Birds of Washington and Vicinity

Where to Find and
How to Know Them

FOR THE PEOPLE
FOR EDVCATION
FOR SCIENCE

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OF
THE AMERICAN MUSEUM
OF
NATURAL HISTORY

BIRDS OF WASHINGTON
AND VICINITY

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DEDICATED

TO MY BOYS

INSPIRING COMPANIONS IN ALL MY

BIRD STUDIES AND EXCURSIONS

PREFATORY NOTE.

This little book has been prepared at the suggestion of the Audubon Society of the District of Columbia, in the belief that a local work giving untechnical descriptions of all birds likely to be seen in this vicinity, with something of the haunts and habits of those that nest here, will be useful to many who desire an acquaintance with our own birds but do not know just how to go about making it.

Whatever success has been attained in the effort to make the book usefully accurate and complete has been made possible by some of our resident ornithologists, who have most generously given information, observations, and helpful criticism. I am especially indebted to Mr. Robert Ridgway, Dr. C. W. Richmond, Dr. A. K. Fisher, Mr. William Palmer, and Dr. T. S. Palmer. Miss Florence A. Merriam has been the inspiration of the work from its inception. There are also others to whom I am deeply grateful for kind assistance.

I would call attention to Dr. Richmond's valuable tabulated list of all birds found here (p. 178), and to Miss Merriam's introduction, with its hints on observing, and suggestions as to where to find the District birds.

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L. W. M.

WASHINGTON, D. C., *September, 1898.*

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INTRODUCTION.

In these days we have not the excuse that it is necessary to shoot a bird to find out what it is. With museum collections and bird books to refer to, one has only to go to the field and watch the birds. Here an opera-glass is a great help and a note-book positively indispensable to the earnest observer. Notes on colors and markings made in the field with the bird in sight, if compared with the books, will give the bird's name, and notes on his habits made at the time will add valuable material to our meagre knowledge of life histories; but notes made from memory will rarely identify and are wholly untrustworthy. A good observer must be able to take his oath upon the accuracy of all his records.

Provided with glass and note-book and dressed in inconspicuous colors, proceed to some good birdy place—the bushy banks of a stream or an old juniper pasture—and sit down in the undergrowth or against a concealing tree trunk with your back to the sun, to look and listen in silence. You will be able to trace most songs to their singers by finding which tree the song comes from and then watching for *movement*, as birds are rarely motionless long at a time when singing. It will be a help if, besides writing down a careful description of both bird and song, you draw a rough diagram of the bird's markings and put down

the actual notes of his song as nearly as may be. Suggestions as to the most important points to observe will be found on page 192.

If you have time for only a walk through the woods, go as quietly as possible and stop often, listening to catch the notes that your footsteps have drowned. Timid birds may often be attracted by answering their calls, for it is very reassuring to be addressed in one's native tongue.

Don't try to see too much at first. Carefully note descriptions of a few birds and then refer to a bird book and identify them.

It will be a great help to compare your note-book descriptions with the Smithsonian cases of summer residents of the District, in the Children's Room, and labelled "Familiar Birds of the United States." Reference books may be examined at the library of the Biological Survey, U. S. Department of Agriculture, though they cannot be taken from the room, and many of the popular books will be found in the Washington Free Public Library. Migration blanks, and publications on the food habits of birds can be had on application to the Biological Survey.

Records of rare birds should be reported to Dr. Richmond at the Smithsonian, and he should also be consulted about birds that cannot be otherwise identified.

Aside from the many advantages afforded by access to experienced ornithologists and the government collections, Washington is a particularly good place in which to get acquainted with birds. The numerous city parks, and the large grounds of the Capitol,

White House, Agricultural Department, and Smithsonian are good observation grounds in themselves, not only in the migrations but in the nesting season, as we are favored by having twenty-six species of birds nest in the city.

Even in winter, when most of us note few but the English Sparrow, the city is not without its native bird residents and affords opportunities for delightful encounters with straying northerners visiting the capital.

Much to the satisfaction of inlanders unacquainted with coast birds, the singular *car* of the Fish Crow may be heard all winter about the Smithsonian, for the birds make themselves at home on its towers and regardless of spectators perch on the bare trees of the grounds. Sometimes when walking through the grounds one discovers a small tree filled apparently with round apples, which on approach turn into a flock of plump Waxwings conversing in their low monosyllables. In passing weed-grown vacant lots one often starts up a flock of twittering Juncos—the slate-colored Snowbirds—and one day I chanced along just as a small Hawk darted down from his ambuscade scattering a little band of them which had been feeding quietly among the weeds. Throughout the winter we are honored by the presence of the Red-headed Woodpecker, splendid beauty that he is, and when passing "Boundary Castle," at the head of Sixteenth Street, may often hear his rattling *ker'r'r'r* and get sight of the handsome tricolor coats of two or three of the Red-heads disporting on the bare trees below the Castle. On the quiet part of Florida Avenue

near by, the cheering voice of the Song Sparrow may sometimes be heard, sounding peculiarly gentle and melodious in contrast to the quarrelsome winter chatter of the English Sparrow. Now and then, too, the sweet sad call of the Bluebird stirs our hearts with its promise of spring.

Transient feathered visitors also brighten the winter days. Once I had the delightful surprise of discovering a flock of northern Pine Finches filling a sapling at the corner of 16th and U Streets, and showing their yellow wing marks as if to prove their identity. Another day I came face to face with a flock of Horned Larks at the intersection of New Hampshire Avenue and T Street, calmly taking a promenade on the asphalt.

