex. southward.

(344) **Buteo brachyurus** Vieill (Gr., short tail).

SHORT-TAILED HAWK. A small two-phased dark species found from southern Fla. southward.



cause them to take to birds and poultry; but such a case can hardly happen, for a single piece of woodland will, in summer, support but a single pair of Red-shoulders; they will not tolerate the presence of others of the same species. This is true of several other species; while several different hawks may be found nesting near together, rarely will more than one pair of any one kind be in the same piece of woods.

Their nesting is very similar to that of the Red-tail. If anything, the average height of their nests above ground will be rather less than that of the latter. As usual with many birds of prey, the lining will include some feathers, more being added as incubation progresses. The eggs are dull white, usually smeared and blotched with different shades of brown. When any one climbs to their nests, both birds will circle about overhead or perch in nearby trees, uttering loud, whistling calls.

SENNETT'S WHITE-TAILED HAWKS are southern species, found within our borders only near the coast region of southern Texas. Their food is believed to be almost

BIRDS OF PREY



(342) **Buteo swainsoni** Bonap.

SWAINSON'S HAWK. Three outer primaries notched. The back, wings and tail are blackish-brown in all plumages, but the under parts vary almost indefinitely. A perfectly plumaged ♂ is shown. The ♀ has the breast darker, almost mahogany colored, and the under parts are heavily cross-banded with chestnut or blackish. One plumage, perhaps a dark phase, is uniform blackish-brown. Immature birds have the under parts pale yellowish-brown, heavily streaked on the breast and lightly barred below with brownish. L., 20.00; W., 15.50; T., 8.75. Eggs — White spotted with brown; in trees or on ledges; 2.20 x 1.70.

Range — Breeds from Man., Mackenzie and Alaska south to Chile. Casual east of the Mississippi River.

wholly insectivorous. Their nests are placed in the tops of bushes, rarely more than ten feet above ground.

SWAINSON'S HAWKS are common and widely distributed in western North America, but are only of casual occurrence east of the Great Plains. They probably exhibit greater diversity of plumage than any other species, the handsomest and typical adult plumage being the one shown here. They show less fear of man than most other species are wont to do. Their food is made up almost entirely of small rodents and insects such as grasshoppers, crickets, etc. That they do not prey upon small birds is very evident when it is considered that nests, in use, of this hawk, Bullock's Orioles, Arkansas Kingbirds, and grackles have been found in the same tree, and the two latter species sometimes build their homes among the sticks composing that of the large hawk.

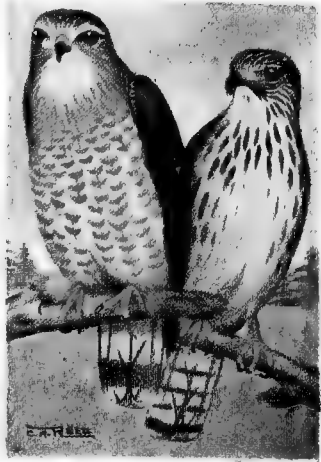
Their nesting sites vary fully as much as their plumages. These may be the tops of tall trees, sixty or more feet from the ground, or they may be in bushes not more than four

(343) Buteo platýpterus*(Vieill.)***BROAD-WINGED HAWK.**

Three outer primaries notched; without any barring. *Ads.*—Plumage as shown; grayish-brown above; white below, streaked on the breast and barred below with rusty brown; tail with three broad blackish zones.

Im.—Shown on the right; upper parts brownish-black, mixed with tawny or whitish edges of the feathers; below whitish, more or less streaked with dark brown; tail crossed by six or eight narrow dark bars. L., 15.00; Ex., 33.00; T., 7.00. *Eggs*—Whitish, more or less blotched with brown and gray, 1.05 x 1.55; nest of sticks lined with pieces of bark.

Range—Breeds from N. B., Ont., and Sask. south to the Gulf. Winters from N. J. and Ill. southward.



feet up; again, they may be on ledges of cliffs or on the ground in open prairie land. The nests are made of sticks and, although rather flat on top, are usually quite well lined with grass, weeds or bark.

BROAD-WINGED HAWKS are quite evenly distributed over eastern North America. The great Mississippi River marks the western boundaries of this species just as it marks the eastern ones of the last. While they are not very active, a trait, and perhaps a commendable one, common to all Buteos, they often delight in soaring high over the woods or fields, apparently just for exercise, for their hunting is accomplished by quietly perching on a suitable place to command a good view of a considerable area of ground, and suddenly dropping upon the squirrel or other rodent that first shows itself. They also catch many frogs, larvæ of large moths, grasshoppers, and other insects.

They are woodland birds and commonly nest in the middle of extensive tracts. They are rather solitary in their habits during the breeding season, and but one pair will be

BIRDS OF PREY



(346) *Asturina plagiata* Schlegel

(Lat., striped).

MEXICAN GOSHAWK. A Mexican species reaching southern Ariz. and the Lower Rio Grande Valley in Tex. Adults are bluish-slate above and finely vermiculated with gray below. L., 17.00.

(347a) *Archibuteo lagopus sancti-johannis*

(Gmel.) (Lat., chief buzzard; Gr., hare-footed).

ROUGH-LEGGED HAWK. Tarsi feathered to the toes. *Ads.*—Plumage varies greatly from a uniform blackish-brown to the one shown here, in which the head, breast and tail are largely white.

Range—Breeds in northern Canada and Alaska. Winters from northern U. S. south to N. Car., Tex. and central Cal.

found within a large area. Their nests are not placed very high, usually from twenty to forty feet from the ground, and are made of sticks and twigs; they are quite unusual in that practically all of them are scantily lined with bits of bark, usually that of pines. The eggs are quite handsomely clouded with blue-gray and more or less obscurely blotched with brown. When their nesting is disturbed, both birds will usually perch at some distance, probably out of vision, and utter shrill, wailing whistles; this sound always reminds me of the high-pitched squeaking of two limbs rubbing together as trees are rocked by the winds.

It is a well-known fact among ornithologists that practically all of our hawks can be identified when in flight, even at great distances, either by the size and shape of the wings and tails, or by the "wrist marks," the dark patches of feathers that usually show on the under side at the bend of the wing. The present species is very easily recognized by its comparatively small size and the broad rounded wings and short tail.

BIRDS OF PREY

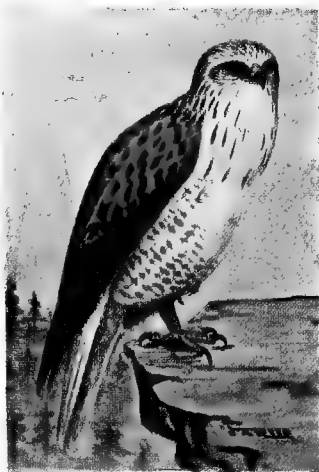
(348) *Archibuteo ferrugineus*

(Licht.) (Lat., iron-rust).

FERRUGINOUS ROUGH-LEG.

Legs feathered to the toes. *Ads.*—Plumage as shown, the head, whole under parts and tail being pure white; top of head heavily streaked, breast narrowly lined and flanks barred with dusky; tail washed with rusty toward the tip; back and wings largely rich rusty-red, each feather with a black centre; tibia and tarsus rusty, barred with blackish. Immature birds are less rufous above and have few markings below. L., 22.50; Ex., 54.50; T., 9.75. *Eggs*—White, handsomely blotched with brownish, 2.55 x 1.95; nest sometimes in trees but usually on bluffs.

Range—Western North America, east to Man., N. Dak. and Kan.



ROUGH-LEGGED HAWKS are of boreal distribution in summer, breeding in the northern half of Canada; they are rather erratic in their occurrence in the United States, but appear in greater or less numbers throughout our country. Although large and strong, they are sluggish in their actions and are incapable of catching game birds unless it be sick or wounded ones. Their food consists almost entirely of small rodents, most of which they catch while coursing over meadows after dusk as Marsh Hawks do. Along our Massachusetts coast I have usually found them feeding upon fish that were cast on the beach; doubtless they also feed upon such matter about our interior ponds.

FERRUGINOUS ROUGH-LEGGED HAWKS are quite common residents of the plains and prairies in the interior. They rarely come east of the Mississippi and are uncommon west of the Rockies. In most localities, except when nesting, they are quite shy, but they may be seen coursing close to the ground, ready to drop upon any small mammal that happens in their path. Their food is so largely

BIRDS OF PREY



(349) *Áquila chrysaetos*

(Linn.) (Lat., an eagle; Gr., golden eagle).

GOLDEN EAGLE. Legs feathered to the toes. *Ads.*—Plumage as shown; the general color being a rich blackish-brown; the lanceolate feathers on the nape are golden yellow and the base of the tail is more or less whitish, depending upon the age of the bird, becoming whiter as the bird becomes older. *Im.*—Much blacker than the adults, with little or no golden on the nape and less white on the tail. L., 36.00; Ex., 6 or 7 feet; W., 24.00; T., 15.00; Tar., 3.75. *Nest*—A bulky structure of large sticks, usually on mountain cliffs, but sometimes in trees.

Range—From Ungava, Keewatin, and Alaska south to Mexico, chiefly west of the Miss. River.

of ground squirrels that they are often known locally as Squirrel Hawks. These rodents as well as gophers, meadow mice, moles, and prairie dogs are so very abundant in their range that it is doubtful if they ever take birds of any species. Their nests are located either on the ground or at low elevations in trees; the large eggs are very handsomely blotched with brown.

GOLDEN EAGLES, while not to be considered as common anywhere, are rather evenly distributed throughout North America, west of the Mississippi River. Stragglers or isolated pairs occur in mountainous regions of many of our Eastern States. Golden Eagles, although having slightly less expanse of wing than Bald Eagles, are heavier, stronger, and, with all respect to our national bird, less cowardly in that they seek nobler game and never obtain their food by such arrant thievery as the latter often practises. They always prefer live prey to carrion, and commonly feed upon all sorts of large game, such as water fowl, turkeys, grouse, hares, fawns, etc.

BIRDS OF PREY

(352) *Haliaeetus leucocéphalus leucocéphalus*

(*Linn.*) (Gr., a sea-eagle; white-head).

BALD EAGLE; WHITE-HEADED EAGLE. Tarsi not feathered to the toes. *Ads.*—Plumage as shown; blackish-brown, with white head and tail; this plumage is not fully attained until the bird is over three years of age. *Im.*—Blackish-brown all over with only a few whitish feathers showing. The second year they are grayer, with more white and are larger than the adults. L., 34.00; Ex., 6 or 7 feet; W., 23.00; T., 12.00; Tar., 3.75.

Range—Whole U. S., breeding locally. A rather larger, blacker variety, **NORTHERN BALD EAGLE** (*H. l. alascanus*) is found throughout Canada and Alaska. South to the Great Lakes.



In form, they are trim, clean-cut, and powerful, and in flight are very graceful for such large, heavy birds. They are almost always seen in pairs and probably remain mated for life. Unless disturbed too frequently they use the same nest year after year; according to localities these are located on ledges of cliffs, high bluffs, or in large trees. The two or three large eggs are handsomely dotted, clouded, blotched or splashed with several shades of brown and often grays. When a nest is approached the owners always leave and are seldom seen again while the intruder is about. They are very shy at all times.

BALD EAGLES, our National Emblem, are of local occurrence and are resident throughout the greater portion of North America. In their young "black" plumage, which they wear for the first two years, they are often mistaken for the last species; besides lacking the yellowish feathers on the nape, which show in nearly all plumages of the Golden Eagle, their wings are comparatively narrower and the tarsi are not feathered on the lower half.

BIRDS OF PREY



(353) *Fálco islándus* Brünn

(Lat., a falcon; Icelandic).

WHITE GYRFALCON. Legs feathered half way to the toes. *Ads.*—Plumage as shown by the nearest bird—pure white, more or less spotted or barred with blackish, as in Snowy Owls. *Im.*—Not greatly different, but with more blackish. L., 22.00; W., 14.50.

Range—Arctic regions; casual in Me. and Ont.

(354) *Falco rusticolus rusticolus* Linn.

GRAY GYRFALCON. Plumage as shown by rear bird—grayer with more barring and spots. Casually south to northern U. S. **GYRFALCON** (*F. r. gyrfalcon*) is still darker, the blackish being in excess of light coloring.

This species is not as destructive as the last, but when its usual sources of food fail, they will take lambs, pigs, or fawns. As they are more commonly found about water, they kill quite a number of various species of ducks and, in the south especially, coots. The greater part of their food is carrion, chiefly dead fish which they get from the shores. They are almost as good scavengers along the beaches as are vultures. They often visit fish nets at low tide, when they can reach down and help themselves. I have never seen them dive for living fish; they prefer to let the Osprey do that and then rob him of his prey. I have seen this interesting, oft-described performance several times—twice in one morning at Cape Henry, Va., where an Osprey had its nest only a quarter mile from the shore that the eagles were continually patrolling. On the first occasion, the Osprey dropped its fish as soon as the eagle started in pursuit; the second time, both birds soared so high as to be nearly beyond vision even with good binoculars, before the booty was relinquished, the hawk descending out over the

BIRDS OF PREY

(354b) *Falco rusticolus obsoletus* Gmel.

BLACK GRYFALCON. Much darker than any other variety of Gyrfalcons, the general plumage being blackish, with buffy-white spots above and streaks below.

Range — Breeds in Ungava. South in winter to Me. and Ont.

(355) *Falco mexicanus* Schlegel

PRAIRIE FALCON. Plumage as shown — blackish-brown above and whitish below, the under parts being boldly streaked with dusky; a prominent blackish-brown moustache mark, downward from the bill. L., 18.00; W., 13.00; T., 8.00; Tar., 2.00.

Range — Plains from Sask. and B. C. south to Mexico; casual east to Minn. and Ill.



water, shrilly whistling his anger, there to resume fishing while the eagle settled in a dead tree to enjoy his meal.

Usually their nests are well up in large trees, preferably pines. They are very bulkily but firmly constructed of large sticks and lined with twigs or grasses. The two or three eggs are dull white. These eagles have much less fear of man than the last species, for they often resent intrusion near their nests and sometimes swoop viciously at the climber.

GYRFALCONS are bold, fearless and destructive Raptors inhabiting our Arctic coasts and southward to Labrador. Only in very severe winters do some species appear within the borders of the United States. Their food consists chiefly of sea-birds, ducks, ptarmigan and hares. Their habits are practically the same as those of the falcons that have a more southerly distribution.

PRAIRIE FALCONS are not uncommon in open country from the eastern edge of the Great Plains to the Pacific coast. Their ordinary flight as they course over the prairies is easy and rather graceful, performed by series of quick wing-beats

BIRDS OF PREY



(356a) *Falco peregrinus anatum* Bonap.

(Lat., wandering; a duck).

DUCK HAWK; PEREGRINE FALCON; GREAT-FOOTED HAWK. Feet large and powerful, the toes being of unusual length. Only first outer primary notched. Upper mandible strongly hooked; lower deeply notched. *Ads.*—Plumage as shown, bluish-slate above and white, tinged with buffy below; conspicuous black moustache marks; numerous streaks and crossbars below. *Im.*—Mixed with brownish above; lower markings all lengthwise. L., 19.00; Ex., 45.00; W., 14.00; T., 7.00; Tar., 2.00.

Range—Whole of North and South America, breeding locally throughout the range.

alternated with sailings. If a lark or other bird of appropriate size rises before them, they spring forward as though shot from a gun, with a speed that is amazing, and strike their quarry almost before it has time to get into full flight. If a prairie dog, gopher, or squirrel is so incautious as not to observe their approach, or happens to be a few feet from the entrance to the burrow, its fate is sealed. Birds up to the size of pigeons and the smaller rodents form their usual food; but they have the strength, if not the inclination, to kill and carry away much larger game.

Their nests are almost invariably on the ledges of cliffs or in cavities of perpendicular bluffs, usually in places difficult to get at. The eggs are creamy-white, very finely speckled over the whole surface with reddish-brown.

DUCK HAWKS are found, where suitable conditions occur, throughout North and South America. This is but a very similar sub-species of the famous Peregrine Falcons, which were almost as extensively used in England for "falconry" as were the more powerful Gyrfalcons. They

BIRDS OF PREY

(357) *Falco columbarius columbarius* Linn.

(Lat., a pigeon-fancier).

PIGEON HAWK. *Ads.*—Plumage as shown; the ♀ larger and darker colored than the ♂; upper parts bluish-slate, with black shaft lines; tail with four black bands, the terminal one very broad. *Im.*—Similar as to markings, but the upper parts and tail are brownish-black, the latter crossed by four light bands, L., 12.00; Ex., 2.400; W., 8.00; T., 5.50; Tar., 1.35. *Eggs*—Buffy, heavily blotched with brown, 1.50 x 1.20. Nest in trees, cavities or on ledges; a frail structure of twigs, when in trees or on the ground; no lining when nesting in cavities.

Range—Breeds from Me., Mich., and Ore. northward. Winters from southern U. S. southward.



were excellently adapted to the purpose, for they are powerful and daring far beyond their size. Even in ordinary flight, the movement of their wings is very rapid, but when they stoop in a sudden burst of speed to attack their quarry probably their swiftness excels that of any other species.

They are usually to be found in the vicinity of waters, since they have a preference for water fowls. They habitually attack birds larger than themselves, striking with a force and energy that usually kills the quarry at the impact of the strong talons. The unusual size of their feet enables them to do great execution among large ducks or gulls.

If the nature of the country allows, they choose ledges or cliffs for their nesting sites; in the north they always do so, but in some parts of the United States they resort to cavities in trees. Little nesting material is used, sometimes not even a lining, the eggs being on bare rock. The eggs are so minutely dotted that the ground color appears to be a light rufous-buff, and the surface is irregularly blotched with darker shades of the same.

BIRDS OF PREY



(357b) *Falco columbarius richardsoni* Ridgway

RICHARDSON'S MERLIN;
RICHARDSON'S PIGEON HAWK.
Much lighter in all plumages than the last species. Tail crossed by six black bands. *Ad. ♂* — Plumage as shown by the lower bird, the back being a light blue-gray, on which the shaft marks show prominently. *♀ and Im.* — As shown by the upper bird, the back grayish-brown, with paler edging of the feathers. L., 12.00.

Range — The interior, breeding from N. Dak. to Sask. and wintering south to Tex.

(358.1) MERLIN (*Falco æsalon*), an European species, has been once taken in Greenland, and (359.1) KESTREL (*Falco tinnunculus*) has been taken once in Mass.

Duck Hawks are one of the very few species which have little to their credit from an economical point of view. Fortunately they are pretty locally distributed and generally where other quarry is more easily obtained than poultry.

PIGEON HAWKS, during summer, are found in the United States only in the northern parts, or in mountain ranges southward. The majority of them retire to the northern parts of British America and Alaska. They are rather shy and retiring during the breeding season and rarely seen except in the immediate vicinity of their nests. The nests are usually in trees, not more than ten or twenty feet above ground — bulky structures nearly as large as crow nests; less often they are found on ledges of cliffs and rarely they deposit the eggs in cavities in trees. When their homes are invaded, they usually dash at the intruder with a fierceness that, in spite of their small size, might lead to serious consequences should they chance to strike one in the face.

BIRDS OF PREY

(360) *Falco sparverius sparverius* Linn. (Lat., a sparrow).

SPARROW HAWK. Smallest of our hawks. *Ad.* ♂ — Plumage as shown by the left-hand bird. Upper parts largely bright rufous, with short black bars on the back and a broad band across the end of the tail; under parts with round black spots. *Ad.* ♀ — Upper parts, including wings, rufous, barred completely with black; below streaked with brownish. L., 10.50; W., 7.50; T., 5.50; Tar., 1.35.

Range — Breeds throughout the U. S. and Canada, east of the Rockies. Winters from Mass. and Ohio southward. (360c) LITTLE SPARROW HAWK (*F. s. paulus*), slightly smaller, inhabits Fla. Peninsula. (361) CUBAN SPARROW HAWK (*F. sparveroides*) is casual in Fla.



Large numbers of them migrate through our country to their winter quarters from the Gulf States southward. As usual with falcons, their flight is performed by rapid wing-beats and short sailings. Their food consists of insects, such as grasshoppers, crickets, larvæ and dragon-flies, catching the latter easily in spite of their swift and erratic flight; they also kill a great many small birds and mammals. Richardson's Merlin is a very pale-colored Pigeon Hawk occurring locally from the plains to the Pacific coast.

SPARROW HAWKS are the smallest of any of our hawks or falcons. In summer, they are quite abundant throughout the United States and southern Canada, their presence being the more noticeable because they are most often found in rather open, populated country. In winter, they are most abundant along our Gulf coast and in Mexico, although some remain as far north as Massachusetts, Iowa, and British Columbia. Their food consists almost entirely of grasshoppers at all seasons of the year; other insects are occasionally found in stomachs dissected, and rarely even

BIRDS OF PREY



(362) *Polyborus cheriway*

(*Jacquin*) (Gr., very voracious).

AUDUBON'S CARACARA. Bill long, high and compressed. Chin and face unfeathered but covered with bristles. Head crested. Tarsus long and unfeathered. Feet and claws large, the latter nearly straight. *Ads.*—Plumage as shown; chiefly blackish-brown and white, with a tinge of yellowish on the nape. *Im.*—More brownish and the markings in streaks rather than bars. L., 23.00; Ex., 48.00; W., 15.50; T., 9.00; Tar., 3.00. *Nest*—A bulky pile of sticks and weeds in bushes or low trees; two or three whitish eggs, so heavily blotched and clouded with brownish as to obscure the ground color, 2.50 x 1.80.

Range—Fla., Tex. and Ariz. southward.

field mice; it seems to be very unusual for them to kill birds of any kind. Such valuable birds should be encouraged by husbandmen to remain on their premises, and they will do so if branches containing suitable cavities are not trimmed from all trees.

They are quite noisy in spring, the male often chasing his mate, both loudly uttering their familiar high-pitched "killy, killy, killy," etc. Their four or five pretty eggs are usually deposited at the bottoms of cavities in trees, most frequently in deserted Flicker nests; no lining is used if the bottom of the cavity is suited to receive the eggs. In some sections of the west they are reported as nesting in old Magpie homes.

AUDUBON'S CARACARAS are resident in the southern portions of Florida, Texas, and Arizona. Although commonly found in the neighborhood of houses or farms, they are at nearly all times shy and difficult to approach. Their habits are in many respects like those of the vultures, for they devour quantities of carrion. Near the coasts, they

BIRDS OF PREY

(364) *Pandion haliæetus carolinensis*

(Gmel.)

OSPREY; FISH HAWK. Feet very large and rough; talons long and strongly hooked. Plumage very close, firm and oily; occipital feathers slightly lengthened. *Ads.*—Plumage as shown. Only very old birds have a solid blackish-brown back; usually the feathers are more or less edged with whitish—the younger the bird the more white on the back, but the reverse is true in regard to the head. L., 23.00; Ex., 5 feet; W., 20.00; T., 9.50; Tar., 2.25. *Nest*—Very bulky, of sticks, usually in trees but sometimes on the ground.

Range—Breeds throughout the U. S., Canada and Alaska. Winters from southern. U. S. southward.

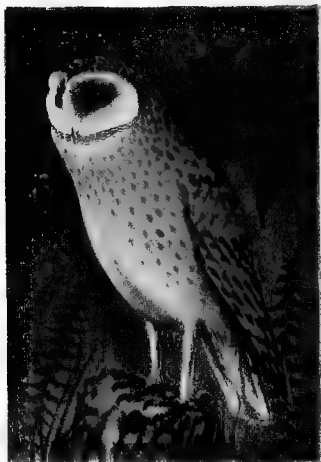


live a great deal upon fish, which they get from the shore or force pelicans to disgorge. Their flight is rather graceful and quite swift, but most of their hunting is done on the ground; their legs and feet are especially adapted to a ground life. They kill many rabbits, other smaller rodents, and also many insects and serpents. Their nests, rather bulky but shabbily constructed of twigs and weeds, are placed in the tops of low trees.

FAMILY PANDIONIDÆ. OSPREYS

OSPREYS, or Fish Hawks, are abundant in suitable localities throughout North America. As their food is wholly of fish, they are confined chiefly to sea-coasts and large inland bodies of water; during migrations, however, they will be seen sailing over many lakes and following river courses. While they are not recognized as of any economic value, the harm they do is nil, and folks are beginning to appreciate the fact that many birds have an æsthetic value to warrant their strictest protection.

BIRDS OF PREY



(365) *Aluco pratincola*

(Bonap.) (Ital., some kind of an owl; Lat., meadow inhabiting).

BARN OWL ; MONKEY-FACED OWL. Facial disc highly developed, triangular rather than circular, and capable of being varied in form according to the bird's emotions. Plumage as shown; very soft and with a very intricate pattern — very finely vermiculated, especially on the upper parts. L., 16.00; Ex., 44.00; W., 13.50; T., 6.50; Tar., 2.75. *Nest* — In hollow trees, in caves, barns, towers or other buildings; five to seven pure white eggs, 1.70 x 1.30.

Range — Breeds from N. Y., Ohio, Ill., Neb., Col. and Cal. south to the Gulf and southern Mexico. Casually north to Mass., Ont., and Minn.

The Osprey feeds wholly upon living fish that it catches by its own efforts. It is a grand sight to watch one of these great creatures sailing majestically along a hundred feet or more above water. Upon sighting a fish near the surface, he hovers for a few seconds on rapidly flapping wings and then, if the fish is in a satisfactory position, he folds his long wings and plunges downward like a huge, living arrow; just as the water is reached, his long legs are thrust forward in front of his face and the opened talons are in readiness to grasp the quarry; within two or three seconds he will appear above water, give one or two quick, vigorous shakes of the wings, sending water flying in all directions, and slowly fly away to his favorite perch if successful. The average size of fish caught by Ospreys seems to be about one pound.

Their nests are normally placed in trees, the same structure being added to and used year after year, becoming enormous in size in a few years. Absence of trees in some places near favorable fishing areas causes them to build their homes on the ground.

BIRDS OF PREY

(366) *Ásio wilsoniánus*

(Less.) (Lat., a kind of horned owl).

LONG-EARED OWL. Ear tufts long and prominent. Plumage as shown; under parts heavily streaked and with numerous cross-bars; face feathers usually quite rusty colored; back rather dark, finely vermiculated with gray and buffy; facial disc nearly round. L., 15.00; Ex., 39.00; W., 11.50; T., 6.00; Tar., 1.40. *Nest*—Usually in deserted crow or hawk nests, but also in hollow trees or even on the ground; the three to seven eggs are pure white, 1.55 x 1.35.

Range—Temperate North America. Breeds from Newfoundland, Quebec, Keewatin and B. C. south to Mass., Ind. and Cal. Winters throughout the U. S. and south to Guatemala.



FAMILY ALUCONIDÆ. BARN OWLS

BARN OWLS are abundant in tropical and subtropical climates. They are numerous in our Southern States and not uncommon as far north as New York. They show little fear of man—indeed, this species frequently nests within large cities in barns or church steeples. They are not only very inoffensive owls but are quite valuable, for they destroy quantities of ground squirrels, mice, moles, grasshoppers, beetles, etc., and rarely take small birds. Their flight is rather slow, but, as usual with owls, very silently performed.

Their nesting sites are very variable; ordinarily they use cavities in trees, but circumstances at times cause them to adopt burrows under ground, holes in banks, crevices among ledges, dovecotes, or corners in barns or steeples, and sometimes on stumps, logs, or even on the ground.

FAMILY STRIGIDÆ. HORNED OWLS, ETC.

LONG-EARED OWLS are abundant, for owls, throughout temperate America; they are resident in the United

BIRDS OF PREY



(367) *Asio flammeus*

(Pont.) (Lat., reddish).

SHORT-EARED OWL; MARSH OWL. Ear tufts very small and inconspicuous. Plumage as shown, the general tone being tawny — much lighter than that of the last species. The markings below are all streaks — no crossbars. The facial disc is largely whitish. L., 15.50; Ex., 41.00; W., 12.00; T., 6.00; Tar., 1.50. *Nest* — Usually built on the ground in marshes or meadows; sometimes in burrows; a slight hollow, lined with a few grasses; four to seven, dull white eggs, 1.55 x 1.25.

Range — Nearly cosmopolitan. Breeds locally from the Arctic coast south to Mass., Ind., Mo. and Cal. Winters from its southern breeding range southward.

States, but migratory in Canada. As they are almost entirely nocturnal and never hunt during daylight, they may be fairly abundant in a locality and their presence not suspected by any not acquainted with their habits and calls. They are rather silent except during the breeding season, which is during April or May, according to locality; at this season they utter several notes, the most common and distinctive of which, according to Bendire, is a soft-toned “wo-hunk,” repeated slowly several times; they also give a short twittering or trilling whistle.

Their eggs are nearly always deposited in old crow nests, which are repaired by adding a little grass for lining and some feathers, the latter nearly always showing from the ground. Often the female will remain on the nest even though the base of the tree be jarred considerably. Several times they have still been covering the eggs when I climbed the tree and looked over the brim of the nest; I would no sooner get sight of the little round face, with the long, erect ears, than she would silently flit away for some distance.

BIRDS OF PREY

(368) *Strix varia varia* Barton

(Lat., a screech-owl; variegated).

BARRED OWL; HOOT OWL.

Head very large and round; without ear tufts. Plumage as shown; chiefly brownish and grayish; facial disc grayish, with concentric indistinct rings of dusky; eyes blue-black; under parts regularly barred on the breast and streaked elsewhere with brownish. L., 19.00; Ex., 44.00; W., 13.00; T., 9.50. *Nest* — Usually in hollow trees but sometimes in old crow nests; two to four white eggs, 1.95 x 1.65.

Range — Resident from Quebec and Keewatin south to Ga. and Kan.

(368a) FLORIDA BARRED OWL (*S. v. alleni*), which has the toes unfeathered, is found along the Gulf coast and north to S. Car.



SHORT-EARED OWLS are of the same size as the last species, but very readily distinguished because of the tiny ear tufts versus the long ones, and the pale buff coloration versus one in which reddish-brown enters largely. While in reality this species is not as abundant as the last at any season, they are fully as apt to be seen, since they are not as nocturnal as most species. Before dusk, or earlier on cloudy days, they may be seen silently sweeping over marshes hunting for mice, frogs, grasshoppers, etc. They fly low, just clearing the tops of the grass; upon sighting quarry, without appreciably slackening speed, they swoop a little lower, extend their legs downward, and then gracefully curve up to some convenient perch, bearing their prey.

Short-eared Owls build their nests of dry grasses on the ground, usually in clumps of weeds or tall grass in meadows or marshes.

BARRED OWLS are the most abundant of the larger owls throughout temperate eastern North America. They are resident except in the northern parts of their range. This

BIRDS OF PREY



(370) *Scotiáptex nebulósa nebulósa* (Forster) (Gr., darkness, eagle-owl; Lat., clouded).

GREAT GRAY OWL. Owing to the long, loose feathering, this species appears to be one of the largest of our owls, whereas in reality it weighs little more than half as much as the Great Horned and Snowy Owls. Facial disc very large; eyes small and yellow. Plumage as shown, the upper parts being clouded dusky-brownish. L., 27.00; Ex., 5 feet; W., 17.00; T., 12.00; *Nest*—In trees, usually coniferous ones in densely wooded regions; of sticks, lined with moss and some feathers; two to four white eggs, 2.15 x 1.70.

Range—Breeds from Hudson Bay to central Alaska. Winters south to the northern border of the U. S. and casually to Mass., N. Y. and Ohio.

species is one of the so-called "Hoot Owls." Its notes are quite varied, but may be likened to a series of hollow but loud and sonorous sounds like "hoo-hoo-hoo-hoo, too-hoo-ah"; occasionally the tones will change to a "ha-ha-ha," like a person laughing; less often they will mingle a mournful wail in with their hootings.

Barred Owls are not as harmless as the preceding species, but it is believed that the good they do in the way of destruction of mice, rats, squirrels, etc., outweighs the harm they do in occasionally taking poultry or other birds; when hungry, they are not particular as to the species of birds they devour, for they have been known to take Screech and Saw-whet Owls.

Barred Owls ordinarily nest in natural cavities of trees, preferably those in large woods or swamps near water. Since such sites are not readily obtained where much large timber is cut away, they occasionally make use of old crow or hawk nests. They breed early, the eggs being laid usually in March, even in the north where the ground is covered with snow.

BIRDS OF PREY

(371) *Cryptoglaux funérea richardsoni* (Bonap.) (Gr., not well defined, an owl; Lat., sombre).

RICHARDSON'S OWL. A small species; no ear tufts. Plumage as shown by the upper bird; grayish-brown above; crown and wing coverts spotted with white. L., 11.00.

Range — Breeds in northern half of Canada; south in winter casually to Mass., Pa. and Ore.

(372) *Cryptoglaux acadica acadica* (Gmel.)

SAW-WHET OWL; ACADIAN OWL. Smallest of the eastern owls. Plumage as shown by the lower bird — brownish; top of head streaked; wing coverts unmarked. L., 7.75.

Range — Breeds locally in the northern half of the U. S. and southern Canada. Winters in U. S.



GREAT GRAY OWLS are residents of the northern half of Canada and Alaska. During severe winters they sometimes migrate south to our northern borders, but their appearance is very erratic. Their plumage is very loose and fluffy, the long feathers giving them an appearance of great size that does not in reality exist. The head is very full-feathered, the facial disc being unusually large. The eyes, however, are small and yellow, while those of the Barred Owl, the only species with which this can be confused, are large and dark brown or blue-black.

RICHARDSON'S OWLS are a boreal species that casually occurs along our northern border during winter. They breed throughout Canada, but most abundantly in the northern half and in Alaska. They are so nocturnal in habits and so indifferent to the presence of man that, if found during daylight, they can often be taken in the hands. They resemble the next, more common, species, but are larger and grayer; the top of the head is spotted and the breast barred, while the smaller species is streaked.

BIRDS OF PREY

(373) *Ótus áσιο áσιο*

(Linn.) (Lat., a small kind of horned owl).

SCREECH OWL; LITTLE CAT-OWL. A small owl with prominent ear tufts. Plumage as shown, there being two color phases, a reddish and a gray, irrespective of age or sex. L., 9.00; Ex., 22.00; W., 6.50; T., 3.25. *Nest*—In hollow trees, either in woods or orchards, or even in bird boxes; four to seven pure white eggs, 1.35 x 1.20.

Range—Resident in eastern North America from N. B., Ont. and Minn. south to Ga. and Tex. (373a) FLORIDA SCREECH OWL (*O. a. floridanus*), found along the Gulf coast and north to S. Car., is smaller and darker; the red phase is most abundant of this variety while the gray predominates in the northern birds.



ACADIAN OWLS are the smallest species found in eastern North America. They are locally distributed and resident in the northern half of the United States and southern British Provinces; as those in the northern parts of their range migrate southward, they are more often seen in our country during winter. They are so small and so nocturnal in their habits that they might not be discovered in a locality even though numbers of them were there. Chickadees, by their noisy chattering, have disclosed the hiding places of several to me; most of these allowed themselves to be caught in the hands.

They feed chiefly upon mice and insects, which they catch during their nightly rambles, and of course to some extent upon small birds. During spring, their shrill, peculiar whistles may be heard in swampy woods, within which they preferably nest. Their eggs are usually deposited at the bottoms of deserted woodpecker holes.

SCREECH OWLS, in some of the many sub-species, are distributed throughout the United States, and are probably

BIRDS OF PREY

(375) *Búbo virginianus virginianus*

(Gmel.) (Lat., a great horned owl).

GREAT HORNED OWL; CAT OWL; HOOT OWL. A very large, strong and fierce species, with large conspicuous ear tufts. Plumage of our eastern species as shown, although it may be a trifle lighter or darker. L., 24.00; Ex., 4. or 5 feet; W., 15.00; T., 9.00; Tar., 2.20.

Range — Eastern North America, from N. B. Quebec and Ont. south to the Gulf; west to Minn. (375a) WESTERN HORNED OWL (*B. v. palléscens*), a paler variety, is found from Minn. and Tex. westward. (375b) ARCTIC HORNED OWL (*B. v. subárcticus*), with no brown in the plumage, is found from our border north to Keewatin.



the most abundant species that we have. They are the only what may be termed small owls having ear tufts to be found within our domains. They are regarded as among the most useful of owls, for, not only do they destroy great numbers of rodents, but they prefer to live in the neighborhood of farms, where their services are always greatly needed. Almost any locality that has an abundance of trees with decaying limbs to furnish suitable nesting and resting places is a good district for Screech Owls. They always nest in cavities, either natural ones, deserted woodpecker holes, or in boxes erected for them in orchards. At other than nesting seasons they may spend the day in hollow trees or may sleep out in the open; in the latter cases they are frequently discovered by jays or crows, which set up a great clamor until the owl in disgust is forced to fly away to other quarters. At nightfall they start out on their hunting expeditions, which take them about barns, in cities, across meadows, or along brooks — anywhere that they will be likely to find rodents, of which they are very fond; they also

BIRDS OF PREY

(376) *Nyctea nyctea*

(Linn.) (Gr., nocturnal).



SNOWY OWL; GREAT WHITE OWL. The heaviest and one of the strongest of our owls. No ear tufts. Plumage very variable but always pure white and blackish-brown. The male is the lightest colored and varies from pure, unmarked white to the plumage shown here. The female is larger and ranges from the plumage shown here to specimens so heavily barred that the prevailing color is blackish; the face and throat are always pure white, unmarked. L., 25.00; Ex., 5 feet; W., 17.00; T., 9.50; Tar., 2.00. Eggs pure white, 2.25 x 1.75.

Range—Breeds along the Arctic coast. South in winter to the northern border of the U. S. and casually to the Gulf States.

eat insects, reptiles, fish, and small birds. The remains of all quarry, the indigestible portions, such as bones, fur, or feathers, is cast up in the form of round pellets several hours after meals. These pellets are ejected by all owls and frequently may be found on the ground about nesting places.

GREAT HORNED OWLS are one of our largest and strongest owls, and are practically the only ones residing within the United States that do any great amount of harm. They are very destructive and often kill apparently just for the pleasure of it. Nearly every case of poultry having been taken at night by birds can be charged to this species, although Barred Owls often get the blame, for they are more numerous and consequently more often observed. Horned Owls can see just as well during daylight as at night and on cloudy days are often abroad.

They are becoming less and less numerous in settled country, as the heavy timber in which they prefer to dwell is being thinned out. Except during the nesting season they are quite solitary in their habits. One of these dwelt in heavy

BIRDS OF PREY

(377a) *Súrnia úlula cáparoch*

(Müller)

HAWK OWL; DAY OWL. Facial disc little developed. Bill protrusive and position of eyes quite hawk-like. Tail very long for an owl. Plumage as shown; blackish-brown above, spotted with white and whitish below, barred with black. Heavily feathered to the tips of the toes, in keeping with its northern distribution. L., 15.00; Ex., 33.00; W., 9.00; T., 7.00; Tar., 1.00. *Nest* — Of sticks in the tops of trees, in cavities or on the ground; lined with feathers; three to seven white eggs, 1.55 x 1.25.

Range — Breeds from Ungava, Alberta and B. C. northward to the Arctic Ocean. Winters south to the northern tier of States and casually to Mass., N. Y., Ind. and Wash.



woods on either side of a certain small lake. On still nights I have heard them calling to one another with a loud dismal "too-hoo, too-hoo, too-hoo," the notes all on the same pitch; instantly the echo would be reflected back across the water, and soon would come the answering call from the other bird. Becoming tired of the play, one of them would finally let out a loud, unearthly, cat-like screech, and then silence would reign.

SNOWY OWLS are abundant along the Arctic coasts of our continent. In severe winters many of them reach our northern border. They are of the same size and as destructive as the last species, living chiefly upon ptarmigan and hares in their northern homes, but taking grouse, poultry, and even turkeys when they can get them during winter. Like most owls, they are also fond of fish and are quite expert at catching them by quickly reaching into the water.

HAWK OWLS are medium-sized, long-tailed, earless species inhabiting boreal regions. Their whole form is nearly as suggestive of a hawk as of an owl, but they have the loose fluffy plumage of the latter.

BIRDS OF PREY



(378) *Speotyto cunicularia hypogaea*

(Bonap.) (Gr., a cave, owl; Lat., a burrower; Gr., underground).

BURROWING OWL. Facial disc incomplete. No ears. Tail very short. Legs very long and slender; tarsi very scantily feathered in front and bare behind; toes and the legs more or less bristly. Plumage as shown, much spotted and barred with brown and white. L., 9.50; W., 6.75; T., 3.00; Tar., 1.75. *Nest*—At the end of burrows dug by prairie dogs, badgers, skunks or foxes; five to ten white eggs.

Range—Western U. S. from Minn., Kan. and Tex. west to the Pacific coast. (378a), **FLORIDA BURROWING OWL** (*S. c. floridanus*), found in southern Fla., is smaller and has even less feathering on the tarsi.

BURROWING OWLS are peculiar, long-legged species that are abundant on the plains and prairies of our Western and Southwestern States and also in the interior of southern Florida. They live in burrows in the ground, but do not dig these themselves. Either ground squirrel, gopher, or prairie dog homes are satisfactory to them after they have driven out the original occupant. They not only do not live in harmony with these creatures, as sometimes stated, but even enter other burrows to secure the young, of which they are fond. Small as they are, they are undoubtedly more than a match for prairie dogs, and frequently kill adult squirrels. Other food consists chiefly of smaller rodents and numerous insects. Although quite diurnal in their habits, they do the greater part of their hunting after dusk. Their flight is very silent, as usual with owls, so their quarry is struck down often before aware of their presence. Their usual notes are a sort of chattering, uttered while in flight. Their numerous white eggs are laid in enlarged chambers at the ends of the burrows.

PARROTS, PAROQUETS

(382) *Conurópsis carolinénsis*

(*Lin.*) (Gr., cone or cuneate-tail, appearance).

CAROLINA PAROQUET. Our only representative of this tropical family in eastern North America. *Ads.*—Plumage as shown; chiefly grass-green, but with the whole head yellow, brightening to orange or reddish on the forehead. Immature birds have the whole head greenish like the body. The short, rough legs have two toes in front and two behind. L., 12.50; W., 7.50; T., 6.50. *Nest*—Believed to be only in hollow trees, but the nesting habits are still imperfectly known; three to five white eggs, with a rather rough surface, 1.35 x 1.05.

Range—Now only in interior Fla. Formerly north to N. Y., Wis., and Col.



ORDER PSITTACI. PARROTS, PAROQUETS

FAMILY PSITTACIDÆ. PARROTS, PAROQUETS

CAROLINA PAROQUETS, like several other species of our birds, have been driven from pillar to post until now they are making their last and final stand in unsettled portions of Florida. As late as 1860 they were not uncommon in all the Southeastern States, and north to Pennsylvania. Large numbers of them were shot because they injured fruit or grain; more for their plumage with which to adorn hats; many were killed by gunners merely to test their skill on swiftly flying birds; and quantities of them were trapped and sold for pets.

They feed upon seeds of cones, various weeds, buds of trees and any edible berries or fruits. Their movements, while on the ground or feeding in trees, are rather slow, strongly suggestive of the actions of crossbills, for they may remain suspended in any position as they secure their food.

CUCKOOS, ANIS, ETC.



(384) *Crotóphaga sulcirostris*
Swainson

(Gr., bug-eating; Lat., groove, beak).

GROOVE-BILLED ANI. Bill deep and with a thin ridge on culmen. Tail long and broad. Plumage black, with metallic blue or green edging of the feathers. L., 14.50; W., 5.75; T., 7.75; Tar., 1.50.

Range — Southern Tex. southward. ANI (*Crotophaga ani*), abundant in Cuba, is casual in Fla.

(385) *Geócoccyx californiánus*
(Less.) (Gr., ground cuckoo).

ROAD-RUNNER; CHAPARRAL COCK; SNAKE-KILLER. A remarkable, long, broad-tailed species with plumage as shown. L., 23.00; W., 6.75; T., 11.75.

Range — Kan., Nev., and Cal. southward.

On the wing, they are very swift, their flight being similar to that of pigeons; they are so dexterous that, without halting their speed, flocks of them will dash through the densest of woods. As usual with parrots, they are very noisy and their voices are harsh and unpleasant. Now regarded as very rare, it can be but a few more years before the last living one will have been seen.

ORDER COCCYGES. CUCKOOS, ETC.

ANIS are slender, long-tailed, "Roman-nosed" black birds abounding in Mexico and the West Indies, but only of local occurrence along our southern border. They are regarded as very useful birds and are always present near settlements, where they feed about browsing cattle, picking up insects that are exposed or frightened into taking wing; often they will alight on the backs of the animals and pick off parasites that are very numerous and injurious in the tropics.

CUCKOOS

(386) *Coccyzus minor minor*

(*Gmel.*) (Gr., a cuckoo; Lat., smaller).

MANGROVE CUCKOO. Above grayish; below buffy; tail feathers with broad white tips; auriculars blackish. Shown by the upper left hand bird. L., 12.50; W., 5.40.

Range— West Indies and Fla.

(386a) **MAYNARD'S CUCKOO** (*C. m. maynardi*), a Bahaman species, casual in the Fla. Keys.

(387) *Coccyzus americanus americanus* (*Linn.*)

YELLOW-BILLED CUCKOO.

Plumage as shown. Brownish-gray above; whitish below; outer tail feathers black, with broad white tips; primaries rufous on the inner webs. Lower mandible yellowish. L., 12.25; W., 5.70; T., 6.20.

Range— Breeds from N. B., Ont., and Minn. southward.



They are often seen in company with grackles and, at first glance, might readily be mistaken for such. Their usual note is a rather clearly whistled "plee-co, plee-co, plee-co," sounding to me most like the call notes of flocks of quail.

Ani nests are rather large and bulky, but loosely made, structures of twigs. The birds go in companies of a dozen or more and all the females unite in building and occupying this nest. Sometimes fifteen or more of the chalky-covered blue eggs will be found in one nest, although it is doubtful if a single female lays more than two or three.

CUCKOOS are gray and brown birds having peculiar croaking notes which, combined with their rather stealthy manner of progressing through underbrush or trees, cause ignorant, superstitious persons to regard them as birds of "ill omen." The truth of the matter is that they are one of the most useful families of birds that we have, for they destroy quantities of fuzzy caterpillars that are very destructive to our trees, but are eaten by very few other birds.