Towards spring one's calendar has many red letters. As I look back, one of the brightest is the day when from a tree opposite the Treasury the first spring carol of the Robin arrested my steps and magically transformed the noisy city streets into quiet countryside, as a sudden burst of sunshine illuminates a dull landscape. Bound with this memory is the first sight of the jolly Crow Blackbirds on the Agricultural grounds taking constitutionals among the dandelions to the delight of all beholders. Then come the evenings when from the sidewalk one hears the faint sweet chirpings of homeward bound travellers passing overhead, evenings followed by days when Golden Warblers awaken one with their summery song, little visitors drop into the city parks, the leafing trees ring with the happy songs of bands of Goldfinches, and the woods and fields are filled with new joyful life to attract one to the country.

In going outside of the city to look for birds Washingtonians are peculiarly favored, for the suburban car lines carry them out so quickly that even the few free hours of a busy day may be used to great advantage. One of the most accessible places is also one of the best for birds. From the 7th Street end of the U Street car line it takes only fifteen minutes to reach the entrance of the Zoological Park, where the earliest birds gather. Here on a chilly spring morning the air has been fairly ringing with the sweet minor whistles of Field Sparrows answering each other across the bare hills.

In April the low sunny pine woods on the way to the animal houses are a favorite singing gallery for flocks of the slate-colored Snowbirds which, minor songsters though they be, warble a cheery lay that leads very pleasantly to the louder chorus of summer. Beyond the pines, around the out-door animal houses and the buffalo yards where seed-eaters can pick up a living, the handsome White-throated Sparrows collect, and their piping whistle is most grateful to the ear, for it has all the purity and freshness of a spring morning.

In May and June as you enter the Zoo gates the low wooded hills on the right are almost sure to be echoing with bird songs. Cardinals, Tufted Titmice, Indigo-birds, Catbirds, Chats, Oven-birds, Scarlet Tanagers, and Wood Thrushes sing there commonly, and I have seen numbers of Black-polls and a Bay-breasted Warbler there earlier in the season. On May 4, 1898, I noted twelve species between the Zoo entrance and the antelope yards, including the Black and White Creeper and Prairie Warbler.

During the spring migration the bushes along the north bank of Rock Creek below the prairie-dog houses are favorite resorts for warblers—active Black and White Creepers, gentle Black-throated Blues, gorgeous orange-throated Blackburnians, and many others, while across the creek, White-eyed Vireos, Chats and Maryland Yellow-throats sing. Piney Branch is another good water-way for Warblers—a beauty of a Black-and-Yellow is associated with one especial patch of bushes. Indeed, sunny undergrowth by water supplies the conditions these little insect eaters most desire.

Outside the Zoo the narrow wooded strip of land between the Potomac and the canal from High Island up to the Amphitheatre is one of the best Warbler grounds easily reached by the cars. Here one may find among other birds Rough-winged Swallows, Maryland Yellow-throats, Carolina Wrens, Water-Thrushes and Kentucky Warblers.

In looking for birds that prefer dry fields and thickets there is a delightful old juniper field to visit just west of Chevy Chase circle. Here Thrashers shout out their approval of life, shy Chewinks scratch up the dead leaves under cover of the evergreens, clownish Chats pour out their rapid volleys—loud whistles and mocking laughter—from the thicket, and sweet-voiced Prairie Warblers mount the juniper tops and with leisurely serenity run up their rich scale.

Among other birdy places that may be reached on the wheel are the wild undergrowth bordering the Soldiers' Home woods, the road passing Pierce's Mill and Blagden's Mill, and running northward into Rock

Creek Park, the woods along the Brightwood road and the military road west of Brightwood. The woods back of Marshall Hall and those adjoining Mt. Vernon, Takoma Park, Forest Glen, Kensington, Rockville, Laurel, Four Mile Run, the Arsenal grounds and the reclaimed Potomac Flats are all good places. The Falls Church road is said to go through a rich bird section and to include on its list Worm-eating Warblers. Arlington Cemetery is particularly good for winter birds, and the mouth of Hunting Creek, Anacostia River and swamps, for water birds.

On May 9, 1898, I noticed forty-eight species on a circuit of a mile from the terminus of the 14th Street car line down along Piney Branch and back through Mt. Pleasant, eighteen species of which were seen between the end of the car line and the 14th Street bridge on Piney Branch.

Before the bulk of the birds come north, one has to pick out the most favorable places in order to see much, but in May and June there will be plenty to see and hear on almost any walk or ride if one selects the hour and direction in reference to sun and wind. For birds follow the sun, keep out of the wind, and are little in evidence during the hot noon hours. In the early morning the dark western side of the woods will be silent and deserted while the side that faces the sun will be alive with merry songsters. Go along Piney Branch when the sun has dropped below the southern wall and you will see little or nothing. Walk up Rock Creek in a strong north or south wind and you will fare still worse. The noon-day hours are to be avoided almost as much as wind. To hear songs

and watch migrants, go early in the morning, earlier as the days grow warmer. If the morning hours are occupied, the late afternoon ones will be found profitable, as the birds sing again when the heat of the day is over. In watching nests you have more latitude, as there is generally plenty to see at all hours of the day.

Year by year as one's field experiences accumulate, the pleasures of bird study deepen. Not only does the acquaintance of one year become the friend of the next, but drawn more to the woods and fields by the delight of our new interest in the birds themselves, all unwittingly we come closer and closer to nature and are blessed by her healing touch.

FLORENCE A. MERRIAM.

WASHINGTON, D. C., *June 15, 1898.*

Birds of the Woods.

Tanagers, Thrushes, Woodpeckers, Flycatchers, Vireos, Carolina Wren, Cardinal, Kingfisher (wooded streams), Oven-bird, Black and White Creeper, Nuthatch, Titmouse, Chickadee, Whip-poor-will, Nighthawk, Junco, Kinglets, Water-Thrush, Hummingbird, Cuckoos, Turtle Dove, most Warblers.

Birds of Garden and Orchard.