CUCKOOS



(388) *Coccyzus erythrophthalmus*

(Wilson) (Gr., reddish eye, referring to the red eye-ring).

BLACK-BILLED CUCKOO. Both mandibles black. Plumage as shown. Upper parts brownish-gray, slightly glossed with greenish; tail like the back but the feathers very narrowly tipped with white. L., 11.50; W., 5.25; T., 6.25. *Nest*—A frail platform of twigs, rootlets and weeds, lined with catkins, in bushes or low trees; three or four greenish-blue eggs, 1.15 x .85, deeper colored and smaller than those of the last species.

Range—Breeds in the United States and southern Canada, arriving in May and leaving in Sept. for winter quarters in South America. This species is the most common in our Northern States.

Furthermore, they have no objectionable habits and do not, as so often believed, ever deposit their eggs in nests of other birds, a trick resorted to by the European Cuckoo, which is an entirely different bird, belonging to another family.

Two species are commonly found in most of eastern United States, the larger Yellow-billed Cuckoo being the most abundant in southern states.

The nesting habits of both species are the same, the nests being loosely constructed platforms of twigs, lined with catkins; so flat on top that the eggs sometimes roll off. These are most often located in thickets, but sometimes on the lower branches of trees. The eggs of the yellow-billed species are a little larger and lighter colored than those of the black-billed one. They are sometimes deposited at intervals of several days and there may be great differences in the sizes and developments of young in the same nest because of this. Their notes are guttural croakings, those of the Black-billed Cuckoo being a rapidly repeated "cow, cow, cow, cow-uh, cow-uh," etc.

KINGFISHERS

(390) *Céryle ályon*

(Linn.) (Gr., a kingfisher; Lat., a kingfisher).

BELTED KINGFISHER. Bill large and strong. Feet weak; outer toes joined together for nearly their whole length. Head crested. *Ad.* ♂ — With a gray breast band but no rufous or chestnut on the under parts. *Ad.* ♀ — As shown. With a gray breast band; sides and an incomplete band across lower breast bright chestnut. Wing and tail feathers spotted or barred with white. L., 13.00; W., 6.25; T., 4.00; B., 2.00. *Nest* — Five to eight glossy white eggs, 1.35 x 1.05, laid in an enlarged chamber at the end of a tunnel in banks.

Range — Breeds from Newfoundland, Keewatin, and Alaska south to the Gulf of Mexico.



SUBORDER ALCYONES. KINGFISHERS

FAMILY ALCEDINIDÆ. KINGFISHERS

BELTED KINGFISHERS are abundant throughout our territory. Even in winter they go south only just far enough to find open water in which to carry on their regular occupation as fisher-birds. Any well-stocked lake, pond, river, or brook that does not have its one or more pairs of kingfishers is an exception. They are quite noisy birds and usually make their presence known long before they are seen, by their loud, rattling calls.

They have several favorite lookout perches situated at intervals about the edges of ponds, overhanging the water usually between ten and fifteen feet up. They sit silently, watchful until a fish passes below, near the surface; then on half-opened wings, they glide swiftly down, the large bill cleaves the water with little splash and, if successful they return to the perch bearing the prize in the beak. Fish are caught cross-wise of the bill and are carried that way, but

KINGFISHERS



(391) *Ceryle americana septentrionalis* Sharpe

(Lat., northern, only so relative to the original tropical species).

TEXAS KINGFISHER. A handsome little species with glossy greenish back and crest. Ad. ♂ — As shown; with broad chestnut breast band. The ♀ lacks the chestnut, but has a band of green across the breast, and more metallic spots below. L., 7.50; W., 3.50; T., 2.75; B., 1.80. Eggs — Four to six, glossy white, .95 x .70; laid in holes in banks.

Range — Southern Texas.

(390.1) *Ceryle torquata* (Linn.)

RINGED KINGFISHER. A large Mexican species; casual in southern Texas. Colored nearly the same as our common kingfisher.

are always ended about so as to be swallowed head first; less often they may be tossed in the air and caught head first as they come down. Most of their food consists of the smaller, slow-moving fish of little value, but they are capable of doing damage if allowed to fish at hatcheries.

Instead of plunging directly from their perch, they often rise and hover over their prey for an instant before the plunge; especially is this the case if a fish is seen at some little distance from the lookout. Besides fish, they feed upon frogs, crayfish, grasshoppers, crickets, etc.

Their nest is located in an enlarged chamber at the end of a tunnel in the side of a bank. This tunnel varies in length from four to six feet and is usually about two feet from the upper edge of the bank. It is dug by the kingfisher, whose feet are specially built for the purpose, the outer toes being joined together to make a broader shovel. Sometimes the chamber is lined with a few grasses, or a bed of fish bones and scales may be made, upon which the half dozen or so very glossy, white eggs are laid. The little kingfishers,

WOODPECKERS

(392) *Campéphilus principalis*

(Linn.) (Gr., caterpillar, loving; Lat., principal, referring to its large size).

IVORY-BILLED WOODPECKER. Largest of our woodpeckers. Bill ivory-white. A large crest. Plumage as shown, glossy blue-black; nasal feathers, a stripe down the neck, scapulars, ends of secondaries and inner primaries, and under wing coverts white. ♂ with a bright scarlet crest as shown by the upper bird. ♀ with a black crest as shown by the lower figure. L., 20.00; Ex., 32.00; W., 10.25; T., 7.50; Tar., 2.00; B., 2.50. Eggs — Three to six, glossy white, 1.45 x 1.00; in cavities of tall trees in most inaccessible swamps.

Range — Rare in Fla. and very rare in other Gulf States. Formerly north to N. Car. and Ill.



when first hatched, are wholly naked, blind and helpless; they remain in the nest between two and three weeks, passing through a comical pin-feathery stage of plumage to one just like that of their parents. They have to be fed for several days after being able to fly before they have attained the skill necessary to fish successfully for themselves.

ORDER PICI. WOODPECKERS

FAMILY PICIDÆ. WOODPECKERS

A large family of birds having, usually, chisel-like bills capable of boring into wood; stiffened pointed tail feathers to assist them in clinging to the sides of trees; and strong toes, usually two carried in front and two behind, armed with strongly curved claws to firmly grasp bark. Their eggs are always pure white, glossy and usually numerous; always normally laid in cavities of trees.

IVORY-BILLED WOODPECKERS are our largest, as well as the rarest, members of this interesting family. Their

WOODPECKERS



(393) *Dryobates villosus villosus* (Linn.) (Gr., a tree, walker or climber; Lat., hairy).

HAIRY WOODPECKER. Plumage as shown. The ♂ has a red spot on the nape; the ♀ has none. Notice that the outer tail feathers are pure white, unspotted. L., 9.50; W., 4.75; T., 3.50; B., 1.12.

Range — Resident from Me., Mich., and Col., south to Va. and Mo.

(393a) **NORTHERN HAIRY WOODPECKER** (*D. v. leucomelas*), resident in Canada, is larger.

(393b) **SOUTHERN HAIRY WOODPECKER** (*D. v. auduboni*), resident in the South Atlantic and Gulf States, is smaller and has less white on the wing coverts.

(393g) **NEW FOUNDLAND WOODPECKER** (*D. v. terrænovæ*) is found in Newfoundland.

bills are ivory-white in color, very large, chisel-shaped at the end and capable of hammering to the heart of living trees. In their search for insects and larvæ, they often strip off large sections of bark from big trees. They are so large, so strong and so determined in their hunting that they might do considerable more damage than good to our forests but for the fact that there are so very few of them left. They are now very rare, even in the Gulf States, where they were formerly abundant. Without doubt they will shortly be confined to that last stronghold of the Carolina Paroquet, Florida.

HAIRY WOODPECKERS are so nearly like the smaller **DOWNY WOODPECKERS** in habits as well as plumage that the two may well be considered together. The two species can readily be distinguished, for, besides the considerable difference in size, the Downy has dusky spots on the white outer tail feathers, while those of the Hairy are immaculate. A good observer can also distinguish between the two species by the slight differences between their respec-

WOODPECKERS

(394d) *Dryobates pubescens mediánus*

(Swainson) (Lat., downy or hairy).

DOWNY WOODPECKER.

Plumage as shown, the ♂ being the upper bird. Notice that the white outer tail feathers are spotted with blackish. L., 7.00; W., 4.00; T., 3.00; B., .65. Eggs—Four to six glossy white, .75 x .60; in holes in trees either in woods or orchards.

Range—Resident from Quebec and Manitoba south to Va., Mo., and Neb.

(394) *Dryobates pubescens pubescens* (Linn.)

SOUTHERN DOWNY WOODPECKER. This, the type species, is a trifle smaller than the northern variety although the plumage does not differ appreciably.



tive notes. Both have a sharply whistled "huip," of different qualities, the Downy usually uttering it several times in rapid succession, while the Hairy generally gives it but once or twice.

These woodpeckers are of the greatest of value to mankind; it has been observed that in localities where woodpeckers have been absent for years trees are in very poor condition, all showing a degree of decay in striking contrast to those in places where woodpeckers are always present. Their food is practically wholly of insects, chiefly of larvæ which they extract from under the bark of trees. Their sense of hearing is very acute, so that they may hear insects boring; their bills are adapted to quickly pry off or bore through the bark to get at them; and their tongues are sharply pointed and slightly barbed so they can easily pull larvæ from their hiding places.

Their nests are most often in old, weather-beaten, decayed stumps or limbs. The entrance hole is barely large enough to admit the body of the bird and is as round as though made

WOODPECKERS



(395) **Dryobates borealis**

(*Viell*) (Lat., northern — not an appropriate name for this species).

RED-COCKADED WOODPECKER. Plumage as shown, the ♂ having a scarlet spot on either side of the black crown, the ♀ lacking the scarlet; back conspicuously barred with black and white. L., 8.25; W., 4.60; T., 3.50.

Range — From Va. and Mo. south to the Gulf.

(396) **Dryobates scalaris**
bairdi (*Malherbe*).

TEXAS WOODPECKER. Plumage as shown by the lower bird. ♂ with the crown scarlet, specked with white; ♀ with a black crown. L. 7.25.

Range — Central Tex., Col., and Cal. southward.

with an auger; the interior is larger and is hollowed out to a depth of six to twenty inches. No lining is used except a few fine chips that are left on the bottom of the cavity. Although a half dozen young woodpeckers may be crowded in a rather small limb, the interior of the nest is always kept clean by the parents, both of which look after the wants of the young. A new site and a new cavity are usually made each year, the old ones being left to chickadees, nut-hatches, and other birds that nest in holes.

RED-COCKADED WOODPECKERS are abundant in pine forests of the Southern States, in which they largely take the places of the two preceding species. They are at all times quite noisy, especially so during the mating and breeding season, when their loud, harsh voices, uttering the notes which can perhaps best be recorded as "nyank, nyank," may be heard at almost all hours of the day. Their nests are usually made in decaying hearts of living pines; they often bore through two or three inches of living wood before reaching the softer interior that they can more easily

WOODPECKERS

(400) *Picoïdes árticus*

(Swainson) (Lat., a woodpecker, Gr., resemblance).

ARCTIC THREE-TOED WOODPECKER. But three toes, two in front and one behind. *Ad.* ♂ — Crown patch glossy yellow; whole back glossy black; outer tail feathers white, unmarked. The ♀ has the whole crown black, with no yellow. L., 9.50; W., 5.25; T., 4.00.

Range — Canadian zone, from Me., northern N. Y., Mich., and Cal. northward.

(401) *Picoïdes americánus* *americánus* Brehm.

THREE-TOED WOODPECKER. Plumage as shown by the upper bird. Back barred with white; outer tail feathers marked with black. ♂ with the yellow crown patch mixed with white anteriorly.



remove. At most seasons their food is chiefly of various insects, their eggs or larvæ, but during summer they eat a good many berries and considerable fruit, feeding their young also upon much of this kind of food.

THREE-TOED WOODPECKERS are peculiar in several respects. They have but two toes in front and one behind; the crown patches on the males are bright yellow, whereas on nearly all other species they are red; and they are very northerly distributed, only being found in northern United States during severe winters, except in a few mountains where they breed. We have two distinct species, the Arctic Three-toed Woodpecker, which is the most abundant and most southerly in its distribution, and the American. They are very easily distinguished, for the latter has white bars on the back, while the former has a solid black back. They are of about the size and similar in their habits to the Hairy Woodpecker, but their notes are a rather prolonged squealing similar to that of the Sapsucker.

WOODPECKERS



(402) *Sphyrapicus varius*

várius (*Linn.*) (Gr., a hammer,
Lat., a woodpecker; variegated).

YELLOW-BELLIED SAPSUCKER. Tongue only slightly extensible; the tip brushy instead of sharply pointed. *Ad.* ♂ — Plumage shown by bird in the foreground. *Ad.* ♀ — Like the male, except that the throat is white instead of crimson, as shown by the lower bird. *Im.* — Shown by the bird in the background. No crimson or strong black markings on the head, which is whitish, more or less streaked and mottled with dusky; the body markings are duller and less conspicuous than those of the adults. L., 8.50; W., 5.00; T., 3.25.

Range — Breeds from Quebec and Keewatin south to Mass. and Ind.

YELLOW-BELLIED SAPSUCKERS are quite often known by the names of "Whining" or "Squealing" Woodpeckers, because of the peculiar nature of the note that they so frequently utter. They are quite local in distribution, being considered as abundant in some places only a few miles distant from others in which they are rare. They are true sapsuckers structurally as well as habitually. The tongue is only little extensible, and the tip, instead of being horny and barbed as in the preceding species, is soft and brushy — designed for the purpose of lapping up sap. They girdle trees with rows of holes similar to those made with a gimlet and then later gather the sap that exudes from them; they also eat the tender inner bark, a practice that if continued soon saps the life of and destroys most trees. In this way they do some damage to apple trees and to mountain-ash trees, the sap of both of which they are very fond. They also feed less extensively upon birch, elm, oak, and maple.

These birds are not, however, wholly injurious; indeed, it is a question if the good work they accomplish by what

WOODPECKERS

(405) *Phlœotomus pileátus* *pileátus* (Linn.)

PILEATED WOODPECKER. A large species with a crested head. Plumage as shown, the ♂ being the upper bird. Notice that the forehead and moustache mark on the ♂ is scarlet as well as the rest of the crest, while that of the ♀ is dusky. The bases of the primaries and the under surfaces of the wings are whitish, with a more or less sulphury tint. L., 17.50; W., 8.75; T., 6.50.

Range—From Va., Tenn. and Mo. south to the Gulf.

(405a) *P. p. abietícola* (Bangs)

NORTHERN PILEATED WOODPECKER. A slightly larger race found in the Canadian and Transition Zones from Quebec and Mackenzie south to Va. and Cal.



insects they do destroy is not greater than any harm they may do otherwise. Their nesting is not in any way peculiar; like several other species, the entrance hole is made exceedingly small, much smaller than one would think convenient for the entrance of the birds.

PILEATED WOODPECKERS, next to Ivory-bills, the largest that we have, are very locally distributed and are usually resident wherever found. While most abundant in extensive timberland of the Southern States, they are not at all uncommon along our northern borders, but they are unknown in many forests in between, apparently just as well adapted to their needs. As a rule the northern birds average larger than the southern ones.

During fall and winter it is not uncommon to see companies of a half dozen or more of these birds, but during summer they are to be found only in pairs. At all times they are very wary and difficult to approach. They must eat great quantities of insects, for they soon scale all the bark off of dead trees in their search.

WOODPECKERS



(406) *Melanerpes erythrocephalus*

(Linn.) (Gr., black creeper; red head).

RED-HEADED WOODPECKER.

Ads.—Plumage as shown by the upper bird; whole head and neck crimson red; back glossy blue-black; under parts, secondaries, upper tail coverts, under wing coverts and tips of outer tail feathers white. *Im.*—Body duller and with the white areas more or less mixed with dusky; head gray, mottled with dusky as shown by the lower bird. L., 9.00; W., 5.25; T., 3.50; B., 1.06. *Eggs*—Four to seven, pure glossy white, 1.00 x .75. In holes in trees.

Range—Transition and Austral Zones from Ont., Man., and B. C. south to the Gulf coast; rare in New England; migratory in northern parts of its range.

They make a number of notes, some of which are suggestive of those of the common Flicker, but the one most often uttered is a loud, harsh "cack, cack, cack." They are particularly noisy and do considerable drumming during the mating season. Their nests are like those of other woodpeckers, but of course the trees and the openings must be larger, corresponding to their size. The entrance is about three and one half inches in diameter, often going four or five inches into hard wood and then turning downward for from eight to thirty inches.

RED-HEADED WOODPECKERS are remarkably handsome species but, unfortunately, in deeds are not as good as they are in appearance. They are cannibalistic to a high degree; indeed, it is an open question whether they do not do as much havoc among eggs and young of smaller birds as jays and grackles. Their depredations are confined chiefly to cavity-nesting birds, such as nuthatches and titmice. In two consecutive days I personally saw the same

WOODPECKERS

(409) *Centurus carolinus*

(Linn.) (Gr., a prickle, tail).

RED-BELLIED WOOD-PECKER. Plumage as shown; the back, wings and tail strongly barred with black; under parts grayish, tinged with red on the middle of the belly. The ♂ has the whole top of the head scarlet, while only the nasal tufts and nape are scarlet on the ♀, as shown by the bird on the right. L., 9.50; W., 5.50; T., 3.75; B., 1.10. Eggs — Four or five, glossy white as usual, 1.00 x .75; in cavities of dead limbs, preferably of coniferous trees.

Range — Upper and Lower Austral zones of eastern U. S.; from Del., southern Ont., and Minn. south to the Gulf. Casual in Mass. and Col.



pair of Red-heads destroy first a nest of Tufted Titmice, containing six young, and the following day devastate the home of a pair of Brown-headed Nuthatches. The female carried all of her prizes home to feed her own growing family, while the male Red-head carried two of his to a near tree and pulled them to pieces within my sight.

But we must not picture these birds only in a bad light, for during the greater part of the year they are on their good behavior and live upon insects almost wholly; perhaps for the simple reason that there are no eggs or young to be obtained, but, nevertheless, they may be rated as useful birds for at least three quarters of each year. Much of their food is gathered from the ground, and they are also very expert at capturing flying insects. They seldom, if ever, bore into living wood for larvæ, but frequent decaying trees where the picking is easy. During proper seasons they also eat a great many kinds of fruit and berries.

As a rule, Red-heads are quite shy, but they do frequently take up quarters near houses, and are not often molested

WOODPECKERS



(412) *Coláptes aurátus aurátus*
(Linn.) (Gr., a chisel; Lat., golden).

FLICKER; GOLDEN-WINGED WOODPECKER; YELLOW-HAMMER; HIGH-HOLE; PIGEON WOODPECKER. A large handsome species with plumage as shown. Both sexes with a red crescent on the nape and a prominent black crescent on the breast; linings of wings and shafts of primaries and tail feathers golden-yellow; ♂ with black moustache marks as shown by the upper bird. L., 12.50; W., 6.00; T., 4.50.

Range — South Atlantic and Gulf States.

(412a) *C. a. lúteus* Bangs

NORTHERN FLICKER. A slightly larger variety, common throughout the U. S. and Canada; resident except in northern parts.

because their plumage is so attractive and their bad habits not universally known. Their voices are very disagreeable, their notes all being harsh and squealing.

RED-BELLIED WOODPECKERS are abundant in southern states and also those in the Mississippi Valley and Great Plains. Their notes are loud and harsh, a squealing "churr, churr," similar to that of the Red-head. Their food is about equally made up of various forms of insect life and fruits and berries. In some sections they are said to do considerable damage to oranges, but before the fruit is ripened they must of necessity do a greater amount of good by cleaning out insects that would damage the crop to a much greater extent than they.

FLICKERS are probably more generally known than any others of our woodpeckers, not even excepting the familiar little Downy. They are abundant almost everywhere and especially so on the outskirts of cities and on farms. Their popularity is well shown by the fact that they have more "nicknames" than any other species of bird.

FLICKERS

(413) *Colaptes cæfer colláris*

Vigors

RED-SHAFTED FLICKER.

Plumage as shown, the ♂ having a red moustache mark while the ♀ has none and also usually lacks the scarlet patch on the nape. Notice that the crown is brownish and the throat grayish, while that of the eastern Flicker is just the reverse. Linings of wings and shafts of feathers quite reddish; rump white as on the eastern bird, showing conspicuously during flight. L., 13.00; W., 6.25; T., 4.75; B., 1.45. Eggs — Glossy white, the shell being translucent so that the contents when fresh give it a pinkish tint.

Range — Chiefly west of the Rockies, but east to S. Dak., Kan., and Tex.



The most common, "Golden-winged Woodpecker," is obviously applied because of the bright golden under surfaces of wings and tail. "High-hole" comes from the conspicuous round holes, entrances to their nests, so often seen high up on dead limbs; nevertheless, they frequently nest at low elevations, not infrequently in fence posts. "Wake-up," probably originates from one of their notes — a courting song, heard most often in spring, but sounding more like "wick-up, wick-up, wick-up"; some think this name has its origin because, early in the morning, some individual Flickers get into the habit of returning to a corner of the farmhouse and drumming on the cornice, or perhaps on a tin trough or drain.

Flickers are found on the ground more often than any other species; they often fly up before any one crossing pastures, being easily recognized by the white rump patch and their undulating, bounding flight as they make for the nearest tree; by the way, they often alight crossways on branches, while other species rarely if ever do. Flickers are

FLICKERS



(416) *Antrostomus carolinensis*

(Gmel.) (Gr., a cave, mouth — referring to the enormous gape of these birds).

CHUCK-WILL'S-WIDOW. Our largest representative of this Order. Mouth opening to a point under the eyes; stiff bristles *with lateral branches* fringing the bill. Plumage very soft and loose; finely vermiculated, variegated and blended with browns and grays. Tail feathers very broad and with the whole inner webs white. L., 11.50; Ex., 25.00; W., 8.25; T., 6.10. ♀ differs only in lacking the white inner webs to the tail feathers, these being colored like the outer. *Eggs* — Two, white blotched with gray and lavender, 1.40 x 1.00; on the ground in underbrush.

Range — From southern Va., Ohio, and Ind. southward.

very fond of ants, which explains why they frequent the ground so often. Their long tongues, which are capable of great extension, are quite sticky toward the tips — just enough so to hold fast every ant with which they come into contact.

Flickers nest in cavities at any height in any kind of trees, in poles, posts, or even in cornices of buildings. Normally they lay about six eggs — one each day until the nest is full; they are wholly unable to keep count, for it has been found that by taking an egg each day, leaving one in the nest, they will lay an almost indefinite number. Little Flickers are very noisy during their last few days in the nest; if the tree is tapped, they all commence to whine and buzz like an immense swarm of bees. This outcry may be due to expectancy of food from returning parents, but at any rate it might easily deter a squirrel or a person from attempting to examine such a "beehive." Besides the "wick-up" notes, the adults have a single shriek of alarm and a long rolling whistle "kuk-kuk-kuk-kuk," etc.

GOATSUCKERS, SWIFTS, ETC.

(417) *Antrostomus vociferus* *vociferus*

(*Wils.*) (Lat., voice-bearing, noisy).

WHIP-POOR-WILL. The long rictal bristles not branching. Often confused with the Nighthawk, although without reason for the differences are very apparent to observing persons. Notice that the chin of this species is black; that there is no white on the wings; that the primaries are barred with buff; and that the tail feathers are broadly tipped with white (on the ♂) or narrowly tipped with buff (on the ♀). L., 9.50; W., 6.10; T., 5.80, rounded at the end. *Eggs*—Two, creamy-white, blotched with gray, brown and lilac, 1.15 x .85.

Range—Breeds from southern Canada to the Gulf, and from the Plains to the Atlantic.



ORDER MACROCHIRES. GOATSUCKERS, SWIFTS, ETC.

FAMILY CAPRIMULGIDÆ. GOATSUCKERS

A family of nocturnal or semi-nocturnal birds having very soft, loose plumage, small bills but extraordinarily large gapes, the mouth opening to behind the eyes. They all commonly nest on the ground, laying two eggs, which are usually marbled with gray.

CHUCK-WILL'S-WIDOW is our largest representative of this family, in point of size. This species is quite abundant in our Southern States, but, because of its strictly nocturnal habits, is not known to most people even of the regions it inhabits. They are never seen in flight during daylight unless they have been frightened from their retreats in dense thickets. At night they become active and their peculiar doleful calls may be heard at nearly all hours; the notes are a rapid, energetic but dismal chanting of the syllables "chuck-will's-widow," with the accent strongly



(418) *Phalaenoptilus nuttalli*
nuttalli

(Audubon) (Gr., a moth, feather—referring to the soft and peculiar plumage).

POOR-WILL. A small species, the ♂ of which is shown by the upper bird. The ♀ differs only in having narrow buffy tips in place of broad white ones on the outer tail feathers. L., 7.50; W., 5.50; T., 3.40. Eggs—Two, pure white, unmarked.

Range—Western North America; east to S. Dak. and Texas.

(419) *Nyctidromus albicollis*
merrilli Sennett.

(Gr., night courser; Lat., white neck).

MERRILL'S PARAQUE. ♂ shown by the lower bird. Notice that the two outer tail feathers are black and the next inner ones white. L., 13.00; W., 7.50; T., 7.50.

Range—Southern Tex. southward.

on the “wid.” They not only catch moths and beetles, but remains of small birds have been found in their stomachs; luckless individuals probably having been mistaken for large moths as they happened to be a-wing after dark.

WHIP-POOR-WILLS are also so called because their notes sound like these syllables. A smaller species in Southwestern States likewise raises its voice nightly, mourning “Poor-will.” It really seems as though poor “Will” must have met with some awful and untimely end. Whip-poor-wills are very widely and well known by their notes; comparatively few, however, actually know the birds even sufficiently well to distinguish between them and the more often seen Nighthawks.

The hours of daylight they spend sleeping on some log, stump or on the ground under the shade of woods or underbrush. They are so quiet and their plumage just matches their surroundings so well that only the sharpest of eyes can detect them. After the sun has disappeared, they undergo a remarkable change; the apparently inanimate objects

(420) *Chordeiles virginianus virginianus*

(Gmel.) (Gr., a musical instrument, evening).

NIGHTHAWK; BULL-BAT.

Our most abundant and most often observed species. Notice that it has no conspicuous rectal bristles; that the primaries are black, crossed by a white band; that the chin and throat are white (buffy on the ♀); and that the tail has a white band across the middle (the ♀ lacks this). Less nocturnal than others of the family. L., 9.75; W., 8.00; T., 4.50, slightly forked.

Range — Breeds throughout eastern U. S. and Canada.

(421) *C. acutipennis texensis*

TEXAS NIGHTHAWK. Has

the primaries spotted with rusty. Southwestern U. S.



become things of life — alert and active in the highest degree. Their flight, as they go hawking for their evening meal, is remarkable for its grace, swiftness, and the silence with which it is performed. Over fields, beside woods, and along roadways they course, every once in a while suddenly rising to seize a moth above them or stooping to pick a beetle from the ground. Having whetted their appetites, they alight on the tops of trees, fences, or on the ground and “whip-poor-will” at one another until want of breath forces them to stop.

NIGHTHAWKS, despite their names, are less nocturnal than most others of this family. They may often be seen a-wing even on sunny days. However, just at dusk is their favorite time for exercise and hunting. They frequent open ground and the vicinity of cities rather than wooded districts. The white band across the primaries which can be seen when in flight, as far off as the bird is visible, is proof positive that it is a Nighthawk and not a Whip-poor-will.

Nighthawks nest in rather open places, laying their eggs

SWIFTS



(423) *Chætúra pelágica*

(Linn.) (Gr., a bristle, tail; Gr., oceanic — probably in error).

CHIMNEY SWIFT. Whole plumage sooty-black as shown; wings long and narrow; tail feathers with the quills projecting, forming spines that enable the birds to cling to the sides of chimneys or interiors of hollow trees. L., 5.25; Ex., 12.50; W., 5.00; T., 2.00, square-ended or slightly rounded. *Nest*—Of small twigs cemented to the insides of chimneys, hollow trees or caves; three to five rather long, white eggs.

Range—North America east of the Rockies, breeding from Newfoundland, Quebec, and Sask. south to the Gulf coast. Winters south of the U. S., arriving here in April and leaving in October.

without concealment other than their mottling, which so closely matches the gravel upon which they are laid; sometimes the two eggs will be found in a slight hollow on the top of a large rock or, in cities, they often lay them on hot gravel roofs. Should your course chance to lead you near one of their nests, the female will sit close and motionless until there is danger of being trod upon, when she will flutter along in front of you as though her long wings were broken and incapable of sustaining her.

FAMILY MICROPODIDÆ. SWIFTS

CHIMNEY SWIFTS, as our illustration shows, have little to commend them in the way of beauty, but they are of unusual interest in their habits and are, besides, very useful, for their food consists of nothing except insects. Structurally they at once attract our attention because their feet and legs are small and weak, adapted only to clinging; the shafts of the tail feathers are extended and spiny, to assist

SWIFTS

(425) *Aëronautés melanoleucus*

(*Baird*) (Gr., air sailor; black, white).

WHITE-THROATED SWIFT.

A large, handsomely marked species frequenting western mountain ranges. Plumage as shown, chiefly blackish above lightening on the forehead; tips of secondaries broadly white; throat, a line down the middle of the belly and spot on either side of the rump white; flanks brownish. L., 6.75; Ex., 14.00; W., 6.75; T., 2.60, slightly forked and not spined. *Nest* — In burrows in earthy cliffs or among crevices of ledges usually in inaccessible places; three or four dull-white eggs, .87 x .52.

Range — Breeds from Alberta and B. C. southward to Guatemala; eastward to the Black Hills and western Neb.



them in clinging to upright surfaces: their wings are very long and narrow, worked by powerful breast muscles, perfectly formed for the aerial life that these birds lead.

Formerly they nested exclusively in hollow trees — large trunks, with wide-open tops. Now they nest almost as exclusively inside of chimneys. The nests are made by fastening small twigs to the sides of the chimney, putting them on one by one, firmly cemented by glutinous saliva, until the structure assumes a half-saucer shape, projecting out about three inches and being about one inch in depth. The young swifts are hatched naked and blind. They are fed by regurgitation and remain in the chimney for about a month before they are able to make their way to the top and wing out over the housetops.

WHITE-THROATED SWIFTS are large, handsome species, without spines on the tail feathers, for their homes are in holes in high bluffs or in crevices of cliffs, and they have no need of these appendages. They are abundant in

HUMMINGBIRDS

(428) *Archilochus colubris* (Linn.)



RUBY-THROATED HUMMINGBIRD. The only hummingbird found in the east. Plumage as shown, the ♂ being the upper bird. The ♀ differs in having the throat white instead of brilliant, fiery, metallic ruby. The back is a rich, lustrous, metallic green with bronze reflections. The primaries and tail are purplish-black, that of the ♂ being forked while that of his mate is rounded and white tipped as shown. L., 3.25; W., 1.75; T., 1.25; B., .65. *Nest*—Of plant fibres, moss and lichens saddled on horizontal limbs at any height; two dull white eggs, .50 x .35.

Range—Breeds from Quebec and Sask. south to the Gulf.

western mountains, where they make their homes on inaccessible cliffs, the nests, made of vegetable matter glued together by saliva, being firmly attached to the rock.

RUBY-THROATED HUMMINGBIRDS, our only eastern representative of this brilliant family, are not uncommon in summer throughout our range. Little winged jewels, with body no bigger than the thumb nail and a temper greater than that of the Condor, they are objects for admiration and astonishment. Their flight appears to be almost bullet-like, yet they can halt instantly, even when travelling at their swiftest. If they catch us in the act of examining the treasures in the exquisite little house they perch on the top of a limb, so like a bit of moss, they will dash at our face as though to transfix us; we invariably close our eyes and dodge, but the mite stops a few inches from our face, twittering in anger, and then as suddenly dashes away. While they feed to some extent upon nectar of certain long-tubed flowers, they get a great many small insects that they find also feeding there.

FLYCATCHERS

(443) *Muscivora forficata*

(*Gmel.*) (Lat., insect, I devour; forked).

SCISSOR-TAILED FLY-CATCHER. The handsomest and most graceful of this large family. Sexes alike. *Ads.*—Plumage as shown—of soft gray, white and blackish; crown-patch (more or less concealed) orange-red; sides of body, under the wings, carmine; tail long and deeply forked. L., 14.50; W., 4.75; T., 8.00–12.00, forked about 6.00. *Nest*—Large, of twigs, weeds, grasses, etc., at any height in trees or bushes; four or five creamy-white eggs, specked with reddish-brown.

Range—Breeds from Kansas south to southern Tex.

(442) **FORK-TAILED FLY-CATCHER** (*M. tyrannus*), a Mexican species has been taken in Me., N. J., Ky., and Miss.



ORDER PASSERES. PERCHING BIRDS

FAMILY TYRANNIDÆ. TYRANT FLYCATCHERS

A large family of songless, or non-melodious, perching birds, having ten fully developed primaries. Their feet are small and weak compared to their size, but their bills are large, broad, flattened at the base and tapering to the point. Long, strong rictal bristles, sometimes reaching to the end of the bill, are always present.

SCISSOR-TAILED FLYCATCHERS are so beautiful and graceful that they are frequently termed "Texan Birds of Paradise," but those accustomed to seeing and speaking of them usually know them simply as "Scissor-tails."

Their food consists almost wholly of insects, nearly all of which they catch in the air. In spite of the long tail, which is an impediment to agile flight, they are able to double and turn very quickly when in pursuit of some particularly active dragonfly. Their notes are simple, sharp

FLYCATCHERS



(444) *Tyrannus tyrannus*

(Linn.) (Lat., a tyrant).

KINGBIRD; "BEE-MARTIN."

An abundant species, especially in settled regions. Plumage as shown. Sexes alike, each having the orange-red, partially concealed crown-patch. Immature birds lack this coronal mark. L., 8.25; Ex., 14.50; W., 4.50; T., 3.50, nearly square-ended; B., .80. *Nest*—Quite large and fairly compactly made of twigs, rootlets, weeds, plant fibres, and usually bits of string, paper and other trash; placed in crotches of trees, often in orchards, but sometimes in bushes.

Range—Breeds throughout the U. S. and southern Canada. Winters south of the U. S. Here May 1st to Sept. 1st.

and penetrating; a "tsee, tsee" not differing greatly from the well-known cry of the eastern Kingbird.

KINGBIRDS are well and favorably known everywhere. In fact one cannot help noticing them, for they are in the centre of all bird quarrels in the neighborhood. Let a jay, a crow, or a hawk put in an appearance, and these valiant warriors at once go to meet him, and the larger bird immediately beats a retreat under the fierce poundings of his tormentors; soon our warrior returns to his high lookout perch, pride and conceit showing in every beat of the rapidly whirring wings and in every note of his trills of victory.

Almost every orchard supports one or two pairs of Kingbirds, and they are worthy of their keep, for they daily destroy astonishing quantities of insects, mostly injurious ones. Their nests are composed of weeds, grasses, rootlets, string, paper, rags, feathers, in fact almost any kind of trash that can be picked up in the neighborhood. When in orchards, the nests are located in upright forks near the tops of the trees. They may also often be found in trees by

FLYCATCHERS

(445) *Tyrannus dominicensis*

(*Gmel.*) (Of St. Domingo).

GRAY KINGBIRD. Slightly larger than our common Kingbird and the upper parts much grayer as shown. Bill considerably larger. Auriculars blackish. L., 9.00; W., 4.50; T., 4.00; B., 1.00. *Nest* — Of similar materials but more shabby than that of the common Kingbird.

Range — Bahamas and West Indies, north to S. Car., Ga., and Fla.

(446) *Tyrannus melancholicus couchi* Baird (*Lat., melancholy*).

COUCH'S KINGBIRD. Similar to the next species but outer web of outer tail feather not white; outer primaries abruptly emarginate within half an inch of their tips. Found in the Lower Rio Grande Valley in southern Tex.



roadsides or in pastures or fields; where trees are scarce, they nest in bushes and sometimes on the tops of fence posts. The eggs are bright cream-colored, handsomely spotted with reddish-brown, these markings more profuse about the large end. The nests and the eggs of this species are very similar to and almost indistinguishable from those of Scissor-tailed Flycatchers and Arkansas Kingbirds.

Not only are they the terrors of all birds of prey, but their bold assaults and noisy vociferations often deter the small boy from robbing nests in the orchard. They will dash at an intruder so fearlessly and determinedly as often to strike his cap from his head. But this is as nothing compared to the loud, shrill cries that they utter which are apt to bring the owner out to investigate, and his chastisement is more to be feared than that of the birds. If they are not molested, the same birds return to the same localities each year, but the males have to battle again for the favor of their partners; they are exciting and noisy contests, but having once decided who is master, they live at peace with one another and with

FLYCATCHERS



(447) **Tyrannus verticalis** Say

(Lat., vertex, relating to the flame-patch on the top of the head).

ARKANSAS KINGBIRD; WESTERN KINGBIRD. *Ads.* — Plumage as shown. Sexes alike, both having the concealed orange-red crown-patch. Immature birds are quite similar but lack this adornment. Notice that the outer webs of the outer tail feathers are white; this is the most infallible distinguishing mark between this species and the preceding, and also from Cassin's Kingbird which is found still farther west. Several outer primaries are gradually attenuated for an inch or more from their tips. L., 9.00; W., 5.00; T., 4.00; B., .75.

Range — From Sask. and B. C. southward; casually east Wis. and Mo. Accidental in eastern states.

other smaller birds, but are ever ready to join forces and battle against a common enemy.

There is believed to be little foundation for the name of "Bee Martin," applied to them chiefly by owners of apiaries. They devour comparatively few bees and those that have been found in their stomachs were invariably drones. During fall, their regular diet is augmented by that of numerous kinds of berries.

ARKANSAS KINGBIRDS are the common species of the region from the Great Plains to the Pacific coast. If possible they are even more noisy than our eastern birds, their notes being louder, shriller and more metallic. They appear to distinguish the kinds of hawks and are more tolerant toward some than others. Instances have been recorded of their having built their nests among the outer sticks of a Swainson's Hawk's home. They are more sociable with human beings too, and it is no uncommon occurrence for them to make their domiciles in eave-troughs, cornices, or on blinds or window sills of houses.

FLYCATCHERS

(449) *Pitángus sulphurátus derbiánus*

(A South American name; Lat., sulphury, relating to the color of the under parts; to Lord Derby).

DERBY FLYCATCHER. A very large species with a very heavy bill, as long as its head. Crown-patch more extensive than that of the kingbirds and either lemon-yellow or orange and yellow. Sexes alike. Light yellow below and wood-brown on the back; wing and tail feathers extensively chestnut. L., 10.50; W., 5.10; T., 4.00; B., 1.20. *Nest*—A large structure of twigs and weeds with the entrance on the side; in trees or thickets.

Range—Lower Rio Grande Valley in southern Texas and through Mexico.



DERBY FLYCATCHERS, the largest of our flycatchers, reach our borders only in the southern parts of Texas, where they occur casually. They are common in parts of Mexico and Central America.

They are usually seen in pairs and are very partial to the neighborhood of streams. They are noisy at all seasons of the year, but particularly so during breeding. The loud, shrill notes of "hip-see-dee, hip-see-dee" may be heard for long distances. Their nesting is entirely different from our other flycatchers. The nest is large and round, composed of twigs, weeds, lichens, etc., with the opening on the side and the interior lined with fine grasses. It is usually placed in dense thickets, ten or twelve feet above ground; one found in southern Texas was in a large bunch of Spanish moss hanging from a tree; in Central America the nests are often tucked in among clusters of growing bananas. The eggs are more pear-shaped than those of kingbirds and have only a few small, round spots of reddish-brown.

FLYCATCHERS



(452) *Myiarchus crinitus*

(Linn.) (Gr., a fly, a ruler; Lat., haired or crested).

CRESTED FLYCATCHER.

Sexes alike in plumage. Upper parts olive-gray; throat and breast dark ashy-gray, rest of under parts pale yellow; inner webs of the tail feathers chiefly reddish-brown. L., 8.50; W., 4.00; T., 3.75; B., .80. *Nest*—An old woodpecker hole or cavity, lined with grass or weeds and generally containing a cast-off snake skin.

Range—Eastern North America, breeding from N. B. and Man. south to the Gulf. Winters in Mexico. With us from Apr. 12th to Sept. 20th.

(453) *M. magister nelsoni*

MEXICAN CRESTED FLYCATCHER. Paler colored all over. Found in southern Tex.

CRESTED FLYCATCHERS may be found in suitable localities throughout eastern United States. While not uncommon in northern states, they are really abundant in the south. Were they not so noisy, their presence would often be unknown, for they are quite shy and retiring in their habits. Even upon hearing their whistles it is quite difficult to get a glimpse of them, for somehow they manage to keep a leafy screen interposed between them and you. They have several notes, all being loud, clear whistles, the most common of which is a two-syllabled liquid "wit-huit," sometimes repeated several times in succession; an alarm note is a single, very sharp and penetrating whistle.

Each bird has his favorite lookout perches, whence he dashes forth after flies, beetles, or moths; his first rush is generally successful, but should he miss, he will give a wonderful exhibition of aerial acrobatics, doubling and twisting in midair until the loud snapping of his mandibles indicates victory. The snapping of the mandibles is a habit indulged in by most of the flycatchers.

FLYCATCHERS

(456) *Sayornis phœbe*

(Latham) (Thos. Say, Gr., a bird).

PHŒBE; BRIDGE BIRD. Above dull olivaceous-brown, much darker and almost blackish on the head; below soiled whitish. Immature birds and adults in fall are quite strongly tinted with yellow below. L., 7.00; W., 3.25; T., 3.30; B., .50. *Nest*—Of mud, grasses and moss; under bridges, overhanging banks or ledges; four or five dull-white eggs.

Range—Eastern North America, breeding from N. B., Keewatin and Mackenzie south to the Gulf.

(457) *Sayornis sayus* (Bonap.)

SAY'S PHŒBE. Grayish-brown on the upper parts, throat and breast; rest of under parts pale cinnamon. Common in the West. Accidental east of the Mississippi.



Crested Flycatchers nest in cavities of trees, usually in deserted woodpecker holes. The cavity is partially filled with weeds, grass, and trash of any kind, and the outer edge is almost invariably decorated with a cast-off snake skin. As this skin is usually very prominent, often protruding from the hole, the presumption is that it is used for the purpose of frightening away inquisitive birds or squirrels. The eggs of these birds are rather unique in the markings, which consist chiefly of lines of brown and gray lengthwise of the eggs, on a light buff background.

PHŒBES are probably known by sight or name to every one; dull plumaged grayish birds easily distinguished from any other flycatchers because their heads are so much darker than their backs, and more easily because of their habit of almost continually flirting their tails. They are not at all shy; in fact, it is an exception to find a farm without its pair of Phœbes nesting somewhere about the buildings, either in sheds, outbuildings, or under barns. They are quite noisy, but their voices are anything except musical;

FLYCATCHERS



(459) *Nuttallornis borealis*
(Swains.) (Nuttall, Gr., a bird; Lat., northern).

OLIVE-SIDED FLYCATCHER.

Olivaceous-brown above, darker on the head where the feathers are inclined to have blackish centres; throat and line down the middle of the belly whitish or yellowish; rest of under parts streaked grayish, strongly tinted with olive on the flanks; a tuft of very fluffy, downy white feathers on either side of the flanks, usually entirely concealed by the folded wings. L., 7.50; W., 4.00; T., 3.00; B., .70. *Nest*—Shallowly made of twigs and mosses; three to five cream-colored eggs, spotted about the large end.

Range—Breeds from Quebec, Mackenzie and Alaska south to Mass., N. Y., Mich. and Cal.

however, their gruff notes, resembling “phe-be” as much as anything else, are given with an emphasis and an energetic flirt of the tail worthy of better results.

If a Phoebe were given free choice of nesting sites, I do not doubt that it would choose a bridge or culvert over some small stream; few such places are without their Phoebe tenants, provided that underneath there are projections upon which the nest may be placed. Ledges, beneath overhanging banks, ruins of buildings or old cellar holes, also furnish likely places to find their homes. The nests are composed chiefly of mud and moss, lined with grass, hair, and feathers. The young remain in the nest about two weeks after hatching; sometimes their maiden flights have to be performed under great difficulties; any hesitation or error of judgment may precipitate them into the water to become prey to a possibly lurking trout in the pool below.

OLIVE-SIDED FLYCATCHERS are widely distributed, but in the east breed only along our northern border and the southern edge of Canada.

FLYCATCHERS

(461) *Myiódhanes vírens*

(Linn.)

WOOD PEWEE. Above olivaceous-brown; below dingy white, tinged with yellowish-gray on the breast and sides. Lower mandible yellowish. Wing coverts and secondaries narrowly tipped and edged with whitish. L., 6.25; W., 3.40; T., 2.90; Tar., .50; B., .55. *Nest*—A rather shallow but handsome structure of plant fibres and mosses, with the outside decorated with lichens so that it appears to be but a knob or tuft of moss on the limb upon which it is saddled; three or four creamy-white eggs with a wreath of reddish-brown spots around the large end, .80 x .55.

Range—Breeds from N. B. and Man. south to the Gulf; with us from May to Sept.



They frequent chiefly coniferous forests and are very partial to swampy ground. Their nests are located in the tops of tall, almost inaccessible evergreens, preferably those with dead tops festooned with *Usnea* moss. The nests are quite frail; just a few slender twigs with a lining of moss, upon which the three handsome eggs are laid. They are quite bold and fearless and often actually strike a person endeavoring to reach their nests. They are quite noisy, and if a pair is located within a mile they can usually be located by their peculiar, far-reaching calls, a three-syllabled, whistled "whip-pee-wee," the first note brought out sharp and quick, and the two latter rather long and drawn out.

WOOD PEWEES are common in dry woods everywhere. They are also, but less often, found in orchards and along country roadsides. On exceedingly hot, dry summer days, when most other birds are silent, Pewees are the happiest and sing the most. Their song is rather plaintive and sad, but still I think more musical than those of any other flycatchers. It consists of two parts, delivered at intervals

FLYCATCHERS



(463) *Empidonax flaviventris*
(Baird) (Gr., a gnat, king; Lat., yellow belly).

YELLOW-BELLIED FLYCATCHER. Plumage as shown by the lower bird — quite strongly washed with yellowish on the under parts; eye ring, tips of the wing coverts and edges of the secondaries whitish; upper parts inclined to olive-greenish. L., 5.50.

Range — Breeds from Quebec and Man. south to Mass., N. Y. and Minn.

(464) *Empidonax virescens*
(Vieill.)

ACADIAN FLYCATCHER;
GREEN-CRESTED FLYCATCHER. Similar to the preceding, but white on the throat and the belly.

Range — Breeds from Mass., N. Y., and Mich. southward.

of several seconds; the first is of three notes, a clearly whistled "pee-ah-wee," followed shortly by two more, "pee-wee."

Pewees are not in the least timid; even though we stand but a few feet away, they will apparently pay no attention to us, but "pee-wee" to their hearts' content, occasionally dashing out and capturing a choice winged morsel and then with a satisfied little trill returning to the lookout. Like all flycatchers, they always perch quite erect and with the tail hanging straight down.

Their nests are handsome affairs: shallow, but daintily made of fibres and cobwebs, adorned on the exterior with lichens and saddled on horizontal limbs, where they have every appearance of being small tufts of moss. Were the birds less timid these nests would be difficult to discover, but without regard to who may be watching, the mother bird will go directly to her nest whenever she pleases.

YELLOW-BELLIED FLYCATCHERS are small species, not often observed because they are very silent and retiring in their habits. While not uncommon in suitable places

FLYCATCHERS

(466a) **Empidonax trailli al-**
nórum Brewster (Lat., alder).

ALDER FLYCATCHER. Above olive-brown; under parts whitish with a wash of gray on the breast and flanks and a tint of yellow on the belly. L., 5.75. *Nest*—Of fibres in crotch of bushes; eggs creamy-white with brown spots.

Range—Breeds from Quebec and Mackenzie south to N. J. and Minn.

(467) **Empidonax mínimus**

(Baird)

LEAST FLYCATCHER. A small and abundant species. Olive-gray above; eye ring and wing bars conspicuous. *Nest*—Of plant fibres in crotches of trees.

Range—Breeds from N. B., Quebec, and Mackenzie south to N. J., Ind. and Mont. Winters in Mexico. With us from May 1st to Sept. 25th.



in our Northern States, their presence will be unsuspected until actual search discloses them. During the breeding season they frequent dark swampy woods where insects abound, thus enabling them to secure quantities of food and absolute freedom from visitation by human beings, unless it be the most enthusiastic of ornithologists. Their nests are imbedded in the luxuriant growth of mosses with which the ground and roots of trees in their haunts are covered; the nest itself is made of fine rootlets and grasses, lined with fern rootlets, so fine as to resemble hair. The eggs are white, finely dotted with cinnamon-brown.

ACADIAN FLYCATCHERS, of the same size as the last, but with yellow confined to the flanks, are more abundant and have a wider distribution. Like the last species, they live in more or less swampy places, but their nests are located in the outer, drooping branches of bushes or trees; they are shallow and rather shabby structures of a few rootlets, grasses and catkins, and are generally supported by the rim.

FLYCATCHERS



(471) **Pyrocéphalus rubínus mexicánus** Sclater

(Gr., fire head; Lat., ruby-red).

VERMILION FLYCATCHER.

A remarkably colored species having a well developed, flat crest. Sexes very dissimilar, the ♂ being shown in the foreground and the ♀ at the left. The ♀ is always more or less washed with reddish on the belly and crissum. L., 6.00; W., 3.25; T., 2.50. *Nest* — Of fibres and lichens; saddled on horizontal limbs.

Range — Our southwestern border, from southern Tex. to Cal.

(472) **Camptóstoma imbérbe** Sclater

BEARDLESS FLYCATCHER.

Rictal bristles very tiny. Dull olive-gray above and gray below. L., 4.50.

Range — Southern Tex. and Ariz.

LEAST FLYCATCHERS or CHEBECS are very abundant and very well known since, like Phoebe, they like to live about habitations in the country and even on the outskirts of large cities. They are quite noisy during spring and summer, their note being a rather gruff and emphatic "che-bec," punctuated with a violent jerk of the head and tail at each utterance. Their lookout perches are usually on the very tops of orchard or shade trees, from which points of vantage they can make excursions in any direction in pursuit of insect quarry. Hour after hour they will perch in such places, every few seconds calling out their brusque challenge. The male is an interesting little cavalier, not allowing any others of his own species to trespass on his preserves and driving away inquisitive jays or squirrels; he is at peace with most of the smaller birds, although occasionally having a tilt with a Redstart.

Their nests are well formed of plant fibres and firmly attached in upright forks, often low enough to be reached from the ground. The eggs are plain creamy-white.

LARKS

(474) **Otócoris alpéstris al-
péstris** (*Linn.*) (Gr., the ear
or "horn," helmet; Lat., alpine).

HORNED LARK. Larger and with more yellow than the next, more common variety. L., 7.75.

Range—Breeds in the Arctic zone of Canada. Winters south to Ga. and Tenn. **PRAIRIE HORNED LARK** (*O. a. praticola*), the variety figured here, is slightly smaller; L., 7.25. The whole plumage is a little paler than that of the preceding, the upper parts being a vinaceous brown. *Nest*—On the ground in fields; three to five grayish eggs, profusely specked all over with gray and brown, .85 x .60. Breeds locally from Quebec and Man. south to Conn. and Kan.

(473) **SKYLARK** (*Alauda arvensis*), a European species, has been introduced and breeds on Long Island.



SUB-ORDER OSCINES. SONG BIRDS

FAMILY ALAUDIDÆ. LARKS

HORNED LARKS are attractive ground birds having small tufts of pointed erectile feathers on either side of the crown. There are a great many sub-species, chiefly in the west, varying slightly in size and more in the color of the upper parts, which may be very pale, very dark, or bright rusty-colored, depending upon the nature of the locality they live in. The typical species is boreal and comes south to our United States border only in winter. Our common species is known as the **PRAIRIE HORNED LARK**. They are abundant in the interior and not uncommon in eastern states. During fall and winter they travel about in quite large flocks, feeding upon weed seeds. At mating time the males often ascend in the air singing, after the fashion of Bobolinks or Skylarks, but their songs, while not unmusical, are in no ways to be compared to those of the latter species.



(475) *Pica pica hudsonia*

(*Sabine*) (Lat., a pic; of Hudson's Bay).

MAGPIE. A remarkably handsome species marked as shown. Whole head, neck and back an intense, velvety black; wings and tail with metallic reflections of bronze, purple, blue and green; scapulars and under parts pure white. L., 18.00 more or less; W., 8.00; T., nearly a foot long; Tar., 1.65; B., 1.25. *Nest*—A large globular mass of sticks and twigs, often as large as a bushel basket; an entrance on one side leading to the mud-lined nest within; placed in trees or bushes at any height; four to seven grayish eggs, profusely spotted with yellowish-brown.

Range—From Sask., the Yukon, and Aleutian Islands south to Tex. and Ariz. Casual east to Ill. and Mich.

Their nests are on the ground in open fields or prairies, with little or no concealment.

FAMILY CORVIDÆ. CROWS, JAYS, ETC.

MAGPIES are one of the commonest and most characteristic birds of the west; they are found east casually to North Dakota, Nebraska, and western Texas. Their habits are in every way typical of those of this noted family. While every one must admire their magnificent plumage, it is at times difficult to pardon them for some of the crimes they commit. They are natural born thieves, stealing anything that takes their fancy, whether edible or not, from friend or foe. Their food is very varied and adapted to season and circumstances. Anything in the line of berries, nuts, flesh, either of dead animals and birds or young birds stolen from their nests, and eggs, is very acceptable to them. They often go about in small flocks, and are noisy at all times. Their usual note is a harsh, disagreeable "chack," but they

**(477) Cyanocitta cristata
cristata**

(Linn.) (Gr., blue, jay; Lat., crested).

BLUE JAY. A beautiful, crested species abundant and well known throughout its range. Plumage as shown, the sexes being alike. Crest and back purplish-gray, shading to intense blue on the wings and tail; under parts gray and white; greater coverts, secondaries and outer tail feathers broadly tipped with white. L., 11.50; Ex., 17.00; W., 5.50; T., 6.00; Tar., 1.35; B., 1.25. *Nest* — Of twigs and rootlets, preferably in small pines but sometimes in bushes.

Range — Resident in eastern U. S. and Canada; replaced in Fla. by the smaller FLORIDA BLUE JAY (*C. florincola*).



can imitate almost any bird and give a great variety of whistles of their own make-up.

Their flight is easy and graceful but not swift. They feed a great deal on the ground, where ordinarily they walk rather sedately; if, however, they are in a hurry they hop, often using their wings to assist them. Their nests are very large globular structures of sticks; an opening on the side gives entrance to the nest proper, which is made of straw; these may be found at any height in trees or in dense thickets.

BLUE JAYS are very abundant throughout the east, from central Canada to the Gulf States. The saying that "beauty is but skin deep" may well be applied to this species. I really believe that their cloaks of beautiful feathers cover more deviltry than exists in any other bird, unless it be the Magpie. They are the terrors of all small birds, which commence scolding and making much fuss as long as one is in their neighborhood. During summer,

MAGPIES, JAYS



(479) *Aphelocoma cyanea*

(*Vieill.*) (Gr., smooth hair, referring to the lack of a crest; Lat., blue).

FLORIDA JAY. A crestless species with plumage as shown. Crown, sides of head, wings and tail grayish-blue; a more or less broken breast band of the same color; middle of back grayish-brown; auriculars dusky-blue; below soiled white, indistinctly streaked on the throat and breast. L., 11.75; Ex., 14.50; W., 4.50; T., 5.00; B., 1.00. *Nest*—Of sticks and rootlets, lined with weeds; in bushes or low trees; four olive-green eggs, spotted with brown, 1.05 x .80.

Range—Locally distributed in Fla., chiefly along the coast regions.

many happy bird homes are transformed to scenes of despair and wailing after being visited by our jay. His usual method of plundering is to quietly slip through the underbrush, seize an egg or little bird and try to escape before the parents are aware of the fact.

In some measure to atone for this destruction of valuable birds, jays devour quantities of grasshoppers, crickets, worms, larvæ, mice, etc. In fall, small companies of Blue Jays pay frequent visits to oak and chestnut trees, feeding upon the nuts and storing quantities of them away for winter use where squirrels will not be apt to find them. They are noisy at all seasons of the year; besides their common "jay" scream, their long-drawn, hawk-like scream and a clearly whistled "querdle, querdle, querdle," they can make noises and whistles mimicking the notes of many birds. They often talk among themselves in low tones, and sometimes a single individual will sound as though he were composing some strain, making a medley of warbles, whistles, and mutterings that has quite a pleasing sound.

MAGPIES, JAYS

(483) *Xanthoúra luxuósa glaucéscens* Ridgway

(Gr., yellow tail; Lat., luxurious, referring to the rather gaudy plumage; Lat., growing bluish).

GREEN JAY. A crestless species combining in its plumage subdued tones of blue, green and yellow as shown. The throat patch is of an intense velvety black. The sexes are alike, but immature birds are duller plumaged, the blue on the head being tinged with greenish. L., 11.50; Ex., 15.00; W., 4.75; T., 5.50. *Nest*—Made of thorny twigs, lined with weeds and rootlets; concealed in thickets; four grayish, greenish or buffy eggs, spotted with brown, chiefly about the large end, 1.05 x .80.

Range—Lower Rio Grande Valley in southern Tex.; as far north as Laredo; south through Mexico.



Although other trees are often used in some localities, small pines are generally preferred. The nests, composed of twigs and rootlets, are usually within reach from the ground. Before incubation of the eggs is far advanced, the jay will silently leave the tree by the back door if she sees or hears any one approaching; when the eggs are nearly hatched or there are young in the nest, they remain and scream and dash at any one that attempts to disturb their home.

FLORIDA JAYS are crestless species found only locally but quite abundantly in the Florida Peninsula. They frequent almost exclusively scrubby oak thickets. Their habits are practically the same as those of the Blue Jay, and their notes are quite similar.

CANADA JAYS, which are found from our northern borders northward, have less beautiful plumage than our Blue Jays, but in other respects they are no less interesting. They have all the bad traits common to members of this family, while their good ones can easily be written down with

MAGPIES, JAYS



(484) *Perisoreus canadensis canadensis*

(Linn.) (Gr., I heap up or treasure).

CANADA JAY. A sombre colored species as shown. Back, wings and tail dark gray; forehead, sides of head and throat white, shading into ashy-gray on the under parts; nape sooty-brown. L., 12.00; W., 5.85; T., 5.80; B., .90. *Nest*—Of twigs, moss and feathers, in coniferous trees at low elevations; three or four grayish eggs, spotted with brown.

Range—Boreal zones from Me., northern N. Y. and Minn. northward. Casual in Mass., Pa., and Neb. **LABRADOR JAY** (*P. c. nigricapillus*) has all the gray and blackish areas much darker than the preceding. Found in Ungava, Labrador, and Newfoundland.

one small zero. Inhabiting, as they do, territory that is less settled and where there is less gunning than our Blue Jay is accustomed to, they are much bolder. They furnish a great deal of amusement as well as annoyance to lumbermen and campers, for they always hang about the tents watching for a chance to swoop on any unprotected article. Anything edible, even down to soap, and any bright objects of small size are exultantly seized upon and borne off to their caches. Even though they may peck at the shoes of a camper, pull pieces from the deer that the hunter is skinning, or alight on a canoe within a few feet of the paddler, to inspect its contents, they are always on the lookout for their own safety, and the slightest untoward movement sends them away screaming with wrath. They hop about with great agility among branches or on the ground, but their flight is rather slow and with rapid beating of the wings. They nest early, in March or April, while the ground is covered with snow. The nest is made of twigs, feathers, bark, and catkins.

CROWS

(486a) *Córvus córax principális*

Ridgway

(Lat., a crow; a croaker; principal).

NORTHERN RAVEN. Whole plumage black, with steel-blue reflections; feathers on neck lanceolate as shown by the lower bird. L., 24.00; Ex., 50.00; B., 2.75.

Range — Whole of Canada and south to Me. and Minn., coasts of N. J. and Va. and in mountains to Ga.

(488) *C. brachyrhynchos brachyrhynchos*

CROW. Glossy black. L., 19.00; B., 1.90. Eastern North America; replaced in Fla. by the **FLORIDA CROW** (*C. b. pascuus*).

(490) *C. ossífragus*

FISH CROW. A small species. L., 15.00. From Mass. south along the Atlantic and Gulf coasts.



RAVENS are not uncommon in the northern half of Canada, but are very locally distributed along our northern border and casually farther south. Although they are much larger than the common Crow, their bills are even larger in proportion, and are bedded in long, stiff bristles. The considerably lengthened feathers of the throat and sides of the neck are characteristic. They are to a large extent scavengers, feeding upon dead animals or fish. But they have the usual habits of the family in destroying eggs and young of birds and animals. They are very powerful and fully capable of killing quite large creatures, but there appears to be little foundation for stories of their attacking lambs and other domestic animals. Their notes are quite varied but are all hoarse and raucous caws and croakings.

They nest in the tops of the very tallest coniferous trees or on high ledges or bluffs. They return to the same site and the same nest year after year.

CROWS are almost too well known everywhere to be even mentioned. As one old farmer said to me, "The pesky

CROWS



(491) *Nucifraga columbiána*

(Wilson) (Lat., nut breaking).

CLARKE'S NUTCRACKER;
CLARKE'S CROW. Sexes alike.
Plumage as shown. Body gray,
lightening on the head; outer tail
feathers and ends of some secondaries
white; rest of wings and tail sooty-
brown. Immature birds are similar
but the back is brownish-gray.
L., 12.50; Ex., 22.00; W., 7.50; T.,
4.50; B., 1.70. A rather stockily
built bird. *Nest* — Well up in ever-
greens; composed of twigs and white
sage, lined with bark, grasses and
pine needles; three to five grayish-
green eggs, sprinkled with blackish.

Range — Western North America,
breeding in boreal zones from Alaska
and Alberta south to Mexico; casual
in Neb. and Mo.; accidental in Ia.
and Wis.

critters are carnivorous, herbivorous, grainivorous and pestiferous — chiefly the latter." Battered hats, old coats and cast-off trousers, flapping on slender skeletons among growing corn, give mute evidence of one of the pestiferous crow traits. But despite their damage at an early stage to young corn, at other times they destroy quantities of beetles, grasshoppers, grubs, cutworms, etc., and are also of some value as scavengers. Crows along the coast south of Long Island are smaller than the common one and have a shorter, hoarser caw; they are specifically known as Fish Crows, for their food is largely of fish cast up on the beaches.

They keep in flocks at all seasons except during nesting, and even then are not widely separated; if one nest is disturbed, a dozen crows will appear from somewhere to caw about it. In winter, flocks unite and repair nightly to extensive "crow-roosts," each flock scattering in the morning to its favorite feeding ground, perhaps twenty or more miles away.

STARLINGS

(493) *Stúrnus vulgáris* Linn.

(Lat., a starling; common).

STARLING. A very handsome bird as shown. Plumage iridescent purple and greenish-black; feathers on the upper parts and breast lanceolate and mostly tipped with buffy spots. Bill light yellowish, very sharply pointed. In winter the feathers on the upper parts are quite broadly edged with buff. L., 8.50; W., 5.00; T., 2.75; B., 1.00; Tar., 1.00. *Nest* — Of grasses, twigs and trash in hollow trees or crevices about buildings; just such locations as are usually chosen by English Sparrows; four to six pale blue eggs, 1.15 x .85.

Range — Introduced in N. Y. City in 1890; spread to Mass., Conn., and Pa.



NUTCRACKERS, which inhabit our western mountains, although not resembling in plumage any of our crows or jays, show by the shape of the bill that they belong to the same family. Their manners give further evidence of their connection to this rather disreputable group, for they are omnivorous in their feeding, and very noisy and active at all times except during nesting. They often hang from cones, head downward, like crossbills, and frequently cling to the sides of trees in woodpecker fashion; their flight, too, is undulatory, somewhat suggestive of that of the Flicker.

FAMILY STURNIDÆ. STARLINGS

STARLINGS, a common Old World species, formerly had a place in our avifauna because of its casual occurrence in Greenland. In 1890 several pairs were liberated in New York. They have thriven, multiplied, pushed their way as far from their starting point at least as Springfield, Mass.

BLACKBIRDS, ORIOLES



(494) *Dolichonyx oryzivorus*

(Linn.) (Gr., long claw; rice-devourer).

BOBOLINK; RICE-BIRD; REED-BIRD; SKUNK BLACK-BIRD. *Ad.* ♂ *in summer* — As shown by bird in the foreground. Chiefly black and white; nape buffy and wing feathers more or less edged with the same. ♂ *in fall*, ♀, and *young* — Entirely different as shown by the bird in the background — streaked brown, sparrow-like birds, but easily recognized by the stiff pointed tail feathers. L., 7.25; W., 3.75; T., 2.85; Tar., 1.00. *Nest* — Of grasses, on the ground in meadows; four or five whitish eggs, very heavily blotched and clouded with browns.

Range — Breeds from southern Canada south to N. J., W. Va., Ind., Mo., and Nev.

Their manner of living is not unlike that of the common English Sparrows. They nest in niches anywhere; in hollow trees, bird boxes, crevices about buildings and, in Europe, often on sea cliffs. They are just as much at home about the streets and buildings of large cities as in the country. They have no connected song but make a great many notes, some musical and others not. The most noticeable one is a high-pitched, long-drawn, clear piping whistle. Their food consists of insects, grain, berries, or fruits. They are very quarrelsome among themselves and with other birds. Unless checked, it is believed that they will in time prove as great a curse as English Sparrows.

FAMILY ICTERIDÆ. BLACKBIRDS, ORIOLES, ETC.

BOBOLINKS are characteristic birds of our northern meadows in spring and summer. At this season the male is very handsomely clothed in jet black and buffy white, while his mate looks much like an ordinary sparrow. The

BLACKBIRDS, ORIOLES

(495) *Molóthrus áter áter*

(Bodd.) (Gr., vagabond or parasite; Lat., black).

COWBIRD; LAZY-BIRD. *Ad.* ♂ — Plumage as shown by the upper bird. Body glossy, greenish-black; entire head and neck coffee-brown. *Ad.* ♀, and *Im.* — Grayish; dark above and lighter below, shading to whitish on the throat; the under parts more or less conspicuously streaked with dusky. L., 7.75; W., 4.50; T., 3.25; B., .70; Tar., 1.00. *Nest* — None. The eggs are deposited singly in nests of other species of birds, usually those of smaller size; white, evenly specked with cinnamon-brown, .85 x .65.

Range — Breeds from southern Canada south to N. Car., La., and Tex. Winters in southern U. S.



males have very pleasing, musical songs — a tinkling, rippling, gurgling melody in which a repetition of his name occurs frequently. This song is given frequently, either from the tops of trees, bushes or weeds, or while soaring, on fluttering wings, over the meadow where his mate is making or caring for their home. Their nests are rather difficult to discover, for Bob warns his mate of your approach long before you are near, so she can either leave at once or be prepared to sneak away through the grass.

The Bobolink song ceases after the first of July and the males rapidly moult their handsome plumage and assume brown suits similar to those of the females and young. Their only notes now are musical, metallic "chinks." They gather in flocks and soon start for southern states. They collect in immense flocks about the marshes of Chesapeake Bay and are there commonly known as "ortolans" or Reedbirds; they have become fattened by feeding on wild rice and are killed by thousands for market, and are served on toast in all restaurants. Farther south, along our

BLACKBIRDS, ORIOLES



(497) *Xanthocéphalus xanthocéphalus* (Bonap.) (Gr., yellow head).

YELLOW-HEADED BLACKBIRD. *Ad. ♂* — Head, neck and breast clear yellow; lores and rest of plumage, except the white bases of primaries, black. *♀* much duller plumaged, the yellow being less intense and mixed with dusky, especially on the top of the head; body grayish-black where that of the *♂* is black; lacks the white wing patch; considerable smaller than the male, which measures: L., 10.50; W., 5.50; T., 4.50; B., .90; Tar., 1.25. *Nest* — Of marsh grasses and rushes woven together and fastened to living rushes over water.

Range — Breeds from Keewatin and B. C. south to Mexico; east to Minn. and northern Ill.

South Atlantic and Gulf States, they are known as Rice-birds because they feed upon rice, much of which is then in the milky stage; they do immense damage to these valuable crops, and planters have to hire men, women, and children to shoot as many as possible of them.

COWBIRDS are unique, in that they are the only birds in our country which build no nests of their own, because of which fact the country boy usually terms them Lazy-birds. During most of the year they roam about in small flocks, feeding upon various insects and seeds; in spring they spread out over the country by twos and threes, and are quite silent and secretive in their actions. The female slyly slips through the trees or underbrush until she locates the nest of some small bird containing one or two eggs, beside which she deposits one of her own; she continues this daily until four or five nests each contain, beside their own, an egg of hers. Here all her duties end and those of the foster parents of her children commence. The young Cowbird is larger and stronger than his fellow occupants

BLACKBIRDS, ORIOLES

(498) *Agelaius phoeniceus* *phoeniceus*

(Linn.) (Gr., gregarious; Lat., a certain shade of red).

RED-WINGED BLACKBIRD; MARSH OR SWAMP BLACKBIRD. *Ad.* ♂ — As shown by the upper bird. Wholly black, with a slight gloss, except the shoulders which shade from scarlet, through brownish-yellow to white on the greater coverts. *Ad.* ♀ — Shown by the lower bird; blackish above; streaked below and tinted with pinkish on the throat and breast. L., 9.00; W., 4.65; T., 360.

Range — Breeds from N. S. and Ont. south to the Gulf. FLORIDA RED-WING (*A. p. floridanus*) is found in Fla. and along the Gulf coast to Tex.



of the nest, and gets the major portion of food brought. Warblers, sparrows, and vireos seem to be imposed on by this parasite to a greater extent than any other species. They nearly always accept the larger egg as a matter of course and care for the young Cowbird as assiduously as though it was their own. In fact, they have to take far more care of it, for it follows them about and is fed for a week or more after their own young are able to look out for themselves.

RED-WINGED BLACKBIRDS, during summer, are quite evenly distributed throughout eastern United States and Canada. Since they are chiefly found in swamps and marshy places, they are quite often known as Marsh Blackbirds. In winter they roam about in large flocks, through the Southern States and do considerable damage to rice crops. In spring they also do more or less damage to young corn. They are always gregarious, but during the breeding season split up into smaller flocks than at other times. At this season the males delight in proudly elevating their

BLACKBIRDS, ORIOLES



(501) *Sturnella magna magna*
(*Linm.*) (Lat., a starling; large).

MEADOWLARK; MARSH QUAIL. Sexes similar but the ♀ duller colored than the ♂. Yellow of throat sharply defined against the white on the sides of the head. L., 10.50; Ex., 17.00; W., 4.50; T., 3.50; Tar., 1.40; B., 1.35.

Range — Breeds from N. B., Ont., and Minn. south to N. Car. and Ill., whence it is replaced by the SOUTHERN MEADOWLARK (*S. m., argutula*), slightly smaller and brighter.

(501.1) *Sturnella neglecta*
Audubon (Lat., overlooked).

WESTERN MEADOWLARK. Yellow of throat encroaches on sides of head.

Range — Breeds from Man. and B. C. south to Tex. and Cal.

wings to show off the brilliant markings, as they utter their musical song — a liquid, “conk-a-ree.” They use as alarm notes an energetic “tchack” and a rather irritating, grating “tzee-e-e-er.”

Their nests are always built near water, often in bushes or rushes directly over it; again, they may be placed in tufts of grass on the ground in marshes or about the edges. The nests are woven of marsh grasses and bark, and lined with finer grasses; they are quite deeply cupped, and may be suspended by the rim or saddled in forks. When any one approaches the vicinity of their nests the whole colony becomes greatly alarmed and keeps up a deafening din until the person has departed. At all seasons they devour a great many insects, but during summer a great many more, for their young are fed almost exclusively upon this diet.

MEADOWLARKS are dwellers in our meadows, fields, and pastures, and their clearly whistled songs can be heard from early spring until late fall. In the Northern States

BLACKBIRDS, ORIOLES

(503) **Icterus melanocéphalus**
aúduboni Giraud

(Lat., yellow; black-headed).

AUDUBON'S ORIOLE. *Ads.*—
Shown by the upper bird. Back
greenish-yellow; under parts bright
yellow, sharply contrasting with the
entirely black head and tail; wings
chiefly black, but tipped with yellow
and white as shown. L., 9.50; W.,
4.00; T., 4.50, rounded; B., 1.00.

Range—Southern Tex. southward.

(504) **Icterus parisórum** Bonap.

SCOTT'S ORIOLE. *Ad.* ♂ —
Plumage as shown; bright lemon-
yellow and black. ♀ — Grayish-
olive above and dull yellowish below;
wings with two dull whitish bars.
L., 8.00; T., 3.50, rounded.

Range—Western Tex., southern
N. Mex., Ariz., and Cal. southward.



and southern Canada, they are slightly migratory, but in the southern half of our country they are resident. They are one of the best of bird friends to the farmers, for they eat comparatively little grain, while they do consume great quantities of the noxious insects, their larvæ, worms, grasshoppers, crickets, spiders, etc.

As we cross fields, they often fly up in front of us, uttering their sputtering alarm notes and plainly showing their white outer tail feathers as they speed rapidly away with their characteristic flight, accomplished by rapid beating of the wings and occasional short sailings; they are often known as "Marsh Quail" because of the similarity between their flight and that of quail. Their song is short and with but little variation; a clear, high-pitched, piping "tseu-tseer," often written as "spring-o-the-year."

Meadowlarks build their nests in extensive fields, usually where the grass is quite tall; they are made of grasses and are arched over so that it is quite difficult to see the eggs from above.

BLACKBIRDS, ORIOLES



(505) *Icterus cucullatus sennetti* Ridgway

(Lat., wearing a cowl or hood).

HOODED ORIOLE; SENNETT'S ORIOLE. *Ad.* ♂ — As shown by the middle bird. Plumage an intense orange; face, throat, middle of back and tail black. In winter the plumage resembles that of the ♀, which is shown above. Young ♂'s are like the ♀ during the first plumage; the next year they have black throats, as shown by the lower bird. L., 8.00; W., 3.50; T., 4.00, rounded. *Nest* — Usually in clusters of hanging moss; made by turning up and matting the ends, or of fibres in other trees.

Range — Lower Rio Grande Valley in southern Tex. Winters in southern Mexico.

ORIOLES are gaudily plumaged birds, of which only two species are common in eastern United States. They have short but clear and melodious songs, and build nests that are usually quite unique in character.

AUDUBON'S ORIOLE and SCOTT'S ORIOLE are found only on our southwestern border, chiefly in southern Texas. The former makes a basket-nest of green wiry grasses, suspended six to fifteen feet up in mesquite trees, usually in thickets. The latter attach their nests, which are made of fibres and green grasses, to the leaves of various species of tree yuccas, and in moss hanging from cacti.

HOODED ORIOLES, also found on our southwestern border, most abundantly in southern Texas, are more common within our range than either of the preceding. Their nests are usually constructed in bunches of moss hanging from mesquite trees, and are made by hollowing out and matting together the moss. Sometimes they are in yuccas or in the leafy tops of bushes, in which cases they are made chiefly of fibres and grasses. These orioles

BLACKBIRDS, ORIOLES

(506) *Icterus spúrius*

(*Linn.*) (*Lat.*, *spurious*).

ORCHARD ORIOLE. *Ad.* ♂ — As shown by the middle bird; black and bright chestnut. ♀ and young of the year — As shown by the upper bird; grayish-olive above and dull yellowish below. The young ♂ in the second year is shown by the lower bird; similar to the female, with the addition of a black throat; the third year the perfect adult plumage is attained. L., 7.00; W., 3.15; T., 3.00, rounded; B., .70, very slender and somewhat decurved. *Nest* — A handsome basket, sometimes pensive, woven of green grasses; placed in trees or bushes.

Range — Breeds from Mass., southern Ont., and Minn. south to the Gulf. With us May 1st to Sept. 1st.



are unusually active and restless, but not very timid, as they are seen about habitations oftener than others.

ORCHARD ORIOLES are abundant in southern United States and are met with occasionally as far north as Massachusetts and in the Mississippi Valley to Minnesota. They frequent rather open country and are usually to be found, as might be inferred from their names, in orchards. They are quite active and restless, but keep where the foliage is dense, so that, were it not for their song, they often would be passed by unnoticed. Their song is very different from that of our other orioles. It is a rather loud and clear warbling, sounding quite a little like that of the Purple Finch or the Warbling Vireo.

These orioles are commonly cited as basket-makers, because their nests are skilfully woven of tough green grasses; they are not deep but are rather round, the walls being thick and the cup rather small. They are strongly attached in upright crotches where leaves are numerous, so that it is very difficult to distinguish the similarly colored

BLACKBIRDS, ORIOLES



(507) *Icterus gálbula* (Linn.)

BALTIMORE ORIOLE; FIRE-BIRD; GOLDEN ROBIN; HANG-NEST. A handsome and common species, the ♂ of which is shown in the foreground and his mate in the background. Notice that the whole head and back are black, and that the outer tail feathers are widely tipped with orange. L., 7.75; W., 3.60; T., 3.00, nearly square-ended. *Nest*—A pensile structure of fibres and string suspended by the rim from forks of limbs.

Range—Breeds from southern Canada, south to the Gulf; west to the Rockies. With us May 1st to Sept. 1st.

(508) *Icterus búllocki* (Swains.)

BULLOCK'S ORIOLE. A western species, casual east to Kan.

nest. These nests, if placed in the cabinet, retain their pea-green color for years.

They are of great value to fruit growers, for, while in season they eat a few berries, their food is very largely made up of beetles, caterpillars, larvæ, plant lice, etc., which they glean chiefly from the foliage of trees.

BALTIMORE ORIOLES are common throughout eastern United States and southern Canada, where they are very often locally known as Fire-birds because of their brilliant plumage, and as Hang-nests from their habit of suspending their nests from the long outer branches of tall trees. These nests are familiar objects to nearly every one. A favorite position is on the outer twigs of elms, whether in fields, yards, or along roadsides. The nests are so well made and so firmly attached that they remain in position for several years. The same pair of birds often returns to the same tree year after year, but, except in very rare instances, a new nest is constructed each season. The nest is a long purse-shaped affair, neatly and skilfully woven of gray

BLACKBIRDS, ORIOLES

(509) *Eúphagus carolinus*

(Müller)

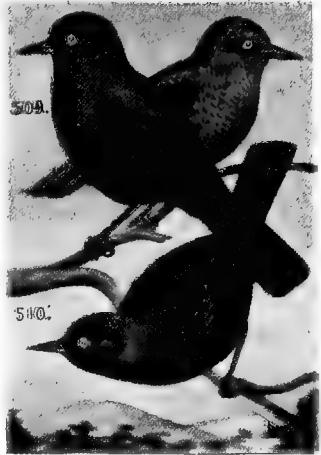
RUSTY GRACKLE; RUSTY BLACKBIRD. Iris yellow. *Ad. ♂ in summer* — As shown by the upper, nearer birds; glossy black, iridescent with green and purple, the former predominating. In winter, with rusty edges to head, breast and back feathers. Young even more rusty, as shown by the bird in the rear. L., 9.25; W., 4.60; T., 3.50; B., .75. *Nest* — Bulky, of twigs, bark, and weeds in bushes.

Range — Breeds from Me., Ont., and Alberta northward.

(510) *Euphagus cyanocéphalus*

(Wagler)

BREWER'S BLACKBIRD. Head glossed with purple; body greenish. Western North America; east to the Mississippi.



fibres, string, etc.; it is contracted at the upper end, where it is firmly attached to the fork of a limb and bulges at the lower end so as to provide a larger chamber for the eggs and subsequent family. Located, as they so often are, at the ends of long slender branches which are swayed to and fro by every breeze and rocked violently by storms, a nest of less depth would be an unsafe receptacle for either eggs or little birds. It is very strange that any bird should choose such a shaky home, with such high walls that the sitting birds can see nothing except a small patch of sky above.

Baltimore Orioles have a very attractive, clear, full whistling song and a rather harsh chattering alarm note. They spend the winter months in Central America and are annually welcomed back to our Northern States the second week in May.

RUSTY BLACKBIRDS are abundant in the southern half of the United States in winter and in the northern half during migrations. They leave very early, before trees have started to bud, for their summer home, which is principally

BLACKBIRDS, ORIOLES



(511) *Quiscalus quiscula quiscula* (Linn.)

PURPLE GRACKLE. *Ad. ♂*
— Iridescent black; back brassy, with iridescent purple bars. ♀ much duller colored. L., 13.00; W., 5.60.

Range — Coast region from Mass. southward.

(511a) FLORIDA GRACKLE (*Q. q. aglæus*). South Atlantic and Gulf coasts. (511b) BRONZED GRACKLE (*Q. q. æneus*) has the back brassy, with no bars. Breeds from southern Canada south to Mass., and, west of the Alleghenies, to the Gulf.

(513) *Megaquiscalus major major* (Vieill.)

BOAT-TAILED GRACKLE.
Very large, with long, scooped tail. L., 18.50; T., 9.00. Found in the South Atlantic and Gulf States.

in northern Canada and extends clear across the northern portion of the continent. Some breed in the southern parts of the Dominion and a very few in the Northern States, particularly in the Adirondacks. Fully adult males in spring and summer are clear, glossy, iridescent black, but males of the preceding years always show rusty, while during fall and winter all of them are extensively margined on the head, back, and breast.

The notes that we usually hear them utter are rather disagreeable, squeaky creakings, somewhat like the music of wagon wheels on snow on frosty nights, or gates swinging on rusty hinges.

PURPLE and BRONZED GRACKLES are quite similar in plumage, and their habits are identical. The former is the most abundant along the coast regions south of Long Island, while the latter is generally distributed in the interior and the New England States and in southern Canada. They are both usually distinguished simply as Grackles or Crow Blackbirds. They are gregarious and to be found in

**(514) *Hesperiphóna vespertína*
*vespértina***

(Cooper) (Gr., western, voice).

EVENING GROSBEAK. *Ad.*

♂ — Plumage as shown; body a peculiar brownish-yellow changing to lighter on the belly and rump; forehead and line over the eye bright yellow; wings, tail, and head blackish; inner secondaries and greater coverts white. Bill yellowish. The ♀ is marked similarly but is duller colored and has the upper tail coverts conspicuously tipped with white. L., 8.00; W., 4.25; T., 2.75; B., .75, very stout and conical. *Nest* — A flat structure of twigs and rootlets at low elevations in trees or bushes.

Range — Breeds in interior Canada, chiefly Alberta. Winters south very irregularly to Mo., Ohio, Pa., and New England.



companies of greater or less size at all seasons. They are noisy at all times and take delight in uttering their queer medley of squeaks and explosive "chahs" and "cacks." They are not at all timid, flocks of them often nesting in yards where pine trees are growing close to houses. As a rule they prefer coniferous trees in which to place their rather bulky nests of twigs, weeds, and coarse grass.

Grackles feed extensively on the ground. They delight in walking along the shores of ponds, rivers, or even on sea beaches, where they can usually find dead fish, frogs, mollusks, etc., or perhaps they may be fortunate enough to catch a few living ones. They sometimes follow closely upon the heels of the farmer as he ploughs or harrows, picking up worms or beetles that are exposed to view. At other times, when the farmer is not about, they go along the rows of sprouting corn, and not a few of the tender shoots may be pulled up. During summer they like to go "bird nesting"; they are very successful at finding nests, and either eggs or young birds are missing after their visits.

(515) *Pinicola enucleator leucúra*

(Müller) (Lat., a pine inhabitant; to shell out; Gr., white tail, referring to the lighter edges of the tail feathers).

PINE GROSBEEK. *Ad.* ♂ — As shown by the bird on the right. Gray and rosy-red, the latter color the brightest on the head, rump and breast; feathers of back centred with dusky; wing feathers edged with white. *Ad.* ♀ — Shown by the bird on the left. Crown and rump tinged with yellow or brownish-yellow. Young ♂'s are similar but the crown and rump are tinged with orange. L., 8.50; W., 4.50; T., 4.00; B., .55; Tar., .90. *Nest* — Of twigs, rootlets, and strips of bark.

Range — Breeds in boreal forests in Canada. Winters south to N. J. and Ia.



EVENING GROSBEEKS, in eastern states, are regarded only as very erratic winter visitors. They may be common one season and then four or five years intervene before another individual is seen in the same locality. West of the Mississippi they occur regularly every winter in flocks of half a dozen to half a hundred. In the higher mountain ranges they breed as far south as Arizona. While with us, all these Grosbeaks utter twittering or hissing notes something like those of Cedar birds, and the males often give single, rather shrill whistles. They are very tame and are fully as apt to be discovered in the middle of large cities as in the country. They feed upon seeds, buds, and berries of many kinds of trees, shrubs, and vines.

During their rare visits with us they are not apt to be confused with any other species, for no others of our winter birds have large yellow bills, nor plumages with bright yellow, black, and white markings.

PINE GROSBEEKS are regular winter visitants in our Northern States, but are very irregular in their appearance

**(517) *Carpodacus purpureus*
*purpureus****(Gmel.)* (Gr., fruit biting; Lat., purple).

PURPLE FINCH; LINNET.

Ad. ♂ — Plumage a dull rosy-red, brightest on the head, rump and breast; feathers on the back more or less distinctly centred with dusky; wings and tail dusky, with rosy edgings and white tips to the wing coverts. *Ad. ♀ and Im.* — Brownish-gray, sparrow-like birds; dark above and lighter below, indistinctly streaked with dusky; an indistinct lighter line over the eye. L., 6.25; W., 3.15; T., 2.40; B., .45. *Nest* — Of bark, twigs, rootlets, and grasses in evergreen or orchard trees.

Range — Breeds in northern U. S. and southern Canada. Winters throughout the U. S.



in the southern half of our country. Their winter wanderings are guided chiefly by the supply of food. After long, continued cold weather and storms, they often come in great numbers and remain until March or April. They are not at all timid, but do not frequent cities, like Evening Grosbeaks, except in parks, for the reason that they are so very partial to coniferous trees. While they sometimes eat the buds of deciduous trees and also feed upon berries, their staple diet is of cone seeds, varied in summer by numerous insects.

Living, as they do, in large coniferous forests where they rarely see human beings, it is not strange that they should often nearly allow themselves to be caught in the hands. It is not because they are dull-witted, as some believe, but because they have not been educated to the danger. I have often been asked why we see so many more of these birds in the dull plumage with yellowish crown and rump than we do in the crushed strawberry dress. The answer is very simple: if each pair of birds raises four young, the adult

FINCHES, SPARROWS



(***) *Passer domesticus*

(Linn.) (Lat., a sparrow; domestic).

ENGLISH SPARROW; HOUSE SPARROW. *Ad.* ♂ — Plumage as shown by the bird in the foreground; face and throat black; auriculars chestnut. ♀ — A very dull plumaged bird; dusky above, indistinctly streaked, and below dirty whitish. L., 6.25; W., 3.00; T., 2.25; B., .48. *Nest* — In holes in trees, in crevices about buildings, behind blinds, or in crotches of trees; in any case, an unsightly mass of straw, string, paper, rags, and other refuse; five to seven whitish eggs, profusely specked, spotted and scratched with brown and black, .80 x .55.

Range — Introduced in New York about 1850. Now very abundant in cities and villages everywhere.

female and all the young will be in dull plumages, while only the male will be clad in rosy-red. Consequently only one red bird in six should be seen, and this is about the proportion in which they are found. In winter they are quite silent, but utter melodious, piping whistles as they fly. In spring and summer they have a beautiful song of mellow whistles and warbles, uttered in a subdued tone.

PURPLE FINCHES, according to present standards of color, are misnamed, for the plumage of males is a rosy-red, but it is said to be the color that was known in ancient times as royal purple. They are excellent songsters, because of which, before the laws strictly prohibited, many of them were trapped and kept in confinement.

Purple Finches are not uncommon in the Northern States both during winter and summer. In the latter season they consume a great many insects and berries, while at other times of the year they live chiefly upon seeds of weeds and trees and upon buds. They nest in orchard trees, in thickets, hedges, or evergreens.

FINCHES, SPARROWS

(521) *Lóxia curviróstra mīnor*

(*Brehm.*) (Gr., crooked; Lat., curved bill; smaller).

RED CROSSBILL. *Ad.* ♂ — Plumage as shown by the bird in the foreground; a peculiar shade of red — almost a brick-red, lightest on the head, rump and breast; wings, tail and centres of feathers on the back dusky. ♀ dusky and yellowish, the latter brightest on the rump. Young ♂'s show all stages of plumage between these two. Mandibles always crossed. L., 6.00; W., 3.50; T., 2.25; Tar. and B., .65. *Nest* — Of twigs, rootlets, mosses, and bark, in coniferous trees.

Range — Breeds throughout Canada and south to Col., Mich., New England, and, in the Alleghenies, to Ga.



ENGLISH SPARROWS are more abundant in cities than the people about whose houses they live. They were first brought to this country about the year 1850, and have increased so rapidly and covered our country so thoroughly that there is little hope of ever getting rid of them, although they are conceded to be nothing but pests and nuisances. It is doubtful if the combined beneficial results of all the English Sparrows in the country amounts to a dollar, but the annual loss caused by their defacing property can hardly be less than a million, and an equally large loss is caused by their driving away other useful birds and destroying their nests. They are prolific beyond measure; a single pair may raise a half dozen broods of not less than six every year. Their nests are stuffed behind blinds or about crevices of buildings or blocks anywhere; sometimes they are in tops of arc lights, in hollow trees, or are large unsightly balls of straw in crotches of trees. They are uncleanly; their voices are harsh and disagreeable; and they are destructive. I never have been able to find a single redeeming trait in them.

FINCHES, SPARROWS



(522) *Loxia leucoptera* Gmel.
(Gr., white wing).

WHITE-WINGED CROSSBILL.
Mandibles crossed. *Ad.* ♂ — Plumage as shown by the bird on the right; light rosy-red; wings and tail blackish; lesser wing coverts and tips of greater ones white; feathers on the back with visible dusky centres. *Ad.* ♀ — As shown by the left-hand bird; streaked dusky and gray; yellow on the rump, crown, and breast; wings as on the ♂. L., 6.00; W., 3.00; T., 2.25. *Nest* — Of twigs and bark, lined with moss and hair; in evergreens in deep forests.

Range — Breeds in boreal zones throughout Canada and south to N. Y., N. H., and Me. Very erratic in migrations; south casually to N. Car., Ohio, Col., and Ore.

True, they are living creatures, but so is the mosquito that we crush without a thought when it annoys us, and the one is as much a pest as the other.

CROSSBILLS are of more than passing interest because of the manner in which both mandibles are twisted at the tips so that, when closed, they lap by or cross one another. This construction is presumed to have some advantages in the scaling of seeds from cones, and it is upon these seeds that they live almost exclusively. No birds are more uncertain in their movements than these, especially the White-winged variety. They follow their food supply, and as the crop of cones may be good one year and poor another, so these birds may put in an appearance one season and then be absent the following.

They come suddenly and they leave the same way. A shower of cone scales may cause us to glance up and see the dull red or yellowish acrobats clinging to the pendent cones in all conceivable positions, all busily working. Sometimes they utter their musical, piping whistles while feeding, but

**(524) *Leucosticte tephrocotis*
tephrocotis Swains.**

(Gr., white, varied; gray ear).

GRAY-CROWNED ROSY FINCH. Sexes similar in plumage. Head blackish-brown, shading into brown on the back and breast and into rosy on the rump and under parts; nape and sides of the head to the eyes, hoary-grayish; wings and tail blackish, the feathers margined with rosy-white, this color appearing almost solidly on the wing coverts. L., 6.75; W., 4.25; T., 2.75; B., .45. *Nest*—Of grasses and mosses, lined with feathers; on the ground; three or four white eggs.

Range—Breeds in mountain ranges from central Alaska south to the Sierras in Cal. In winter, east to Sask. and, casually, to Neb.



these notes are most frequently heard during flight. They are exceedingly tame and let one approach almost near enough to touch them before flying; when one takes wing, the whole flock goes trooping away to another feeding place.