Bluebird, Robin, Chipping Sparrow, Wood Pewee, Phœbe, Kingbird, Brown Thrasher, Catbird, Mockingbird, House Wren, Purple Martin, Eave and Barn Swallows, Orioles, Blue Jay, Hummingbird, Goldfinch, Woodpeckers, Crested Flycatcher, Red-eyed Vireo, Cedar-bird.

Birds of Meadow and Wild Field.

Field Sparrow, Vesper Sparrow, Indigo-bird, Bluebird, Meadowlark, Bobolink, Blackbirds, Crow, Fish Crow, Nighthawk, Bob-white, Junco, Prairie Warbler, Brown Thrasher.

Birds of Roadside and Fences.

Sparrows, Kingbird, Chat, Indigo-bird, Bluebird, Goldfinch, Brown Thrasher, Catbird, Robin.

Birds that show White in Flying.

Meadowlark, Vesper Sparrow, Chewink, Cuckoos, Junco, Kingbird, Blue Jay, Flicker, Turtle Dove, Nighthawk, Mockingbird, Marsh Hawk, many small Warblers.

ABOUT BIRDS IN GENERAL.

Birds as a class occupy a place between mammals and reptiles, but nearer reptiles. Unlike and far apart as birds and snakes now are, fossil remains prove that they have a common ancestry, that both are descended from what is called reptilian stock, and have arrived at their present forms by a long and wonderful process of evolution. A character still common to both is egg-laying, although reptiles, with few exceptions, do not incubate.

Birds, standing between mammals and reptiles, have no marked peculiarities of structure not found in one or the other class, except that of body-covering; they, and they only, are clothed in feathers. This ideal clothing is light, warm, and non-conducting, thus permitting a high temperature to be maintained. The heat of a bird's body is about 110 degrees, against 98 degrees in mammals and 40 degrees in reptiles.

Birds are said to be protectively colored when the tints of their plumage harmonize with their haunts, making them inconspicuous to their enemies. The brown, striped Sparrows, Quail, and Whip-poor-will are good examples of protective coloration in birds that are much on the ground, and Vireos and female Tanagers of those that live in trees.

Birds do not perspire. They have an oil-gland at the base of the tail from which they press out a drop of oil with the beak, and dress or "preen" their feathers. This gland is specially developed in water-

birds, and it is the thorough anointing of the feathers which makes water so readily run off a duck's back.

The breathing capacity of birds is phenomenal; they breathe not only with the lungs but with the whole body, inflating numerous air-sacs under the skin, and also certain bones. Birds breathe much more rapidly than animals. Their wonderful power of flight is explained by the lightness of the air-filled body, and by their great muscular strength; the breast muscles which move the wings are enormous, sometimes weighing one-sixth of the whole bird.

There is the greatest variety in the structure and consequently in the habits of different birds, some being especially adapted to life in the water, and others to aerial life, while the Ostrich and its relatives can neither swim nor fly. By far the greater number of birds, however, are at home on earth or in the air, and can range the wide world over, the most free and independent of all creatures.

Aerial birds have great expanse of wing in proportion to the size of body, and their wings are long and pointed, while birds that spend most of their time perching or on the ground, like the Sparrows, have short round wings. Between the two extremes of shape and use there is every possible variety, adapted to the habits of all species.

The bill of a bird is its hand, and is wonderfully varied to suit different habits of feeding and nest building. It may be long or short, slender or stout, straight or hooked at the end, curved up or down, wide and flat or high and narrow, but is always admirably adapted to its special use. In its varied forms it is used as forceps, chisel, hammer, trowel, shovel, probe, hook or needle.

There are also great differences in the feet of birds. Those that walk much, like Blackbirds, have strong, well-developed feet, while the feet of birds that spend most of their time in the air, such as Swallows, are small and weak. Hawks and Owls have tremendously strong feet, which they use with great skill in catching and killing their prey. Water birds have webbed feet, which are used as oars in swimming. The feet of perching birds are so constructed that certain tendons act automatically and lock the bird to his perch when sleeping.

A bird's tail is used as a rudder in flight, and enables him to steer his course with precision. Long-tailed birds can change their course much more quickly and gracefully than those with short tails, which generally make direct flights. Some birds, like Woodpeckers and Swifts, have a short stiff tail, which they use as a prop. Many birds use the tail to express emotion. It is twitched, wagged, spread or folded, drooped or tilted up, according to the disposition of its owner.

Birds have ears, although there is usually no indication of them. They open a little below and behind the eyes, and are hidden by feathers. The nose of a bird is a pair of nostrils opening on the bill.

Birds are classified according to their differences in structure, the greater diversities separating them into the larger divisions, or orders, and the lesser into the nearer relationship of families. Within families there is a still closer connection called the genus (plural genera). Species means the particular kind of bird, as Robin, Song Sparrow. The scientific names of birds show genus and species, and the genus is placed first, as if we should write Smith, John instead of John Smith.

A FIELD KEY TO OUR COMMON LAND BIRDS.*

When you have seen a bird with sufficient definiteness to describe its color, form, and actions, reference to the following key will often prove a short cut to its identity. This key is based only on adult males, who, because of their song, often brighter colors, and greater activity, are far more frequently observed than the females. But, knowing the male, you will rarely, during the nesting season, be at loss to recognize his mate.

The use of the key may be illustrated by the following example: Let us imagine that you see a Chipping Sparrow feeding about your doorstep. You note his size, chestnut cap bordered by white, black bill, brownish, streaked back, and grayish white, unmarked under parts. Turning now to the key, you will see that by exclusion the bird belongs in "Section V" of the "Third Group," and that it should be placed in subsection "1" of this section, which includes birds having the "under parts white or whitish, all *one* color, *without* streaks or spots." You have now two subdivisions to choose from—"A. Back

* From "Bird-life," by Frank M. Chapman. By permission of D. Appleton & Co.

without streaks or spots," and "B. Back brownish, streaked." Your bird falls under "B," where again you have two subdivisions, "*a.* Crown rufous or chestnut, without streaks," and "*b.* Crown not rufous or chestnut." Your bird should be referred to "*a*," where you will at once find it described under "a^1" as the Chipping Sparrow.