Most birds return to certain localities each season to breed. Not so the Crossbills; they have no one place that they call home. They simply wander about and, when the nesting season arrives, camp out wherever they happen to be. They nest early, often while snow is still deep on the ground, locating their rather flat structures in coniferous trees at any height from the ground. The nests are made of twigs and bark, and lined with hair, fine rootlets, and sometimes moss. Red Crossbills are much more numerous than White-winged ones. While, in favorable localities, in the Northern States, the former species may occasionally skip a year without putting in an appearance, the latter sometimes are not reported for six or seven years.

ROSY FINCHES or **LEUCOSTICTES** are really birds of the west and northwest. But one species, the Gray-

FINCHES, SPARROWS



(528) *Acánthis linária linária*

(Linn.) (Gr., linnet; Lat., flaxen).

REDPOLL. *Ad.* ♂ — Plumage as shown; ♀ has no rosy tints. L., 5.50; W., 3.00; T., 2.40; B., .33.

Range — Breeds in northern Canada. Winters south to Va., Ohio, Kan., and Cal. (528a.) **HOLBOELL'S REDPOLL** (*A. holboëlli*). Larger; L., 6.00; W., 3.25. Boreal regions. (528b) **GREATER REDPOLL** (*A. l. rostrata*). Larger and darker. Greenland.

(527) *Acanthis hörnemanni hornemanni* (Holb.)

GREENLAND REDPOLL. Large and light colored. Resident in Greenland. (527a) **HOARY REDPOLL** (*A. h. exilipes*). Light colored; no yellowish; white rump. Arctic coast; south casually to Mass. and Mich.

crowned, occurs east to the Mississippi River and then only during exceptionally severe winters. They are birds of mountainous regions, keeping well up to the snow line, even during the nesting season.

REDPOLLS are boreal birds, breeding only in the northern parts of our continent. They are very abundant in their summer quarters and many of them remain in the same localities during winter. However, at this season, food is so much more difficult to obtain that the greater part of them move southward and troop through our Northern States in large flocks. While with us they may be found wherever weeds are plentiful, feeding upon seeds of these until snow entirely covers them and then resorting to birches for buds and seeds.

They have sweet, musical call notes, quite similar to those of the Goldfinch, to which species they are very closely related. They also have a sweet, wild song, but this is seldom heard except in their summer homes. They are very sociable, always in flocks while with us, and never

FINCHES, SPARROWS

(529) *Astragalinus tristis*

tristis (Linn.) (Gr., name for some finch; Lat., sad, from its call note).

GOLDFINCH; THISTLE-BIRD;
"WILD CANARY." Plumage as shown, the ♂ being the nearer bird.

In summer — Bright clear yellow, shading to white on the upper tail coverts; cap, wings and tail black; inner webs of tail feathers and margins of wing feathers broadly white.

In winter — Dull colored like the ♀. L., 5.00; W., 2.75; T., 2.00. *Nest* — Of plant fibres and grasses, lined with thistledown; in bushes, five to twenty feet up; four or five pale bluish eggs, .65 x .48.

Range — Eastern North America, breeding from southern Canada south to Ga. and Ark. Winters from the Canadian border to the Gulf.



quarrel. Their flight is quite rapid and only slightly undulatory.

Nearly all the Redpolls that visit us are of the common type form, *Linaria*. But sometimes we may see a larger, darker colored individual which is the Greater Redpoll, or a larger and much whiter variety, the Hoary Redpoll.

GOLDFINCHES are living bits of sunshine, dear to the hearts of every one. They are residents in the northern half of the United States, but migratory in southern Canada. In winter both sexes are of a dull olive color, with darker wings and tail. They travel about in small flocks, feeding upon seeds of weeds and trees. At this season they often associate with Redpolls and Siskins, both of which have similar dispositions and feeding habits.

In May the plumage of the male commences to change and by the end of the month he has assumed his beautiful summer dress and is in full song. The Goldfinch song is one of the most beautiful pieces of bird music, resembling that of the canary but wilder and sweeter. Their call notes too

FINCHES, SPARROWS



(530) *Astragalinus psaltria* *psaltria* (Say) (Gr., a lutist).

ARKANSAS GOLFINCH. Notice that the white on the tail feathers is confined to the basal portions of the inner webs, the tips being black. *Ad. ♂* — As shown by the nearer bird; back greenish-gray; crown more extensively black than on the preceding species; yellow below very bright. In perfect plumage the back is wholly black, but several years are required to attain this plumage and it is rarely seen. *♀ and Im.* — As shown by the bird in the rear, much duller colored and with no black on the head. L., 4.50; W., 2.40; T., 2.00. *Nest* — Compactly made of plant fibres; in forks of bushes near or over water.

Range — Northern Cal. south to central Tex. and through Mexico.

are musical and captivating — beady, ascending “sweets.” As they fly, they go through the air with a characteristic bounding, undulating flight, each downward wave being punctuated by a musical “per-chic-o-ree.”

They nest later than most birds, usually during August, during which month they may often be seen hanging from thistle-heads, sometimes robbing them of seeds and again securing down with which to line the interior of their homes. Their nests are made up exteriorly of gray plant fibres and grasses, firmly woven and quilted together and tucked in the fork of an alder or willow, usually near or over water. While the female does the greater part of the nest building, the male brings her some material, often takes his turn at sitting on the five or six small, pale blue eggs, and does his full share toward caring for the little birds. They are fed wholly upon insects, and the adults also, at this season, live chiefly upon the same fare.

In order to attract these cheery creatures about their houses, many people plant sunflowers in their gardens,

FINCHES, SPARROWS

(533) *Spinus pinus*

(Wilson) (Lat., a siskin; pine).

PINE SISKIN; PINE FINCH.

Sexes very similar. Plumage as shown. Upper and under parts buffy, streaked with black; wings and tail dusky with buffy edging of the feathers; bases of primaries and bases of tail feathers yellow. These yellow markings readily serve to identify this species anywhere. L., 4.75; W., 2.75; T., 2.00; B., .40. *Nest* — Of rootlets and grasses, lined with pine needles and hair; at any elevation in coniferous trees; three to five greenish-white eggs, speckled with reddish brown, .65 x .45.

Range — Breeds in Canadian zone from Ungava, Keewatin, and Alaska, south to N. S., Minn., and in mountains to Ga. and southern Cal.



solely for the Goldfinches. They will come daily, during late fall and winter, until every seed is gone.

ARKANSAS GOLDFINCHES are very unfortunately named, as it gives the impression that they are eastern birds, whereas they only casually occur east of the Rocky Mountains. The name was given this species because it was first discovered on the Arkansas River in Colorado. The upper parts are never yellow, and as the birds get older they change from the greenish of the first year, finally to a jet black after a period of several years.

PINE SISKINS are, except during the breeding season, almost as erratic wanderers as crossbills. During winter, large flocks of them may appear anywhere in the United States. They are always very restless, except when busy feeding, and appear to wish they were anywhere except where they are. They usually fly rather high and swiftly, in compact flocks, alighting in the tops of trees to reconnoitre before dropping down to the better feeding places below. They feed quite extensively upon seeds of small cones and

FINCHES, SPARROWS



(534) *Plectrophenax nivális* *nivális* (Linn.)

SNOW BUNTING; SNOW-FLAKE. *Ad. ♂, in breeding dress* — As shown by the upper bird; pure white and black. The winter plumage, such as we see in the U. S., is shown by the lower bird. The brown and buffy colors are on the very tips of the feathers. In spring, by a process of erosion, they wear off, leaving the pure nuptial dress. The ♀ is similar but a little browner, and has some traces of brown with the black in summer. L., 6.75; W., 4.15; T., 2.60; B., .40; Tar., .80. *Nest* — Of grasses and mosses, lined with feathers; in hollows on the ground, usually in spagnum moss.

Range — Breeds in the Arctic zone. Winters south irregularly.

also on those of deciduous trees such as birch, elm, ash, larch, etc., and less frequently upon seeds of weeds.

But for their nervous and active maneuvers and their plaintive notes, resembling "tcheer," Siskins might easily be mistaken for sparrows. But a close inspection will always bring to notice the very sharply pointed bill and the yellow patch on the wing. When feeding they act considerably like Chickadees, frequently hanging, back down, from the tips of outer branches.

They remain with us later than most of our winter visitors, often until the middle of June, and not a few of them nest in our Northern States. Their nests are placed among the outer branches of coniferous trees, usually quite high up, and are so well concealed that it is almost impossible to see them. Few are found except by seeing the birds carrying material with which to construct them. During spring and summer Siskins sing a great deal, but their song cannot be classed with that of the Goldfinch. They are, however, very often kept in captivity, especially in European coun-

**(536) *Calcarius lappónicus*
*lappónicus***

(*Linn.*) (Lat., a spur, relating to the long hind claw).

LAPLAND LONGSPUR. Hind toe-nail quite straight and as long as the toe. *Ad. ♂ in summer* — As shown. Top of head, face and throat black; nape chestnut; two outer tail feathers with white tips. *Ad. ♀, Im. and ♂ in winter* — Upper parts streaked with black, rufous and buff; under parts whitish, with few black streaks; no large black areas. L., 6.50; W., 3.60; T., 2.60; Tar., .75. *Nest* — Of grass, moss and feathers; on the ground.

Range — Breeds from Ungava and Keewatin northward. Winters south irregularly to the Middle States and Texas.



tries; when crossed with the European Goldfinch they make excellent songsters.

SNOW BUNTINGS, or SNOWFLAKES, as they are more often called, are so called because in winter they drift in upon us from the north and settle on our fields like so many large, white snowflakes. They usually travel in large flocks and go from hill to hill, feeding upon seeds of weeds that are above snow. They are more wary than most of our other winter visitors; if any one of them sees any one approaching, he gives a warning "tuit," and instantly the whole flock is a-wing. They may circle about and drop down into the same field again, but the chances are that they will whirl across the valley and alight on the side of the next hill. Their flight is rapid but undulatory, producing a remarkable effect, as some of the birds are always rising while others are falling, just as real snowflakes flutter through the air. When they find a suitable place to alight, they suddenly wheel about and descend precipitously.

They run about easily, not by hops like most sparrows

FINCHES, SPARROWS

(537) *Calcarius pictus*

(Swains.) (Lat., painted).



SMITH'S LONGSPUR. *Ad. ♂* in summer — Plumage as shown by the nearer bird. Crown and sides of head blackish; line above eye, ear patch and basal portion of outer tail feathers white; under parts deep buff. *In winter, Im. and ♀* — As shown by the bird in the rear; streaked above; pale buff below, with indistinct streaks on breast; lesser wing coverts and outer tail feathers largely white. L., 6.60; W., 3.75; T., 2.50; B., .40. *Nest* — Of weeds and moss, lined with grass, on the ground.

Range — Interior. Breeds from Mackenzie east to Hudson Bay. Winters on the prairies from Kan. to Tex.

and finches, but after the manner of larks. Sometimes, after very heavy snowfalls, they resort to barnyards or along roadsides to appease their hunger. They apparently never alight in trees, but sometimes do on walls or fences.

Their summer homes are in the far north, where they sink their nests in moss or rocky crevices. Arctic explorers have met with them as far north as land exists.

LONGSPURS are ground birds, of sparrow-like aspect, deriving their name from the fact that the hind toe-nail is unusually developed. They are of more than passing interest because of the manner in which their plumage changes in spring. The males during summer are handsomely marked with patches of black and chestnut, but this shows little or not at all until late spring, for the tips of the feathers on these strongly marked areas are grayish or whitish, sometimes entirely concealing the color beneath unless they are pushed to one side. As the season advances, the tips of these feathers lose their life and a process of erosion takes place, the ends of the feathers wearing away

(538) **Calcarius ornatus***(Town.) (Lat., adorned).*

CHESTNUT-COLLARED LONG SPUR. *Ad. ♂ in summer*—Plumage as shown; nape chestnut; throat and face white; crown and breast black; outer tail feathers and lesser wing coverts largely white. In winter similar but with black underneath quite concealed by whitish edging of the feathers. ♀ *and Im.*—No chestnut on nape nor black beneath; streaked above and indistinctly so below; wings and tail as on adult male. L., 5.90; W., 3.20; T., 2.20; B., .40. *Nest*—Of dried grasses lined with feathers; on the ground; three to six pale greenish-white eggs, blotched with various shades of brown and lavender, .75 x .55.

Range—Great Plains. Breeds from Sask. south to Kan.



or falling off, leaving the bird clad in a handsome but not new suit. The Snowflake, in the same way, changes from its winter plumage to that of summer, in which only black and white appear, the brownish tips all wearing away.

LAPLAND LONGSPURS, after breeding in the Arctic region of the northern hemisphere, straggle southward upon the approach of winter. In America large flocks of them regularly occur in the Mississippi Valley south to Kansas and casually farther. It is rather curious that this very boreal species should more often stray to eastern United States than the three species common to the Great Plains in the interior, yet such is the case. In the Eastern States a few individuals frequently occur in with flocks of Snowflakes or with Horned Larks. While in flight they always utter a twittering whistle, very pronounced when heard from large flocks. On the ground they run rapidly about, picking here and there at various seeds; if they see any one approaching, they keep motionless behind clods until certain that they will be discovered, and then go whistling away.



(539) *Rhynchophanes*
mccowni

(Lawr.) (Gr., beak. I appear, relative to the stouter beak than that of the other species).

McCOWNS LONGSPUR. *Ad. ♂ in summer*—Plumage as shown. Crown, maxillary stripe and breast patch black; under parts grayish-white, lightest on the throat; lesser wing coverts chestnut; outer tail feathers chiefly white. In winter the black on breast is hidden by white edges of feathers; upper parts brownish, streaked with dusky. ♀—Similar to winter male but with no chestnut on the shoulder and no concealed black on breast. L., 6.00; W., 3.50; T., 2.25; B., .50.

Range—Great Plains. Breeds from Sask. south to Wyo. and Minn. Winters from Col. and Kan. southward.

SMITH'S LONGSPUR breeds only on the plains west of Hudson Bay, and winters on our plains south to Texas. It is a very handsome species in its summer plumage, but unfortunately we do not see the nuptial dress here, as it is not perfected until after they have passed our northern border in spring.

CHESTNUT-COLLARED LONGSPURS and McCOWN'S LONGSPURS are characteristic birds of the Great Plains, breeding from Kansas north to Saskatchewan. During spring the males of both species have the habit of soaring to a height of fifteen or twenty yards, then elevating their wings so as to form a V over the back and sliding back to their starting point, to the tune of their tinkling melodies.

Their nests are composed of mosses and fine grasses, placed in hollows on the ground. The eggs are clay color, spotted and splashed profusely with brown and lilac. The birds, the nests, or the eggs are equally difficult to see, as they so closely match the ground in color.

SPARROWS

(540) *Poœcetes gramineus* *gramineus*

(Gmel.) (Gr., grass inhabitant).

VESPER SPARROW; GRASS-FINCH; BAY-WINGED SPARROW. Outer tail feathers wholly white. Plumage as shown, the sexes being very similar except that the ♀ has less chestnut on the shoulder; tail feathers, except the outer, blackish; upper parts quite streaked; under parts less so. L., 6.00; W., 3.00; T., 2.30; B., .40. *Nest*—Of grasses, in weedy fields or pastures.

Range—Eastern North America. Breeds from southern Canada south to N. Car. and Mo. Winters in southern U. S. (540a) WESTERN VESPER SPARROW (*P. g. confinis*). A paler race found west of the Plains.



VESPER SPARROWS are so called because of their habit of commonly singing from sundown until dusk. Not that they are silent at all other times, for they are far from it, but at this particular time their pretty little songs ring out loud and clear above those of other birds. It is a song very difficult of description, combining parts of the clear pipings of the Field Sparrow with phrases from that of the Song Sparrow.

These birds are also quite frequently spoken of as Bay-winged Sparrows, because the shoulders, or lesser wing coverts, are a bright bay color. The white outer tail feathers serve best to identify them, for few of our summer ground birds have such a distinctive mark. Many designate this species as the Grass Finch, because it is usually seen in grassy fields or pastures. Their nests are composed of fine grasses neatly arranged in hollows in the ground, often in short grass in the middle of fields with little or no protection or concealment. Yet they are not easily found, for the female usually runs along the ground for some distance before

SPARROWS



(541) *Passerculus princeps*
Maynard

(Lat., a little sparrow; chief or large).

IPSWICH SPARROW. Larger and paler than the next; a spot of sulphur-yellow on the lores and bend of the wing. L., 6.30; W., 3.25; T., 2.60; B., .45; Tar., .95.

Range — Breeds on Sable Island, N. S.; winters along the coast to Ga.

(542a) *Passerculus sandwichensis savanna* (Wils.)

SAVANNAH SPARROW. Plumage as shown; yellow on lores and bend of wing, the former extending over the eye; much darker above and more streaked below than the last. L., 5.50; W., 2.60; T., 2.00.

Range — Breeds from Ungava and Keewatin south casually to Mass., Conn., Pa., Ind., and Mo.

rising, and the eggs are heavily blotched so as to be very inconspicuous.

SAVANNAH SPARROWS are rather inconspicuous birds, best identified by the small spot of yellow in front of the eye. The under parts are rather evenly streaked with blackish, showing no concentrated spots as on the Song Sparrow. They are very abundant during migrations, and a few breed in our Northern States, although the majority pass on to the southern half of Canada. We see them most often in the weeds or bushes along walls or fences, and in the furrows of cultivated fields. In fall and early spring their only notes are simple chirps, but in summer they delight in singing their rather uninteresting song — a lazy “zee-zee, zu-zu-zu,” the last notes being lower pitched. Although a weak song, it has considerable carrying power.

GRASSHOPPER SPARROWS, so named because their songs are very weak and insect-like, are small but stout and “chunky” sparrows with rather short tails. This form, together with the fact that the under parts are unmarked

SPARROWS

(545) *Ammódramus báirdi*

(Audubon) (Gr., sand runner).

BAIRD'S SPARROW. Tail feathers narrow and pointed. Head olive-brown, streaked with black; under parts dull white, streaked on the breast and sides with black. L., 5.20; W., 2.80; T., 2.05; B., .40.

Range—Great Plains; breeds from Sask. south to Mont. and Minn.

(546) *Ammodramus savan- nárur aurárlis* Maynard

GRASSHOPPER SPARROW.

Shown by the lower bird. Crown blackish, with light median line; lores dull orange; nape brownish; sides of head grayish; bend of wing yellow; no streaks on under parts. L., 5.00; W., 2.35; T., 2.00.

Range—Breeds from Mass., Ont. and Wis. southward.



but washed with buff across the breast, and the edge of the wing at the bend is yellow, will readily identify this species provided it is seen at close enough range. However, they are rather shy about allowing a close approach. Beginners in bird study often fail to notice Grasshopper Sparrows, although they may be about in abundance, for the reason that if they notice the song at all it will be considered as that of some insect and not be followed up. They arrive in the Northern States about the middle of May, and from then on throughout the summer we can see or hear them in almost any dry field. When singing, they always perch on some commanding location such as a post, a stone wall, or a rock in mid-field.

Their nests are located in the middle of fields and are quite difficult to discover, as the birds are quite clever. The male always gives warning of the approach of any one and, unless incubation of the eggs is far advanced, the female will sneak away from the vicinity of the nest at once. Although the eggs are pure white, with a few spots of brown about the

SPARROWS



(547) *Passerhérbulus hénslowi*
hénslowi (Audubon)

HENSLOW'S SPARROW. Crown, sides of head and nape dull olive-greenish; sides of crown blackish; nape, breast and flanks streaked with blackish; wings and tail with much rufous. Shown by the upper bird. L., 5.00; W., 2.20; T., 2.00.

Range — Breeds from Mass., N. Y., Ont., and Minn. south to Va. and Mo.

(548) *Passerherbulus lecóntei*
(Audubon)

LECONTE'S SPARROW. Shown by the lower bird; tail feathers exceedingly narrow and graduated; median line and sides of head buffy; no yellow on wing nor lores. L., 5.00; W., 2.00; T., 2.00; B., .35.

Range — Breeds from Sask. and Man. south to N. Dak. and Minn.

large end, they are not easy to see, for the nest is always arched over so that it is necessary to stoop and look under to discover them.

HENSLOW'S SPARROWS are of about the same size and form as the preceding, but easily identified by a close inspection or with a good field glass, for the under parts are finely streaked on the breast and sides, the nape is olive green, where that of the last was brownish-gray, and the wings are much more rufous. Both species have yellow on the edge of the wings at the bends. While the last is at home in dry fields, the present one prefers meadows or moist ground. They are even more secretive in their manners than are Grasshopper Sparrows. When the grass is a few inches tall, it is very difficult to flush them, for they run and hide like so many mice; when they do take wing, they go but a few feet before tumbling into their shelter again. They are quite persistent songsters during summer, but their notes are weak, lisping, and insect-like.

SPARROWS

(549) *Passerherbulus caudacútus* (Gmel.) (Lat., tail, sharp).

SHARP-TAILED SPARROW.

Plumage as shown. Crown, nape and sides of head dull olive-green; superciliary and maxillary stripes buff; under parts streaked on the breast and flanks; tail feathers sharply pointed. L., 5.75; W., 2.30.

Range— Salt marshes from Mass. to Va.

(549.1) *Passerherbulus nelsoni nelsoni* (Allen)

NELSON'S SPARROW. Slightly smaller; throat, breast and sides washed with buffy, very slightly streaked, if at all. L., 5.50.

Range— Breeds from Alberta south to S. Dak. (549. 1a) ACADIAN SHARP-TAILED SPARROW (*P. n. subvirgatus*). Salt marshes from Quebec to Me.



SHARP-TAILED SPARROWS live in the haunts of rails, which may account for their copying some of the rail habits. These birds may best be recognized because they are seldom found except in marshes, they are exceedingly secretive and their narrow tail feathers are very sharply pointed. The present species is distinctly streaked on the breast and sides with black, while Nelson's Sparrow, found in the interior, and the Acadian Sharp-tailed Sparrows, on the north Atlantic coast, are more buffy and very indistinctly or not at all streaked.

If we walk through salt marshes along the Atlantic coast we may occasionally see a Sharp-tailed Sparrow, momentarily, as he runs across an open space to enter the grasses beyond, or if we walk rapidly we may possibly flush one, but he will go but a few feet over the tops of marsh grass before suddenly diving into its shelter. If we stand still we are more apt to get a look at them than if we try to search them out, for they often mount to the tops of the taller grasses and

SPARROWS



(550) *Passerherbulus maritimus maritimus* (Wilson)

SEASIDE SPARROW. Plumage as shown by the upper bird; chiefly gray; yellow loreal spot; indistinct streaks on the breast, L., 6.00.

Range — Salt marshes from Mass. to Fla. and along the Gulf coast.

(550a) SCOTT'S SEASIDE SPARROW (*P. m. peninsulæ*), a darker race, is found on west coast of Fla.

(550b) TEXAS SEASIDE SPARROW (*P. m. sennetti*), coast of Texas. (550c) LOUISIANA SEASIDE SPARROW (*P. m. fisheri*). Coast of Ala., Miss., and La.

(551) *Passerherbulus nigriscens* (Ridgway) (Lat., growing black).

DUSKY SEASIDE SPARROW. A dark, streaked-breasted species found on the east coast of Fla.

utter their short, grating little trills. Sometimes one may even make a short song-flight out over the water and back.

They commonly build their nests in the marsh grass under the protection of little oases of seaweed left stranded by high tides on the tops of the grass. Naturally these nests are quite difficult to find. The eggs are white, specked with reddish-brown, especially about the large end.

SEASIDE SPARROWS, found abundantly along our Atlantic coast south of Long Island, are duller colored and grayer than the preceding and have no distinct black markings either on the back or below. They are found almost exclusively in salt marshes and often in company with the preceding species.

Both species are commonly known by hunters and fishermen who frequent the marshes as "Meadow Chippies." Like rails, they are most active on dull, cloudy days; they continue to feed and sing even after dusk too.

Several races of Seaside Sparrows are locally found along

SPARROWS

(552) *Chondestes grammacus* *grammacus*

(Say) (Gr., grain eater; marked with a line, relating to the stripes on the head).

LARK SPARROW. *Ads*— Plumage as shown; two lateral crown stripes and patch on ears chestnut; tail dusky, the outer feathers broadly tipped with white. *Im.*— Body like that of adults, but the chestnut on the head is replaced by dull brownish. L., 6.25; W., 3.50; T., 2.75; B., .45. *Nest*— On the ground; three to five white eggs, sparingly scrawled with black about the large end, .80 x .60.

Range— Breeds from Minn. and N. Dak. south to La., east to Pa. Casual in Mass. and N. J. (552a)
WESTERN LARK SPARROW (*C. g. strigatus*). A paler race found west of the Plains to the Pacific.



the Gulf and South Atlantic coasts, and a very dark species along the Indian River in Florida.

LARK SPARROWS are very common in the Central and Western States and are of casual occurrence east to the Atlantic coast. Dry fields and dusty roadsides are the favorite haunts of this species. It can very easily be distinguished from any other sparrow by the black and chestnut head markings, by the light under parts with a blackish spot in the middle of the breast, and by the fact that all the outer tail feathers are broadly tipped with white, this last an unusual feature for a typical sparrow. They have a pleasing song which many regard as more musical than that of any other sparrow. It is loud and clear, having something of the character of that of the Vesper Sparrow but of much longer duration. It has an added attraction in that the song is heard on hot summer days, when most other birds are silent.

Their nests are placed on the ground or in bushes in stubble-land, pastures, or on prairies; made chiefly of

SPARROWS

(553) *Zonotrichia querula*

(*Nuttall*) (Gr., a girdle, name of some bird; Lat., plaintive).



HARRIS'S SPARROW. *Ads.*—Plumage as shown by the upper bird; crown, face and throat black, extending in streaks along the sides; sides of head ashy-gray; upper parts brownish, streaked with black and gray. In winter, the black is mixed with white and gray. Immature birds show little or no black. L., 7.50; W., 3.40; T., 3.50; B., .45.

These birds are very imperfectly known as yet, and little is known concerning their nesting.

Range—Breeds in the Hudsonian zone from Mackenzie to Hudson Bay. Winters from Kan. and Mo. south to Tex. Casual east to Ont. and Ill.

grasses, clover and weed stems. The eggs are whitish, with a few prominent black scrawls resembling those of Baltimore Orioles more than eggs of any sparrow, but not nearly as pointed.

HARRIS'S SPARROWS are the largest of North American species in point of length, although their bodies are no bigger than those of the shorter tailed Fox Sparrows. They belong to the same genus as the two following well-known species and are sometimes known as Hooded Crowned Sparrows. These birds are very local in their distribution, especially during the breeding season. They are known to breed only in the Hudsonian zone to the westward of Hudson Bay. They migrate through the Plains to Texas; occasionally a straggler or two will appear east of the Mississippi in with flocks of the following species.

WHITE-CROWNED SPARROWS, in eastern United States, are not nearly as abundant as the following species. In the west, however, they are one of the representative

SPARROWS

(554) *Zonotrichia leucóphrys* *leucóphrys*

(Fors.) (Gr., white eye-brow).

WHITE-CROWNED SPARROW.

Ads.—As shown by the upper bird; crown broadly white, with a black stripe on either side, this black covering the lores and extending in a narrow line back of the eye; nape and sides of head gray; under parts dull whitish. *Im.*—As shown by the lower bird; crown brown, with an indistinct lighter median line. L., 6.75; W., 3.00; T., 2.80; B., .43. *Nest*—Of grass, on the ground in thickets or under bushes; four or five whitish eggs, profusely spotted with brown, .90 x .63.

Range—Breeds from Ungava and Keewatin south to Quebec and in western mountains to Cal. and N. Mex. Winters in southern U. S.



birds, nesting in the mountains, and wintering in the valleys. In the east, they are more northerly distributed than White-throated Sparrows, nesting in Ungava and central Keewatin. The majority of the eastern birds pass through the Mississippi Valley, in the southern part of which they winter. Along the coast states, small flocks are sometimes met, but individuals are more often seen alone or in with flocks of the next species. There is no chance of mistaking the birds, for the present one has no gray across the breast, no yellow on the head, and the white crown is not only broad and conspicuous, but the feathers are capable of being and often are raised.

WHITE-THROATED SPARROWS, abundant during migrations in the Eastern States, are quite generally regarded as the handsomest of the sparrow tribe. The colors are blended most harmoniously, and the immaculate throat shines forth like a new bib on its background of ashy-gray. They winter in large numbers in open woods and brush land

SPARROWS



(558) *Zonotrichia albicollis*

(*Gmel.*) (Lat., white throated).

WHITE-THROATED SPARROW. *Ad. ♂* — Plumage as shown by the nearer bird; crown black, enclosing a white median line; superciliary line white ending on the lore in a bright yellow spot; throat white, sharply defined against the gray of breast and sides of head. ♀ much duller and nearer like immature birds as shown by the lower bird, which has no black on the head, nor any pure white areas. L., 6.75; W., 2.90; T., 2.85; B., .45. *Nest* — Of grasses or weeds, lined with fine grasses; on the ground or low-down in bushes; four or five pale greenish-blue eggs, thickly spotted with brown.

Range — Breeds from southern Ungava and Keewatin south to Mass., N. Y., Wis., and Minn.

through southern United States, and are eagerly welcomed by bird lovers as they pass through the Northern States on the way to their summer homes.

Their arrival is heralded by the piping song that will greet us some fine April morning — a loud, clearly whistled “Hi, hi, pea-bod-y, pea-bod-y, pea-bod-y.” While the music does not sound like these syllables, the words fit well with the song and are the cause of it often being known as the Peabody Bird. A much better and more appropriate rendering, I think, is the “Swee-e-t, Can-a-da, Can-a-da, Can-a-da” — more appropriate because the majority of them are bound for their beloved Canada the land of their birth.

Their songs are heard at their best during early morning hours and toward evening; in fact, they are said in their summer homes to sing frequently during the middle of the night. At other hours of the day they are very busily scratching among the leaves in woods, swamps, or under-

SPARROWS

(559) **Spizella monticola monticola** (Gmel.) (Gr., a little finch; Lat., a mountain inhabitant).

TREE SPARROW. *Ads.*—Plumage as shown; crown chestnut-brown but with no black markings of any kind; back reddish-brown; streaked with dusky; two wing bars formed by the white tips of the greater and middle coverts; below whitish, shading to ashy on the sides; a brownish spot in the middle of the breast. *Im.*—Similar, but crown mixed with grayish. L., 6.25; W., 3.00; T., 2.80. *Nest*—Of grasses, rootlets and hair; on the ground or slightly above; four or five pale greenish-blue eggs, speckled with brown, .80 x .60.

Range—Breeds from Ungava and Mackenzie south to Quebec and Newfoundland. Winters from the Canadian border to S. Car. and Ark.



brush. If we disturb them at their labors they will hop up where they can watch us and protest with a musical metallic "chink." If we approach closer than they like, they will troop off through the brush, bidding you farewell with a penetrating "tseep."

In our Northern States, particularly in rather mountainous portions, many of these delightful creatures pass the summer with us. One built a cozy nest of grass and weeds in a Massachusetts city park where hundreds of people were within a few feet every day; it was in a little hollow under a small bush.

TREE SPARROWS regularly visit us in the northern half of the United States every winter, coming south as soon as the snows cover the weeds of their home country in northern Canada, thereby preventing them from obtaining a sufficient supply of the seeds that they require.

At first glance many people mistake them for Chipping Sparrows, but they wear an unmistakable badge of recog-

SPARROWS

(560) *Spizella passerina* *passerina* (Bech.)



CHIPPING SPARROW; CHIPPY. *Ads.*—Plumage as shown; crown chestnut-brown, bordered in front with black; a dusky line through the eye; back brown, streaked with dusky; coverts narrowly tipped with whitish, forming indistinct wing bars; nape, sides of head and under parts ashy gray, lighter on the throat; bill wholly black. *Im.*—Similar to the adults except that the crown is dull brownish, streaked with black. L., 5.25; W., 2.70; T., 2.25; B., .35. *Nest*—Of rootlets and horsehair; in trees or bushes; four or five greenish-blue eggs with a wreath of black specks about the large end, .65 x .50.

Range—Breeds throughout the U. S. and southern Canada.

nition in the shape of a blackish spot in the middle of the light-colored breast. A closer inspection will show that not only are they larger than the next species, but the crown lacks the black edgings which are always present on the following.

The greater part of their lives are passed on or near the ground, notwithstanding the fact that they are called Tree Sparrows. When frightened they sometimes take to the tree tops, and in spring they sing their soft, trilling songs from high elevations, but at other times, except when in flight, they are usually seen below the tops of bushes. While not as sociable as our familiar Chippy, they very often enter dooryards to pick up seeds or chaff, and a great many persons make a practice of throwing out canary seed for them.

CHIPPING SPARROWS are typical birds of civilization. They are rarely to be found distant from land that man has reclaimed or cultivated. They will even take up an abode in city yards if they can escape persecution.

SPARROWS

(561) *Spizella pallida*

(Swains.) (Lat., pale).

CLAY-COLORED SPARROW.

Plumage as shown by the bird on the left; crown light brown, streaked with black and with a pale median line; hind neck plain gray. L., 5.20; W., 2.40; T., 2.30; B., .35.

Range—Breeds from southern Keewatin, southern Mackenzie and B. C. south to Ill., Neb., and Col.

(562) *Spizella breweri* Cassin.

BREWER'S SPARROW. Shown by the bird on the right; crown streaked with black (no median stripe); hind neck, as well as back, streaked with black. L., 5.20; W., 2.60; T., 2.30.

Range—Breeds from Neb., Mont., Alberta and B. C. south to Tex., Ariz., and Cal.



While their songs are very simple and not musical, the rapid chipping notes are not disagreeable and the birds are very valuable ones to have about, for during the summer their food is almost wholly insectivorous. They will clean bushes and trees as well as the lawn of quantities of injurious vermin. Practically every orchard has its Chippy population and, as they are not pugnacious, several pairs may live harmoniously even in a small one. Many bushes or trees in pastures or along the roadside, annually hold within their branches a happy home of these attractive little birds. Their nests are made chiefly of black rootlets and are almost always lined with hair; in fact, Chippies are in country-boy parlance often known as Hair-birds. Their eggs are quite distinctive, being greenish-blue, with a wreath of black specks about the large end. Very often, far too often, we may find one of the larger speckled eggs of that feathered parasite, the Cowbird, nestling among the three or four that belong in the nest.

SPARROWS



(563) *Spizella pusilla pusilla*

(Wilson) (Lat., small).

FIELD SPARROW. Size small, but tail comparatively long; bill pale reddish-brown. Plumage as shown; crown, ear coverts, flanks and middle of back reddish-brown, the latter streaked with black. L., 5.60; W., 2.50; T., 2.55; B., .35. *Nest*—Of weeds, grasses and rootlets, lined with hair; on the ground or low down in bushes or weeds; four or five bluish-white eggs spotted with reddish-brown, most abundantly about the large end, .65 x .50.

Range—Breeds from Me., southern Quebec, Mich., and Minn. south to the Gulf. Winters in the southern half of the U. S. (563a) **WESTERN FIELD SPARROW** (*S. p. arenacea*), found on the Great Plains, is less rufous.

CLAY-COLORED SPARROWS and **BREWER'S SPARROWS** are species about the size of the Chippy, found chiefly on plains and desert regions of the west. They are quite similar in appearance but the former has a distinct median line while the crown of the latter is uniformly streaked. Both species are ground-inhabiting birds with habits similar to those of our common Field Sparrow. Brewer's Sparrow, or the "Sagebrush Chippy," is rarely found in any but arid sagebrush regions.

FIELD SPARROWS are of the same size as Chippies and have reddish-brown crowns, but there the likeness stops. They have longer tails, in fact unusually long tails for their size; their bills are pale orange-red, instead of black; the crown has no black margin as does that of the Chippy; the back is a bright rufous and there is a blotch of the same color on either side of the breast. Taken all in all, there is little excuse for not recognizing this bird at sight.

They frequent dry fields and pastures, preferably those

SPARROWS

(566) *Júnco aíkēni* Ridgway

WHITE-WINGED JUNCO.

Plumage as shown; body and head a uniform light gray, except for the abruptly white under parts; two conspicuous wing bars formed by the white tips of the greater and middle coverts; outer tail feathers white. L., 6.60; W., 3.50; T., 3.30; B., .50. *Nest* — Of grasses; on the ground; eggs greenish-white, spotted with reddish-brown.

Range — Breeds in mountains of Wyo., S. Dak., and western Neb. Winters south to Kan. and Col.

(570a) *Junco phæonótus dorsális* Henry

RED-BACKED JUNCO. A western species having a reddish-brown dorsal patch. In southwestern Tex. in winter.



dotted here and there with bushes. The bushes are sometimes used for home sites, but are most useful as choir lofts, for Field Sparrows are quite musical and delight in sitting in commanding positions where they can see and be seen as they deliver their songs, which are quite variable with different individuals but usually consist of several very high-pitched notes and end in a pretty little trill. During the hottest and driest summer days, when other birds are very quiet, these little fellows will be piping their very loudest.

While never as sociable as Chipping Sparrows, for the reason that their preferred haunts are not such as are commonly found very near dwellings, they are not timid, for they will allow us to closely approach and on two occasions I have seated myself within four feet of one of their ground nests, with no concealment, and watched them feed their young. Usually, however, they chirp excitedly if we get near their homes.

SPARROWS

(567) *Junco hyemalis hyemalis*

(*Linn.*) (Lat., wintry).



SLATE-COLORED JUNCO; SNOWBIRD. *Ad* ♂ — As shown by the lower bird. Dark gray, shading to slate on the head and breast, the latter being sharply defined against the white of the belly; two outer tail feathers white; bill flesh-color. *Ad.* ♀, and *Im.* — As shown by the upper bird. Much paler, the breast being brownish-gray. L., 6.25; W., 3.00; T., 2.70; B., .40. *Nest* — Of weeds and rootlets, lined with fine grasses on the ground.

Range — Breeds from mountains in Mass., N. Y. and from Minn. northward. Winters from the Canadian border southward. (567e) CAROLINA JUNCO (*J. h. carolinensis*) breeds in the Alleghenies from Pa. to Ga.

WHITE-WINGED JUNCOS are quite abundant in the Rocky Mountains and are included in this book because they occur in limited numbers in the Black Hills, South Dakota, and in northwestern Nebraska. Even more western in its distribution is the Red-backed Junco, which in winter occurs east to western Texas. Their habits are not in any respect different from those of our familiar eastern species.

SLATE-COLORED JUNCOS are abundant throughout eastern United States during winter. They are commonly known as Snowbirds because they are seen about the time of the first snowstorm and remain with us until snow leaves. They are nearly always associated in flocks and are rather restless in their movements, covering considerable ground while feeding during the course of each day. They are happy-go-lucky fellows, nearly always twittering their musical notes regardless of the weather or whether food is plenty or difficult to get. They are never very shy and

SPARROWS

(573) *Amphispiza bilineata*
bilineata (Cass.) (Gr., on both sides,
a finch; Lat., two-lined).

BLACK-THROATED SPAR-
ROW. *Ads.*—Sides of head and
throat black; superciliary lines max-
illary stripes and under parts white;
upper parts gray, darkest on the
crown. *Im.*—Throat whitish and
with no distinct black markings. L.,
5.25; W., 2.60; T., 2.60.

Range—Southern Texas south-
ward.

(574.1) *Amphispiza nevadensis*
nevadensis (Ridgway)

SAGE SPARROW. Shown by the
lower bird; blackish streaks on the
sides of the throat and a black spot in
middle of breast. L., 6.00.

Range—Western North America;
in winter in western Tex.



when snow and crust cuts off their usual supply of weed seeds, they flock into barnyards or about doorsteps feeding upon chaff or grain that is thrown out for them and Tree Sparrows.

A great many of these little Quaker-colored birds remain throughout the year in the northern tier of states, but the majority of them pass northward to Canada. In spring they are even more lively than during the winter; early in the morning, especially, their tinkling notes swell the glad chorus of the early migrants.

Juncos build their nests on the ground, concealing them artfully under logs, stumps, up-turned sods, overhanging banks, etc. One nest, found on a Maine island, required a diligent search of more than an hour to discover, although I could tell from the actions of the birds that it was but a few feet away; it was finally located under a flat stone that projected obliquely from the ground, the grass concealing the opening wholly.

SPARROWS



(575) *Peucaea aestivalis aestivalis*

(Licht.) (Gr., a pine; Lat., summery).

PINE-WOODS SPARROW.

Plumage as shown. Upper parts chestnut, streaked with black and broadly margined with gray; a gray line over the eye; bend of wing yellow; tail feathers narrow; breast and sides ashy-brown. L., 5.75; W., 2.50.

Range — Ga. and Fla. (575a)

BACHMAN'S SPARROW. Similar but with no black streaks on the back. Breeds from Ohio, Ill. and Va. south to the Gulf.

(578) *Peucaea cassinii*

(Woodhouse)

CASSIN'S SPARROW. Ashy-brown above, with black streaks.

Range — Breeds from Kan. and Col. southward.

BLACK-THROATED SPARROWS are typical sparrows of the southwestern plains and deserts, frequenting mesquite or sagebrush, from the tops of which they pour forth their tinkling little tunes many of the notes of which have a buzzing or burring quality like parts of the song of the Lark Sparrow. Their nests are located near the ground in sagebrush, cat's-claw or cactus; oftentimes they are even located on the ground under concealment of some bush. The eggs are plain bluish-white, this being one of the very few sparrows not laying spotted eggs.

SAGE SPARROWS are quite characteristic of western sagebrush deserts and basins of the Upper Sonoran zone. Their colors and streakings harmonize very well with the blue-green foliage of the brush, but they can readily be recognized by the length of their tails and the fact that these appendages are usually slowly wagged to and fro somewhat after the Phœbe fashion.

PINE-WOODS and BACHMAN'S SPARROWS are

SPARROWS

(581) *Melospiza melodia* *melodia*

(Wilson.) (Gr., song finch; a melodious song).

SONG SPARROW. Plumage as shown. Crown rufous-brown with a gray median line; superciliary line and auriculars gray, the latter bordered with brown; a brown maxillary stripe; breast and sides more or less streaked and a larger spot in the centre of the breast. L., 6.25; W., 2.50; T., 2.60; B., .45. *Nest*— On the ground or in bushes; of weeds and grasses, lined with fine grass.

Range— North America east of the Rockies; breeds from Va. and Neb. north to Quebec, Keewatin and Mackenzie. *Winters* throughout eastern U. S. (581j) DAKOTA SONG SPARROW (*M. m. juddi*). Sask. south to Turtle Mts., N. Dak.



very similar species, the former being restricted to Florida and southern Georgia, while the range of the latter extends to the northwest as far as Illinois.

The Pine-woods Sparrow is found almost exclusively in pine woods, especially those with an undergrowth of scrub palmetto. Bachman's Sparrow, in Georgia, frequents the edges of pine barrens in the tall grass which carpets the wet ground. Both species are about equally difficult to see, for it is almost impossible to make them fly and they rarely get up above the tops of the underbrush or grass. Their songs are sweet, loud and high pitched, more melodious than those of most other sparrows. Their ground nests are partially arched over so as to conceal the pure white, unspotted eggs.

Some birds have great beauty, some have odd mannerisms and others have pleasing songs, but search our country from ocean to ocean and you can nowhere find a bird that combines so many attractive traits as does the common SONG SPAR-

SPARROWS



(583) **Melospiza lincolni lincolni** (Audubon)

LINCOLN'S SPARROW. Plumage as shown. Upper parts dull brown, each feather with a black streak in the centre; crown more rufous and with a light median line; a light gray superciliary line; below dull white, washed across the breast and along the sides with buff, and finely streaked with black; wings with considerable rufous on the secondaries and greater coverts. L., 5.75; W., 2.50; T., 2.40. *Nest* — Of weeds and fine grasses; on the ground in tufts of grass or under small shrubs.

Range — Breeds from N. B., Ont., northern N. Y. and Minn. north to Ungava, Keewatin and Mackenzie. Winters from our southern border southward.

ROW. While in the east we have but a single species, in the western half of our country are a dozen races of Song Sparrows, each differing a little or sometimes a great deal because of environments or climatic changes, but still all typical Song Sparrows, the same happy, demonstrative birds that we are accustomed to see in the east.

A few Song Sparrows spend the winter in northern states; as soon as the weather shows signs of moderation, others come bringing good cheer and melody with them. Their songs are not gifted operatic performances, they are better. They are simple home songs, distinctive and pleasing to every one. The rhythm is apparent from the following local interpretations of their songs: "Maids, maids, maids, hang on your teakettle-ettle-ettle" and "Peace, peace, peace, be unto you, my children." As soon as the sun appears over the horizon, their concert commences and the last lay is not heard until after it has disappeared in the western sky.

Few birds live as peaceably with all other kinds, in fields,

(584) *Melospiza georgiana*

(Lath.)

SWAMP SPARROW. A dark sparrow. Crown chestnut-brown shading to black on the forehead; auriculars brown, bordered with blackish; median line, superciliary line and sides of neck dark gray; breast and flanks washed with deep buff; back very dark chestnut-brown, more or less streaked with black. L., 5.75; W., 2.30; T., 2.30. *Nest*—Of weeds and grasses, lined with very fine grasses; on the ground, usually in clumps of grass in swampy places; four or five pale greenish-blue eggs, heavily blotched and clouded with various shades of brown, .80 x .55.

Range—North America east of the Great Plains. Breeds from N. J., Ill. and Mo. north to Quebec and central Keewatin.



meadows and even in our dooryards, as these. Their grass nests are built either on the ground or low down in bushes. The first family is raised early in the year and often a single pair will rear as many as three broods in a season. They have so few enemies and so many friends that they appear to be increasing in numbers everywhere.

LINCOLN'S SPARROWS are quite shy and retiring during their migrations, slipping through the weeds and bushes along walls, like so many mice. They represent one of the least known of eastern sparrows, not because they are very rare but because they are so secretive. They are most apt to be mistaken for Song or Savannah Sparrows but if you are fortunate enough to plainly see them, the buff breast band will distinguish them from the latter and the finely streaked breast from the former.