FIRST GROUP.

BIRDS THAT CATCH THEIR INSECT FOOD IN THE AIR.

(*Flycatchers, Swallows, Swift, Nighthawk, Whip-poor-will.*)

I. Size large, length over 9.00 inches; the spread wings over 15.00 inches in extent; generally seen only late in the afternoon or at dusk.

1. A bird of the air, flying high, often over housetops in cities; a conspicuous white spot in each wing; note, a loud, nasal *peent;* sometimes dives earthward with a *booming* sound. . . . . NIGHTHAWK, page 120.

2. Haunts, near the ground, makes short flights while feeding; call, given from a rock, stump, or similar perch, *whip-poor-will,* vigorously repeated.
WHIP-POOR-WILL, page 119.

II. Size smaller, length under 9.00 inches; the spread wings less than 15.00 inches in extent; may be seen at any time of the day.

1. Birds that catch passing insects by darting from a perch, to which they afterward return.

A. Length 8.50 inches; upper parts blackish slate color; tail tipped with white; occasionally attacks Crows; note, an unmusical, steely chatter.
KINGBIRD, page 111.

B. Length under 8.00 inches; upper parts not slate color; tail not tipped with white.

a. Length 7.00 inches; frequently found nesting under bridges or about buildings; crown blackish; tail wagged nervously; note, *pee, pee,* and *pewit-phœbe.* . . . . . PHŒBE, page 114.

b. Length 6.50 inches; haunts wooded growths; note, a plaintive *pee-a-wee.* . . . WOOD PEWEE, page 115.

c. Length 5.40 inches; haunts orchards, lawns, and open woodland; note, *chebéc, chebéc.*
LEAST FLYCATCHER, page 169.

2. Birds that feed on the wing for hours without perching.

A. Plumage entirely black.

a. Length 5.50 inches; plumage sooty black; usually nests in chimneys. . . . CHIMNEY SWIFT, page 117.

b. Length 8.00 inches; glossy, bluish black; nests in gourds or houses erected for its use.
PURPLE MARTIN, page 78.

B. Plumage not entirely black. . SWALLOWS, page 78.

SECOND GROUP.

CLIMBING AND CREEPING BIRDS.

(*Nuthatches, Creepers, Woodpeckers.*)

I. Birds *without* stiffly pointed tail-feathers, that climb either up or down.

1. Length 6.00 inches; back gray, cap black, cheeks and under parts white; note, a nasal *yank, yank;* a permanent resident. . WHITE-BREASTED NUTHATCH, page 48.

2. Length 4.50 inches; back gray, cap black, a blackish streak through the face; under parts reddish brown; note, high and thin, like the tone of a penny trumpet.
RED-BREASTED NUTHATCH, page 160.

3. Length 5.25 inches; upper parts streaked black and white; note, a thin wiry *see-see-see-see.*

BLACK AND WHITE WARBLER, page 59.

II. Birds with stiffly pointed tail-feathers, that always climb upward.

1. Length 5.65 inches; plumage dull brown and black; size small, bill slender; an inconspicuous bird who winds his way up the trunks searching for insects' eggs, etc.; note, fine and squeaky. . . BROWN CREEPER, page 160.

2. Plumage with more or less white, size larger, bill stouter, chisel-like, often used in hammering.

A. Length 9.75 inches; head red, back black; flight showing a large white patch in the wing.

RED-HEADED WOODPECKER, page 123.

B. Length 12.00 inches; crown gray; a red band on the nape; flight showing a white patch on the lower back and yellow in the wings; often flushed from the ground; note, *kee-yer.* . . . . . FLICKER, page 127.

C. Length 6.75 inches; crown black; back and wings black and white; note, a sharp *peek.*

DOWNY WOODPECKER, page 122.

THIRD GROUP.

BIRDS NOT INCLUDED IN THE PRECEDING GROUPS.

(*Blackbirds, Orioles, Sparrows, Vireos, Warblers, Thrushes, etc.*)

SECTION I. With yellow or orange in the plumage.

SECTION II. With red in the plumage.

SECTION III. With blue in the plumage.

SECTION IV. Plumage conspicuously black, or black and white.

SECTION V. Birds not included in the preceding sections.

I. With yellow or orange in the plumage.

1. Throat yellow.

A. Throat and breast pure yellow, *without* streaks or spots.

a. Length 5.10 inches; cap, wings, and tail black; back yellow; song canarylike, sometimes uttered on the wing; flight undulating, frequently accompanied by the notes *chic-o-ree, per-chic-o-ree;* a permanent resident. . . . . AM. GOLDFINCH, page 86.

b. Length 5.95 inches; lower belly and wing-bars white; back olive-green; frequents the upper branches, generally in woodland; actions deliberate; song loud and musical, uttered slowly, often with pauses: "See me? I'm here; where are you?" YELLOW-THROATED VIREO, page 73.

c. Length 5.25 inches; cheeks and forehead black, bordered by ashy; upper parts olive-green; no wing-bars; haunts thickets and undergrowth; movements nervous and active; call-note *pit* or *chack;* song, a vigorous, rapid *witch-e-wèe-o, witch-e-wèe-o.* MARYLAND YELLOW-THROAT, page 68.

d. Length 7.45 inches; upper parts olive-green; no wing-bars; a white line before the eye; haunts thickets and undergrowth; song, a striking mixture of whistles, *chucks,* and *caws,* sometimes uttered on the wing. . . . . YELLOW-BREASTED CHAT, page 69.