SWAMP SPARROWS are, as one would naturally suspect from the name, chiefly found in swamps. While they are

SPARROWS



(585) *Passerella iliaca iliaca*

(Merr.) (Lat., diminutive for a sparrow; relating to the flanks).

FOX SPARROW. Legs and feet unusually large even for so large a sparrow. Plumage as shown, largely a bright rufous, especially on the rump, wings and tail; feathers of crown and back broadly edged with gray; below whitish, strongly streaked on breast and sides with rufous. L., 7.00; W., 3.35; T., 3.00; B., .45; Tar., .90. *Nest*—Of weeds and grass, lined with moss, hair and feathers; on the ground or at low elevations in bushes; four or five pale bluish-white eggs, spotted with reddish-brown, .90 x .65.

Range — Breeds from Newfoundland, southern Keewatin, Man. and Alberta north to the tree limit. Winters from the Potomac and Ohio valleys south to the Gulf.

not unusually shy, they rarely appear above the dense underbrush that covers their chosen retreats. If we follow them into their lairs we may catch glimpses of them as they cross mud flats or water lanes from one cover to another. They are so darkly colored that there is little possibility of not knowing them when seen.

During spring and early summer they sing a great deal, especially early in the morning. The song, while far from musical, is quite distinctive and most resembles that of the Chipping Sparrow but is louder and clearer. They breed in suitable localities anywhere in temperate North America, but their presence is often unsuspected even where they are abundant, for their haunts and rail-like habits are not such as to command general attention.

FOX SPARROWS are one of the largest species, nearly as large as some of the thrushes. In fact I have often known of their being mistaken for Hermit Thrushes and vice versa.

**(587) *Pipilo erythrophthalmus*
*erythrophthalmus***

(Linn.) (Lat., peep; Gr., red eye).

TOWHEE; CHEWINK. Iris red.
Ad ♂ — Plumage as shown by the lower bird, chiefly black; bases of primaries, edges of tertials, belly and ends of outer tail feathers white; flanks chestnut; under tail coverts buffy. *Ad.* ♀ — As shown by the upper bird; brown in place of the black on the male. L., 8.25; W., 3.40; T., 3.90; B., .55; Tar., 1.05.
Nest — Of leaves, strips of bark and grasses; on or near the ground in brush or woods.

Range — Breeds from Me., Ont. and Sask. south to Ga. and Kan. (587a) **WHITE-EYED TOWHEE** (*P. e. alleni*). White eyes and less white on tail. Coast region from S. Car. to Fla.



Their size and plumpness readily distinguish them from any other sparrows, while the brightly spotted breast, bright rufous tail, and gray and rufous back and head should easily determine it from any thrush even if the short characteristic sparrow bill cannot be seen.

They pass through the Northern States on their way to interior Canada with the early migrants during April, traveling in companies and feeding in swamps, thickets and copses. Their plumage so closely resembles the dead leaves among which they scratch so lustily that you have to look sharply to see them, but if you approach too near they will hop to low branches or twigs and "tseep" at you. Early of mornings and toward dusk you can usually hear them tuning up and, as the individual songs are clear and sweet, the effect of singing in chorus is very pleasing to the ears.

TOWHEES prove their close relationship to sparrows by the shape of their beaks but there can be no comparison of the plumages. The sparrows show little or no sexual differences

FINCHES, SPARROWS



(592.1) *Oreospiza chlorura*

(Audubon) (Gr., a finch; green tail).

GREEN-TAILED TOWHEE. A bird that by its structure, form and character of markings suggests the White-throated Sparrow. *Ad.* ♂—Plumage as shown. Crown chestnut; throat white, strongly defined against the deep gray of sides on head and breast; upper parts more or less olive-green. *Ad.* ♀—Similar but duller colored. *Im.*—Olive-gray above, streaked with dusky; wings and tail like adults; below dingy white; breast and sides streaked with dusky. L., 7.00; W., 3.00; T., 3.50. *Nest*—Of grass; on or near the ground; eggs whitish, specked with reddish-brown, .90 x .65.

Range—Western U. S.; east to western Tex.

in plumage but the male Towhee is much more attractively gowned than his mate. Country boys usually know these birds as Cherinks or Chewinks for their note of protest when their nest is approached is a very emphatic and oft-repeated "cherink." When in pleasanter moods, as they generally are when not disturbed, they delight in perching in the tops of bushes or small trees and cherrily calling to one another with a thrilling "pill, tow, will-a-will-a."

The Towhee nest is a rather shallow affair of rootlets sunken in a hollow on the ground. Rarely they build a more pretentious one a few feet above in bushes. The white eggs are very finely dotted with pinkish-brown. If you undertake to examine them, the owners will protest most noisily and sometimes dash at you with wide spread tail and blazing red eyes. The Towhee in the Southern States has much less white on the tail and the eyes are white instead of red.

GREEN-TAILED TOWHEES are handsome, white-

**(593) *Cardinalis cardinalis*
cardinalis (Linn.)**

CARDINAL; VIRGINIA RED-BIRD. Bill very stout and conical. *Ad.* ♂ — A rich red, rather rosy on the back, wings, tail and under parts, brightening to vermilion on the breast and sides of head; face and throat black. *Ad.* ♀ — As shown by the upper bird; ashy-brown with traces of red on crest, wings and tail. L., 8.50; W., 3.75; T., 4.50; B., .70; Tar., .95. *Nest* — Of twigs, rootlets and bark; in bushes; three or four bluish-white eggs, spotted with reddish-brown, 1.00 x .73.

Range — From N. Y., Ont., Ind. and Ia. southward. Casual in Mass., Mich., Wis. and Minn. (593d)
FLORIDA CARDINAL (*C. c. floridanus*). Brighter colored. Florida.



throated species found commonly in chaparral in the Transition zones of the Western States. They are more musical, having longer and more brilliant songs than any others of the towhees. They are typical ground or brush birds, scratching for their food almost as vigorously as Fox Sparrows, whose song their own vocal efforts quite closely resemble. They rarely appear above the level of the tops of low brush except to sing or for short flights.

CARDINALS are magnificent birds whose commanding notes and brilliant plumage would attract attention anywhere. They are rather shy, consequently their voices are heard much oftener than the birds are seen. While thickets and dense underbrush appear to be their favorite resorts, they also appear about dwellings and find nesting places in vines, shrubs, or trellises. Their homes are quite easily discovered for most of them have very little concealment; indeed, they are often constructed quite in the open, especially those made early in the season, in April almost before leaves



(594a) *Pyrrhuloxia sinuata*
texana (Bonap.) (Lat., a bullfinch, a crossbill; bent or bowed).

TEXAS PYRRHULOXIA. Bill very short, stout and convex. Crest rather scanty. *Ad.* ♂—Plumage as shown by the nearer bird; general tone grayish; face, throat and middle of breast bright rosy-red; crest, wings, and tail dull red. *Ad.* ♀—As shown by the bird in the background. Only traces of red on the face and throat; crest, wings and tail, reddish, but duller than on the male. L., 8.25; W., 3.75; T., 4.00. *Nest*—A shabby platform of twigs and grasses, at a low elevation in bushes or thickets; three or four whitish eggs, specked with dark brown.

Range—From central Tex. southward.

have commenced to appear. Most of the nests are rather slovenly constructed, being made chiefly of weeds and leaf stalks on the outside, then a layer of dead leaves and finally a lining of grasses or strips of bark. They are so insecurely fastened to their supporting branches that they frequently upset. I have found many of their nests, but never have noticed the birds showing the distress so commonly shown by almost all species when their homes are discovered. Some even left the vicinity without even uttering their familiar sharp "tsip."

The song of the Cardinal is loud, clear and not displeasing, but, I believe, has been greatly overestimated. It shows little of the melodious and tuneful character of that of the Rose-breasted Grosbeak. Among the most commonly heard songs is one composed of about six notes with a hollow or thumping quality, a "wee-oo, wheu, wheu, wheu, wheu, wheu," and another more musical and more rapidly delivered sounding like "whirly, whirly, whirly, whirly."

(595) *Zamelódia ludoviciána*
(*Linm.*) (Gr., much melody).

ROSE-BREADED GROSBEAK.

Bill very heavy and light colored.
Ad. ♂ — Plumage as shown by the lower bird — largely black; upper breast and linings of wings rosy pink; belly, bases of primaries, tips on wing coverts, rump and tail coverts white.

Ad. ♀ — As shown by the upper bird — sparrow like in color; a light median line and white superciliary stripe; streaked below. L., 8.25; W., 4.10; T., 3.25; Tar., .90. *Nest* — Fragile; of twigs and rootlets in bushes or trees; eggs bluish-green, spotted with reddish-brown, 1.00 x .75.

Range — Eastern North America; breeds from southern Quebec, Ont. and Mackenzie south to N. J., Ohio and Kan. Winters from Mexico southward.



Birds of such brilliant coloring appear out of place on a winter day, but Cardinals are quite hardy and are usually resident even in the northern portions of their range.

PYRRHULOXIAS, while less gaudy than Cardinals, are fully as handsome, their demure gray plumage being appropriately relieved by the delicate rose-colored face, throat, and breast. Their bills are very short, almost parrot-like, and their crests, while more slender than those of Cardinals, are capable of being thrown forward almost to the bill, to express emotion. They are not uncommon in mesquite along our southwestern border and their plumage as well as their clear whistles, which are similar in character to those of Cardinals, do much to relieve the dulness of their surroundings.

ROSE-BREADED GROSBEAKS would make welcome additions to the avifauna of any country and we of the Northeastern States certainly appreciate their presence while with us. Arriving about the tenth of May, they remain in



(597) *Guiraca caerulea caerulea*
(Linn.) (Lat., cerulean).

BLUE GROSBEAK. *Ad. ♂* — Plumage as shown by the upper bird. Deep rich blue, brightest on the head and rump; lores and chin black; feathers on back with black centres; wings and tail chiefly blackish with blue edging of the feathers; lesser wing coverts and tips of greater ones chestnut. *Ad. ♀* — Dull colored as shown by the lower bird; brownish-black above and lighter below. L., 7.00; W., 3.50; T., 2.75; B., .65. *Nest* — Of weeds and grasses, in thickets or bushes; four or five plain, unmarked bluish eggs, .85 x .62.

Range — Breeds from Md., southern Ill. and Mo. south to Fla. and eastern Tex.; winters in Central America. Accidental in Wis. and New England.

full song until July and do not leave us until September. The males arrive a few days before the females, announcing their advent by beautiful carols of loud, clear, round whistles which, while having a tone all their own, come nearest to those uttered by the Baltimore Oriole. This Grosbeak song is almost invariably preceded at an interval of a second or more, by a single, sharp, distinctive chirp. It comes as an announcement that he is about to sing and for every one to be prepared to listen to him.

Not only is this Grosbeak an excellent musician but he is very handsomely arrayed in contrasty black and white, relieved by a tie of beautiful rose color and a touch of the same under each wing. When he flies, the patch of white across the wing feathers makes a dazzling effect, almost as though the wings were cut sharply across. His mate is very, very different in plumage, almost like a large sparrow, handsomely striped and streaked. He is very devoted to her and

(598) *Passerina cyanea**(Linn.) (Gr., dark blue).***INDIGO BUNTING. *Ad.* ♂ —**

As shown by the upper bird; intense indigo-blue on the head and breast, lightening somewhat and changing to a Prussian blue on the back, rump and under parts; wings and tail blackish, with blue edgings to the feathers. *Ad.* ♀ — A plain, dull-colored bird, grayish-brown above and paler below with indistinct streaks on the breast and sides. L., 5.60; W., 2.50; T., 2.10; B., .40. *Nest* — Of weeds, grasses and leaves, lined with fine grass or hair; in bushes; four or five pale blue eggs, sometimes almost white, .75 x .50.

Range — Breeds from N. B., Ont., Mich. and Minn. south to Ga., La., and Tex. Winters southward from Mexico and Cuba.



not only sings to her, but brings her choice morsels as she sits upon the eggs in their rather frail nest, and also frequently relieves her of this duty and incubates them himself. When he is covering the eggs, he very often warbles his song in a softer voice than usual.

BLUE GROSBEAKS, during summer, are quite commonly found in brush, brier, and weed-grown fields, clearings or along waterways. Their handsome blue coat has the same changeable quality as that of the Bluebird. Seen in some lights it appears as a dull black; again, the same coat may look intense dark blue or blue of a light and bright shade. His mate is a very dull-plumaged bird showing no more marking or beauty of plumage than the female English Sparrow.

Their nests, which are built in bushes or clumps of weeds within a few feet of the ground, are quite compactly made of grasses. Their note of alarm is a sharp, energetic chirp or "ptchick," both birds perching near at hand and repeating it when you are in the vicinity of their nest. The male sings

FINCHES, SPARROWS

(599) *Passerina amoena*

(Say) (Lat., charming).



LAZULI BUNTING. *Ad.* ♂— Bright turquoise blue above, shading to lighter and duller on the back; breast, and sometimes the sides, yellowish-brown; wings with two bars formed by white tips to the greater and middle coverts. *Ad.* ♀— Shown by the bird on the left; grayish-brown above, tinged with blue on the rump; lower parts pale buff, brightening on the breast. Immature birds lack the blue on the rump and are somewhat streaked underneath. *L.*, 5.40; *W.*, 2.80; *T.*, 2.35. *Nest*— Of grasses, in bushes or weeds; eggs plain bluish-white, .75 x .55.

Range— Breeds from western N. Dak., southern Sask. and B. C., south to western Tex. and southern Cal.

often in spring and early summer but his song is rather weak in character, although it bears some resemblance to that of the Purple Finch.

INDIGO BUNTINGS, during the breeding season, occur in most of our range except the Gulf States. The female is a very demure little bird with a uniform brown upper parts and buffy white below, but the male is very gaily clad in an intense blue with a slightly greenish cast on the body and deeping to almost purple on the head. They frequent weedy and bush-covered fields or thickets, building their grass nests within a foot or two of the ground. The male is a most excellent songster and delivers his recital from the summit of bush or tree. The song quite closely resembles some parts of that of the Goldfinch and of the household canary. He frequently retains his perch for many minutes, repeating the song at quite regular intervals. While it is not unusual to see the male singing away with all his might from the tops of trees twenty to forty feet in height, I do not recall an

FINCHES, SPARROWS

(600) *Passerina versicolor*
versicolor (Bonap.) (Lat., various colored, as it certainly is).

VARIED BUNTING. *Ad. ♂* — Plumage as shown by the lower bird; head, shoulders and rump bright blue, becoming purple on the back and under parts; back of neck bright red. *Ad. ♀* — As shown by the upper bird; upper parts brownish, tinged with bluish on the wings and tail; under parts dull brownish-white. Young birds have buffy wing bars and are white below but have the breast strongly washed with brownish. L., 5.25; W., 2.60; T., 2.10; B., .40. *Nest* — Of grasses, bark and rootlets; in forks of bushes in thickets; three or four pale bluish-white eggs, .75 x .58.

Range — Lower Rio Grande Valley in Tex.



instance of ever seeing his mate perched even as high as ten feet above ground. Hers is a lowly position down among the bushes and the briars. In fact, it is quite unusual to discover a female Indigo anywhere except in the immediate vicinity of the nest. At all other times they are so very inconspicuous or conceal themselves so well that one rarely notices them.

LAZULI BUNTINGS, except in plumage, are the western counterparts of Indigo Buntings. Although common west of the Rocky Mountains, they are found to the eastward only in western Texas. They frequent the chaparral chiefly in the warm valleys of the Sonoran zone but, like Green-tailed Towhees, which are found in the same localities, they frequently follow the chaparral to higher zones. Their songs are unmistakably finch-like but not as sweet as that of the last species, having a well-defined burr to the notes something like the song of the Lark Sparrow.

VARIED BUNTINGS are a handsome species not

FINCHES SPARROWS

(601) *Passerina ciris*

(*Linn.*) (Gr., name for a kind of finch).

PAINTED BUNTING; NON-PAREIL. *Ad. ♂* — Plumage as shown by the lower bird, very brilliant and striking; head intense blue; eyelids, rump and entire under parts red, brightest on the throat and breast; back greenish-yellow. *Ad. ♀* — As shown by the upper bird; greenish-gray above and soiled whitish below; no conspicuous markings anywhere. *L.*, 5.25; *W.*, 2.70; *T.*, 2.15; *B.*, .40. *Nest* — Of grasses, leaves, bark and rootlets, compressed and woven together; in bushes, usually in tangled thickets; four whitish eggs, speckled and blotched with brown, .78 x .58.

Range — Southeastern U. S.; north to N. Car. and Mo. Winters in Bahamas, Cuba and southern Mexico.



uncommon in eastern Mexico but of only local and rare occurrence in southern Texas. In no respect do their habits differ from the more widely distributed and better known birds of this genus.

PAINTED BUNTINGS or **NONPAREILS**, as they are more commonly called, are characteristic finches of the Southern States. They are also, or were until of late years, quite well known in the Northern States as caged birds, for quantities of them were trapped and sold both in this country and in Europe. Fortunately the laws in nearly all our states have put an end to such traffic. Their song is similar to that of the Indigo Bunting but weaker and less interesting. They were sold more for the beauty and oddity of their plumage than for their musical abilities.

Nonpareils are more shy and retiring in their habits than Indigo Buntings. Instead of occupying a commanding position while singing, the males usually are concealed from view by the leafy outer branches of the bushes. Their nests,

FINCHES, SPARROWS

(602) *Sporóphila morelléti* *shárpei* Lawrence

(Gr., seed loving).

SHARPE'S SEEDEATER. Bill short, stout and convex. *Ad. ♂* — Plumage as shown by the lower bird; top and sides of head, back and a narrow band across the breast black; throat, sides of neck, under parts and rump white; bases of primaries and tips or edges of most wing feathers white; flanks brownish. *Ad. ♀* — Upper parts olive-brown; two buffy wing bars; below pale buffy-brown. L., 4.00; W., 2.05; T., 1.90; Tar., 60; B., .35. *Nest* — Of fine grasses; in bushes or small trees; eggs bluish-green, spotted rather evenly over the whole surface with reddish-brown, .65 x .48.

Range — Lower Rio Grande Valley in southern Tex., southward.



made of grasses, are normally placed in bushes or briers the same as those of Indigoes, but they have also been found in trees, ten feet or more above ground. The eggs are white, spotted with reddish-brown, thus differing greatly from those of other members of this genus, whose eggs are unmarked bluish-white.

SHARPE'S SEEDEATER is a curious little Mexican finch that is occasionally taken in the lower Rio Grande Valley and in southern Texas. They frequent thickets and brier patches and are said not to be unusually timid. Their nests, quite firmly constructed of wiry grasses, are placed among branches within a few feet of the ground, partially supported by the rim and also by the bottom. It appears to require several years for these birds to attain their perfect plumage and specimens with the breast band are rarely seen.

One of the commonest and most characteristic species of birds found in dry weedy fields of the Ohio and Mississippi

FINCHES, SPARROWS



(604) *Spiza americana* (Gmel.)

DICKCISSEL; BLACK-THROATED BUNTING. Bill stout and conical. *Ad. ♂* — Plumage as shown by the upper bird; upper parts chiefly gray or brown; posterior part of superciliary strip, short maxillary stripe and breast yellow; throat with a black patch, variable in size and shape and usually extending in a narrow line on either side of the chin to the bill; wing coverts largely chestnut. *Ad. ♀* — With no black and yellow, very pale or lacking; no conspicuous chestnut on the wing. L., 6.00; W., 3.25; T., 2.35; B., .55.

Range — Breeds from Ont., Mich. and Minn. south to Tex. and Miss.; of local occurrence east of the Alleghenies.

valleys is the **DICKCISSEL** or **BLACK-THROATED BUNTING**. These are rather handsome birds but the colors although attractively blended have the general faded, washed-out appearance that is quite usual with birds inhabiting such places exclusively. The male shown in our illustration is from an unusually bright specimen; the average one shows less black and less yellow. The female, which is of about the size and color of the female English Sparrow, is very inconspicuous, the more so because she usually keeps well concealed among the weeds. The male, however, can readily be seen for he perches in conspicuous places on tops of weeds, stalks, fence posts, or telegraph wires and chants his simple ditty for hours at a time. The song is not musical, neither is it displeasing to the ear especially when heard in extremely hot, dry weather when all other birds in the vicinity are silent. Transcribed to paper, it appears as “chip, chip, che-che-che” or “Dick, Dick, cissel.”

Their nests are nearly always built on the ground, but at

(605) Calamospiza melanó-corys Stejn.

(Gr., a reed, a finch; black lark).

LARK BUNTING. *Ad. ♂* — In summer wholly black, except the wing coverts and edges of tertials, which are white. *Ad. ♀* — Above grayish-brown, streaked with black; wing patch small and tinged with buff; under parts dull white, streaked on the breast and sides. *♂ in winter* — Similar to the female but feathers of under parts are black basally and often show through; chin blackish., L., 6.50; W., 3.40; T., 2.60; B., .55. *Nest* — Of grasses; on the ground in tufts of grass or concealed under shrubs; four or five bluish eggs.

Range — Plains from Sask. and Alberta south to N. Mex. and Tex.; east to Neb.; accidental in Mass.



times are raised a few inches above in weeds or thistles. The female does not leave the nest until almost stepped upon and then makes comparatively little fuss.

On the eastern slope of the Rocky Mountains, another species of bunting lives, namely the LARK BUNTING. Most ground-inhabiting birds have more or less color protective plumage but the males of this species need no brass band to advertise their presence for their black and white coats stand out boldly against any background upon which they naturally are found. Such a plumage would prove fatal to the species if it were worn by the female too, but fortunately she is clothed in a demure "sparrow" brown, but, in order that she may not be mistaken for any common sparrow, she has patches of white on her wings to proclaim, in an unobtrusive manner, her proper identity. In winter the male, too, looks like her.

Lark Buntings are excellent songsters. All their notes are musical. Their call is a sweet, soft, cheery "hoo-ee," given

TANAGERS



(608) *Piranga erythromelas*

(Vieill.) (Gr., red and black).

SCARLET TANAGER. Bill stout and slightly notched on the cutting edge of upper mandible. *Ad. ♂* — As shown by the lower bird; scarlet and black. *Ad. ♀, and Im.* — As shown by the upper bird; greenish-yellow above and paler below; wings and tail darker. *Ad. ♂ in winter* — Similar to the female but with black wings; at other seasons mixed with red and yellow. L., 7.25; W., 3.75; T., 3.00; B., .60. *Nest* — Of twigs and rootlets; on lower limbs of trees; four greenish-blue eggs, spotted with reddish-brown, .95 x .65.

Range — Breeds from N. B., Ont. and Sask. south to Va., Tenn. and Neb. Winters on the east coast of Central America, migrating through Cuba.

with a rising inflection. The most pleasing song is one delivered while on the wing — a flight song like that of the Bobolink or the famous Skylark.

FAMILY TANAGARIDÆ. TANAGERS

A large family of exceptionally brilliantly plumaged birds found only in North and South America. Only five of the more than three hundred known species reach the boundaries of the United States, most of them being exclusively tropical. Our species have pleasing songs, for which we should be duly thankful for the majority of this family are very poor songsters.

Almost every one is familiar with the SCARLET TANAGER, at least from pictures. The males are exceedingly beautiful birds although gaudily colored. The dull-colored females, however, are less widely known, for they are less

(610) *Piranga rúbra rúbra*

(Linn.) (Lat., red).

SUMMER TANAGER; SUMMER REDBIRD. *Ad. ♂* — Rosy-red as shown by the lower bird; brightest on the head and breast; wings and tail darker. *Ad. ♀, and Im.* — As shown by the upper bird; upper parts orange olive-green; below orange-buff; wings and tail darker. The male retains the same colors summer and winter, but immature males are often mixed with red and yellow. L., 7.50; W., 3.75; T., 2.90; B., .70. *Nest* — Of twigs, weeds and rootlets; on horizontal limbs of trees, six to fifty feet above ground; four bluish-green eggs, spotted with brown.

Range — Breeds from Md., Ohio, Ind. and Wis. south to the Gulf and Mexico.



often seen and are rarely figured in pictures showing this species.

Tanagers are preëminently woodland birds, but one of the finest sights it ever was my lot to see occurred on a May 12th, when the migration was at its very height. It had rained during the previous night but the morning in question saw the sun out bright and clear. While passing a certain freshly ploughed field, my astonishment was unlimited when I discovered in with the hosts of sparrows and many bluebirds feeding along the furrows, not less than twenty bright male Scarlet Tanagers and nearly as many Blackburnian Warblers. Such a combination of bright colors and comparatively rare birds, I had never seen before, nor have I since. Yet a friend of mine, on the same morning, in a place ten miles distant, saw nearly as many of these same birds in a similar situation.

This species has, as a call note and as a note of alarm when any one is approaching their nesting site, a characteristic

SWALLOWS



(611) *Prógne súbis súbis*

(Linn.) (Gr., a mythological character).

PURPLE MARTIN. *Ad.* ♂ —

Intense steely-blue as shown by the upper figure; wings and tail less lustrous. *Ad.* ♀ — Upper parts sooty blackish with slight gloss on back; below grayish-white, streaked especially on the chest with sooty. L., 8.00; W., 5.80; T., 3.35. B., .50, stout and broad at base.

Range — Breeds from southern Canada south to the Gulf coast and Mexico. Winters in Brazil.

(611.1) *Progne cryptoleúca* Baird

CUBAN MARTIN. Occasional in southern Fla.

(611.2) *Progne chalýbea* (Gmel.)

GRAY-BREASTED MARTIN. From southern Tex. south to Brazil.

“chip-churr.” The song is a very unusual one, so that, having once heard it, any one can very readily go into our northern woods and discover several of these birds any morning in spring or summer.

If depending upon sight alone, one might hunt for years without seeing a tanager. Although the plumage is so brilliant of itself, it is really quite inconspicuous when seen among green leaves spotted with sunlight that filters through the outer branches.

SUMMER TANAGERS, common in summer in southern woodlands, are duller red and nearly uniform in coloring. Their habits are the same as those of the northern bird but their songs are even more Robin-like in character, — clearer and rounder, with little of the grating burr of that of the Scarlet Tanager. The call note is very peculiar, of three notes instead of two as in that of the last species. The interpretation given by Chapman, of “chicky-tucky-tuck,” fits it quite closely.

SWALLOWS

(612) **Petrochelidon lunifrons**
lunifrons (Say) (Gr., rock swallow;
Lat., crescent forehead).

CLIFF SWALLOW; EAVE SWALLOW. *Ads.* — Plumage as shown; crown, back, wings and tail glossy steel-blue; forehead light buff; throat chestnut, fading into deep buff on the under parts; nape and upper tail coverts buff; a steel-blue spot on the chest. *Im.* — Much duller colored; throat blackish, more or less mottled with white. L., 5.75; W., 4.40; T., 2.15. *Nest* — A flask-shaped structure made on pellets of mud; lined with grass; entrance on the side.

Range — Breeds through the U. S. and most of Canada. Winters in South America. (612.1) **CUBAN CLIFF SWALLOW** (*P. fulva*), occurred accidentally on Dry Tortugas, Fla.



FAMILY HIRUNDINIDÆ. SWALLOWS

About eighty species of swallows are distributed throughout the world. They are characterized by their long wings, adapted to a life largely spent in coursing the air, and the small feet, which are able to grasp only the smallest of twigs. Their food is almost exclusively insectivorous — living insects, captured in flight. Consequently their range at various seasons is determined by the abundance or scarcity of the food they must have.

PURPLE MARTINS, the largest of our swallows, are very abundant in the Southern States and locally abundant in northern states and southern Canada. Even before the advent of white men to this country, the Indians suspended gourds in trees about their camps and these were annually occupied by Purple Martins. The practice has been continued ever since and martin houses, varying in size and pretension from the simple gourd to many-roomed palaces

SWALLOWS



(613) **Hirúndo erythrogastra**

Bodd. (Lat., a swallow; Gr., ruddy belly).

BARN SWALLOW. Tail deeply forked. *Ads.*—Upper parts deep, glossy, steel-blue with purplish reflections; forehead and throat bright chestnut, fading to deep ruddy-buff on the under parts; all outer tail feathers with a white spot near the end of the inner web. *Im.*—Tail less forked and plumage paler and less lustrous. L., 6.90; W., 4.75; T., 4.00, forked about 2.00. *Nest*—A half-bowl of pellets of mud, lined with grass and feathers; attached to the sides of beams in barns or other buildings, or on the sides of caves.

Range—Breeds from Alaska and southern Canada south to N. Car., Ark. and southern Cal.

costing hundreds of dollars, are commonly seen. Of course all martins cannot have modern houses, so the majority of them still continue to nest in hollow trees. They are communistic and as many will nest close together as there are accommodations for.

Beautiful in plumage, graceful in flight and useful in its habits, what more could one ask of a bird? But one thing—a sweet song. Purple Martins are most persistent singers, but no one can say that they possess any great skill in musical art. Yet their songs are not displeasing, and that is more than can be said of some birds—a succession of warbles, gurgles, and creakings, having a grating rather than a twittering character like the songs of most swallows.

Many of the swallows are rather remarkable in their nesting habits, especially in the construction of their homes. None are more so than **CLIFF** or **EAVE SWALLOWS**. In settled communities, these swallows generally attach their nest to the sides of barns or outbuildings, just under the

SWALLOWS

(614) *Iridoprocne bicolor*

(*Vieill.*) (Gr., mythological characters, also the rainbow; Lat., two-colored).

TREE SWALLOW; WHITE BELLIED SWALLOW. *Ads.*— Entire under parts pure white; whole upper parts steel-blue with greenish reflections; loreal spot black. *Im.*— Upper parts brownish-gray; under parts dull white. Tail barely forked. L., 5.90; W., 4.60; T., 2.40. *Nest*— Of grasses, lined with feathers; in cavities of trees or in bird boxes; four or five clear white eggs, .75 x .52.

Range— Breeds from Va., Mo. and Cal. north to Ungava, Keewatin and Alaska. Winters from N. Car., the Gulf States and Cal. southward. (615.1) **BAHAMA SWALLOW** (*Callichelidon cyaneoviridis*) is accidental in southern Fla.



eaves; hence their local name. These nests, made externally of pellets of clayey mud are gourd-shaped and have an entrance on the side; this entrance is variable, but in the best examples of Eave Swallow architecture protrudes in a prominent neck through which the birds enter and leave. The interior of the abode is lined with grasses and feathers. In the west, where there are not nearly enough buildings to accommodate the swallow population, they continue to be typical Cliff Swallows and attach their mud homes to the faces of cliffs. They are very gregarious, some cliffs having thousands of nests plastered to them, often with no spaces between.

BARN SWALLOWS might almost be said to be semi-domesticated especially in the east where nearly all of them nest *inside* of barns or other buildings. Access is gained through a broken window or the big barn door. Some farmers every spring remove one or more panes in upper windows just to provide doors for the entrance of the swal-

SWALLOWS



(616) *Riparia riparia*

(Linn.) (Lat., riparian loving the banks of a stream).

BANK SWALLOW. Tarsus with a small tuft of feathers below, near the insertion of the hind toe. Plumage as shown by the bird on the left; brownish-gray above; dull white below, with a breast band sharply defined against the throat. L., 5.25.

Range — Breeds throughout U. S. and Canada.

(617) *Stelgidopteryx serripennis* (Audubon). (Gr., scraper wing; Lat., saw feather).

ROUGH-WINGED SWALLOW. Outer web of outer primaries with sharp, hooked saw-teeth barbules. Throat and breast gray. L., 5.50. Breeds from Mass., N. Y., Minn. and B. C. southward.

lows. The nests are plastered against the sides of rafters, usually where a nail, a knot, or projecting splinter can be utilized to help hold it in place. It is composed of pellets of mud and is half-bowl shaped, the top being open; the interior is lined with grass and has a layer of feathers to help keep the eggs warm. The eggs are just like those of the last species, white, speckled with reddish-brown, these being the only ones of our swallows that lay other than pure white eggs.

This species and Eave Swallows are very often confused by observers. As the last one has a square tail with no white spots, and a buff-colored rump, while the present species always has white spots on a forked tail, it should be easy to identify them whenever or wherever they are seen.

Earliest of the swallows to arrive in the Northern States are the vivacious **TREE SWALLOWS**, so named because they normally nest in cavities of trees. They are not as gregarious as other species, probably because they are rather quarrelsome in disposition. While they often nest in small bird

(618) *Bombycilla garrula**(Linn.)* (Lat., garrulous, a chatterer).

BOHEMIAN WAXWING. Head crested. Bill rather broad and flat; notched near tip of each mandible. Apparently only nine primaries, the first being very minute. *Ads.*—Plumage as shown. Black throat patch, sharply defined behind; wings with white and yellow markings as shown; secondaries often tipped with enlarged, red, horny, sealing-wax-like appendages; crissum chestnut; no yellowish underneath. L., 7.75; W., 4.50; T., 2.80. *Nest*—Of twigs and moss, lined with feathers; at low elevations usually in coniferous trees.

Range—Boreal zones. Breeds from Alberta and B. C. northward; winters south irregularly to Conn., Pa., Ill. and Cal.



houses or in orchard trees, they show a marked preference for dead trees with suitable cavities, leaning over water.

We have seen that Purple Martins nest in bird houses or hollow trees; Cliff Swallows nest on the faces of cliffs or the outside of buildings; Barn Swallows inside of buildings or in caves; Tree Swallows in bird houses or hollow trees. We now come to a small dull-colored swallow, the Bank Swallow, which nests only in holes in banks. They nest in colonies, in some places the soil being honeycombed by the burrows dug by the birds, too small to insert the hand and extending in about two feet; at the end is a larger chamber, which they line with grass to receive the white eggs. Notice that this species has a conspicuous band of gray or brown across the chest, this readily distinguishing them from the ROUGH-WINGED SWALLOWS which nest in similar places, but have an average more southerly distribution. This last species is so named because the outer web of the outer primary is very rough and saw-toothed.

WAXWINGS



(619) *Bombycilla cedrorum*

Vieill. (Lat., the cedar).

CEDAR WAXWING; CHERRY BIRD; CEDAR BIRD. Plumage as shown — chiefly soft brown and gray; chin blackish, but no conspicuous throat patch; no white or yellow on wings; belly and crissum yellowish; secondaries often and a few tail feathers less often, tipped with the red sealing-wax-like appendages; tail broadly tipped with yellow. L., 7.00; W., 3.70; T., 2.45. *Nest* — Of twigs, moss, rootlets, twine, etc., lined with fine grasses; at low elevations in trees, often in orchards; four dull bluish-gray eggs, with a few sharp black specks, .85 x .60.

Range — Breeds from southern Canada south to N. Car., Ark. and Ore. Winters throughout the U. S.

FAMILY BOMBYCILLIDÆ. WAXWINGS

A small family of crested birds with short, flat bills, long wings and usually with sealing-wax-like appendages to the tips of many of the secondaries and often of the tail feathers.

BOHEMIAN WAXWINGS, the largest of our two species, are found in boreal regions throughout the northern hemisphere. They are classed as among our most mystifying birds. During some winters, great numbers of them appear in our Northern States and then do not return for many succeeding winters. In the Western States they are more regular in their appearance. There is little chance of confusing this species with the next, very common one, if it be but remembered that the Bohemian always has more or less white or yellow on the wings, while the Cedar Waxwing has no color or marking other than the wax appendages. The present species also has a black throat and bright chestnut under tail coverts.

SHRIKES

(621) *Lanius borealis* Vieill.

(Lat., a butcher; northern).

NORTHERN SHRIKE ; BUTCHER-BIRD. Lores and nasal tufts never wholly black. *Ads.*—Plumage as shown, the sexes being similar but the ♀ a little duller plumaged. Sides of head, wings and tail blackish; outer tail feathers white-ended; white patch at base of primaries; lores grayish-black; under parts dull whitish, barred or undulated with grayish. *Im.*—Markings similar but plumage largely washed with brownish. L., 9.75; W., 4.65; T., 4.70; B., .75; Tar., .90. *Nest*—A bulky structure of twigs and weeds, lined with feathers; in thickets.

Range—Breeds in the greater part of Canada; winters in the northern half of the U. S.



CEDAR WAXWINGS are well known, often as Cherry Birds, throughout the temperate parts of our continent. Many of them remain in our Northern States during the winter. Although they are not gregarious to the extent of nesting close to one another, small flocks of them can be found feeding together at all seasons. They devour a great many worms and caterpillars, and often dart out into the air after passing insects, as flycatchers do; they also eat many berries, especially cherries, either wild or cultivated. Silence is sometimes a virtue, but Cedar Waxwings carry it to extremes. Their only note is a weak lispng "tsee." As they are not capable of making a noisy demonstration when their homes are disturbed, they simply sit among the branches higher up and make no sound at all. They nest later than most species, usually not commencing the construction of their homes until the latter part of June. The nests are made of twigs, weeds, grass, and moss and can frequently be found in orchard trees.

SHRIKES



(622) *Lanius ludovicianus* *ludovicianus* Linn.

LOGGERHEAD SHRIKE. The southern form of the next sub-species, which has a wider distribution and is a trifle larger.

Range — South Atlantic and Gulf States.

(622e) *Lanius ludovicianus* *migrans*

PALMER. MIGRANT SHRIKE. Plumage as shown; lores, sides of head, wings and tail jet black; outer tail feather broadly tipped with white; tips of tertials and bases of primaries white; whitish below, unmarked. L., 9.00; W., 4.00; T., 4.10; B., .65.

Range — Breeds from N. B., Me., Ont. and Minn. south to southern Ill. and N. Car. Locally distributed in the east.

FAMILY LANIIDÆ. SHRIKES

A family comprising about two hundred species nearly all of which are found in the Old World. They all agree in having large, strong bills notched or toothed on the side and hooked at the tip.

We have two distinct species, the NORTHERN SHRIKE, which is distinguished by the light barring on the under parts of the adults and a smaller species, *ludovicianus*, which is pure white below. This latter species is divided into five races, three of which occur west of the Rockies. **LOGGERHEAD SHRIKES** are found in the Southern States and the **MIGRANT SHRIKE** in the northern ones. Northern Shrikes breed in Canada and occur in the Northern States only during winter. The habits of all the species are practically the same but possibly the larger one is a little more rapacious.

Shrikes are usually regarded as very cruel birds and at

VIREOS

(623) *Vireosylva calidris barbátula* (Cab.)

BLACK-WHISKERED VIREO.

Similar to the next species but with a dark streak on either side of the throat. Southern Fla., the Bahamas and West Indies.

(624) *Vireosylva olivacea*

(Linn.) (Lat., green woods; olive-colored).

RED-EYED VIREO; GREEN-LET. Plumage as shown; top of head gray with a narrow black border on the sides, separating it from white superciliary stripes; upper parts olive-green; below dull whitish. L., 6.25; W., 3.20; T., 2.25; B., .65. Nest — Of bark and fibres, lined with bark and grasses; suspended in forks of bushes; eggs white with few black specks.

Range — Breeds throughout the U. S. and southern Canada.



times they are. At other times they are economically of great value for they kill great quantities of insects, especially grasshoppers. They have a habit of transfixing these, and also small birds, many of which they kill in winter when other food is scarce, on thorns. Sometimes this is done to hold their prey while they tear it to pieces and at other times it is merely to preserve the quarry for future use as they commonly kill more than they can eat. During winter, they are practically fearless and will come into cities and capture English Sparrows. If they would confine their diet to these birds, I am sure that most of us would like to see them come more often. I once saw one strike a sparrow down, in the street, and it was so engrossed in its work that it allowed me to pick it up and carry it to the house, where it continued its repast as I held the sparrow in my hand.

However one many regard shrikes at other seasons, every one admits that they are model birds during the nesting season. They are very devoted to one another and to their

VIREOS



(626) *Vireosylva philadelphica*
Cassin.

PHILADELPHIA VIREO. As shown by the upper bird; entire under parts a pale yellowish; upper parts olive-green; a dull superciliary line. L., 4.80. W., 2.60; T., 1.95.

Range — Breeds in Me., N. B., Ont., Mich. and Man. Winters in Central America. Rare and local.

(627) *Vireosylva gilva gilva*
(*Vieill.*) (Lat., yellowish).

WARBLING VIREO. Shown by the lower bird; olive green above, grayest on the head and yellowest on the rump; below whitish, washed with yellowish on the sides. L., 5.40; W., 2.75; T., 2.25.

Range — Eastern North America; breeds from southern Canada south to the Gulf.

offspring. Their rather bulky nests of twigs and weeds, lined with feathers, are placed at low elevations in thorny thickets.

Shrikes have many clear, pleasing whistles as well as some squeaking, unmusical notes. In fact, the Northern Shrike is no mean imitator, being nearly the equal of the jay in that respect.

FAMILY VIREONIDÆ. VIREOS

Vireos are found only in the New World, about fifteen of the fifty-odd species being found in the United States. They are birds of deliberate movements and usually pleasing songs, spending most of their time among dense foliage, from which they glean their fare of insects. Their bills are shaped somewhat like those of shrikes — that is, notched and hooked at the tip, but not for the same use.

RED-EYED VIREOS are among the most common and

(628) Lanivireo flavifrons*(Vieill.)* (Lat., yellow-fronted).**YELLOW-THROATED VIREO.**

Bill slightly more hooked than the preceding species. No apparent spurious primary. Plumage as shown; bright olive-green above, changing to grayish on the rump and tail; superciliary line, sides of head, throat and breast yellow, fading to white on the belly and crissum; two white wing bars. L., 5.90; W., 3.00; T., 2.10.

Nest — Of bark, plant fibres and lichens, lined with fine grasses; suspended in forks ten to fifty feet up; eggs creamy-white, with a few reddish-brown specks, .82 x .60.

Range — Eastern North America, breeding from southern Canada south to the Gulf. Winters south of Mexico.



best known species of birds in the east. They are sometimes called "Preacher Birds" because of the deliberate delivery and peculiar phrasing of their song, excellently written by Wilson Flagg as, "You see it — you know it — do you hear me? — do you believe it?" I know of no other bird that is so persistent in its song. During spring and summer these short phrases are uttered nearly all day long until they sometimes become very monotonous, particularly so when you are trying to identify some other species by its song.

The Red-eye is usually identified by its song; its plumage is diagnostic however for the gray crown is narrowly bordered by black, above a conspicuous superciliary stripe. The eye is far from being red, but is of a reddish-brown shade, rather brighter than that of other vireos.

Their nests are skilfully woven baskets of strips of bark and flat fibres, lined with vine tendrils, suspended by the rim from forks of bushes or trees, usually not high up.

WARBLING VIREOS are very common and widely dis-

VIREOS



(629) *Lanivireo solitarius solitarius* (Wilson)

BLUE-HEADED VIREO; SOLITARY VIREO. Plumage as shown; top and sides of head blue-gray; middle of back bright olive-green; lores, eye-ring and throat clear white; under parts and two wing bars dull whitish; flanks quite yellowish. L., 5.60; W., 2.80; T., 2.20. *Nest* — Of fibres and bark, lined with grasses and pine needles; suspended in forks from three to ten feet up; eggs creamy white, with chestnut specks, .80 x .52.

Range — Breeds from Mass., Pa., Mich. and Minn. north through southern Canada.

(629d) *L. s. alticola* (Brewster)

MOUNTAIN VIREO. Found in the Alleghenies from western Md. to Ga.

tributed in our country. In plumage, they are very inconspicuous, there being neither any black head marking nor any well-defined superciliary stripe, but the flanks are tinged with yellow, contrasting with the otherwise soiled white under parts. They can best be identified in life by their song which is a lively warble of a few seconds' duration, sounding considerably like the song of the Purple Finch — so near like it as to confuse a great many bird students. Warbling Vireos swing their compact little baskets higher up in taller trees than are commonly used by the last species. The PHILADELPHIA VIREO is one of the rarest of eastern vireos. Its song is quite like that of the Red-eye, but its plumage nearest resembles that of the Warbling, but it can usually be identified in life since the under parts are a uniform pale yellowish.

YELLOW-THROATED VIREOS are a handsome species easily identified by plumage and also by song. The song is even more deliberate than that of the Red-eye and the pauses

VIREOS

(630) *Vireo atricapillus*

Woodhouse (Lat., black hair).

BLACK-CAPPED VIREO. *Ad.*

♂ — As shown by the nearer bird; top and sides of head black, enclosing a loreal streak and eye-ring of white; back olive-green; wing bars yellowish-white; below dull white. *Ad.* ♀ — Similar but duller, the dark portions of the head being grayish. *Im.* — Top and sides of head dull brown; lores and orbital ring dull buffy; below buffy-white. L., 4.70; W., 2.25; T., 1.90. *Nest* — Made of bark, fibres and moss, closely woven with spider webs and lined with fine grasses; suspended by the rim from forked branches at low elevations; eggs pure white, unmarked, .70 x .52.

Range — Breeds from southwestern Kan. south to central and western Tex. Winters in Mexico.



between are very much longer. It has a double-toned contralto quality and, if we listen a few minutes, we are sure to hear the singer insert a pretty little trill. Their nests are not different from those of Red-eyed Vireos but the eggs are cream-colored and the few spots are of a brighter reddish-brown.

All the vireos pass the winter in warmer climes, chiefly in Central America. Two species return to the Northern States several weeks in advance of the others, the last and BLUE-HEADED VIREOS, which I regard as the handsomest and most winning member of the family. Although often known as Solitary Vireos, they are no more solitary in their habits than most other species. Their songs are quite like those of the last species but more variable and not as clear toned; frequently the song will be interrupted by a chattering note like that of an oriole or by a happy little trill. They are never timid and during nesting are often quite tame. I have repeatedly been allowed to stroke sitting

VIREOS



(631) *Vireo griseus griseus*

(Bodd.)

WHITE-EYED VIREO. Iris white. Plumage as shown; upper parts bright olive-green; wings with two whitish bars; lores, forehead and orbital ring bright yellow; throat and breast white; sides and flanks bright yellowish. L., 5.00; W., 2.40.

Range — Eastern U. S. from Mass. and Wis. south to the Gulf. Winters south from the Gulf States.

(631a) *V. g. maynardi*

KEY WEST VIREO. Southern Fla.

(633) *Vireo belli belli* Audubon

Ashy-gray, changing to olive-green on the rump; lores and eye-ring whitish; yellowish on the sides. L. 4.70. From Ill. and S. Dak. south to Mexico.

birds before they would leave the nest. Their nests, which are suspended from forks of bushes or trees at low elevations, are basket-shaped like those of the Red-eye, but the exterior is often decorated with lichens or catkins.

BLACK-CAPPED VIREOS occur rarely and locally north to Kansas and are common nowhere during breeding season unless possibly in western Texas. They are rather more active than any of the preceding species, their habits and songs both partaking of the character of those of the following one.

WHITE-EYED VIREOS, which by the way are correctly named, for they actually do have white eyes, are very abundant in the Southern States but only casual or local in their distribution in northern ones. They frequent bushes or thickets from which retreats they are more often heard than seen. They are as secretive as Chats and their songs are as varied and astonishing, consisting principally of loud clear whistles and chuckings. Different individuals have

WARBLERS

(635) *Coeréba bahaménsis*

(Reich.)

BAHAMA HONEY CREEPER.
Casual on Indian Key, Fla.

(636) *Mniotilta vária*

(Linn.) (Gr., moss, I pluck; Lat., variegated).

BLACK AND WHITE WARBLER; BLACK AND WHITE CREEPER. Plumage as shown. Notice that the ♂, the lower bird, has a blackish ear patch and is conspicuously streaked below, while the ♀ has few streaks on the sides; a white spot terminates the inner webs of outer tail feathers. L., 5.25; W., 2.60; T., 2.00.

Range — Eastern North America; breeds from southern Canada south to the Gulf. Winters to northern South America.



different calls but all are of similar character. The one I have heard most often in Virginia where these birds abound is a loud "chic, too, wee-o," astonishingly loud and clear from so small a bird.

Their nests are built near the ground and, as a rule, are less carefully made than those of other species. These vireos chatter and scold even more than Red-eyes when any one is in the vicinity of their nest.

BELL'S VIREO is a small species, less conspicuously marked than the White-eyed, which species it resembles more than any other. Its habits and song are almost like those of the last species too. It is very abundant from Nebraska to Texas.

FAMILY MNIOTILTIDÆ. WARBLERS

The members of this interesting family are found only in the New World. About seventy of the hundred or more known species are found within the United States. As a rule they are poor songsters, but all of them have distinctive

WARBLERS

(637) *Protonotaria citrea*

(*Bodd.*) (Lat., pertaining to the citron, yellow).



PROTHONOTARY WARBLER; GOLDEN SWAMP WARBLER. Bill large and sharply pointed. *Ad.* ♂ — Plumage as shown by the upper bird; whole head, neck and under parts rich orange-yellow, lighter on the belly; back greenish, shading to ashy-gray on the rump and tail; inner webs of outer tail feathers white except on the tips. *Ad.* ♀ — Duller colored and with the crown and nape more or less olive-green, like the back. L., 5.50; W., 2.90; T., 1.85. *Nest* — Of rootlets, moss, leaves and grasses, in hollow stumps often over water.

Range — From Md., Ohio and Mich. south to the Gulf. Winters in Central America. Casual north to New England.

notes that will identify them even without seeing. The sexes are in most instances very different in plumage.

BLACK and WHITE WARBLERS are very distinctive in habits, in plumage, and in song. In eastern woods or swamps we can, at almost any time during spring or summer, hear a thin, wiry lisping “seeee-seeee-seeee.” If we follow up the sound we will find one of these black and white birds creeping nimbly up, down or around the branches or trunk of some tree or shrub. If we watch his mate, who is easily recognized by the more sparingly striped under parts, we may see her pick up a leaf or strip off a piece of bark and carry to the base of some shrub or stump, there to be skilfully placed in her cute little nest. These nests are difficult to find unless we do locate them in process of construction, for it is almost impossible to see the sitting bird, so small is the entrance to the nest and so quietly does she sit. One bird allowed me to approach close enough to open up the top of the nest so I could see her plainly, set up a camera and make a picture of her without leaving.

WARBLERS

(638) *Helinaia swainsoni*

(Audubon) (Gr., marsh dweller).

SWAINSON'S WARBLER. Bill large, long and pointed. *Ads.*— Plumage as shown. Crown cinnamon-brown; back, wings and tail olive-brown; a dull white line over the eye and a short dusky streak through it; under parts dull white, with a more or less yellowish tinge. *Im.*— Similar but browner above and yellower below than the adults. L., 5.25; W., 2.75; T., 1.95; B., .70. *Nest*— Of strips of bark and leaves, lined with fine grasses or pine needles; in bushes, vines or rushes close to the ground; four or five plain white, unmarked eggs, .75 x .54.

Range— Southeastern U. S.; north to Va., southern Ill. and Mo. Winters in Jamaica.



PROTHONOTARY or GOLDEN SWAMP WARBLERS are not uncommon in southern swamps, in dark murky situations in striking contrast to what one would expect for birds of such exquisite plumage. As they creep about through the grass or twigs just above the water or run over tiny mud flats or along the edges of pools, their plumage seems even more golden against the dark backgrounds. Usually one considers himself fortunate if he can locate a single pair of these warblers, but I have been so favored as to sit upon a log on the edge of the Dismal Swamp and watch no less than a dozen of them in sight at a time, while their rather loud songs, resembling the syllables "tweet, tweet, tweet, tweet" resounded joyously on every hand. I found several of their nests in holes on dead stumps projecting above or leaning over the water, the cavity being partially filled with twigs and moss and then lined with plant down and feathers.

SWAINSON'S WARBLER is a comparatively rare species found in the Southeastern States, chiefly in swamps and

WARBLERS



(639) **Helmitheros vermivorus** (Gmel.) (Gr., a bug to hunt; Lat., worm eating).

WORM-EATING WARBLER. Bill stout and high at the base; long and acutely pointed. *Ads.* — Plumage as shown. A black line through the eye and one on either side of the orange-brown crown; upper parts olive-greenish with no markings on wings or tail; below a dull, buffy-white, lightest on the throat. Immature birds are browner above but have the distinctive markings on the head. L., 5.50; W., 2.80; T., 2.10. *Nest* — Of leaves, rootlets and strips of bark; on the ground; eggs white, spotted chiefly about the large end with brown, .70 x .55.

Range — Breeds from Conn., Pa., northern Ill. and Ia. south to Va.

exclusively in such places during the nesting season. In the Mississippi Valley they range locally as far north as Missouri and on the Atlantic coast to the Dismal Swamp in Virginia. The centre of their abundance is apparently in canes in swamps of South Carolina and Georgia. They are at most times rather silent but the male has an excellent song that he utters when the mood comes upon him. It is a loud, ringing melody quite similar to that of the common Water-Thrush.

Their nests, which are almost always in canes over or close to water, are quite bulky affairs, made of various leaves with the stems pointing upward, and lined with pine needles and moss. The eggs are pure white and unmarked, which is quite unusual for members of this family.

The sexes of this species are alike in plumage as are also those of WORM-EATING WARBLERS, which species is quite abundant in eastern United States as far north as Connecticut and Nebraska. These warblers are easily recognized when seen by the prominent striping of the crown in

WARBLERS

(640) *Vermivora bachmani*

(Audubon) (Lat., worm eating).

BACHMAN'S WARBLER. Bill very acute and slightly decurved. *Ad.* ♂ — Plumage as shown by the nearer bird. Forehead, face, entire under parts and lesser wing coverts bright yellow; nape grayish; back and wings olive-green; black breast patch and crown; outer tail feathers with white spots in the middle of the inner webs. *Ad.* ♀ — Much duller colored; no breast patch; crown gray like the nape. L., 4.30; W., 2.40; T., 1.80. *Nest* — Of grasses, leaves and strips of bark; on or close to the ground; eggs white, with a wreath of brown spots about the large end.

Range — Southeastern U. S.; known to breed in Mo., Ark., and Ky. and S. Car. Winters in Cuba.



connection with an otherwise obscurely marked body. However, they are so silent and quiet in their habits that usually a close watch is necessary in order to locate them. They are rarely seen at any great height from the ground and delight in creeping about the trunks of leaves after the fashion of Black and White Warblers.

Their song is very indifferent, like a very weak imitation of that of the Chipping Sparrow, often so faintly given that it is difficult to hear even at a short distance. Their nests, composed of leaves, lined with the red stems of hair moss and sometimes with fine grasses, are always placed on the ground usually at the foot of bushes or stumps on wooded hillsides.

BACHMAN'S WARBLERS are rather rare birds with a quite unique history. First found near Charleston, South Carolina, in 1833, they remained practically unknown for the next fifty years and then only a few scattering individuals were taken in the Southeastern States until the first nest was

WARBLERS

(641) *Vermivora pinus*

(Linn.) (Lat., a pine).

BLUE-WINGED WARBLER.

Ads. — Plumage as shown by the lower bird. Sexes similar but the ♀ is somewhat duller plumaged; two white wing bars; head and under parts yellow; a short loral stripe; three outer tail feathers with large white spots on the inner webs. L., 4.75. *Nest* — Of leaves and strips of bark; on the ground; eggs white sparingly spotted with rufous, .65 x .50.

Range — Breeds from Conn. and Wis. southward to Md. and Mo. Winters south from Mexico.

Vermivora pinus + *V. chrysoptera* = *Vermivora lawrencei*. LAWRENCE'S WARBLER. Shown by the upper bird. This hybrid is occasionally taken in the eastern parts of the range, especially in Conn.



discovered in Missouri in 1897. Since they have been found breeding in Kentucky and in South Carolina. The nests are located low in bushes, briars, or canes and are made of dead leaves and lined with black fibres or rootlets. The eggs are pure white, unmarked. Its haunts are chiefly wooded swamps. The song considerably resembles that of the Worm-eating Warbler, which in turn resembles that of the Chipping Sparrow. The song is usually uttered while the bird is perched in the tops of trees and the singer, being so small, is very difficult to locate.

There are two pretty little warblers whose life histories intermingle curiously, the BLUE-WINGED and the GOLDEN-WINGED WARBLERS. They are of the same size and form but quite different in plumage as may be seen by the illustrations, the former species of which is shown by the lower bird on this page and the latter on the following page.

Blue-winged Warblers are usually met with in clearings or

WARBLERS

(642) *Vermivora chrysóptera*

(Linn.) (Gr., golden wing).

GOLDEN-WINGED WARBLER.

Ad. ♂ — Plumage as shown by the lower bird. Crown and wing patch bright yellow; rest of upper parts bluish-gray; black patch on side of head and on throat; three outer tail feathers with large white patches on the inner webs; under parts white.

Ad. ♀ — As shown by the upper bird; duller colored, the black being replaced by gray. L., 4.75.

Range — Breeds from Mass., Ont. and Minn. south to N. J., Ind. and Ia. Winters in Central America.

V. chrysóptera + *V. pinus* = *V. leucobronchialis*. BREWSTER'S WARBLER, a more common hybrid. Like the present species with the black replaced by that of the last.



the outskirts of open woods, particularly those that are grown up to weedy patches. Their nests are located on the ground often in a bunch of weeds or at the base of a shrub. They are composed outwardly chiefly of dead leaves with the points up, deeply cupped and lined with shreds of bark.

Their song has a peculiar insect-like quality which makes it difficult to notice except to trained ears. It is a "zre-e-e-e-e, ze-e-e-e-e," with a shrill buzzing quality.

The range of the Golden-winged Warbler covers that of the last and extends a couple of hundred miles farther north. They are rather locally distributed and difficult to find unless one becomes familiar with their song. The Golden-wing song is of the same quality as that of the last species, but it consists usually of four notes, a "zree-e-e-e, zee, zee, zee," the last three of which are lower in pitch.

They are chiefly found, except during migrations when they may appear in any sort of haunt with other warblers, in open springy woods or ones through which winds a sluggish

WARBLERS



(645) *Vermivora rubricapilla*
rubricapilla (Lat., red hair).

NASHVILLE WARBLER. *Ad.* ♂ — As shown by the upper bird; head gray, with chestnut crown patch; white eye-ring; under parts yellow; above olive-green; no white on wings or tail. *Ad.* ♀ — Duller, without crown patch and with head greenish instead of gray. L., 4.75.

Range — Breeds from Quebec and Sask. south to Conn., Pa. and Neb.

(646) *Vermivora celata celata*
(Say)

ORANGE-CROWNED WARBLER. Shown by the lower bird; a concealed orange-brown spot on the crown; no gray on head. L., 5.00.

Range — Breeds from Man. to Kewatin and Alaska. Casual during migration from N. H. southward.

brook. Their nests are on the ground in clumps of weeds or at the bases of bushes; composed of dead leaves with the point down, deeply cupped and lined with shreds of bark and sometimes hair. I have always found the male rather shy, except when engrossed in singing, at which times he usually perches rather high up in trees in a commanding position.

These two species are of unusual interest because of the frequency of hybrids between them. There are two forms of these hybrids. One known as Lawrence's Warbler is like the Blue-winged in plumage but has the black throat and patch on the head like the Golden-wing. This form has been taken only in Connecticut, eastern New York, and New Jersey. The more common form, known as Brewster's Warbler, has the plumage like the Golden-wing except that the black on the head is like that of the Blue-wing. Besides the previous states, this species has been found in Michigan and Massachusetts and has been taken during migrations in Louisiana.

WARBLERS

(647) *Vermivora peregrina*

(Wilson) (Lat., wandering or migratory).

TENNESSEE WARBLER. *Ad.* ♂ — As shown by the upper bird. Top of head and nape blue-gray; back, rump and edges of wing and tail feathers bright olive-green; a white superciliary line above the dusky streak through the eye; below clear whitish. *Ad.* ♀ — As shown by the lower bird; crown as well as back olive-green; under parts entirely pale yellowish; two very indistinct wing bars but no white on the tail. L., 4.80; W., 2.60; T., 1.70. *Nest* — Of grasses and fibres, lined with hair; on the ground or low down in bushes.

Range — Eastern North America, breeding from our border northward. Winters in northern South America; rare on the Atlantic slope.



On dry side hills, particularly those with growths of birches and a few pines, we may, at the proper season, nearly always hear the homely but distinctive ditty of NASHVILLE WARBLERS, one of the most diminutive species. Their songs are fairly constant in character, a series of about six consecutive "chips" followed by a twitter or trill about two notes lower in pitch, like "chip, chip, chip, chip, chip, r-r-r-r-r-r." When singing, the male is usually perched in the summit of small trees. He is rather shy and usually keeps a safe distance ahead of you if you try to follow him up. The female is so obscurely colored and so small that she is seldom seen unless you startle her from her nest, which is a small structure of grass and pine needles sunk in the grass or moss and usually concealed by weeds, a bush, or rock. The centre of abundance of Nashvilles appears to be in New England, but they occur in all our Northern States and in southern Canada. In migration they go diagonally across to Mexico and do not occur in any of the Southeastern States.

WARBLERS



(648) **Compsóthlypis americána úsneæ** (Gr., exquisite; Lat., a kind of lichen hanging from limbs of trees).

NORTHERN PARULA WARBLER. *Ad.* ♂ — As shown by the middle bird; blue-gray above, with a greenish patch on the back; wing bars and spots on inner webs of outer tail feathers white; a rufous (often mixed with black) band across the yellow breast. ♀ similar but duller and with no chestnut on the breast. L., 4.70.

Range — Breeds from N. B., Ont. and Minn. south to Va. and La. where it is replaced by *C. a. americana*.

(649) **Compsothlypis pitiajúmi nigrilóra** (*Coues*)

SENNET'S WARBLER. A small bright-colored Parula with black auriculars. Southern Texas.

ORANGE-CROWNED WARBLERS are rather rare in the Eastern States, but I have taken them both in spring and fall. They migrate chiefly through the Mississippi Valley to their nesting grounds in interior Canada. They rarely sing as they pass along but sometimes one will utter the song that is commonly heard in their summer haunts — a simple ditty not differing greatly from that of the Chipping Sparrow.

One of the most difficult warblers to identify in life, during migrations, is the TENNESSEE WARBLER. This is because their plumage is dull and inconspicuous when viewed at a distance, and they are so rare that we seldom have a chance to become familiar with their song, which has a chipping character little different from that of the Nashville. Comparatively few of their nests have been found, but these were always on the ground, concealed by shrubs and grasses that arched over them.

During the migration period, pretty little PARULA WARBLERS may be seen or heard in open woods almost

WARBLERS

(650) *Dendroica tigrina*

(*Gmel.*) (Gr., a tree inhabitant; Lat., striped).

CAPE MAY WARBLER. *Ad. ♂*
— Plumage as shown by bird on the right; sides of head, under parts and rump yellow; lesser wing coverts and spots on inner webs of outer tail feathers white; back greenish; crown blackish; breast and sides streaked with black; auriculars rufous. *Ad. ♀* — As shown by the left hand bird; much duller colored than her mate; no rufous; sides of head, under parts and rump very pale yellow; breast and sides indistinctly streaked; white restricted on wings and tail. L., 5.00. *Nest* — Near the ground, usually in coniferous trees; eggs white, spotted with brown, .68 x .50.

Range — Breeds from Me. and N. B. to Man. and Mackenzie.



anywhere in eastern United States. Their songs are quite distinctive — short, buzzy little trills with a very abrupt ending. If we wish to see these birds during the nesting season we must hunt out some swampy woodland where the trees are festooned with *Usnea* moss, for it is in the upturned and hair-lined ends of this moss that *Parulas* lay their eggs and rear their families. I know of several swamps with standing dead conifers, artistically trimmed with drooping moss, which harbor colonies of these interesting warblers. The ground is carpeted with spagnum moss which lets you sink down into the water a few inches at every step. Apparently they are not particular as to the height of their nests, but the ones about the height of the eyes are of course the easiest to discover. I have found them as low as three feet and as high as thirty.

The *Parula* found in the Southeastern States averages a very little smaller and a trifle paler in coloring; hence the species is divided into two races which differ chiefly in name.

WARBLERS



(1652) *Dendroica aestiva*

(Gmel.) (Lat., summary).

YELLOW WARBLER; SUMMER YELLOWBIRD. *Ad.* ♂ — As shown by the nearer bird. Head and under parts bright yellow; crown, nape and back olive-green; wings and tail dusky, with yellowish edges to the feathers; outer tail feathers with yellow inner webs; breast and sides streaked with reddish-brown. *Ad.* ♀ — Much duller colored, the olive-green of the crown extending to the bill and the streaks on the upper parts being restricted to a few faint ones on the sides. L., 5.00; W., 2.40; T., 1.90.

Range — Breeds from middle Canada and Alaska south to N. Car., Mo. and N. Mex. Winters in Central America. With us Apr. 25 to Sept. 25.

The status of CAPE MAY WARBLERS may readily be understood from the fact that most bird students set it down as a red letter day when they are able to record one or more of these beautiful warblers. They are oftentimes not uncommon during fall migrations yet there is little satisfaction in seeing them then compared to a view of beautiful plumaged males in spring. They may be looked for, during migrations, with about equal success in woodland, preferably oaks, in orchards or shade trees about houses.

Unfortunately their songs are not sufficiently distinctive to identify since they might easily be mistaken for those of either the Black-poll or the Black and White Warbler. The notes, however are not as long drawn-out as those of the latter species nor do they have the peculiar swelling and fading away in volume characteristic of the song of the former. Comparatively few of their nests have been found, all of which I believe were located in coniferous trees and not high above ground.

WARBLERS

(654) *Dendroica caerulescens*
caerulescens (Lat., becoming blue).

BLACK-THROATED BLUE WARBLER. *Ad. ♂* — As shown by the lower bird; upper parts dark blue-gray, shading to lighter and brighter on the forehead; face, throat and broad stripe along the sides black; large white spots near tips of inner webs of outer tail feathers, and a white patch at base of primaries. *Ad. ♀* — As shown by the upper bird; olive-brown above and yellowish-white below; small white spot at base of primaries, none or very little on tail feathers. L., 5.00.

Range — Breeds from Conn., Pa. and Minn. north to Ont. and Quebec. (654a) *D. c. cairnsi*. **CAIRN'S WARBLER** is found in the Alleghenies from Md. to Ga.



YELLOW WARBLERS are regarded as one of the most common and widely distributed species. They breed throughout our range except for the extreme northern and southern parts. Like golden bits of sunshine they flit through open woods, the bushes bordering brooks, our orchards or our shade trees apparently without preference.

Their song can be confused only with those of Redstarts and Chestnut-sided Warblers, and familiarity will easily distinguish it from either of these. It is a loud, lively, high-pitched "sweet, sweet, sweet, sweeter," increasing in force toward the end. They sing more freely than most warblers and do not cease until in August.

The majority of their nests are built in bushes or low trees, not higher than ten feet above ground. The nest is a firmly woven structure of gray fibres and down, lined with plant down and hair. One nest I found near a cotton mill was composed externally wholly of white cotton. They are very often imposed on by Cowbirds and have been known to build

WARBLERS

(655) *Dendroica coronáta*

(Linn.) (Lat., crowned).



MYRTLE WARBLER; YELLOW-RUMPED WARBLER. *Ad.* ♂ — As shown by the lower bird; yellow patches on the crown, sides and rump; black patch on sides of head and streaks on back, breast and flanks; two white wing bars and white spot on the inner webs of the outer tail feathers. *Ad.* ♀ — Shown by the upper bird; much duller, the yellow paler and the black replaced by gray. Immature birds are browner above than the ♀. L., 5.50; W., 2.85; T., 2.25.

Range — Breeds from the northern edge of U. S., north to the tree limit. Winters from Middle States to the Bahamas and West Indies. Arrives Mass., Apr. 20 to May 20.

a second and even a third nest over the original one to cover up the spurious eggs.

BLACK-THROATED BLUE WARBLERS are among the easiest of all species to identify, both plumage and songs being widely different from any other. In migrations we may find them in open woods or even in orchards, but during nesting they retire to spoonwood or laurel swamps or to woods in which these shrubs form the undergrowth. They have several songs but all have an unmistakable huskiness and buzz to them. One most often heard is a rather deep-toned "zwee, zwee, zwee-e-e," on an ascending scale. The nests are located in laurel or other bushes usually less than two feet above ground. They are quite difficult to find for the female sits very closely and the male continues to sing in the same happy way whether you are yards or feet or away from it.

MYRTLE or YELLOW-RUMPED WARBLERS are one of the most abundant species in eastern North America.

WARBLERS

(657) *Dendroica magnolia*

(Wilson)

MAGNOLIA WARBLER. *Ad.*

♂ — As shown by the upper bird; rump and under parts bright yellow; back, wings, tail, patch on sides of head and spots across the breast and along the sides, black; large white areas in middle of inner webs of outer tail feathers; wing coverts chiefly white; crown gray; post-ocular stripe and spot on lower eyelid white. *Ad.*

♀ — Similar but duller, the yellow being paler and the black replaced by gray. *Im.* — As shown by the lower bird; no stripes on the under parts. L., 4.90.

Range — Breeds from Mass., N. Y. and Minn. northward. Winters south from Mexico. Arrives Mass., May 10; leaves Sept. 25.



They winter in the Southern States and sometimes along the coast as far north as Massachusetts. Consequently they are one of the earliest of the warblers to pass through on the spring migration. They go in quite large companies, trooping through open woodland leisurely, feeding upon berries, buds, and insects.

They are perhaps the easiest of the warblers to identify because they are conspicuously labeled by four yellow patches, one each on the crown, rump and either side of the breast. They also utter a chirp that is a sure "give away" to their identity — deeper toned than that of other warblers and quite distinctive. Their song is a simple little jingle or trill, a little louder than that of the Junco.

Most of the warblers are pretty but our MAGNOLIA WARBLER must surely be given a higher rank and called beautiful. They have always been particular favorites of mine, perhaps because I have had several opportunities of making close studies of their nesting habits. The little black,

WARBLERS

(658) *Dendroica caerúlea*

(Wilson)

CERULEAN WARBLER. *Ad.*

♂ — Light cerulean-blue above; a patch of the same on the sides of the head, a narrow band across the breast and streaks on the sides; two white wing bars and white spots near the end of the inner webs of the outer tail feathers. *Ad. ♀* — Bluish-olive-green above and dull yellowish white below; wings and tail as on the ♂. Immature birds are yellower above. L., 4.50. *Nest* — Of grasses, fibres and cobwebs, adorned with lichens; on high outer branches of tall trees.

Range — Breeds from western N. Y., Ont., Mich. and Minn. south to Va. and the Gulf. Winters in northern South America; casual in R. I., Conn. and N. J. during migrations.



white, gray, and yellow sprites certainly do look attractive against a green background and they seem to know it. They are not in the least timid. If you remain quietly watching them, they are apt to get curious, too, and come down to the nearer branches to look you over. Their songs are simple but quite distinctive — a “wee-er, wee-er, wee-err-eet,” with tone similar to that of the Yellow Warbler but still different.

During migrations we can see many Magnolias in small growth woods and also in orchards or parks. They are most abundant when apple trees are in full bloom and may often be seen actively catching the many insects that are feeding about them. Their homes, however, are apparently always in spruce or other coniferous trees, usually well out on some of the longer branches. Most of them are only five or six feet above ground, but I well remember climbing to one more than forty feet up, for I was unable to get out to the nest. The nests are made of fine twigs and rootlets, lined with fine black rootlets.

WARBLERS

(659) *Dendroica pensylvanica*

(Linn.)

CHESTNUT-SIDED WARBLER.

Ad. ♂ — Shown by the upper bird; crown yellow; a V-shaped black patch on side of head; a broad chestnut stripe on the side; inner webs of outer tail feathers with white; two yellowish wing bars. *Ad.* ♀ — Similar but with little black on the face and little or no chestnut on the sides; shown by the middle bird. *Im.* — As shown by the lower bird; yellowish-green above and white below, with two yellow wing bars. L., 5.00. *Nest* — Of grasses and fibres; in bushes or weeds near the ground.

Range — Breeds from N. J., Ohio and Neb. north to Newfoundland, Ont. and Sask. Winters in Central America. With us from May 5 to Sept. 10.



CERULEAN WARBLERS are very small blue-gray warblers found in summer chiefly in the Mississippi and Ohio valleys. The range extends eastward regularly to central New York and casually to southern New England. They all apparently migrate down the big valley, leaving our coast at Louisiana for their winter home in Central America, and returning by the same route. They are almost unknown in our South Atlantic States.

They are typical wood warblers rarely coming within twenty feet of the ground and more often being found in the tops of the tallest trees. Their song is a simple little ascending trill, like "tse, tse, tse, tse, zee-e-e-e-e-ep." Their nests are usually saddled on limbs thirty or more feet above ground. The nest is made of gray fibres bound together with cobweb, adorned with lichens and lined with hair or fine rootlets.

Practically every second growth woodland and bush covered hillside in northern United States and southern Canada is tenanted by the handsome yellow-crowned little warbler

WARBLERS

(660) *Dendroica castánea*

(Wilson) (Lat., chestnut).

BAY-BREADED WARBLER.

Ad. ♂ — As shown by the upper bird; crown, throat and sides rich chestnut; forehead and auriculars black; sides of neck light buff; two white wing bars and white on the outer tail feathers. *Ad.* ♀ — Shown by the middle bird; much duller, with less brown on the under parts and black replaced by grayish. *Im.* — As shown by the lower bird; olive-greenish above and dull yellowish-white below; wings and tail as on adults. L., 5.50. *Nest* — Of rootlets and moss; in coniferous trees.

Range — Breeds from Me., Ont. and Newfoundland northwest to Alberta. Winters in Panama. Mass. in spring, May 15; in fall, Sept. 15.



known as the CHESTNUT-SIDED WARBLER. These birds are gleaners of the lower strata of foliage, above which the female is seldom seen, although the male often sits for long periods at higher elevations to send forth his challenging song at frequent intervals, a song not greatly different from that of the Yellow Warbler and which might be expressed as follows: "wee-see, wee-see, wee-see, wee-chew." It is rather a thankless task to undertake to transfer bird songs to paper. They really convey little meaning to the reader until he has heard the songs himself.

The Chestnut-side makes its home low down in bushes, briars or sweet fern, the nest being just below the topmost leaves where it is invisible except by stooping. It is woven of rather coarse grasses and gray fibres, lined with fine brown rootlets and firmly attached in upright forks.

BAY-BREADED WARBLERS are erratic in their migrations. They are commonly regarded as rare and the student is delighted to make a record of their observance.

WARBLERS

(661) *Dendroica striata*

(Forster) (Lat., striped).

BLACK-POLL WARBLER. *Ad.*

♂ — As shown by the middle bird; a black crown; sides of throat, breast and sides streaked with black; white spots on the outer tail feathers, and two white wing bars. *Ad.* ♀ — As shown by the upper bird; no black on crown; under parts pale yellowish-white, faintly streaked on the breast and sides. *Im.* — As shown by the lower bird; olive-green above, with few black streaks on back; below dull yellowish-white; wings and tail as in adults. L., 5.50. *Nest* — Of rootlets and lichens; low in coniferous trees; eggs white, spotted with brown.

Range — Breeds from Me., Man. and B. C. northward. Winters in northern South America. Mass. in spring, May 18; in fall, Sept. 8.



Yet some years they appear in flocks of some size. In the spring of 1896, I saw a flock of not less than fifty individuals feeding in trees along a country roadside. Before and since, I have seen them only singly, usually in coniferous trees in mixed woods. Others have had the same experience in rarely meeting with them in flocks.

They display none of the vivacity common to most warblers, but are very deliberate in their actions. Their notes are rather unsatisfactory from the standpoint of the bird student for they bear sufficient resemblance to the thin-voiced songs of Black and White Warblers and Black-polls to cause them to be readily overlooked.

BLACK-POLL WARBLERS spend the winter months in northern South America. They come north by way of the West Indies, reaching Florida the latter part of April and northern United States about May 20th, about a week later than the general influx of warblers. They usually travel in companies of their own kind, frequenting parks, orchards and

WARBLERS



(662) *Dendroica fusca* (Miller)

BLACKBURNIAN WARBLER.

Ad. ♂ — As shown by the lower bird; crown patch, superciliary stripe, throat and breast bright orange; upper parts black; large patch on wings, stripe on scapulars and bases of tail feathers white. *Ad.* ♀ — Shown by the upper bird; orange replaced by dull yellow; black replaced by olive-brown; two whitish wing bars and less white on tail. L., 5.25. *Nest* — Of shreds of bark, fine rootlets and grasses; in coniferous trees at any height; eggs greenish-white, blotched with brown, .68 x .50.

Range — Breeds from Quebec and Manitoba south to Minn., Mich. and, rarely, Mass. and Conn. Winters in northern South America. Mass. in spring, May 10; in fall, Aug. 15.

even city shade trees as well as open woodland. They are so numerous that only their general dispersal prevents a congestion of Black-polls. In fall, the returning adults and their young far outnumber all other species combined. At this season they are all very dully clothed.

In spring, they are very slow and deliberate in their movements, which may account for the very fat condition of their bodies. Although the males are striped black and white, their actions as well as the solid black crown render any confusion of identity with Black and White Warblers unlikely. Their song is a very distinctive one although weak and unmusical. It is a succession of high-pitched staccato notes all of the same wiry tone but uttered with a peculiar rise and fall of volume. In previous pages, I have stated that other warbler songs resembled that of this species; some of them do sufficiently to be mistaken for this species but the song of the Black-poll cannot be mistaken for that of any other; it is a rule that does not work both ways.

WARBLERS

(663) *Dendroica dominica* *dominica* (Linn.)

YELLOW-THROATED WARBLER. Bill quite long and a trifle decurved. *Ads.*— Plumage as shown; throat and upper breast bright yellow; forepart of crown and sides of head black, extending down the sides of the throat and along the flanks in streaks; superciliary stripe white posteriorly but yellow on the lores; upper parts grayish; two prominent white wing bars and large spots on the outer tail feathers. L., 5.25; W., 2.60; T., 2.00; B., .50. *Nest*— Of rootlets, bark, moss and cobwebs; high in pines or live oaks.

Range— Breeds from Del. to Fla. (663a). *D. d. albilora*. **SYCAMORE WARBLER**, in which the lores are white, breeds from W. Va., Ohio and Mich. south to the Gulf.



Even where they do not nest, they linger late before continuing their journey, some of them traveling even to Alaska, a journey of not less than five thousand miles from their winter quarters.

BLACKBURNIAN WARBLER. It is a name that delights the ear even as the bird delights the eye. Many a time I have heard it uttered in hushed or awed tones as bird students caught their first glimpse of this bird-gem of the first water.

Blackburnians are exceedingly beautiful in plumage; they are just rare enough to cause one to always be on the tiptoe of expectation during spring migration; and they are not so rare but what we may confidently expect to see them each year.

They often are seen in parks or orchards, where they show to their best advantage. But their natural haunts are, during migrations, the tops of tall white oaks, and their appearance in spring corresponds with that of the budding of these

WARBLERS



(666) *Dendroica chrysoparia*

(*Sci. and Sal.*) (Gr., golden cheek).

GOLDEN-CHEEKED WARBLER. *Ad. ♂* — Plumage as shown by the lower bird; wholly black above, on the sides of the neck and throat; sides of head and a small crown patch bright yellow; outer tail feathers with white inner webs and bases; two white wing bars and edges of other feathers. *Ad. ♀* — Shown by the upper bird; black replaced by olive-green, streaked with black; wings and tail as on ♂. *L.*, 4.80. *Nest* — Of strips of bark and fibres; usually in junipers from six to twenty feet above ground; eggs white, spotted with reddish-brown, chiefly about the large end, .65 x .50.

Range — Breeds from central Tex. southward. Winters in southern Mex.

trees. Any morning at the proper season I can go to certain woods and be absolutely sure of locating several of them by their songs, as they feed so high up that a glass is necessary to see the coloring of their plumage.

The Blackburnian song is one of the thin, wiry kinds gradually ascending in pitch on the last notes until the human ear drum is unable to catch the vibrations. This ending is quite distinctive so that one familiar with it can instantly pick the Blackburnian voice from a host of others in the treetops.

Their nests are sometimes located in deciduous trees, but most frequently in coniferous varieties, especially hemlocks. While some have been found at comparatively low elevations, the majority are thirty feet or more up. The nests are woven of small twigs, fibres and mosses, lined with hair.

YELLOW-THROATED WARBLERS are quite common in suitable localities in the southern half of the United States. Yet, were it not for their loud, ringing songs, they would sel-

WARBLERS

(667) *Dendroica virens*

(*Gmel.*) (Lat., becoming green).

BLACK-THROATED GREEN WARBLER. *Ad.* ♂ — Plumage as shown by the upper bird; upper parts bright olive-green; sides of head bright yellow; throat, breast and streaks along the sides black; two white wing bars; inner webs of outer tail feathers white. *Ad.* ♀ — As shown by the lower bird; duller colored and with the black on throat much reduced and mixed with white. L., 5.00. *Nest* — Of strips of bark, fine rootlets and grasses; in coniferous trees from fifteen to fifty feet up; eggs white, with brown specks about the large end, .60 x .50.

Range — Breeds from N. J., Pa., Ohio and Minn. north to Newfoundland, Quebec and Man. Winters in Mexico. With us May 1 to Oct. 1.



dom be seen for they habitually keep well up in pines or cypresses. They glean insects from the ends of the limbs among the needles as well as from the bark along branches and upper trunks. They are rather slow in their actions as they creep or hop about in a manner suggestive of that of Pine Warblers.

Their song may be fairly well recorded as "kling, kling, kling, klin-ker-e-e" a loud, full, liquid song suggestive of that of the Louisiana Water-Thrush. In fact upon first hearing it, I supposed it was this species and was amazed to find the singer in the top of a pine and to discover that it was a Yellow-throated Warbler.

Their nests are located on horizontal limbs of pines at high elevations, usually from thirty to seventy feet up. They are composed of small twigs, lichens, moss, webs, etc., and lined with vegetable down and hair.

GOLDEN-CHEEKED WARBLERS are handsome species breeding in our range only in south-central Texas, where

WARBLERS

(670) *Dendroica kirtlandi*

(Baird)



KIRTLAND'S WARBLER. *Ad.*
♂ — Plumage as shown; upper parts bluish-gray, a trifle brownish on the back; under parts pale yellowish; crown, back and sides streaked with dusky; lores and sides of throat black; two indistinct whitish wing bars; white spots on outer tail feathers.
Ad. ♀ — Very similar but the back is browner and the black even more restricted on the face. L., 5.50.
Nest — Of strips of bark and fibres, lined with fine grasses; on the ground usually at the foot of small pines; eggs white, wreathed with brown specks, .72 x .56.

Range — Known to breed in Oscoda, Crawford and Roscommon counties, Mich. Winters in the Bahamas; migrates through Wis., Ohio, Ont., Ill., Ind., Va., and south to Fla.

they frequent small growth woodland or thickets among the foothills. While regarded as quite rare warblers because of their local distribution, they are, in their restricted range, not uncommon, being in fact more so than other species found in the same localities.

BLACK-THROATED GREEN WARBLERS are present, during summer, in nearly all coniferous woods in northern United States and southern Canada. During migrations they of course pass through mixed or deciduous woods and may even be found in orchards, but they are normally to be just as closely associated with pine woods or groves as are Pine Warblers.

They sing freely during spring and summer, a lazy, drawling buzzy song that proclaims their presence to all whose ears are ornithologically attuned. Subject to slight variations the song usually consists of five notes sounding, when put to paper, like "zee-zee-zee-zu-zee," the fourth note about three tones lower pitched than the other and with more huskiness.

WARBLERS

(671) *Dendroica vigo*

(Audubon)

PINE WARBLER. *Ad. ♂* — Plumage as shown by the upper bird; bright olive-green above; below yellowish, bright on the throat and breast and shading to ashy on the sides and belly; two white wing bars and white on the inner webs of outer tail feathers. *Ad. ♀* — Shown by the lower bird; brownish-green above and soiled white below; breast more or less tinged with yellow; wings and tail as on male. In fall the ♂ is lighter and clearer yellow below. L., 5.50. *Nest* — Small; of rootlets and fibres, lined with hair; in the tops of pines or cedars; eggs white, specked with reddish-brown, .62 x .50.

Range — Breeds from N. B., Ont. and Man. south to the Gulf. Winters in the southern half of the U. S.



In words I have seen it aptly expressed as “trees, trees, murmuring trees.”

Their nests are almost invariably in pines or hemlocks at elevations of from ten to forty feet. I have found them nesting most abundantly in young woods, but also find them in large growth as well as in scattered pines in deciduous woods.

KIRTLAND'S WARBLERS are among the rarest of American species. Until the year 1903, nothing was known of their nesting and only about seventy specimens had been recorded, most of which were taken in the Bahamas. In that year they were found breeding in Michigan in sandy, jack-pine plains. The nests are on the ground, under and protected by the pines. They have the habit, whether on the ground or while in trees, of wagging the tail about the same as Palm Warblers do. Their song is described as loud, clear and forcibly uttered, like “chip-chip-che, chee, chee-r-r-r-r,” ending in a loud, ringing whistle.

Throughout eastern United States, **PINE WARBLERS**

WARBLERS



(672) **Dendroica palmárum**
palmárum (Gmel.)

PALM WARBLER. Paler than the eastern form that follows.

Range — Interior, breeding from Minn. northward; migrates through the Miss. Valley and winters from Fla. and the Bahamas southward.

(672a) **D. p. hypochrysea** Ridgway

YELLOW PALM WARBLER.

Ads. — As shown; superciliary stripe and whole under parts bright yellow; crown and streaks on sides chestnut; back brownish, rump yellowish-green; indistinct bars on wings; tail spots at very tip of inner webs. L., 5.25.

Range — Breeds from Me. to Newfoundland, Ont. and Quebec. Winters in the Gulf States. Mass. in spring, Apr. 15; in fall, Oct. 1.

are probably more abundant in dry pine woods than any other species; they are to be as closely associated with pine trees as are ducks with water. True, during migrations, we may sometimes see them feeding in deciduous woods, but these are used as mere stepping stones in their progress to and from their chosen breeding grounds. Their dull plumage and sluggish actions are not calculated to attract attention, but the slow, monotonous trill, pleasing when not heard too frequently, may be heard at all seasons, even in their winter quarters in the Southern States.

Their nests, which are small but strongly made of fibres, grass and webs, lined with hair and feathers, are well concealed in tufts of pine needles, usually near the ends of branches toward the tops of the trees.

PALM WARBLERS, which occur west of the Alleghenies, and the slightly brighter race, YELLOW PALM WARBLERS, which are found along the Atlantic states, are among the first of the migrants to sweep northward to their Cana-

WARBLERS

(673) *Dendroica discolor*

(*Vieill.*) (Lat., parti-colored).

PRAIRIE WARBLER. *Ad.* ♂ — Plumage as shown by the upper bird; under parts bright olive-green; middle of back with chestnut spots; sides of head and under parts bright yellow; black mark through the eye, one below the ears and streaks down the sides; two whitish wing bars and white spots near the end of the outer tail feathers. *Ad.* ♀ — Dull colored as shown by the lower bird; no chestnut on the back, nor black on the head. *L.*, 4.75. *Nest* — Of grasses and fibres, lined with fine rootlets; in shrubs near the ground; eggs white, with brown specks about the large end, .65 x .48.

Range — Breeds from Mass., Pa., Ohio and Neb. south to the Gulf. With us May 10 to Sept. 15.



dian summer homes, arriving in the Northern States about the middle of April. We see them always near the ground, in weedy fields, cultivated land or along roadsides. Their bright yellow under parts and habit of constantly bobbing their tails will identify them as far as they can be seen.

Their call note is a weak chip and their song a short trill that would not be distinctive except in conjuncting with the haunts that they frequent. Their nests are located on or very close to the ground usually in swampy ground where they are imbedded in the spagnum carpet.

PRAIRIE WARBLERS are abundant summer residents in the southern half of the United States, but are quite local in their distribution along the northern edge of their range which extends to New England. Bushy clearings, side hills and thickets often shelter colonies of them, for they are clanish to a greater degree than most warblers. The females are rarely seen unless you approach the vicinity of their nests, for they keep low down in underbrush which no eyes can pene-

WARBLERS



(674) *Seiurus aurocapillus*

(Linn.) (Gr., to wave the tail; Lat., gold hair).

OVEN-BIRD; GOLDEN-CROWNED "THRUSH." *Ads.*—Plumage as shown; upper parts including wings and tail, brownish-olive-green; centre of crown orange-buff, bordered with black; below whitish, shading to olive on the sides, streaked with brown; no bars on wings nor white on tail. L., 6.10; W., 3.00; T., 2.10. *Nest*—Of grasses, leaves, weeds and rootlets, on the ground and arched over the top with the same materials; eggs white, speckled with reddish-brown, .78 x .58.

Range—Breeds from Va., Ohio, Kan. and Col. north to Ungava and Mackenzie. Winters from the Gulf coast south through the West Indies. With us May 1 to Oct. 10.

trate. The male, however, is a very sprightly creature and frequently mounts to the summit of a bush or takes a position in taller trees to deliver his beady, buzzy song. The six or more notes are delivered in an ascending pitch, the first ones quite buzzy and the latter ones becoming wiry and thin, a "zee-zee-zee-zee-zee-zee-e-eep." I have heard certain individual Prairies that sang the same song but with very clear notes so that the effect was much like that of the Field Sparrow.

These nests are rarely more than three feet above ground, usually in small bushes where they are well concealed by the upper leaves. I have found more nests in young walnut trees than in any other, but that is merely a local trait of my particular colonies. In some places in Southern States, they commonly nest in pine or gum saplings.

OVEN-BIRDS are well known and are of more than passing interest because of their abundance in open deciduous woods; because of their peculiar song, a loud chanting "tee-

WARBLERS

(675) *Seiurus noveboracensis*
noveboracensis (Gmel.)

WATER-THRUSH. *Ads.*— Shown by the upper bird; above uniform olive-brown; below sulphury-yellow, streaked on throat, breast and sides with dusky; a light superciliary line. L., 6.00.

Range — Eastern North America, breeding from northern U. S. northward. Winters south from Mexico.

(676) *Seiurus motacilla* (Vieill.)

LOUISIANA WATER-THRUSH. Larger, grayer above, whiter below, with fewer, bigger streaks and none on the throat. L., 6.25.

Range — Breeds from Conn., Ont. and Mich. south to the Gulf. (675a) *S. n. notabilis*. **GRINNELL'S WATER-THRUSH.** Larger than *noveboracensis*. Western.



cher, tee-cher, tee-cher, etc.," accented on the last syllable and repeated in a crescendo voice; and because of their rather peculiar nesting. Besides the common "teacher" song, sometimes, during the mating season, they indulge in a "flight song," which consists of the regular one interspersed with wild warbling notes.

Their nests are located on the ground among dead leaves, composed of grasses, weeds, and strips of barks, lined with hair and fine grasses, and completely arched over the top with grass, weeds, pine needles, etc., the entrance being a low opening at one side. This construction doubtless saves many of their homes from destruction by jays, red squirrels and chipmunks. Most of their nests are found by flushing the sitting bird, while walking through the woods but I have found several by observing an unusual rise in the otherwise rather flat carpet of leaves.

WATER-THRUSHES might more appropriately be termed "Water Warblers" for they are not connected to

WARBLERS

(677) *Oporornis formosus*

(Wilson) (Gr., autumn bird; Lat., shapely, hence beautiful).



KENTUCKY WARBLER. *Ad.* ♂ — Plumage as shown; bright olive-green on back, wings and tail, shading into gray on the nape and sides of head; crown and sides of head black, this extending to a point down the side of the neck; below and intense yellow; a yellow line from the bill over and around the eye. *Ad.* ♀ — Quite similar but a little duller, with the black more restricted and mixed with gray on the crown. L., 5.50. *Nest* — On the ground; of leaves, lined with fine rootlets; eggs white, specked with reddish-brown, .72 x .58.

Range — Breeds from the Gulf north to Conn., Pa. and southern Wis. Winters in Central America.

thrushes at all. During migrations they may be seen traveling and feeding with other warblers in open or low growth woods, but after they have settled for the summer, they are to be found only in swamps. Whether on the ground, where they walk gracefully, or perched in trees, their tails are almost continually in motion up and down like a pump handle. Their call note is a sharp "chink" and their song is very characteristic, a loud, clear, ringing, liquid series of warbles, swiftly and emphatically given.

Their nests are under cavities of roots of trees or stumps, or sunk in mossy banks frequently but a few inches above the water. They are composed of moss, grasses, leaves and strips of bark, lined with thin, brown moss stems.