B. Under parts streaked with reddish-brown; length 5.00 inches; general appearance of a yellow bird; haunts shrubbery of lawns, orchards, second growths, and particularly willows near water; song, rather loud, *wee, chēe-chēe-chee, chĕr-wee,* or *chee-chee-chee-chee, wày-o.* . . . . . YELLOW WARBLER, page 61.

C. Breast yellow, with a conspicuous black crescent; length 10.75 inches; haunts fields and meadows, largely terrestrial; flight quail-like, outer tail-feathers white, showing when on the wing; song, a loud, musical whistle; a permanent resident.

MEADOWLARK, page 102.

2. Throat white.

A. With yellow on the sides.

a. Length 5.50 inches; rump yellow; breast streaked or spotted with black; tail-feathers marked with white; note, a characteristic *tchip*.

MYRTLE WARBLER, page 162.

b. Length 5.00 inches; no black on under parts or white in the tail; yellow extending along the whole sides; back olive-green, iris white; haunts thickets; call, an emphatic "Who are you, eh?"

WHITE-EYED VIREO, page 74.

c. Length 5.25 inches; tail and wings banded with yellow, showing conspicuously in flight; haunts woodland; movements active, much in the air, tail frequently spread. . . . . REDSTART, page 70.

B. No yellow on sides.

a. Length 6.75 inches; a yellow line from the bill to the eye; crown black, with a white stripe through its center; haunts in and about thickets and bushy woodlands; song, a high, clear, musical whistle; call-note, *chink*.

WHITE-THROATED SPARROW, page 167.

b. Length 4.00 inches; a yellow, or yellow and orange crown-patch, bordered by black; flits restlessly about outer limbs of trees and bushes; note, a fine *ti-ti*. . . . . GOLDEN-CROWNED KINGLET, page 160.

3. Throat neither yellow nor white.

A. Length 12.00 inches; white rump and yellow in wings showing conspicuously in flight; a black breast-band; note, a loud *kèe-yer.*

FLICKER, page 127.

B. Length 9.00 inches; crested; breast ashy, belly yellow; tail-feathers largely pale brownish red; haunts upper branches in woodland; note, a loud questioning or grating whistle.

CRESTED FLYCATCHER, page 112.

C. Length 7.50 inches; throat and head black; breast, belly, and lower back deep orange; haunts fruit and shade trees; song, a loud, ringing whistle.

BALTIMORE ORIOLE, page 103.

D. Length 7.20 inches; crested; grayish brown; a black line through the eye; tail tipped with yellow; generally seen in small flocks; note, thin and weak.

CEDAR WAXWING, page 76.

II. With red in the plumage.

1. With red on the under parts.

A. Throat red.

a. Length 7.25 inches; wings and tail black; rest of plumage bright scarlet; call-note, *chip-chirr.*

SCARLET TANAGER, page 84.

b. Length 6.20 inches; dull pinkish red, wings and tail brownish; frequently seen feeding on buds or blossoms; call-note, a sharp *chink,* often uttered during flight; song, a sweet, flowing warble.

PURPLE FINCH, page 166.

c. Length 6.20 inches; dull red or green tinged with red; mandibles crossed; generally seen in flocks; feeds on pine cones. . . . AM. CROSSBILL, page 166.

d. Length 5.30 inches; a red crown-cap; back streaked black and brown; breast rosy; feeds on seeds or catkins. . . . . REDPOLL, page 180.

B. Throat black.

a. Length 8.00 inches; breast rose-red, rest of plumage black and white; song loud and musical; call-note, *peek*. . . ROSE-BREASTED GROSBEAK, page 168.

b. Length 8.00 inches; a conspicuous crest; region about the base of the bill black; rest of the plumage and bill red; song, a clear whistle; resident from New York city southward. . . . CARDINAL, page 94.

c. Length 5.40 inches; wings and tail banded with orange-red, showing conspicuously in flight; movements active; much in the air; tail frequently spread; haunts woodland. . . . REDSTART, page 70.

2. No red on the under parts.

A. Length 9.50 inches; black; shoulders red; haunts marshes; migrates in flocks.
RED-WINGED BLACKBIRD, page 100.

B. Length 5.25 inches; crown-cap red; chin black; rest of under parts streaked with blackish; feeds on seeds and catkins. . . . . REDPOLL (im.), page 180.

C. Length 4.00 inches; under parts whitish; back olive-green; a ruby crown-patch; eye-ring white; movements restless, wings flitted nervously; call-note, *cack;* song remarkably loud and musical;
RUBY-CROWNED KINGLET, page 159.

III. With blue in the plumage.

A. Length 11.50 inches; a conspicuous crest; upper parts dull blue; under parts whitish; a black patch on the breast. . . . . BLUE JAY, page 108.

B. Length 7.00 inches; upper parts bright blue; under parts cinnamon-brown. . . . . BLUEBIRD, page 41.

C. Length 5.50 inches; entire plumage indigo-blue.
INDIGO BUNTING, page 96.

D. Length 13.00 inches; bluish gray, haunts near water; feeds on fish, which it catches by darting on them at the surface. . . . . KINGFISHER, page 128.

IV. Plumage conspicuously black, or black and white.

1. Black and white birds.

A. Throat black.

a. Length over 6.00 inches.

a^1. Entire under parts black; nape buffy; rump white; a musical dweller of fields and meadows; frequently sings on the wing.
BOBOLINK, page 169.

a^2. Breast rose-red; rest of the plumage black and white; song rapid, loud and musical; call-note *peek;* a tree dweller in rather open woodland.
ROSE-BREASTED GROSBEAK, page 168.

a^3. Sides reddish brown; rest of the plumage black and white; call-note, *chewink* or *towhèe;* inhabits the undergrowth; often seen on ground scratching among fallen leaves. . . . TOWHEE, page 93.

b. Length under 6.00 inches.

b^1. Crown black; cheeks white; back ashy; unstreaked; call, *chick-a-dee,* or a musical, double-noted whistle; a permanent resident.
CHICKADEE, page 178.