LOUISIANA WATER-THRUSHES have the northern limit of their summer range barely or not quite overlapping the southern limit of that of the last species. The birds are rather more shy at all times than the last species, keeping out of sight ahead of us if we attempt to follow up their song.

WARBLERS

(678) *Oporornis ágilis*

(Wilson) (Lat., active).

CONNECTICUT WARBLER.

Ad. ♂ — As shown by the upper bird; a complete whitish eye-ring; whole head, neck and breast a dark blue-gray, very deep and almost blackish on the throat in spring; back, wings and tail bright olive-green; under parts yellow. *Ad. ♀, and Im.* — Shown by the lower bird; top of head same color as body; throat and breast pale grayish-brown. L., 5.50. *Nest* — Of grasses; on the ground or just above, in clumps of briars or thickets.

Range — Breeds from Mich. and Minn. northward. Winters in South America; in spring passes chiefly through Miss. Valley; in fall, migrates chiefly along Atlantic States, from Mass. southward.



The song is loud, clear and ringing, similar to that of the common Water-Thrush but shorter and perhaps not quite as fine a performance. Their nests are located in niches in banks along streams or in cavities among roots of fallen trees. They are more easily discovered than those of the last species for it is not necessary to flounder about in a swamp looking for them.

In the region from New York to Illinois and south to the Gulf States, KENTUCKY WARBLERS are reckoned as abundant residents in moist woods, particularly those with a dense undergrowth. They are typical ground warblers and, as they are not timid, we can usually approach near enough to watch them walking daintily about as they search for insects among the leaves. The male sings at frequent intervals, generally rising to the lower branches of the trees to deliver the half dozen loud clear notes, strongly resembling one song of the Carolina Wren, a "hur-dle, hur-dle, dur-dle." Both wren and warbler frequent the same places and, on my

WARBLERS



(679) *Oporornis philadéphia*

(Wilson)

MOURNING WARBLER. No light eye-ring. *Ad.* ♂ — As shown by the lower bird; in spring with a black patch on the breast; whole head and breast dark blue-gray; upper parts bright olive-green; below bright yellow, lightening posteriorly. *Ad.* ♀ — As shown by the upper bird; similar but paler colored and with no black on breast. *L.*, 5.50. *Nest* — On or near the ground; eggs white, sprinkled with reddish-brown.

Range — Breeds from N. S., Keewatin and Alberta south to Minn., Mich. and rarely to N. Y. and Mass. Casually farther south in mountains to W. Va. Winters in Central America; rather rare east of the Alleghenies; most abundant in the Miss. Valley.

first acquaintance with them, it required several minutes' study before I could distinguish the songs certainly.

The nest is usually located on the ground at the foot of a shrub or plant, well concealed and difficult to find were they not so often placed on the very edge of footpaths or cart roads.

CONNECTICUT WARBLERS may be classed as rather rare. Although sometimes in fall they are not uncommon, apparently in spring migrations they are seen nowhere in abundance. They winter in northern South America, coming north by the island route through the West Indies to Florida; thence their course is laid to the northwest, up the Mississippi Valley to interior Canada. Returning, they sweep to the southeast and pass along the Atlantic seaboard and through the Antilles to their winter quarters, thus being one of the few birds to have different routes for the northern and southern journeys. Of course individuals or small parties may digress from these routes, in fact they sometimes occur

(681) *Geothlypis trichas*
trichas (Linn.)

MARYLAND YELLOW-THROAT. *Ad. ♂* — As shown by the nearer bird; bright olive-green above, shading to ashy-gray on the crown and whitish on the forehead and above eyes; forehead and patch on sides of head jet black; throat, breast and under tail coverts yellow; belly lighter. *Ad. ♀, and Im.* — As shown by the upper bird; pale yellow below and no black on head. *L., 5.25.*

Range — Breeds from Va. and La. north to Labrador, Ont. and Minn. Winters in the Southern States. (681b). *G. t. ignota.* FLORIDA YELLOW-THROAT. Brighter below and with slightly longer bill, tarsus and tail. Breeds in Fla., along the Gulf coast and north to Va.



in New England in spring but such instances are comparatively rare.

They keep close to the ground and frequent thickets of alders, shad-bush, etc., which abound in weedy patches. Their only note while migrating appears to be a short metallic chirp or clink, usually uttered when disturbed. They are rather sluggish in their actions which greatly resemble those of thrushes.

They sing but little even in their breeding grounds which are tamarack swamps and the song is said to resemble those of Yellow-throats and Oven-birds.

MOURNING WARBLERS are quite similar in plumage to the last species but no confusion of the birds will occur if you but remember that the Connecticut always had a complete light ring about the eye, while the Mourning has none at all. The present species, that is the male bird, in spring, has also a prominent black patch on the breast. Its migration route is through Mexico and spread out so as to include

WARBLERS



(683) *Icteria virens virens*

(Linn.) (Gr., the jaundice, hence yellowish; Lat., being green).

YELLOW-BREASTED CHAT.

Ads. — Plumage as shown; throat and breast very bright yellow; back, wings and tail bright olive-green, shading to dark gray on the neck and top of head; forepart of crown and patch on sides of head, including the lores, black; white superciliary stripe and white belly and under tail coverts. L., 7.50. *Nest* — Of grass and weeds; in bushes or tangled thickets, near the ground; eggs white, spotted all over with reddish-brown, .90 x .70.

Range — Breeds from Mass., Ont., Mich. and Minn. south to the Gulf. Winters in Central America. (683a). *I. v. longicauda* Lawr. LONG-TAILED CHAT. West of the Miss., from N. Dak. southward.

the North Atlantic States as well as those in the Mississippi Valley. I have observed quite a number of them in Massachusetts in spring but have not found them during the fall migration.

It is usually found in dryer situations than the last species and the male occasionally sings during the spring migrations — a loud ringing song about midway in character between those of Water-Thrushes and Maryland Yellow-throats.

Their nests are ordinarily built in weedy patches or briars about a foot above ground, the nest being quite bulkily but firmly made of leaves and bark, lined with grasses and some hair.

MARYLAND YELLOW-THROATS, although bearing the name of a comparatively small state, have a wide distribution, the whole of eastern United States and southern Canada. Almost every thicket, especially if it be in the least moist, has as tenants one or more pair of Yellow-throats. They are very vivacious birds being, in fact, the life of the

WARBLERS

(684) *Wilsonia citrina*

(Bodd.)

HOODED WARBLER. *Ad.* ♂

— Plumage as shown by the lower bird; forehead, ear patch and under parts bright yellow; crown, sides of neck, throat and upper breast black; back and wings bright olive-green; inner webs of outer tail feathers mostly white. *Ad.* ♀ — As shown by the upper bird; body and tail like those of the male, but with no black on the throat and little or none on top of the head. L., 5.50. *Nest* — Of leaves, bark, rootlets and grasses in forks of bushes, close to the ground; eggs white, profusely spotted with reddish-brown, .70 x .52.

Range — Breeds from the Gulf north to Conn., N. Y., central Mich. and Ia. Winters in Central America.



bird population in their domain. They have a hand or voice in every disturbance and pry into the affairs of all strangers.

The Yellow-throat call note is a sharp, metallic chip; his alarm note is a sputtering rattle, often termed the "watchman's rattle"; and his song is a distinctive, rhythmic "witch-ity, witch-ity, witch-ity, witch." Their nests are usually in clumps of weeds, with the bottom just above ground.

YELLOW-BREASTED CHATS are very remarkable birds and especially so for a member of this family. Some of their actions are extremely ludicrous and might well lead one to suppose that this species served as the clown of the bird world. Their haunts are tangled thickets of weeds, vines, and bushes within which they conceal themselves so effectually that it is sometimes difficult to discover them even though their mocking voices may almost constantly be heard. Yet if we keep still, we may see one suddenly fly out and upward until he attains a height of fifty feet or more; then he apparently abandons himself to song, uttering weird

WARBLERS



(685) **Wilsonia pusilla pusilla**
(Wilson) (Lat., small).

WILSON'S WARBLER; WILSON'S BLACK-CAP. *Ad.* ♂ — Plumage as shown by the lower bird; cap bright, glossy black; rest of head and under parts bright yellow, very intense on the head; upper parts, wings and tail bright olive-green; no wing bars or tail spots. *Ad.* ♀ — Duller colored and with little or no black on the crown, which is greenish like the back. L., 5.00. *Nest* — Of leaves and strips of bark, imbedded in the ground under bushes, in swamps.

Range — Breeds from Me., Ont. and Minn. north to Newfoundland, Ungava and Mackenzie. Winters in Central America, migrating south to Md. and then across to Tex., Mass. in spring, May 1; in fall, Sept. 1.

and nondescript series of whistles and squawks as he settles earthward with fluttering wings and jerking tail. They not only have considerable imitative ability but are no mean ventriloquists, their voices often appearing to come from almost any point of the compass even though the singer does not change his position.

Chats are very abundant in the Southern States and locally found even north to New England and Ontario. Their nests are in bushes or briars, usually about three feet above ground. They are rather coarsely made of weeds, grass, strips of bark and leaves, lined with fine grasses. It is almost impossible to flush a Chat from her nest, for she slips away long before you are within sight of it. If she knows that it is discovered, she almost always deserts it, first destroying the eggs.

HOODED WARBLERS, I have always regarded as the most beautiful species that we have, next to the Blackburnian, and even surpassing that species if we take into account the companionable ways and interesting song of the present

WARBLERS

(686) *Wilsonia canadensis*

(Linn.)

CANADA WARBLER. *Ad.* ♂ — Plumage as shown by the upper bird; upper parts, wings and tail gray; loreal stripe — eye-ring and under parts bright yellow, whitening posteriorly; crown spotted with black; sides of head and neck blackish; no white on wings or tail. *Ad.* ♀ — Duller colored as shown by the lower bird; the black necklace sometimes shows quite plainly and again may be only indicated by indistinct grayish streaks. L., 5.50. *Nest* — Of bark and fine rootlets, sunk in mossy banks or under roots.

Range — Breeds from Mass., N. Y., Ont., Mich. and Minn. north to Newfoundland, Quebec and Keewatin. Winters in northern South America. With us May 12 to Sept. 15.



one. They are most frequently found in moist woodland which has a good undergrowth. As they are usually near the ground, their plumage and ways can be better admired than can those of birds like Blackburnians, which ordinarily keep to the treetops.

The male sings freely in spring and early summer, the notes being loud and clear whistles, delivered in rapid succession, like "see-we-eo-tsip, tsip, see-we-eo." Their nests are located in bushes or saplings about three feet above ground. Little preference is shown in most of its range, but in northern parts they are frequently in laurel and in southern states in cane.

Among the many species of warblers passing northward in spring, we sometimes see in orchards, bushes or low trees, especially along waterways, small pert little yellow birds with a tiny black cap set jauntily on the top of the head. Now known simply as WILSON'S WARBLERS, they formerly had the formidable name of Wilson's Black-capped Fly-

WARBLERS



(687) *Setophaga ruticilla*

(Linn.) (Gr., an insect eater; Lat., red-tail).

REDSTART. Bill wide and flat, and with development of rictal bristles almost like those of flycatchers. *Ad. ♂* — As shown by the upper bird; upper parts, throat and breast jet black; rest of under parts white; outer tail feathers, except at their tips, basal portion of wing feathers and under wing coverts, bright orange-red. *Ad. ♀* — Shown by the lower bird; grayish-brown above and whitish below; orange-red replaced by yellow. Immature males show all stages of plumage between these two. L., 5.50.

Range — Breeds from N. Car., Ark. and Col. north to Newfoundland, Quebec, Mackenzie and B. C.

catching Warblers. They are very active and do catch many small insects on the wing. They sing with a hurried, ringing little warble sufficient to identify them but not sufficiently different from other songs to attract the attention of those not familiar with it. They nest rarely in the Northern States but chiefly in Canada, the nest being on or very close to the ground in rather swampy land.

CANADIAN WARBLERS also belong to the so-called flycatching group. Besides in woods and orchards, I have a number of times seen them feeding on the ground under bushes in my yard in the middle of the city. They are not at all shy either during migration or while nesting. Their song is a loud, ringing, distinctive warble similar in character to that of the Water-Thrush. They nest on the ground in swamps or moist woodland. I have found nests under roots of laurel and also imbedded in mossy banks just out of the water.

REDSTARTS are birds that can hardly be overlooked in localities where they are present, for their plumage and their

WAGTAILS

(697) *Ánthus rubescens*

(*Tunstall*) (Lat., becoming ruddy).

PIPIT; TITLARK. As shown by the upper bird; bright ruddy-buff below; grayish above; streaked on breast and sides; outer tail feathers with white.

Range — Breeds in northern Canada and in high mountains in western U. S.

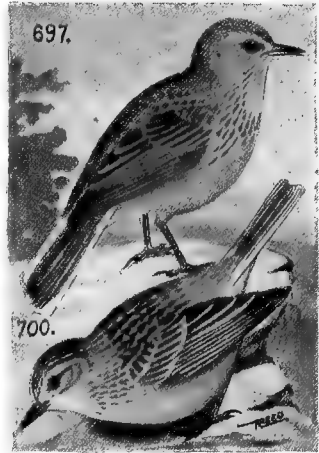
(700) *Ánthus spráguei* Audubon

SPRAGUE'S PIPIT. As shown by the lower bird; streaked above on back and crown with black and yellowish-brown. L., 6.25.

Range — Interior plains from Man. and Sask. south to Mont. and N. Dak.

(694) **WHITE WAGTAIL** (*Motacilla alba*), accidental in Ungava.

(698) **MEADOW PIPIT** (*Ánthus pratensis*), an European species; accidental in Greenland.



ways of showing it off are so conspicuous. Both sexes are handsomely gowned and no one knows it better than they. The male is often chasing his mate or other small birds about among the branches just for sport. At nearly all times when perching, he is fluttering his wings nervously and opening and closing his tail fan-wise. Redstarts are always uneasy; they rarely remain more than a few seconds in any one pose. They put the most active of the flycatchers to shame by the celerity with which they dash after winged insects, darting hither and yon in apparently mad rushes, but at each move capturing one or more of the many gnats that are always present in woods. They have several songs — all high-pitched. Among the most common are a “zee-zee-zee-zeet,” in an ascending tone, and a “wee-zee, wee-zee, wee-zee” similar to the song of the Yellow Warbler. Their nests are firmly made cups of gray plant fibres and web, lined with fine grasses and fibres, the whole firmly attached in crotches at any height from the ground.

THRASHERS, MOCKINGBIRDS



(702) *Oreoscoptes montanus*

(Townsend) (Gr., a mountain mimic; Lat., mountain).

SAGE THRASHER. Bill comparatively short for a thrasher. Plumage as shown; dull grayish-brown above, indistinctly streaked; two narrow wing bars and outer tail feathers with white spots on the tips; under parts buffy-white, streaked on the flanks, breast and sides of throat. *Im.* — Less streaked below and more so above. L., 8.75; W., 4.00; T., 3.30; B., .65. *Nest* — Bulky, of weeds, sage bark and fine rootlets; usually in sage brush close to the ground; eggs greenish-blue, spotted with brown, .95 x .70.

Range — Sage-brush plains and foothills, breeding from western Neb., Mont. and B. C. south to N. Mex. and Cal. Winters from central Tex. and Cal. southward.

FAMILY MOTACILLIDÆ. WAGTAILS

PIPITS or **TITLARKS** live chiefly in Arctic America, but many of them breed on the higher western mountain ranges even in the United States. In winter they keep just south of the snow line, traveling in flocks and moving restlessly from place to place. Their only notes when with us are a "yippling" which they always utter as they fly. In summer they utter a more musical "tee-cheer, tee-cheer, tee-cheer" as they run along the ground. Whenever they stand still the inevitable up and down wagging of the tail takes place. They often take flights far up in the sky until they become invisible and then scale swiftly down uttering their musical call rapidly.

FAMILY MIMIDÆ. THRASHERS, MOCKINGBIRDS

SAGE THRASHERS are common residents of the sage-

THRASHERS, MOCKINGBIRDS

(703) *Mimus polyglottos polyglottos*

(*Linn.*) (Lat., a mimic; many-tongued).

MOCKINGBIRD. Plumage as shown; upper parts ashy-gray; wings and tail blackish, the former with white at bases of primaries, and the latter with white tips to outer feathers and whole white outer ones; below soiled white. Sexes similar but ♀ slightly browner and with less white. L., 10.50; W., 4.50; T., 4.90; B., .70. *Nest*—Of twigs, weeds, etc., lined with rootlets; in thickets.

Range—Breeds from the Gulf north to Md., Ohio and Neb. Casually to Mass.; accidental north to N. B., Ont. and Wis.

(703a) *M. p. leucopterus* (*Vigors*)

WESTERN MOCKINGBIRD.
Southwestern U. S.; east to Neb.



brush country of the Southwestern States. Although their colors and markings are in harmony with the general color schemes of the regions they inhabit, they do not make use of them for concealment. The favorite pastime of male birds is to perch in the top of a tall sage bush, or on a telegraph pole, and pour forth the sweetest of bird music for, apparently, hours at a time. Not only do they sing early in the morning, but often through the heat of the day and sometimes even by moonlight. The song is as loud and varied as that of the common eastern Brown Thrasher.

MOCKINGBIRDS, as songsters, are probably the equal or superior of any other bird. Famous in song, verse and story, they deserve every bit of praise that is bestowed upon them. Other species may have shorter songs or passages that are technically better than those of the Mocker, but as songsters be far inferior. Those who have had the opportunities of comparing this species in its southern home with the Nightingale in its favorite haunts, say that the song of

(704) *Dumetella carolinensis*

(Linn.)

CATBIRD. Plumage as shown; general plumage slaty-gray, lighter below; crown blackish; under tail coverts chestnut. L., 9.00; W., 3.50; T., 3.65; B., .60. *Nest* — In hedges, briars or thickets, a few feet above ground; composed of twigs, weeds, leaves and rootlets; three to five rich, greenish-blue eggs, .95 x .70.

Range — Eastern North America. Breeds from N. S., southern Quebec, Ont., Man., Sask. and central B. C., south to the Gulf States, Tex., Utah and northern Oregon. Winters from the Southern States southward to Cuba and through Mexico. A most abundant and friendly species throughout its range.



the American Bird is better in every respect than that of the famous European songster. The Mocker will perch contentedly in the top of a bush and, with feathers ruffed out, tail drooped and eyes half shut, sing for hours at a time, composing his music on the spur of the moment and including parts of the songs of many other species.

Any thickets or bush-covered land is suitable for Mockers. They even take up their abode in trees, shrubs or vines about houses, or in parks even in the hearts of large cities. During the Jamestown Exposition, one came regularly every morning and perched on a shrub before the entrance to one of the large buildings. His songs delighted thousands of visitors.

CATBIRDS are also mimics of a very high order. It is no discredit to them to say that their song does not equal that of the Mocker, but it is their misfortune to have such a master singer to compete against. They frequent bush-covered fields or pastures, thickets or gardens and are, with few ex-

THRASHERS, MOCKINGBIRDS

(705) *Toxostoma rufum*

(Linn.) (Lat., rufous).

BROWN THRASHER. Plumage as shown. Whole upper parts, including wings and tail, bright rufous-brown; greater and middle coverts tipped with white, forming two wing bars; lateral tail feathers with pale, almost whitish, tips; under parts white, heavily streaked with blackish, except on the throat and middle of belly. Iris bright yellow. Bill rather long and slightly decurved. L., 11.50; W., 4.05; T., 5.00; B., 1.00; Tar., 1.25. *Nest* — Of twigs, weeds and coarse rootlets, lined with finer rootlets; in bushes or thickets above ground or on the ground.

Range — U. S., east of the Rockies; breeds from southern Canada south to the Gulf States.



ceptions, favorites with every one. Some fruit growers claim they steal their fruit. Undoubtedly they do take some, but consider the quantities of injurious insects they destroy before, after and during the period of fruit. The small boy whose misguided inclination tends toward making a collection of birds' eggs thinks twice before he disturbs the Catbird, for experience has taught him that their outcries will alarm the neighborhood and perhaps get him into trouble. Their gentle mewing call notes can and are changed to screams of indignation when the occasion warrants.

Catbird nests are built in thickets, briars or thorn bushes from two to six feet up. They are composed of twigs and weeds, lined with black rootlets. The eggs are unmarked, greenish-blue, thus very different from the pale blue, brown-spotted ones laid by Mockers.

BROWN THRASHERS really need no introduction for they are common throughout eastern United States and are fully capable of speaking for themselves. Except while

WRENS



(713) *Heleodytes brunneicapillus couési* (Sharpe) (Gr., a marsh diver, or inhabitant; Lat., brown hair).

CACTUS WREN. Plumage as shown; brownish above, darkest on the crown and grayest on the tail; wings and tail barred with black, the primaries and outer tail feathers also being spotted with white; below white shading to buff on the sides and belly; throat and breast spotted with black and flanks streaked with the same; a white superciliary stripe above the dusky auriculars. L., 8.50; W., 3.40; T., 3.35; B., .90. *Nest* — In cactus, yucca or thorny bushes; bulky, of sticks and weeds, lined with feathers; entrance on the side; eggs whitish, minutely dotted with reddish-brown.

Range — From middle Tex., N. Mex., Utah, Nev. and southern Cal. south to northern Mex.

singing, they usually skulk through the underbrush or thickets, but occasionally the male will chase his mate or a rival over and through the bushes, their bright rusty plumage and long rufous tails flashing in the sunlight. Thrashers are wonderful songsters. They sometimes introduce notes of other birds but generally their song is a distinctive one of their own. It is clearer and fuller than that of the Catbird and has fewer harsh notes. The song can readily be identified without seeing the performer for it is delivered in couplets, every note or passage being repeated. Thoreau describes it very aptly when he says: "While you are planting the seed he cries, 'Drop it, drop it — cover it up, cover it up — pull it up, pull it up, pull it up.'" Their call note is a deep-toned "tsook." A loudly whistled "wheu-u-u-u" is used during moments of excitement and an explosive "ca-a-a arr" denotes extreme anger and is used when any one attempts to investigate the contents of their nests. They are very valiant in defense of their homes and will dash toward

WRENS

(715) *Salpinctes obsoletus obsoletus*

(Say) (Gr., a trumpeter; Lat., obsolete).

ROCK WREN. Plumage as shown; upper parts dull grayish-brown, specked with black and white dots; rump light reddish-brown; wings and tail barred with black; outer tail feathers tipped with light buff and with a subterminal black band; under parts dull whitish, shading to brownish on the flanks; indistinctly streaked on the breast. L., 5.75; W., 2.75; T., 2.25; B., .70; Tar., .80. *Nest*—Usually in crevices about rocks; less often in stumps; sometimes about buildings; eggs white, finely spotted about the large end with chestnut-brown, .72 x .54.

Range—Breeds from Sask. and B. C. south to Mexico; east to N. Dak., Neb. and Tex.



you screaming and with their yellow eyes blazing with anger. I have had them even peck severely at my fingers when reaching toward the nest.

FAMILY TROGLODYTIDÆ. WRENS

CACTUS WRENS are the largest members of this notable musical family found within our borders. Size, however, has little to do with musical ability even among wrens, for the monotonous, grating "chut, chut, chut, chut" uttered by this species shows no traces of the talent of some of the smaller members of the family. They are very commonly met with in the southwestern lands of cactus, mesquite, and yucca. They are not timid and may be seen everywhere perched on the tops of branches, heads up and tail drooped in characteristic wren fashion while singing.

Their nests, placed among yuccas or cactus thorns, are

WRENS

(718) *Thryothorus ludovicianus*

(Lath.) (Gr., reed leaping).



CAROLINA WREN. Plumage as shown; upper parts uniform reddish-brown, brightest on the rump, where there are concealed spots of whitish; wings and tail barred with black; a white superciliary stripe; throat white, shading to deep buff on the rest of the under parts; under tail coverts barred with dusky, and sometimes a few indistinct bars on flanks. L., 5.50; W., 2.30; T., 2.00; B., .60. *Nest*—Of grasses, leaves, feathers and hair; in holes in trees, stumps or crevices about buildings.

Range—Eastern U. S. Breeds from the Gulf States north to Conn., Pa., Ohio and Neb. Casual north to Me., Ont. and Wis. A subspecies, *T. l. miamensis*, lives in the southern half of Fla.

queer flask-shaped structures with the entrance in the side. Made of twigs and straw and lined with feathers. They have little concealment and can be seen on every hand during a day's drive through the country.

ROCK WRENS, another species of large size, dwell in rocky arid regions of the Southwestern States either in canyons or high up on mountain sides near the snow line. In these regions where both bird and animal life is rather scarce, the sight of one of these creatures bobbing in and out of rocky crevices is a relief, and the sound of his curious little tinkling notes serves to break the monotony.

Their nests are in crevices among rocks, the bottom being lined with weeds, twigs, grasses, etc.

CAROLINA WRENS are the jolliest birds imaginable. No one ever heard of a pessimistic wren anyway. They are always bubbling over with joy. Now chattering, now twittering to themselves and now throwing back the head and ringing out the clear loud whistles that form the characteristic

WRENS

(719) *Thryomanes bewicki*

(Audubon) (Gr., a reed, a kind of cup).

BEWICK'S WREN. Plumage as shown; upper parts dark brown, the feathers on the rump having concealed whitish spots; wings and tail barred with black, the latter with white tips and spots on the ends of the outer feathers; a white line over the eye; under parts whitish, shading to brownish on the flanks. L., 5.00; W., 2.30; T., 2.10; B., .50. *Nest*—Of grasses and feathers in hollow trees, stumps or crevices.

Range—Breeds from Pa., Ill., southern Mich. and Neb. southward. Winters in the Gulf States.

(719c) *T. b. cryptus* Oberholser

TEXAS BEWICK WREN. Southern plains from Kan. and Tex. southward.



song. Among the many songs they sing, two stand out the most conspicuously, one a rapid liquid “quer-dle, quer-dle, quer-dle, quer-dle” and the other sounding like “cle-er-ee-u, cle-er-ee-u, cle-er-ee-u.” The first of these songs is similar to ones given sometimes by Cardinals and by Kentucky Warblers, but neither of these species puts the life and expression into the song that is given it by Sir Wren.

Their usual haunts are thickets and underbrush in woodland, but they are not above sometimes appearing about habitations and tucking their nests away in any nook or cranny that takes their fancy. Most of their nests, however, are placed in cavities in stumps, being composed of twigs, weeds, grass, leaves, and feathers. They are very prolific, laying from five to seven eggs and often raising two or three broods in a season.

BEWICK'S WRENS are a smaller species, abundant in southern states and apparently extending their range gradually to the northward. They are often confused with the

WRENS

(721) *Troglodytes aëdon aëdon*

(Viell.) (Gr., a cave dweller; a songstress).

HOUSE WREN. Plumage as shown; upper parts cinnamon-brown; wings and tail barred with blackish; rump with concealed whitish spots; below dull whitish, more or less barred on the flanks with blackish; no superciliary stripe as always shown by the last species. L., 4.75; W., 2.00; T., 1.75; B., .50. *Nest*—Of grass and weeds; in hollow trees, stumps, bird boxes or crevices about buildings; five to seven white eggs, minutely dotted all over with reddish-brown, giving the egg a pinkish appearance.

Range—Breeds from N. B., Ont., Mich. and Wis. south to Va. and Ky. Winters in the Gulf States and Mexico. (721a). *T. a parkmani* Audubon. **WESTERN HOUSE WREN.** Western U. S. east Mo. and Tex.



similar-sized House Wren, but needlessly for the darker back, white stripe over the eye and white on the outer tail feathers should easily identify it in any situation. They are rather more sedate in their actions than the last species, but are always investigating crevices about stumps, tree trunks or nooks about buildings clearing them of vermin. They often remind one of mice as they creep nimbly through piles of brush or through stone walls, every now and then stopping to look at you with tail perked over their back and oftentimes wagged as though in salutation.

Their song is sweet and louder and clearer than that of the House Wren but is not nearly as varied.

HOUSE WRENS are almost inseparably connected with habitations. Whenever or wherever one is seen you can be quite certain that some one is living within a quarter of a mile or so from there. In summer they take up their abodes in hollow trees anywhere in the neighborhood or in bird boxes that are erected for them. They become greatly attached to

WRENS

(722) *Nánnus hiemális hiemális*

(*Vieill.*) (Lat., wintry).

WINTER WREN. Shortest of our wrens. Plumage as shown; upper parts dark brown, brightest on the rump, where there are concealed whitish spots; wings and tail, and to a less extent, the back and rump, barred with blackish; a light superciliary stripe; below whitish, shading to pale cinnamon-brown on the flanks and belly; flanks and under tail coverts barred with blackish. L., 4.00; W., 1.85; T., 1.30; B., .35. *Nest* — Of twigs and moss; in brush heaps, under roots or in crevices of any kind — sometimes in tin cans; eggs white, sparingly specked with reddish-brown.

Range — Breeds from Mass., Mich. and Minn. north to Newfoundland, Quebec and Alberta. Winters throughout the U. S.



localities and return to the same places year after year. They are sturdy little fellows and put to rout birds much larger than themselves. Individually they are much more than a match for English Sparrows, but this latter species are cowardly; they do not fight individually, they drive other birds away by mobbing them. If any one wants wrens about the house, and I have yet to see any one who would not be delighted to have them, the way to circumvent the sparrows is to make the bird house with an opening not larger than an inch in diameter.

The House Wren song may well be compared to rippling, bubbling laughter. He simply cannot contain his ecstasy and it comes trickling out through his vibrating mandibles in the form of a delightful song. If things go wrong or you intrude upon him at an inopportune time he will scold you roundly with a long-continued chattering. On one occasion, I was standing beside the entrance to a wren home in an apple tree when the male bird returned with a spider to feed

WRENS



(724) *Cistothorus stelláris*

(*Naumann*) (Gr., a shrub leaping; Lat., starry or speckled).

SHORT-BILLED MARSH WREN. As shown by the upper bird; notice that the crown is streaked with brown and whitish. L., 4.50; W., 1.80; T., 1.60; B., .38.

Range — Breeds from Me., Ont. and Sask. south to Del., Ind. and Mo. Winters in southern states.

(725) *Telmatódytes palústris*

palústris (*Wilson*) (Gr., a swamp inhabitant; Lat., a marsh).

LONG-BILLED MARSH WREN. As shown by the lower bird; crown blackish-brown, with no streaks. L., 5.20; W., 1.95; T., 1.85; B., .50.

Range — From Ont. and Quebec south to Va., whence it is replaced by *T. p. marianæ*; *T. p. iliacus* occurs in the Miss. Valley.

some of his numerous youngsters. Seeing me, he commenced to scold and chatter away with all his might. Still holding the spider, a steady stream of grating notes assailed me for seemingly several minutes; then with a sudden pause he gulped the spider down and cleared his throat so that he might score me more roundly. The instant I backed away not more than a yard he accepted it as a complete victory and poured forth a regular whirlwind of song.

WINTER WRENS are our tiniest species and, although breeding in many of the Northern States, are seen chiefly in winter. Pert little fellows, they steal about through brush heaps and walls so cleverly that it is seldom that we catch a glimpse of them unless they choose to show themselves — stout little creatures with tail turned up over the back in the most absurd manner. Sometimes they scold us with gruff chipperings. Again they may, especially in spring, treat us with a delicious rippling flow of notes, not as loud, but sweeter than those of the House Wren. They nest in brush heaps

CREEPERS

(726) *Cérthia familiáris familiáris* Bonap.

(Lat., a creeper; domestic).

BROWN CREEPER. Bill slender and decurved. Tail feathers narrow and sharply pointed. Plumage as shown; streaked brown and gray above; rump light rufous; tail uniform dull brownish; wings marked with whitish and brown; below white. L., 5.50; W., 2.50; T., 2.65; B., .60. *Nest* — Of small twigs, strips of bark, moss, bits of wood, etc., lined with hair; in crevices behind loose bark on trunks of trees; five to seven white eggs with a wreath of brown specks about the large end, .62 x .45.

Range — Breeds from Newfoundland, Quebec, Ont. and Man. south to Mass., N. Y., Ind. and Neb. and in the Alleghenies to N. Car. Winters throughout the U. S.



or in nooks or crannies anywhere, sometimes in old tin cans that have been cast away.

Marsh wrens are scarcely ever found away from marshy localities. The **SHORT-BILLED MARSH WREN**, easily distinguished from the next because its bill is shorter and the crown is streaked with whitish, inhabits wet meadows even more frequently than rush-grown ponds. They are difficult to see or to flush as they can thread their way through the grass like mice, only their clicking notes indicating their presence. Their song is a rapid chipping ending in a burr. Their round grass nests with side entrances are placed on or near the ground; the eggs are pure white, which is quite unusual for those of members of this family.

LONG-BILLED MARSH WRENS are to be found in reeds, cane, or rushes growing in sloughs, along creeks, or the edges of rivers. Their presence would not be suspected were it not for the sputtering alarm calls they make when any one comes into view. Most of the time they keep out of sight,

NUTHATCHES



(727) *Sitta carolinensis carolinensis* Latham

WHITE-BREASTED NUTHATCH. *Ad. ♂* — Plumage as shown. Crown glossy black; rest of upper parts blue-gray; outer tail feathers with much white as shown; sides of head and neck and whole under parts pure white, except the under tail coverts, which are mixed with chestnut. *Ad. ♀* — Similar to the ♂, except that the crown is gray, not much darker than the back. L., 6.00; W., 3.50; T., 1.75; B., .65. *Nest* — Of grasses, feathers and leaves; in holes in trees from six to sixty feet up.

Range — Breeds from northern Gulf States north to southern Canada. (727b). *S. c. atkinsi* Scott. FLORIDA WHITE-BREASTED NUTHATCH. Fla. and along the Gulf coast to Miss.

but their position can be located by the sounds of their voices as they move about. Frequently one will climb to the top of a swaying cat-tail and sing his short, bubbling, rattling song. Their nests, also globular in shape, are attached to upright stalks a foot or two above water.

FAMILY CERTHIIDÆ. CREEPERS

I have said that no one ever saw a pessimistic wren, but on the other hand it is doubtful if any one ever saw an optimistic BROWN CREEPER. They are always the same plodding, patient creatures acting as though they were doomed to a lifelong punishment of hard labor. Always climbing, climbing, climbing. If they would only persevere until they reach the summit of just one tree, we might have more patience with them, but no, they fall off when halfway up, like bits of loosened bark and start all over at the base of

NUTHATCHES

(728) *Sitta canadensis* Linn.

RED-BREASTED NUTHATCH.

Ad. ♂ — Plumage as shown by the lower bird; a white superciliary stripe separating a black postocular stripe from the glossy black crown; under parts white on the throat, shading to yellowish-brown or deep buff; tail with white on the outer feathers. *Ad. ♀* — Similar except that the black is replaced by gray and the under parts are much paler, usually soiled buffy-white. L., 4.50; W., 2.65; T., 1.55; B., .60. *Nest* — In holes in trees or stumps, six to forty feet up; eggs white, spotted with reddish-brown, .60 x .50.

Range — Breeds from Mass., Mich. and Minn. north to Newfoundland, northern Quebec, Mackenzie and the Yukon Valley. Winters throughout the U. S.



another tree. Queer little morsels of bird life, inconspicuous, unsuspecting and with only a wiry little squeak for a voice. Steady, patient workers, they undoubtedly destroy more insects than the flighty Chickadees or vivacious kinglets, but it is done in a listless, lifeless way that does not appeal to us as much.

In their summer homes, however, they do so far forget their troubles as to sometimes utter a simple but rather pleasing song of four or five notes, all wiry but varying in pitch.

FAMILY SITTIDÆ. NUTHATCHES

Nuthatches are the acrobats of the bird world. Although not having pointed tail feathers to assist them as do woodpeckers, nor claws of unusual development, they are able to climb up, down or around trees, either on the upper or under sides of limbs with equal facility.

WHITE-BREASTED NUTHATCHES, or some of their subspecies, are distributed over most of our country, being

NUTHATCHES



(729) *Sitta pusilla* Latham

(Lat., small).

BROWN-HEADED NUTHATCH.

Sexes very similar, the ♀ being only a trifle duller plumaged. Back, wings and tail as in the last species; top of head cinnamon-brown; a stripe of darker through the eye; a white patch on the nape; under parts grayish-white. L., 4.30; W., 2.50; T., 1.25; B., .50. *Nest*—Of grasses and feathers, in holes in trees at any height from the ground; five or six white eggs rather uniformly speckled with reddish-brown, .60 x .50.

Range—Southeastern U.S. Breeds from Del. and southern Mo. south to the Gulf coast and southern Fla.; casually north to N. Y. and southern Mich.

resident in most sections. While they ordinarily frequent woodland, they sometimes take up their abode in orchard trees.

The notes of this species all have a nasal quality. One often heard at all seasons is a soft "Yna"; another is a louder and more emphatic "ynank, ynank, ynank"; in spring they are very active, chasing one another about over limbs either in play or to show their skill at climbing. At this season, too, the woods often resound with their spring songs, a laughing "yna-ha-ha-ha-ha." Their food is chiefly of insects, eggs or larvæ, which they gather from under the bark, sometimes pecking woodpecker fashion but more often using the bill as a crowbar to pry the bark up.

RED-BREASTED NUTHATCHES are known in most of the United States only as winter visitors. They are easily recognized from the preceding by the small size, rusty under parts, black stripe on the sides of the head and the softer, higher pitched notes that they utter. Although often in

TITMICE

(731) *Bæolóphus bicolor*

(Linn.)

TUFTED TITMOUSE. Head crested. *Ads*—Plumage as shown; forehead black, shading into the gray which covers the entire upper parts, including wings and tail; below whitish, the sides being washed with rufous. L., 6.00; W., 3.10; T., 2.70; B., .42. *Nest*—Of bark, grass, leaves and feathers in holes in stumps.

Range—Breeds from N. J., Pa., Ind., Ill. and Ia. south to the Gulf coast; casual north to Conn., N. Y. and Wis.

(732) *Bæolóphus atricristátus atricristátus* Cassin.

BLACK-CRESTED TITMOUSE. As shown by the lower bird.

Range—Central Tex. southward.



deciduous trees, they are quite partial to coniferous ones, while the last species rarely is found in pines.

BROWN-HEADED NUTHATCHES are still smaller species that reside in the Southern States. They, too, show a preference for coniferous trees. In winter groups of them sleep close together in the dense tops of living trees and in summer they make their homes in cavities of dead ones. They are not at all particular about the height of the nesting cavity. I have found them at all elevations from two feet up to at least seventy. They are quite noisy, their nasal notes taking the form of "nya, nya," etc., rapidly almost in a squealing tone.

FAMILY PARIDÆ. TITMICE

Titmice are also acrobats but they are not climbers, they are clingers and are commonly seen feeding while clinging head downward to the tips of outer branches.

The **TUFTED TITMOUSE**, which is our largest eastern

TITMICE



(735) **Penthestes atricapillus**
atricapillus (Linn.) (Lat., black hair).

CHICKADEE. *Ads* — Plumage as shown by the upper bird; crown and throat black; upper parts ashy-gray; wing feathers, especially the coverts, distinctly margined with whitish; below white on the breast and buffy on the sides. L., 5.25.

Range — N. J., Pa., Ind. and Mo. northward to Newfoundland, Ungava and Keewatin.

(736) **Penthestes carolinensis**
carolinensis (Audubon)

CAROLINA CHICKADEE. Little or no white on wing. L., 4.50. From N. J., Ind. and Mo. southward. (736a). *P. c. agilis*. PLUMBEOUS CHICKADEE. La., Tex. and Ark. (736b). *P. c. impiger*. FLORIDA CHICKADEE. Fla.

representative of this family, has a distribution corresponding to that of Cardinals and Carolina Wrens, that is they seldom occur in the northern tier of states. They occur in woods and thickets, in just such places as these other birds are found and, like them, their presence is always proclaimed by their oft-repeated whistles, which sound like “peto, peto, peto, peto.” Less often they “dee-dee-dee-dee” like a chickadee but louder. They are inquisitive in a high degree and are always in the thick of any bird disturbance that occurs in their neighborhood. Indeed, the chances are that they were the cause of it.

They are prolific birds, rearing usually two broods a season, each of six or eight. The nests are in cavities of stumps or deserted woodpecker holes higher up.

CHICKADEES are known and liked by every one, resident wherever found and one of the few species that remain in the Northern States throughout the year. They are quite tame at all seasons and sometimes remarkably so during

(740) *Penthestes hudsonicus*
hudsonicus

(Forster)

HUDSONIAN CHICKADEE.

Plumage as shown; top of head hair-brown; throat patch black; sides of head and breast white, shading into rufous on the sides and buff on the belly. L., 5.00. Nest—Of moss, feathers and felted fur; in hollow stumps or holes in trees; eggs white, spotted with reddish-brown.

Range—Breeds from tree limit in Alaska, Mackenzie and Keewatin south to Ungava, central Ont., Man. and B. C.; south casually to northern Ill. (740a). *P. h. littoralis* ARCADIAN CHICKADEE. Breeds from Newfoundland and Quebec south to mountains of N. H., Vt., and N. Y. Casual in Mass. in winter.



winter. They come readily to lunch counters that are provided by many kind persons for winter birds. Sometimes they become so accustomed to the ones that feed them that they will alight on their hands or even pick pieces of nuts from between the person's lips. This is confidence very different from the fearlessness with which some individuals have alighted on my hand as I was holding some of their little ones preparatory to photographing them, "dee, dee, dee-ing" excitedly and looking into my face as though imploring me to release their children.

Chickadees rear large families; one nest in a small birch containing twelve young arranged in three tiers was found to be in a very cleanly condition as is usual with nests of Chickadees. In spring, Chickadees often sing a high-pitched, clearly whistled "phe-be." At other times they use only the familiar "Chickadee-dee-dee-dee," a "tse-day, tse-day" and "dee-dee," etc.

In the Southern States, Chickadees are a trifle smaller

TITMICE



(746) *Auriparus flaviceps flaviceps*

(*Sund.*) (Lat., gold titmouse; yellow head).

VERDIN; YELLOW-HEADED TITMOUSE. *Ad.* ♂ — Plumage as shown; entire head, including the throat and sometimes the chest, bright yellow, quite intense on the forehead; shoulders bright chestnut. *Ad.* ♀ — Similar but with less yellow on the head and less chestnut on the shoulders. *Im.* — With no chestnut on the wing and not more than a trace of yellow on the head. L., 4.40. *Nest* — Bulky, flask-shaped, with a small entrance-hole on the side; of sticks, grasses and weeds lined with feathers; eggs bluish-white specked with brown, around the large ends.

Range — Southwestern deserts from Utah and Tex., southward.

than in the north, and have no sign of white edging on the wing coverts. While their habits are just the same, the birds are a distinct species known as CAROLINA CHICKADEES. This species has a higher-pitched more hurried song, a "tswee-dee-dee, tswee-dee-dee," and the whistled call consists of sometimes three and often four notes instead of two as uttered by the northern bird.

In the far north is a brown-capped species known as HUDSONIAN CHICKADEES, a race of which extends down to some of our Northern States.

Among the tiniest of birds are VERDINS or YELLOW-HEADED TITMICE, which are found in mesquite valleys along our southwestern border. They are very active creatures, hunting about the thorn bushes among which they like to live, like Chickadees, and stopping to sputter away at you if you stop too close to them as you look them over. Their nests are in the same bushes — long bulky structures with a small entrance on the side, the exterior being composed of

KINGLETS, GNATCATCHERS

(748) *Régulus sátrapa sátrapa* Licht.

(Lat., a little king; Gr., a ruler, referring to the golden crown).

GOLDEN-CROWNED KINGLET. *Ad.* ♂ — As shown by the lower bird; crown orange on a yellow field, bordered by black; forehead and line over the eye whitish; rest of upper parts olive-green; wings and tail blackish, the feathers edged with yellowish-green as shown; below dull white. *Ad.* ♀ — The same, except that it lacks the orange spot on the yellow crown. *L.*, 4.00. *Nest* — A large ball of mosses and feathers, partially suspended in the upper branches of coniferous trees.

Range — Breeds in boreal zones of Canada, south in mountains to Mass., N. Y., N. Car. and N. Mex. Winters throughout the U. S.



thorny twigs and grasses, and the interior warmly lined with feathers. During breeding season, the males usually spend the nights in old nests near at hand, while, during winter, all the birds, both adults and young, usually sleep in old nests or build new ones for the purpose.

FAMILY SYLVIIDÆ. KINGLETS, GNATCATCHERS

GOLDEN-CROWNED KINGLETS are dainty little mites of birds which, during winter, visit us, coming from their homes in Canada. A few, however, nest in some of our Northern States especially in the higher parts. We can but wonder at the hardihood of these birds. It does not seem possible that such little things could survive when the mercury often ranges several degrees below zero, but they just fluff out their feathers and make themselves into tiny puffballs during the night, while daytimes they can flit about actively enough. The notes of this species are very wiry and weak,

KINGLETS



(749) *Regulus caléndula caléndula*

(Linn.)

RUBY-CROWNED KINGLET.

Ad. ♂ — Plumage as shown; crown with a partly concealed crest patch of bright red; upper parts grayish-olive-green, brightest on the rump; two dull whitish wing bars. *Ad. ♀ and Im.* — Similar but lacking the red patch on crown. L., 4.30; W., 2.20; T., 1.75; B., .25. *Nest* — A ball of moss, grass and feathers, very deeply cupped to hold the five to nine eggs, which are whitish, rather sparingly marked with brown, .55 x .43.

Range — Breeds in boreal zones from Ungava, Keewatin and Alaska south to N. S., Ont., and in the Rocky Mountains to Ariz. Winters in the southern half of the U. S.

something like those of Brown Creepers which, by the way, frequently keep in company with them during winter, a queer combination of vivacity and slowness.

RUBY-CROWNED KINGLETS are remarkable little birds, not as handsome as the last species because the bright scarlet coronal patch is concealed except when the little sprite wishes to show it. This gives their plumage a dull, uninteresting appearance which, however, is more than counteracted by the actions of the tiny creatures. Many of our larger birds have very weak voices, make disagreeable squawks or have no songs at all; yet this little Kinglet, one of the smallest of birds, has one of the sweetest of bird songs — loud, clear, and varied, a passionate twanging warble that is impossible to describe and that is almost beyond belief as coming from such a tiny throat. Many a person is mystified when trying to discover the author of this song, for they are usually looking for a bird several times its size. As they are most often found in coniferous trees, they are quite diffi-

GNATCATCHERS

(751) *Polióptila cærúlea cærúlea* (Linn.) (Gr., hoary feathers; Lat., cerulean blue).