B. Throat and under parts white or whitish.

a. Length 8.50 inches; upper parts blackish slate-color; tail tipped with white; a bird of the air, catching its insect food on the wing, and occasion-

ally sallying forth from its exposed perch in pursuit of a passing Crow; note, an unmusical, steely chatter. . . . . KINGBIRD, page 111.

b. Length 6.90 inches; upper parts washed with rusty; generally seen in flocks; terrestrial.

SNOWFLAKE, page 180.

2. No white in the plumage.

A. Length 19.00 inches; jet black.

AM. CROW, page 106.

B. Length 12.00 inches; black with metallic reflections; iris yellowish; migrates in flocks; nests usually in colonies in coniferous trees; voice cracked and reedy; tail "keeled" in short flights; a walker.

PURPLE GRACKLE, page 105.

C. Length 9.50 inches; shoulders red; haunts marshes; call, *kong-quĕr-ree.*

RED-WINGED BLACKBIRD, page 100.

D. Length 7.90 inches; head and neck coffee-brown; frequently seen on the ground near cattle.

COWBIRD, page 98.

V. Birds not included in the preceding sections (that is, plumage without either yellow, orange, red, or blue; not conspicuously black, or black and white).

1. Under parts white or whitish, all *one* color, *without* streaks or spots.

A. Back *without* streaks or spots.

a. Back olive-green; gleaners, exploring the foliage for food or flitting about the outer branches.

a^1. Length 6.25 inches; a white line over the eye bordered by a narrow black one; cap gray; iris

red; song, a rambling recitative: "You see it—you know it—do you hear me?" etc.

RED-EYED VIREO, page 71.

a^2. Length 5.75 inches; a white line over the eye not bordered by black; prefers the upper branches of rows of elms and other shade trees; song, a rich, unbroken warble with an alto undertone.

WARBLING VIREO, page 72.

a^3. Length 4.00 inches; no white line over the eye; eye-ring and wing-bars white; a tiny, unsuspicious bird; flits about the outer branches of trees and shrubs; wings twitched nervously; note, *cack*, song, a remarkably loud, musical whistle.

RUBY-CROWNED KINGLET, page 159.

b. Back gray or bluish gray.

b^1. Length 6.50 inches; a gray, crested bird; forehead black; no white in the tail; note, a whistled *peto, peto*, or hoarse *de-de-de-de;* resident from New York city southward.

TUFTED TIT, page 46.

b^2. Length 8.50 inches; a white band at the end of the tail; a concealed orange-red crest; a bird of the air, catching its insect food on the wing, and occasionally sallying forth from its exposed perch in pursuit of a passing Crow; note, an unmusical, steely chatter. . . . . KINGBIRD, page 111.

c. Back brown.

c^1. Length 5.00 inches; a nervous, restless, excitable bird; tail often carried erect; song sweet, rapid and rippling delivered with *abandon*.

HOUSE WREN, page 55.

c^2. Length 12.25 inches; slim, brownish birds with long tails; flight short and noiseless; perch *in* a tree, not in an exposed position; note, *tut-tut*, *cluck-cluck*, and *cow-cow*.

YELLOW-BILLED CUCKOO, BLACK-BILLED CUCKOO, page 130.

B. Back brownish, streaked.

a. Crown rufous or chestnut without streaks.

a^1. Length 5.25 inches; bill black; a whitish line over the eye; a familiar bird of lawns and door-yards; song, a monotonous *chippy-chippy-chippy*.

CHIPPING SPARROW, page 90.

a^2. Length 5.70 inches; bill *reddish brown*, back rufous or rufous-brown; wing-bars and eye-ring whitish; haunts dry, bushy fields and pastures; song, a musical, plaintive *cher-wee*, *cher-wee*, *cher-wee*, *cheeo*, *dee-dee-dee-dee*.

FIELD SPARROW, page 91.

a^3. Length 5.90 inches; forehead black; crown and wings chestnut-rufous; flanks pale grayish brown; haunts marshes; song, a rapidly repeated *weet-weet-weet*, etc. . . . . SWAMP SPARROW, page 167.

b. Crown not rufous or chestnut.

b^1. Length 6.75 inches; crown blackish, with a central whitish stripe; throat white; breast gray; a yellow spot before the eye; haunts in and about thickets and bushy woodlands; song, a high, clear, musical whistle; call-note, *chink*.

WHITE-THROATED SPARROW, page 167.

b^2. Length 5.20 inches; bill slender; a white line over the eye; tail carried erect; haunts reedy marshes; call-note scolding; song rippling.

LONG-BILLED MARSH WREN, page 56.

2. Under parts white or whitish, *streaked* or *spotted*.

A. Back streaked.

a. Length 6.10 inches; outer tail-feathers white, showing conspicuously when the bird flies; haunts dry fields and roadsides; song musical.

VESPER SPARROW, page 88.

b. Outer tail-feathers *not* white.

b^1. Length 6.30 inches; breast with numerous spots tending to form one large spot in its center; haunts on or near the ground, generally in the vicinity of bushes; call-note, *chimp;* song musical; a permanent resident. . SONG SPARROW, page 92.

b^2. Length 6.35 inches; breast grayish with *one* spot in its center. . . . . TREE SPARROW, page 167.

B. Back *not* streaked; breast spotted.

a. Length 11.40 inches; tail 5.00 inches; wing-bars white; upper parts, wings, and tail bright cinnamon brown; haunts undergrowth; sings from an exposed and generally elevated position; song loud, striking, and continuous. . . . . BROWN THRASHER, page 49.

b. Length under 9.00 inches; tail under 3.00 inches; no wing-bars; back *reddish* or *cinnamon-brown*.

b^1. Length 8.25 inches; breast and *sides* heavily marked with large, *round*, black spots; head and upper back *brighter* than lower back and tail; call-note, a sharp *pit* or liquid *quirt*.

WOOD THRUSH, page 44.

b^2. Length 7.15 inches; breast with wedge-shaped black spots; sides *unspotted*, washed with *brownish-ashy;* tail reddish brown, *brighter* than back; call-note, a low *chuck*.

HERMIT THRUSH, page 159.

b^3. Length 7.50 inches; upper breast *lightly* spotted with small, wedge-shaped, brownish spots; tail the same color as the back; sides *white;* call-note, a clearly whistled *wheèu.*

WILSON'S THRUSH, page 159.

c. Length under 9.00 inches; tail under 3.00 inches; no wing-bars; back *olive-green.*

c^1. Length 6.10 inches; center of crown pale brownish bordered by black; haunts on or near the ground in woodland; a *walker;* song, a ringing crescendo, teacher, *teacher,* TEACHER, TEACHER, *TEACHER.* . . . . . OVEN-BIRD, page 64.

3. Under parts *not* white or whitish, all *one* color, *without* streaks.

A. Length 8.50 inches; slate-color; cap and tail black; inhabits the lower growth; call-note, nasal; song highly musical and varied. . . . . CATBIRD, page 52.

B. Length 7.20 inches; grayish brown; conspicuously crested; a black line through the eye; tail tipped with yellow; generally seen in small flocks; note thin and weak. . . . . CEDAR WAXWING, page 76.

C. Length 5.50 inches; under parts cream-buff; a conspicuous whitish line over the eye; upper parts reddish brown; movements active; tail carried erect; haunts lower growth; notes loud and striking; resident from New York city southward.

CAROLINA WREN, page 53.

4. Throat and upper breast black or slate-color, very different from the white or chestnut belly.

A. Throat black.

a. Belly and rump chestnut; head, wings, and tail black; length 7.30 inches; haunts orchards and shade trees; song highly musical.

ORCHARD ORIOLE, page 104.

b. Belly white; sides reddish brown; tail black and white; length 8.35 inches; haunts undergrowths; call-note, *chewink* or *towhèe*.

TOWHEE, page 93.

B. Throat slate-color.

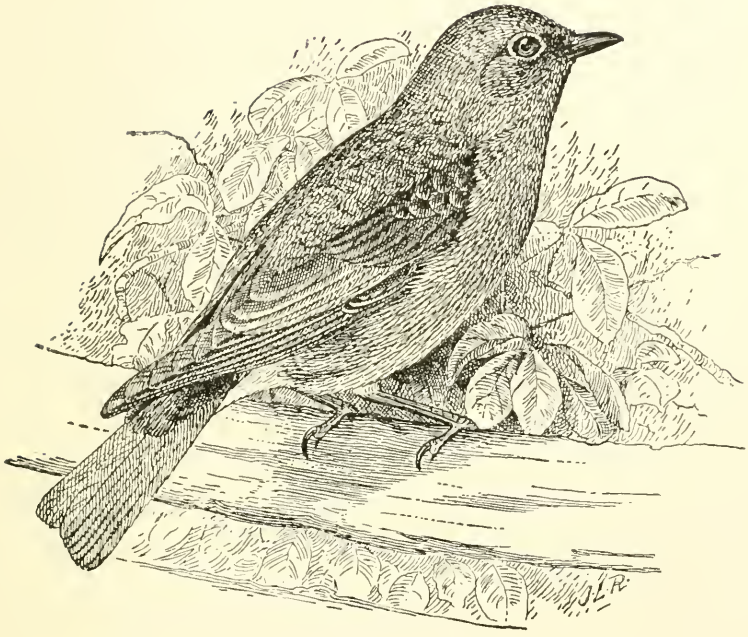
a. Back and wings slate-color; outer tail-feathers and belly white; length 6.25 inches; haunts generally on or near the ground about shrubbery.

JUNCO, page 167.

5. Throat streaked with black and white; rest of under parts reddish brown; upper parts grayish slate-color; length 10.00 inches. . . . . ROBIN, page 42.

SIZE OF BIRDS.

Birds are measured from the tip of the bill to the end of the tail. An English Sparrow is about 6¼ inches long and a Robin 10 inches.



Bluebird: *Sialia sialis.*

Length 7 inches.
Upper parts azure blue.
Throat and breast cinnamon-brown; belly white.
Female much duller.
Resident (common) all the year.

The Bluebird seems to have all those qualities which endear a bird to man. Cheery, confiding, brave, useful, and beautiful, he holds a secure place in our affections. We are fortunate in having him with us all the year round, except for brief periods in mid-winter when unusual cold or storms drive him farther south, but with the first mild breath he returns, and on any

bright day after the middle of February we may hear his glad prophecy of spring. He has a soft contralto voice, exquisitely sweet, and "the very soul of tenderness." His song is broken into short phrases, often given on the wing.

Bluebirds are among the earliest birds to build, and need but little encouragement to put their summer home near ours. A small box with a hole in it, set up on a post, pleases them as well as an elaborate bird-house, and a Bluebird family will sensibly diminish the numbers of caterpillars, spiders, beetles and grasshoppers in the vicinity. They also build in holes in trees, stumps or fence posts, stuffing in, rather carelessly, dried grasses and feathers. The eggs, 4 to 6, are light blue, unmarked.

Bird lovers have noticed with regret the comparative scarcity of Bluebirds since the great blizzard of 1895, when large numbers perished, and Professor Beal of the Department of Agriculture recommends that "more than ordinary vigilance should be exercised in protecting them until they have regained their normal abundance."

American Robin: *Merula migratoria.*

Length 10 inches.
Upper parts dark brownish-gray; head and tail black, the outer tail-feathers tipped with white.
Lower parts chestnut-red; throat white, streaked with black.
Resident all the year, uncommon in summer.