BLUE-GRAY GNATCATCHER.

Ad. ♂ — Blue-gray above, lightest and brightest on the crown, which is bordered on the sides with black; tail black, the outer feathers wholly white; sides of head and under parts white. *Ad.* ♀ — Similar but with no black on the head. *Im.* — Similar but gray instead of blue-gray. L., 4.50; W., 2.05; T., 2.00; B., .40. *Nest* — Of fine bark and plant fibres, the high walls being decorated with lichens; saddled on horizontal limbs; eggs bluish-white, spotted all over with reddish-brown, .55 x .44.

Range — Breeds from N. J., Pa., Ont. and southern Wis. south to the Gulf States. Casual north to New England.



cult to discover anyway, even though they flit actively about among the thick foliage.

Although the Ruby-crown breeds a little farther to the north than Golden-crowns, they also go farther south in winter, very few of them being found in the northern half of the United States at that season. They make their appearance in spring along with the bulk of the migrating hordes of warblers.

BLUE-GRAY GNATCATCHERS, abundant in the United States south of the Ohio Valley, are even smaller-bodied birds than kinglets, but are longer because of their comparatively long tails. While they often may be seen feeding in bushes or piles of brush, they are normally birds of the treetops. If disturbed while they are feeding they scold with a curious little squeaky buzzing note and often show their displeasure by swinging their tails widely from side to side or bobbing them up and down. Their ordinary call note is a rather weak but yet quite penetrating "ting,"

THRUSHES



(755) *Hylocichla mustelina*

(*Gmel.*) (Gr., forest thrush; Lat., weasel-like, comparing its color to that of the weasel in summer).

WOOD THRUSH. *Ads.* — Plumage as shown; upper parts cinnamon-brown, shading to reddish-brown on the top of the head; under parts white, profusely marked with round blackish spots, except on the throat and belly. *Im.* — Speckled on the upper parts, including the wing coverts, with yellowish-brown; this plumage in a few weeks changes to that of the adults. L., 8.00; W., 4.40; T., 2.90; B., .65. *Nest* — Of grass, weeds, leaves and some mud; in bushes or trees not far above ground; three to five greenish-blue eggs, 1.02 x .75.

Range — Breeds from southern N. H., Ont., Wis., and N. Dak. south to the Gulf States.

a sharp twanging note sounding something like the “ping” of a passing bullet. Their song has much the character of that of Ruby-crowned Kinglets but it is very weak in volume, being almost inaudible when the birds are high up.

These birds easily bear off the palm for exquisite home building, making dainty little high-sided cups of plant fibres and cobwebs, saddled on high limbs, and with the exterior fully decorated with green and gray lichens. It is a home similar to that of our eastern hummingbird but of better and more artistic construction throughout. The walls are so high that only the tip of the tail of the sitting bird appears above the brim.

FAMILY TURDIDÆ. THRUSHES, BLUEBIRDS, ETC.

Members of this family have the vocal chords very highly developed and some of them are rated as among our best songsters. With few exceptions they are all good musicians. Their food consists almost wholly of insects or berries.

THRUSHES

(756) *Hylocichla fuscescens*
fuscescens (Stephens)

VEERY; WILSON'S THRUSH.

Ads—Upper parts uniform, light cinnamon-brown; head or tail neither lighter nor darker than the back; below whitish, the sides of the throat and the breast being washed with buff and indistinctly spotted (wedge-shaped) with the color of the back. L., 7.50; W., 3.80; T., 2.85; B., .53. *Nest*—Of strips of bark, rootlets and grasses, on or very close to the ground; three to five greenish-blue eggs, slightly darker than those of the Wood Thrush; of the same size but lighter than those of the Catbird.

Range—Breeds from Newfoundland, Ont., and Mich. south to N. J., Ohio, and Ind. Winters in northern South America. With us May 10 to Sept. 10.



WOOD THRUSHES are the largest and perhaps the handsomest of the true thrushes. Easily distinguished from any other by the numerous large round black spots on the breast and by the bright rufous head in contrast to the brown back. Their usual haunts are damp woods, especially those through which a brook winds its way. Most of the thrushes are rather timid and I have never found this species any less so than the others. True, they sometimes appear even in cities and feed on lawns, but in such cases the familiarity is on their part and is quite exceptional. If we try to follow them in their usual haunts they will keep a goodly distance ahead just as though deliberately trying to tantalize us. They are less timid, however, when nesting; that is, the female is, or else she thinks her dried-leaf colors render her invisible, for she will sit quietly on her eggs and let us approach near enough to touch her before she leaves.

It is as songsters that Wood Thrushes are best known and at daybreak and just before dusk their notes may be heard

THRUSHES



(757) *Hyalocichla alciæ alciæ*

GRAY-CHEEKED THRUSH.

As shown by the upper bird; above uniform olive-brown; eye-ring whitish; lores and cheeks gray; spotted with olive on throat and breast. L., 7.50.

Range — Breeds in Newfoundland, Keewatin, and Alaska; migrates through eastern U. S. to South America. (757a) *H. a. bicknelli*. BICKNELL'S THRUSH. A trifle brighter colored and smaller. L., 7.25. N. S. and mountains of N. E. and N. Y.

(758a) *Hyalocichla ustulata swainsoni*

OLIVE-BACKED THRUSH.

Uniform olive above; eye-ring and lores deep creamy-buff; throat and breast washed with buff and spotted.

Range — Breeds in Canada and northern border of U. S.

at their sweetest. Wood Thrush music is very clear and flute-like in character, most of the notes loud and full, but some of the minor ones so soft that one has to be near the performer to catch them.

As the last species is the most prominently marked of our thrushes, so the VEERY or WILSON'S THRUSH is the least conspicuous in its markings, the breast being only very faintly streaked. The upper parts are wholly bright uniform rufous-olive from the top of the head to the tip of the tail. They frequent not only swampy woodland but dry thickets or bushes along the roadside. In some sections of their range they are regarded as more shy than the last species, but in New England, in most parts of which they are more abundant than any other thrushes, they are nearly as fearless and easily approached as are Song Sparrows.

The Veery song is a very characteristic one, a spirally descending "wheu-eu-eu-eu-eu." It is one of the songs most frequently heard throughout the summer.

THRUSHES

(759b) *Hylocichla guttata palasi* (Cabinas)

HERMIT THRUSH. Plumage as shown; upper parts olive-brown, except the tail, which is bright rufous, distinctly different from the back; below whitish, washed with buff on the sides; sides of throat and breast with blackish spots, more prominent than those of any species except the Wood Thrush. *Im.* — First plumage with yellow streaks or spots on the upper parts. L., 7.00. *Nest* — Of moss, grass, and leaves, lined with rootlets; on the ground.

Range — Breeds in southern Canada and south locally to Mass., Conn., N. Y., Ont., Mich., and Minn. Winters in southern U. S. (760) RED-WINGED THRUSH (*Turdus musicus*), an Old World species, is accidental in Greenland.



GRAY-CHEEKED THRUSHES are easily identified when one has the birds in the hand, but in life only experts can distinguish them from OLIVE-BACKED THRUSHES, which are the more common of the two. The former is slightly larger and the sides of the head and eye-ring are grayish-white, while the same regions on the latter species are buffy. Both have uniform olive-brown upper parts, much darker than the Veery, and the breast is rather conspicuously spotted with V-shaped marks. The eggs of both of these species are spotted with rusty-brown, which is quite unusual since those of nearly all the members of this family are unspotted. The songs of both species, too, are similar, both being similar in character to that of the Veery but lacking the liquid quality and ascending in pitch toward the end.

HERMIT THRUSHES may be known from any of the foregoing species because, while the top of head, back and wings are uniform olive-brown, the tail is a deep rusty-brown.

THRUSHES



(761) *Planesticus migratorius migratorius* (Linn.)

ROBIN. *Ad. ♂* — Plumage as shown; top and sides of head black; a white spot above the eye; throat white, streaked with black; breast and sides bright chestnut; upper parts slate; belly and under tail coverts white; outer tail feathers tipped with white. *Ad. ♀* — Much duller colored, the black on head being replaced by grayish. *Im.* — Spotted on the back with whitish and on the breast with black. L., 10.00; W., 4.90; T., 3.85; B., .85. *Nest* — Of grasses and mud; usually in forks or saddled on limbs of trees.

Range — Breeds from N. J., Pa., Ohio, and Kan. north to the tree limit. (761b) *P. m. accrusterus*. SOUTHERN ROBIN. Southeastern U. S.

The breast too is quite conspicuously spotted, but not as much so as the larger Wood Thrushes.

The Hermit is the first of the thrushes to appear in the spring migration and it is the last to depart in fall. They are quite quiet during migrations, a low "chuck" being the only note commonly heard. They are very deliberate in their actions both on the ground or while perching. They have a peculiar habit of slowly wagging the tail up and down just after alighting, a habit that often may be used to identify them. It is as songsters that Hermit Thrushes are best known. They do sing beautifully and their tones are clear, flute-like and finely modulated, but I think their performance has been unduly extolled in a good many instances. I have heard them many times before and during the nesting season, but I have never heard one that seemed one whit more gifted musically than are many Wood Thrushes.

ROBINS are very well known throughout our land. In winter most of them go south, spending the cold months in

THRUSHES

(763) *Ixóreus nævius nævius*
(Gmel.)

VARIED THRUSH. A handsome western species with bright rusty-brown under parts crossed on the breast by a black band; head and wings also marked with deep buff.

Range — West of the Rockies; accidental in Kan., N. J., Mass., N. Y., and Quebec.

(765a) *Saxícola œnánthe leucórhoa* (Gmel.)

GREENLAND WHEATEAR. Plumage as shown. L., 6.00. *Nest* — Of moss and grass; in crevices among rocks.

Range — Breeds from Ellsmere Land to Greenland and south to northern Ungava; migrates through the British Isles and France to Africa; casual south to Ont., N. S., N. Y.



the Southern States, chiefly in large flocks. A few, however, remain in northern states and brave the snow and ice storms. Why they should remain is a mystery, for they cannot but suffer great hardships for most of the season. In March, migrating birds return, caroling cheerily in anticipation of the pleasant months ahead of them. Little companies of them frequent woodland, roadside, orchards or our front door-yards, and it requires many spirited battles before they have become satisfactorily paired off for the summer.

Robin mud and grass nests are to be found in almost any location. Some sway in crotches of trees fifty or more feet above ground; others sit firmly on large horizontal limbs; another may be under the edge of an overhanging bank, on a narrow ledge of earth; occasionally one will loom up prominently on the top of a fence post; and they are frequently placed in odd situations about buildings, one being in a factory on an iron girder, and another on a window casing beside the front door of a city house.

THRUSHES

(766) *Siália síalis síalis*

(Linn.)



BLUEBIRD. *Ad.* ♂ — Upper parts, wings and tail bright blue; throat, breast and sides cinnamon-rufous; belly and under tail coverts white. *Ad.* ♀ — Much duller, the upper parts being grayish-blue, brighter on the wings, rump and tail; under parts as in ♂ but much paler. *Im.* — Back spotted with white and the breast spotted with dusky. L., 7.00; W., 3.90; T., 2.55; B., .45. *Nest* — Of grasses in holes of trees or in bird boxes; four or five pale bluish-white eggs, unmarked, .94 x .60.

Range — Eastern North America, breeding from the Gulf States north to southern Canada. Winters in the southern half of the U. S.

BLUEBIRDS are almost as familiar to every one as are Robins, but they do not have as extensive a range. While an individual or two may spend the winter in favorable localities in the Northern States, they are chiefly migrants and their return after the cold season is eagerly awaited by thousands of northern bird lovers. Although the males precede the females on their return voyage, it is believed that the same birds of each sex return to the same place every year and that they remain mated for life. They use the same home each year, be it a cavity in tree or fence post or in a bird house, provided it is in a suitable condition and needs no further repairs than relining with grasses. Their gentle and confiding manners are reflected in their cheery warbles which, however, have little to commend them in the musical world.

HOW TO STUDY BIRDS

The object of Bird Study is twofold: First, to become familiar with the birds and their habits and for recreation. The word study, as generally used in connection with birds, is rather misleading and might keep some from the enjoyment, as study is frequently understood to require work and concentration on the part of the student. Bird Study, however, is practically all enjoyment for any one who likes to be out of doors.

Of course any one with or without any instructions can watch and study birds to their heart's content, and there are many ways in vogue for studying them, but there are some points that will not come amiss and will assist in learning and remembering birds. One may be able to identify every bird seen; in fact, it is easily possible for any one to learn plumages from pictures, but until the student is able to identify them by their calls and songs and by their flight he can not enjoy his "bird walks" to the fullest degree. Personally I can find nearly as much pleasure in sitting quietly in one spot and recording the species that can be heard as by tramping about and actually seeing them. Of course, however, the beginner must actually view the birds and be sure that his identification is correct.

For an outfit one requires but very little — just a notebook (the common ruled manila covered order book is very good), pencil, pair of bird glasses, and a good text-book or guide to identify the birds. A high-priced bird glass is not at all necessary. For five dollars you can secure one that will answer all requirements as well as one costing twenty-five. A glass that will magnify about three diameters and which will allow you to see a wide view is best suited for most work.

HOW TO STUDY BIRDS

High-powered prism binoculars are often useful when one is looking at shore birds or birds of prey, for they usually have to be viewed at a distance, but such a glass is inferior to a weaker one for small birds, which have to be located quickly as they are actively hopping about. Birds at close range, particularly if they are on or near the ground, can easily be seen without a glass, but small birds in the treetops can seldom be seen plainly enough to identify without its aid. As many, because of its size or for fear of soiling, might not like to take this volume afield with them, I will mention that the publishers can supply the same pictures in two small pocket-sized books, with less text of course but perfectly adapted for identifying birds in the fields and woods. These books are listed on pages in the back of this volume. "Water Birds" includes all birds from the grebes to the parrots, and "Land Birds" includes all the rest.

It will probably be unnecessary to state that loud talking, unnecessary noise, or quick motions must always be avoided. The date and time of each outing, condition of the weather, and locality visited should be placed at the top of the page. Every bird seen should be listed at the time it is discovered. Following the name put down the number seen and also the number of the same species subsequently seen. If singly or in flocks, so state. If you see ten individuals of a kind, that kind would be regarded as common; if you see twenty-five or more it would be called abundant. If you find a bird that is new to you make notes of its actions, put down as nearly as you can what the song sounds like, and just what kind of a locality it is found in. These facts should be copied in a journal when you reach home, and in a short time you will have an interesting book of your own concerning the birds of your vicinity and their actions as they appeared to you.

Any actions or mannerisms that appear to you to be out of the ordinary should be carefully noted. It is the peculiarities that will always serve to identify that species at a distance. For instance, most flycatchers perch quietly on dead twigs, with tail drooping, not moving about until they sud-

HOW TO STUDY BIRDS

denly dash after an insect or fly to another lookout branch. Warblers are very vivacious, flitting about so rapidly that it is often difficult to keep sight of them. Vireos are sedate in their manners but carefully peer under every leaf and twig. The Goldfinch bounds through the air with a twitter at each dip in his flight. The Flicker is often found on the ground, which is unusual for birds of the woodpecker family. Nearly every bird has some oddities that will positively identify or assist in its identification. The student should strive to find out what these oddities are.

Every season is an open one for the hunter with a bird glass, but during fall is the most difficult time to identify what one sees, for there is such an abundance of birds, most of which are young, in different plumages from their parents, and many kinds being very similar. At this season, too, many adult birds have changed their brilliant and distinctive clothes for plain, dull-colored ones, and few of them sing at all.

The camera is a very valuable acquisition to one's outfit if it is correctly used. Many excellent pictures of the nest and eggs and of the haunts of various species of birds can be secured. But the greatest of care must be used to disturb neither the birds nor the nests any more than is necessary. The subject of Bird Photography is too extensive to be included in this volume. Books by Rev. Herbert K. Job, Frank M. Chapman, William L. Finley, and others, and "Camera Studies of Wild Birds in Their Homes," by the author of this volume, go into the subject fully.

BIRDS OF A COLOR

Color lists, grouping various common species under their most conspicuous colors, are often quite helpful, although such lists are not as necessary with a volume like the present, that pictures all the birds in colors. But we will present such a list, as some may like to make use of it. It is to be understood that the birds are grouped under their most conspicuous colors, not necessarily the predominating color, for a small patch of red, yellow, or blue would be the con-

HOW TO STUDY BIRDS

spicuous color even though the bird were otherwise all brown or gray or black.

RED BIRDS, or with red markings or patches:

Scarlet Tanager; scarlet, black wings and tail.

Cardinal; red, crested, black face.

Summer Tanager; rosy or ruby red all over.

Purple Finch; dull rosy red, brightest on the head.

Pine Grosbeak; dull rosy red.

White-winged Crossbill; light rosy red, white on wings.

Red Crossbill; dull red, brightest on breast and rump.

Redpoll; crimson crown, rosy breast sometimes.

Rose-breasted Grosbeak; male, rosy breast and under wings.

Red-headed Woodpecker; whole head crimson.

Other Woodpeckers; male, red spot on nape.

Hummingbird; male, ruby throat.

Ruby-crowned Kinglet; scarlet concealed crown patch.

ORANGE BIRDS, or with orange markings or patches:

Baltimore and Bullock's Orioles; orange and black.

Redstart; orange on wings, tail and sides.

Blackburnian Warbler; orange throat and breast.

Kingbird; crown patch.

Golden-crowned Kinglet; crown patch.

YELLOW BIRDS, or with yellow markings or patches:

Flicker; golden quills and wing linings.

Orioles; females and young males.

Yellow-headed Blackbird.

Meadowlark; yellow breast, black crescent.

Waxwings; yellow tip to tail.

Goldfinch; bright yellow, black cap, wings and tail.

Siskin; patch on wings and at base of tail.

Crossbills; females with yellow rump and breast.

Yellow-throated Vireo; yellow breast.

Blue-winged Warbler; yellow head and under parts.

Golden-winged " yellow cap and wing patch.

Yellow " quite bright all over.

Nashville " yellow below, ashy head.

Prothonotary " bright yellow, almost orange on head.

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- Canadian Warbler; yellow below, necklace of black spots.
Hooded “ yellow below and sides of head.
Wilson “ yellow below, small black cap.
Kentucky “ yellow below and line above eye.
Magnolia “ yellow below and on rump.
Yellow Palm “ yellow below, chestnut cap.
Prairie “ yellow below, black streaks on sides.
Pine “ dingy yellow below.
Connecticut “ yellow belly, gray head, white eye ring.
Mourning “ yellow belly, gray head, black chest.
Myrtle “ yellow spot on crown, sides and rump.
Parula “ yellow throat with brownish patch.
Cape May “ yellow below and rump, brown ear patch.
Chestnut-sided “ yellow crown, chestnut sides.
Black-throated Green Warbler; yellow cheeks, black throat.
Maryland Yellow-throat; yellow throat, black mask.
Yellow-breasted Chat; yellow breast, black lores.
Dickcissel; yellow patch on breast and line over eye.
Horned Lark; yellowish throat, erect ear feathers.
Crested Flycatcher; yellowish belly, tail inner webs brown.
- BLUE BIRDS**, or with blue markings or patches:
Blue Jay; crested.
Florida Jay; no crest.
Bluebird; blue back, chestnut breast.
Indigo Bunting; indigo blue, brighter on head.
Blue Grosbeak; intense blue, chestnut shoulders.
Painted Bunting; blue head, red below, yellow back.
Cerulean Warbler; pale blue above, white wing bars.
Black-throated Blue Warbler; dull blue on head.
- BROWN BIRDS**, or with bright patches or markings:
Towhee; chestnut sides, black or brown and white.
Orchard Oriole; male, chestnut body, black head.
Robin; rufous breast.
Bluebird; brown breast and sides.
Bay-breasted Warbler; chestnut crown, throat and sides.
Chestnut-sided Warbler; yellow crown, chestnut sides.

HOW TO STUDY BIRDS

Sparrows; mostly striped brown, black and white.

Thrasher; rufous back, wings and tail.

Thrushes; brown or olive-brown back and tails.

Wrens; brownish backs, barred tails.

BLACK BIRDS:

Crow

Grackles; lustrous and metallic shades.

Rusty Blackbird.

Cowbird; brown head.

Red-winged Blackbird; red and white shoulders.

Purple Martin; glossy and iridescent.

BLACK AND WHITE BIRDS, or chiefly black, white or gray:

Magpie; white scapular and belly, long tail.

Canada Jay; black nape, white face, body gray.

Shrikes; ears, wings and tail black with white markings.

Kingbird; white below, concealed orange crown patch.

Nuthatch; gray above, white below, black crown.

Catbird; gray, black cap, chestnut under tail coverts.

Black-poll Warbler; black cap, streaks on sides.

Black and White Warbler; heavily streaked black and white.

Mockingbird; blackish wings and tail, with white.

Chickadees; black cap and throat.

Junco; gray head and back, white below and on tail.

Flycatchers; dull gray and white, unmarked.

Vireos; greenish or grayish, whiter below.

LOCAL LISTS

Every county should have a local list of the birds found therein at various seasons. Such a list can be prepared by any individual who will be exacting and secure all available data, but can be done more thoroughly by a bird club or natural history society. Such a list should, if possible, be printed for distribution or for sale at a nominal figure. There are a great many ways in which local lists can be gotten out, but however they are made, there are certain features that must be incorporated if the lists are to be of the most value.

It is important to show the resident birds, those that are present at all seasons of the year, grouped so the fact that they are residents is apparent. It is important that the winter birds should be so listed that one can readily see what birds to expect during the winter. Breeding birds too should be distinctly separated from those that do not breed. Migratory and all birds that are not residents should have the dates of arrival, giving the earliest date and the average, provided that the investigations have covered a period of years. The time that they are here and the time that they leave or pass through on the fall migrations should also be indicated.

Following is a list of the birds of New England as given in "Wild Birds of New England," by the author of this volume. This list is given here because it shows the possibilities of making local lists that will be quite complete for every month in the year. The lightness or heaviness of the lines denote the comparative abundance at any time, and a double line denotes that the species breeds at that time. It shows readily just the status of each species in the locality. While we have used it to cover several states, such a list would be much better to cover a single county, and the only change I would suggest would be to have more room for the remarks concerning each species:

BIRDS OF NEW ENGLAND

Occurrence shown by seasonal line — Breeding by double line

No.	Name	Seasonal Occurrence												Remarks
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
2.	Grebe, Holboell	—	—	—	—	—	—	—	—	—	—	—	—	Rare. Coast, rivers, lakes
3.	" Horned	—	—	—	—	—	—	—	—	—	—	—	—	Com. especially on the coast
6.	" Pied-billed	—	—	—	—	—	—	—	—	—	—	—	—	Com. in fall. Breeds locally
7.	Loon	—	—	—	—	—	—	—	—	—	—	—	—	Com. on coast. Unc. inland
9.	" Black-throated	—	—	—	—	—	—	—	—	—	—	—	—	Very rare. From the North
11.	" Red-throated	—	—	—	—	—	—	—	—	—	—	—	—	Com. on coast. Unc. inland
13.	Puffin	—	—	—	—	—	—	—	—	—	—	—	—	Unc. on coast. Breeds off n. Me.
27.	Gullmot, Black	—	—	—	—	—	—	—	—	—	—	—	—	Off coast. Breeds in Me. Com.
30.	Murre	—	—	—	—	—	—	—	—	—	—	—	—	Rare on east coast in winter
31.	" Brunnich	—	—	—	—	—	—	—	—	—	—	—	—	On coast in winter. Casual inland
32.	Auk, Razor-billed	—	—	—	—	—	—	—	—	—	—	—	—	Irregular on coast in winter
33.	" Great	—	—	—	—	—	—	—	—	—	—	—	—	Extinct. Formerly off coast
34.	Dovekie	—	—	—	—	—	—	—	—	—	—	—	—	Com. off shore. Accidental inland
35.	Skua	—	—	—	—	—	—	—	—	—	—	—	—	Casual off shore in winter
36.	Jaeger, Pomarine	—	—	—	—	—	—	—	—	—	—	—	—	Rare spring. Com. fall. Off shore
37.	" Parasitic	—	—	—	—	—	—	—	—	—	—	—	—	" " " " " "
38.	" Long-tailed	—	—	—	—	—	—	—	—	—	—	—	—	" " " " " "
39.	Gull, Ivory	—	—	—	—	—	—	—	—	—	—	—	—	Accidental off shore. Arctic
40.	Kittiwake	—	—	—	—	—	—	—	—	—	—	—	—	Com. off shore. Casual inland
42.	Gull, Glaucous	—	—	—	—	—	—	—	—	—	—	—	—	Rare " " during winter
43.	" Iceland	—	—	—	—	—	—	—	—	—	—	—	—	" " " " " "
45.	" Kumlien	—	—	—	—	—	—	—	—	—	—	—	—	Casual " " " "
47.	" Black-backed	—	—	—	—	—	—	—	—	—	—	—	—	Com. on and near coast
51.	" Herring	—	—	—	—	—	—	—	—	—	—	—	—	Ab. coast. Casual in. Breeds Me
54.	" Ring-billed	—	—	—	—	—	—	—	—	—	—	—	—	Migrant. Casual in winter
58.	" Laughing	—	—	—	—	—	—	—	—	—	—	—	—	Colony on s. coast and in Me.
60.	" Bonaparte	—	—	—	—	—	—	—	—	—	—	—	—	Com. migrant. Casual inland
62.	" Sabine	—	—	—	—	—	—	—	—	—	—	—	—	Casual off coast
63.	Tern, Gull-billed	—	—	—	—	—	—	—	—	—	—	—	—	Accidental from southern states
64.	" Caspian	—	—	—	—	—	—	—	—	—	—	—	—	Rare spring. Not unc. fall. Coast
65.	" Royal	—	—	—	—	—	—	—	—	—	—	—	—	Straggler from southern states
67.	" Cabot	—	—	—	—	—	—	—	—	—	—	—	—	Accidental from southern states
69.	" Forster	—	—	—	—	—	—	—	—	—	—	—	—	Casual. Breeds south and west
70.	" Common	—	—	—	—	—	—	—	—	—	—	—	—	Com. Breeds on coast in colonies
71.	" Arctic	—	—	—	—	—	—	—	—	—	—	—	—	Com. locally on coast
72.	" Roseate	—	—	—	—	—	—	—	—	—	—	—	—	Local on s. Mass. shores
74.	" Least	—	—	—	—	—	—	—	—	—	—	—	—	Local on s. Mass. shores
75.	" Sooty	—	—	—	—	—	—	—	—	—	—	—	—	Accidental from the south
77.	" Black	—	—	—	—	—	—	—	—	—	—	—	—	Unc. from the west
80.	Black Skimmer	—	—	—	—	—	—	—	—	—	—	—	—	Casual " " south. Coast
86.	Fulmar	—	—	—	—	—	—	—	—	—	—	—	—	Unc. fall and winter. Arctic
88.	Shearwater, Cory	—	—	—	—	—	—	—	—	—	—	—	—	Unc. off Mass. shores. Antarctic
89.	" Greater	—	—	—	—	—	—	—	—	—	—	—	—	Com. off shore. " "
95.	" Sooty	—	—	—	—	—	—	—	—	—	—	—	—	" " " " " "
106.	Petrel, Leach	—	—	—	—	—	—	—	—	—	—	—	—	" " " Breeds in Me.
109.	" Wilson	—	—	—	—	—	—	—	—	—	—	—	—	" " " Southern Oceans
115.	Booby	—	—	—	—	—	—	—	—	—	—	—	—	Accidental. Bahamas
117.	Gannet	—	—	—	—	—	—	—	—	—	—	—	—	Com. migrant off shore
119.	Cormorant; Shag	—	—	—	—	—	—	—	—	—	—	—	—	Unc. " " Casual in winter
120.	" Double-crested	—	—	—	—	—	—	—	—	—	—	—	—	Com. on coast. " inland
125.	Pelican, White	—	—	—	—	—	—	—	—	—	—	—	—	Accidental from south or west
126.	" Brown	—	—	—	—	—	—	—	—	—	—	—	—	Straggler from south
128.	Man-o-war-bird	—	—	—	—	—	—	—	—	—	—	—	—	Accidental " "
129.	Merganser	—	—	—	—	—	—	—	—	—	—	—	—	Com. migrant. Casual in winter
130.	" Red-breasted	—	—	—	—	—	—	—	—	—	—	—	—	Ab. " Com. on coast " "
131.	" Hooded	—	—	—	—	—	—	—	—	—	—	—	—	Unc. " Chiefly fresh water
132.	Mallard	—	—	—	—	—	—	—	—	—	—	—	—	" "

Com. = Common; Unc. = Uncommon
Ab. = Abundant

A.O.V. No.	Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
133.	Black Duck													Com. on coast. Breeds inland
135.	Gadwall													Unc. coast and inland
136.	European Widgeon									x	x			Accidental. European
137.	Baldpate													Unc. In fresh or salt water
138.	Teal, European	x	x	x							x			Accidental. European
139.	" Green-winged													Unc. migrant
140.	" Blue-winged													Com. Fall " Coast or inland
142.	Shoveller													Rare migrant. " " "
143.	Pintail													Unc. " " " "
144.	Wood Duck													Unc. " Breeds locally
146.	Redhead													Migrant Rare in winter
147.	Canvas-back													Not unc. in fall. S Mass. shore
148.	Duck, Scaub; Bluebill													Com. in fall. Coast or inland
149.	" " Lesser													" " " " "
150.	" Ring-necked													Rare migrant. " " "
151.	Golden-eye													Com. on coast, less so inland
152.	" Barrow													Very rare. Coast in winter
153.	Buffle-head; Dipper													Not unc. Fresh or salt water
154.	Old-squaw													Ab. on coast. Unc. inland
155.	Duck, Harlequin													Rare " " Casual "
156.	" Labrador													Extinct since 1815
159.	Eider, Northern													Rare on coast
160.	" "													Unc. " " A few breed in Me.
162.	" King													Rare winter visitor on coast
163.	Scoter; Black Coot													Ab. on coast. Not unc. inland
165.	" Surf; Skunk-head													" " " Rare "
166.	" White-winged													Com. off shore. " "
167.	Duck, Ruddy													Com. " " or inland
168.	" Masked							o						Accidental. West Indies
169.	Goose, Snow													Rare migrant
169a	" " Greater			o						o				Accidental. Western
170.	" Blue									o				Very rare. "
171a	" White-fronted													Casual on coast. "
172.	" Canada													Com. on coast, less so inland
172a	" Hutchins													Rare migrant. Western
173a	Brant													Com on coast; casual inland
174.	" Black			o										Accidental. Western
175.	Barnacle Goose										x			" European
180.	Swan, Whistling													Casual on coast
184.	Ibis, White							o	o					Casual from the South
186.	" Glossy				o					o				Accidental " " " Marshes
188.	" Wood						o	o						" (Vt., Mass) " " "
190.	Bittern													Com. Breeds in bog and marshes
191	" Least													Unc. " locally in rushes
191a	" " Cory									o				Casual. A very rare species
194.	Heron, Great Blue													Com. Breeds locally in tall trees
196.	Ebret													Casual straggler from the South
197.	" Snowy								o	o				Accidental " " " "
200.	Heron, Little Blue			o				o	o					Casual " " " "
201.	" Green													Com. Nest in trees near water
202.	" Black-crowned Night													Com. " " " in colonies
203.	" Yellow " "			o			o	o	o	o				Accidental from the South
204.	Crane, Whooping													Formerly during migrations
206.	" Sandhill													" " "
208.	Rail, King													Irregular. In marshes
211.	" Clabber													" " " Salt water
212.	" Virginia													Not unc. Fresh or salt marshes
214.	" Carolina; Sora													Com. migrant. Breeds locally
215.	" Yellow													Rare " May breed "
216.	" Black													Rare and irregular. May breed
217.	Corn Crane	x			x	x	x	x						Accidental. European
218.	Gallinule, Purple			o						o	o			" from South. Fresh water
219.	" Florida													Unc. chiefly near coast
221.	Coot; Mud-hen													Unc. Fresh water marshes
222.	Phalarope, Red													Migrant, usually off shore

A.O.U. No.	Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
219.	Gallinule, Florida													Unc. chiefly near the coast
221.	Coot; Mud-hen													" fresh water marshes
222.	Phalarope, Red													Com. migrant off shore
223.	" Northern													" off shore; rare inland
224.	" Wilson													Accidental. Western
225.	Avocet													" "
226.	Black-necked Stilt													" South
228.	Woodcock													Com. Nest on ground in thickets
230.	Wilson Snipe													Com. migrant. Local in summer
231.	Dowitcher													On coast. Casual inland
231a	" Long-billed													Casual in fall
233.	Stilt Sandpiper													Unc. migrant; chiefly on coast
234.	Knot; Robin Snipe													Com. on coast; casual inland
235.	Sandpiper, Purple													Com. " " Fall and winter
239.	" Pectoral													" " and inland
240.	" White-rumped													" Coast, Lakes and ponds
241.	" Baird													Unc. on beaches and mud flats
242.	" Least; "Peep"													Ab. " " " " "
243a	" Red-backed													Com. on coast in fall
244.	" Curlew													Accidental. Old World
246.	" Semipalmated													Ab. in fall.
248.	Sanderling													Ab. on sandy beaches
249.	Godwit, Marbled													Rare. Salt or fresh marshes
251.	" Hudsonian													" " " "
254.	Yellow-legs, Greater													Com. Coast or ponds
255.	" Lesser													" in fall. Salt or fresh marshes
256.	Solitary Sandpiper													" Fresh streams or ponds
258.	Willet													Rare on coast in fall
258a	" Western													Casual. Western
260.	Ruff													Accidental. Old World
261.	Upland Plover													Unc. Hillsides. Breeds locally
262.	Sandpiper, Buff-breasted													Rare. Marshes or fields
263.	" Spotted													Com. Coast or inland
264.	Curlew, Long-billed													Rare. Coast or marshy flats
265.	" Hudsonian													Unc. Chiefly on coast
266.	" Eskimo													Very rare. Nearly extinct
270.	Plover, Black-bellied													Com. on coast beach and marsh
272.	" Golden													Rare in fall. " " " "
273.	Killdeer													Local and irregular inland
274.	Plover, Semipalmated													Com. on coast; less so "
277.	" Piping													Unc. on sandy coast beaches
280.	" Wilson													Straggler. Southern
283a	Ruddy Turnstone													Sandy or stony coast
286.	Oyster-catcher													Accidental from South
289.	Bob-white; Quail													Unc. resident. Stubble fields
298c	Spruce Partridge													Com. " Me., N.H., Vt. casually in Mass.
300.	Ruffed Grouse													" in woods. Subspecies in Me.
301.	Willow Ptarmigan													Accidental in winter
306.	Heath Hen													Resident on Martha's Vineyard
	Rings-necked Pheasant													Well established in Mass. and Conn.
310a	Wild Turkey													Formerly.
315.	Passenger Pigeon													" com. Now perhaps extinct
316.	Mourning Dove													Local and irregular
325.	Vulture, Turkey													Occasional from the South
326.	" Black													Accidental " " "
327.	Kite, Swallow-tailed													" " " "
328.	" White-tailed													" " " "
331.	Hawk, Marsh													Com. Nest on ground in marshes
332.	" Sharp-shinned													" " in trees in woods
333.	" Cooper													" " " " "
334.	Goshawk													Irregular winter visitor
337.	Red-tailed Hawk													Not unc. More com. in fall

A.O.U. No.	Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
339.	Hawk, Red-shouldered													Com. Nest in trees
342.	" Swainson													Accidental from the West
343.	" Broad-winged													Fairly com. In woods
347a	" Rough-legged													Unc. visitor
349.	Golden Eagle													Casual. Western
352.	Bald Eagle													Unc. More com. on Me. coast
353.	Gyr Falcon, White													Casual in Me. Arctic
354a	" "													" in Me., N.H., Vt., Mass. Arctic
354b	" Black													" " " " "
356a	Hawk, Duck													Rare or casual. Breeds locally
357	" Pigeon													Fairly com. Breeds in n. Me
360.	" Sparrow													Com. Nests in holes in trees
364.	Osprey; Fish Hawk													" Chiefly about salt water
365.	Owl, Barn													Accidental from the South
366.	" Long-eared													Com in fall and winter
367.	" Short-eared													Unc. Nest on ground in marshes
368.	" Barred													Not unc Nest in cavities
370.	" Great Gray													Accidental. Arctic
371.	" Richardson													" "
372.	" Saw-whet													Unc Breeds in n.N.E., mts. Mass
373.	" Screech													Com. Nests in cavities
375.	" Great Horned													Unc. " " " or trees
376.	" Snowy													Casual. Sometimes com. Arctic
377a	" Hawk													" "
378	" Burrowing													Accidental or escaped. Western
387.	Cuckoo, Yellow-billed													Unc and local.
388.	" Black-billed													Com Nest in thicket or low tree
390.	Belted Kingfisher													" Nest in hole in bank
393.	Woodpecker, Hairy													Not unc Nest in cavity
394c	" Downy													Com. Nest in hole. Orchard or Wood
400.	" Arctic Three-toed													Casual Breeds in n. N.E.
401.	" " "													" " " "
402.	Yellow-bellied Sapsucker													Migrant " " "
405a	Woodpecker, Pileated													Casual and local. Breeds in n. N. E.
406.	" Red-headed													" and irregular Com south and west
409.	" Red-bellied													Accidental from the South
412a	Flicker													Com. Often seen on the ground
416.	Chuck-will's-widow													Accidental from the South
417.	Whip-poor-will													Com. but local
420.	Nighthawk													Ab. 2 eggs on ground or gravel roof
423.	Chimney Swift													Ab. Nest within chimneys
428.	Ruby-throated Hummingbird													Com. Moss-covered nest on boughs
442.	Flycatcher, Fork-tailed													Accidental in Me. Mexican
444.	Kingbird													Com. Orchard or pasture
447.	" Arkansas													Accidental. Western
452.	Flycatcher, Crested													Unc. Local. Nest in cavities
456.	Phoebe													Com. Nest under bridges, bays, etc.
457.	" Say													Accidental. Western
459.	Flycatcher, Olive-sided													Rare and local. Swampy woods
461.	Wood Pewee													Com. in dry woods
463.	Flycatcher, Yellow-bellied													Transient and local in summer
465.	" Acadian													Casual, irregular and local
466a	" Alder													Unc. and local
467.	" Least													Ab. Orchard, woods or roadside.
474.	Lark, Horned													Casual winter visitor
474b	" " Prairie													Of local occurrence
477.	Blue Jay													Com. Often nests in low pines
484.	Canada Jay													Com. in n. N.E. Casual in Mass.
486a	Northern Raven													Local, chiefly on the coast
488.	Crow													Ab.
490.	" Fish													Local on south coast
493.	Starling													Introduced, Local
494.	Bobolink													Com. Nest in meadows
495.	Cowbird													" Eggs in other birds' nests

A.O.U. No.	Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
498.	Red-winged Blackbird												Com Nest in swamps & ditches
501.	Meadowlark												" " meadows
506.	Oriole Orchard												Unc in s.N.E.; casual in n.N.E.
507.	" Baltimore												Com. Nest hanging, often in elms
509.	Rusty Blackbird												" Breeds in n.N.E.
511.	Grackle, Purple												Casual in s.N.E.
511b	" Bronzed												Com. Nests in evergreens
514	Grosbeak, Evening												Casual. Western
515.	" Pine												Winter visitor. Breeds in n.N.E.
517.	Purple Finch												Com. A good songster
***.	English Sparrow												Ab. and a pest everywhere
521.	Crossbill, Red												Irregular Breeds in n.N.E.
522.	" White-winged												" and unc. " " " "
527a	Redpoll, Hoary												Casual. Arctic
528.	" "												Com. Feeds near or on the ground
528a	" Holboell												Unc. as is also 528b. Greater Redpoll
529.	Goldfinch												Com. Nests late
533.	Pine Siskin												" but irregular. Breeds in n.N.E.
534.	Snow Bunting												" " " In flocks on hillsides
536.	Longsur. Loblind												Unc. and " Arctic
538.	" Chestnut-collared												Accidental from the West
540.	Sparrow, Vesper												Ab. Nest on ground in fields
541.	" Ipswich												Unc on coast. Breed in N.S.
542a	" Savannah												Com. Breeds locally
546.	" Grasshopper												" An insect-like song
547.	" Henslow												Unc. and local. Com. in the South
549.	" Sharp-tailed												Salt marshes along coast
549.1a	" " Acadian												" " Breeding in Me.
550.	" Seaside												Unc. " on south shore.
552.	" Lark												Accidental from the West
554.	" White-crowned												Unc. migrant.
558.	" White-throated												Com. Breeds locally and in wts.
559.	" Tree												Com. " In Canada
560.	" Chipping												Ab. Hair nest in trees or bushes
563.	" Field												" Nest on or near the ground
567.	Junco, Slate-colored												" " in n.N.E. and casually Mass.
581.	Sparrow, Song												" " on ground or in bushes
583.	" Lincoln												Rare. Breeds in Canada
584.	" Swamp												Fairly com in swamps
585.	" Fox												Com. in wood and thickets
587.	Towhee; Chewink												" Nest on ground in " woods
593.	Cardinal												Local in s.N.E.
595.	Rose-breasted Grosbeak												Com Nest in bushes or trees
597.	Blue Grosbeak												Accidental from the South
598.	Indigo Bunting												Com. Nest in bushes or weeds
604.	Dickcissel												Casual. Western. Once bred here
607.	Tanager, Western												Accidental from the West
608.	" Scarlet												Com. Nests in woodland trees
611.	Purple Martin												Unc. Formerly abundant
612.	Swallow, Cliff												Com. Nest under eaves
613.	" Barn												" " in barns
614.	" Tree												" " holes in trees
616.	" Bank												" " " " sand banks
617.	" Rough-winged												Local Com in the South
618.	Waxwing, Bohemian												Casual from the Northwest
619.	" Cedar												Com.
621.	Shrike, Northern												Unc. Fields or along roadsides
622e	" Migrant												" and local. Nest in thickets
624.	Vireo, Red-eyed												Com Nest swung in fork
626.	" Philadelphia												Rare. Breeds in n.N.E.
627.	" Warbling												Com Nest in trees
628.	" Yellow-throated												Unc. " " usually high
629.	" Blue-headed												Not unc. " " low
631.	" White-eyed												Unc. " " bushes

A.O.U. No.	Name	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
636.	Warbler, Black and White													Com. Nest on ground in woods
637.	" Prothonotary													Casual in S.N.E.
639.	" Worm-eating													Local in Conn.
641.	" Blue-winged													" " "
642.	" Golden-crowned													Local in Mass. and Conn.
645.	" Nashville													Com. Nest on ground
646.	" Orange-crowned													Rare during migrations
647.	" Tennessee													Rare Breeds in n.N.E.
648a	" Parula													Com. Nest in pendant moss
650.	" Cape May													Rare. Breeds in n.N.E.
652.	" Yellow													Com. Nest usually in bushes
654.	" Black-throated Blue													Com. Nests in n.N.E. and locally south
655.	" Myrtle													" " " "
657.	" Magnolia													Not unc. Nests in - " " "
658.	" Cerulean													Casual during migration, R.I., Conn.
659.	" Chestnut-sided													Com. Nest in bushes
660.	" Bay-breasted													Unc. Nests in n.N.E.
661.	" Black-bell													Ab. " in mts. n.N.E.
662.	" Blackburnian													Not unc. Nests in " and locally south
663.	" Yellow-throated													Accidental in s.N.E. from the South
667.	" Black-throated Green													Com. Nest in pines
671.	" Pine													" " " "
672a	" Yellow Palm													" " Casually in Me.
673.	" Prairie													Local. " in bushes.
674.	Oven-bird													Com. " on ground in woods
675.	Water-Thrush													" Nests in n.N.E.; locally in Mass.
676.	" " Louisiana													Local in s.N.E.
677.	Warbler, Kentucky													Casual " "
678.	" Connecticut													Rare in spring, not unc. in fall
679.	" Mourning													" during migrations
681.	Maryland Yellow-throat													Com. Nest on ground in thickets
683.	Yellow-breasted Chat													Unc. and local in s.N.E.
684.	Warbler, Hooded													Rare in the lower Conn. Valley
685.	" Wilson													Com. Breeds in n.N.E.
686.	" Canada													Not unc. Nest on ground in swamps
687.	Redstart													Com. Nest in trees or bushes
697.	Pipit; Titlark													" " In flocks feeding on ground
703.	Mockingbird													Unc. and local in s.N.E.
704.	Catbird													Com. Nest in bushes
705.	Brown Thrasher													" " " " or on ground
718.	Wren Carolina													Local in lower Conn. Valley
721.	" House													Com. locally.
722.	" Winter													Unc. Breed in Mass. and n.N.E.
724.	" Short-billed Marsh													" and local Nest in marshes
725.	" Long-billed Marsh													" " " " rushes
726.	Brown Creeper													Com. Breeds locally.
727.	Nuthatch, White-breasted													" Nest in holes of trees
728.	" Red-breasted													" Breeds in n.N.E., casually Mass.
731.	Tufted Titmouse													Casual in s.N.E.
735.	Chickadee													Ab. Nest in holes in trees
740a	" Acadian													Breeds in n.N.E. Casual in Mass.
748.	Kinglet, Golden-crowned													Com. " " and casually in "
749.	" Ruby-crowned													" "
751.	Gnatcatcher, Blue-gray													Casual from the South
755.	Thrush, Wood													Com. Nest in bushes or trees
756.	" Wilson; Veery													" " on ground
757.	" Gray-cheeked													Not unc. during migrations
757a	" Bicknell													Breeds in n.N.E.; casually Mass.
758a	" Olive-backed													Not unc. Breeds in n.N.E.; " "
759b	" Hermit													" " " " " " "
761.	Robin													Com.
763.	Varied Thrush													Accidental from the West
765a	Greenland Wheatear													" " " North
766.	Bluebird													Com. Nest in holes in trees

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