While the Robin is not common here in nesting time, he is abundant in spring and fall migration, and is sometimes found in winter, in small flocks in sheltered places. In April and May, or even in March,

he may be seen in the Smithsonian grounds running over the grass in search of grubs and angle worms.

The friendliness of the Robin, and his joyous swinging song have made him universally loved wherever he nests, but in the south, where he winters in great flocks and seldom sings, he is considered only as a table delicacy, and it is feared that he may soon be classed among our rarer birds. In the winter of 1896-7, more than 3000 Robins were offered in the Washington market!

The nest is very substantial, of coarse grasses and rootlets, with an inner wall of mud and a lining of fine grasses. It is built usually in fruit or shade trees, but occasionally in odd places, even on the ground. Two broods are raised in a season, and generally a new nest is built each time, the second not far from the first. The eggs, 4, are a beautiful greenish-blue without marks.

The Robin is one of our most useful birds, more than a third of his food being harmful insects. Although fond of fruit, he eats ten times as much wild as cultivated, and we will not grudge him the tithe he takes from our gardens and orchards, in consideration of the inroads he makes on injurious bugs and caterpillars. Dr. Coues says: "Few persons have any adequate idea of the enormous, the literally incalculable numbers of insects Robins eat every year."

Wood Thrush: *Turdus mustelinus.*

Length about 8½ inches.
Upper parts bright cinnamon-brown.
Under parts cream-white, thickly marked with large black spots, except on the throat and middle of the belly.
Resident (common) from April 20 to October 15; winters in Central America.

"The Heavenly Thrush!" This was Audubon's favorite songster, as he has been of many another nature-lover, for his song seems to voice the very spirit of the woods. Heard at evening when the lingering radiance of sunset fills the grove and glorifies the singer, it is especially entrancing. While he may sing at any time, one is most sure of hearing him at sunset and in the early morning, or on a cloudy day. His call-note is *whit, whit,* much like that of the Robin, but softer.

This beautiful Thrush is an inhabitant of most woods about Washington, nesting in the undergrowth, usually in a young dogwood tree or high bush. He builds in a crotch, beginning with a few dead leaves which hang loosely below the nest, giving the effect which he probably intended, of its being only a bunch of litter left from winter storms. The outside is of leaves, twigs and rootlets, firmly interwoven, and inside is a wall of mud which is lined with fine rootlets. The eggs, 3 to 5, are pale greenish-blue like the Robin's.

The only bird with which the Wood Thrush is likely to be confused outside of migration time is the Brown Thrasher. The color and markings of the two birds are much the same, but the Thrasher is a slender bird with a very long tail, while the Thrush is rather stocky, so that one soon comes to know them apart, even at a distance. We have a number of

Thrushes in migration, but the Wood Thrush may be known from them all by the black spots on the breast extending *over the sides and up under the wings.* He is also larger than the other Thrushes and of a brighter color. He may always be heard in May and June in the wilder parts of the Zoological Park.

Blue-gray Gnatcatcher: *Polioptila cærulea.*

Length 4½ inches; long tail.
Upper parts bluish-gray; forehead and tail black; outer tail-feathers white.
Under parts grayish-white.
Female and *young* without black forehead.
Resident (not uncommon) from April 5 to September; winters in Central America, Cuba and the Bahamas.

The tiny Gnatcatcher's conspicuous feature is his long black and white tail, which is usually open and in motion as he flits about in the tree tops.

This dainty wood-sprite will be found in wet woods where gnats and other small-winged insects are abundant. At the Virginia end of Long Bridge there is a point of wooded land, running south, which is the favorite haunt of many birds and particularly of the little Gnatcatcher. He is also found in woods adjoining the Mount Vernon grounds, and Miss Merriam discovered two nests in the Zoo and one on High Island. The High Island nest was only six feet from the ground, but usually these birds build much higher. The nest is an exquisite little structure, stuccoed with lichens like the Hummingbird's. There is a group at the Smithsonian, showing the mother-bird sitting and being fed by her mate.

The Gnatcatcher's song is a soft sweet warble, and his call-note has been likened to the "ting" of a banjo string.

Tufted Titmouse: *Parus bicolor.*

Length 6 inches.
Upper parts ashy-gray; forehead black.
Under parts whitish, sides rusty.
A conspicuous crest.
Resident (very common) all the year.

There are three woodland birds which are frequently together outside the nesting season—the Tufted Titmouse, Chickadee, and Nuthatch. When the clear, whistling *peto* of the Titmouse is heard it is likely to be followed by the *day-day-day* of the Chickadee and the *yank-yank* of the Nuthatch. Downy Woodpeckers are often in the same company, and in winter Kinglets and Creepers join them and they wander about, a merry flock, feeding in open or dense woods as the weather or their fancy dictates. They are generally led by the Tufted Tits and Chickadees, who flit on ahead to "pastures new," constantly calling the others to follow. All of these birds spend much of their time creeping over the trunks and branches of trees searching for insects, larvæ and eggs.

The Tufted Titmouse is recognized by his crest, and as he is not shy it is easy to get near him, although his restlessness tries one's patience. These birds are abundant in the vicinity of Washington and are occasionally found within the city limits. Warren says they sometimes build in boxes about houses.

The nest is usually in a tree or stump, either a natural cavity or a Woodpecker's hole. This they line luxuriously with moss, leaves and feathers. The mother-bird has a pretty habit of adding to her house-furnishing after the eggs are laid and she is sitting; when she goes off for food she brings back a bit of

feather or fur to make the cosy nest still softer. Collectors have been deceived by this, and supposing the nest unfinished have visited it later for the eggs to find it full of young birds. Six white speckled eggs are laid.

Carolina Chickadee: *Parus carolinensis.*

Length about 4½ inches.
Top of head and throat glossy black; cheeks pure white; the rest of the body ashy-gray, under parts lighter.
Resident (common) all the year.

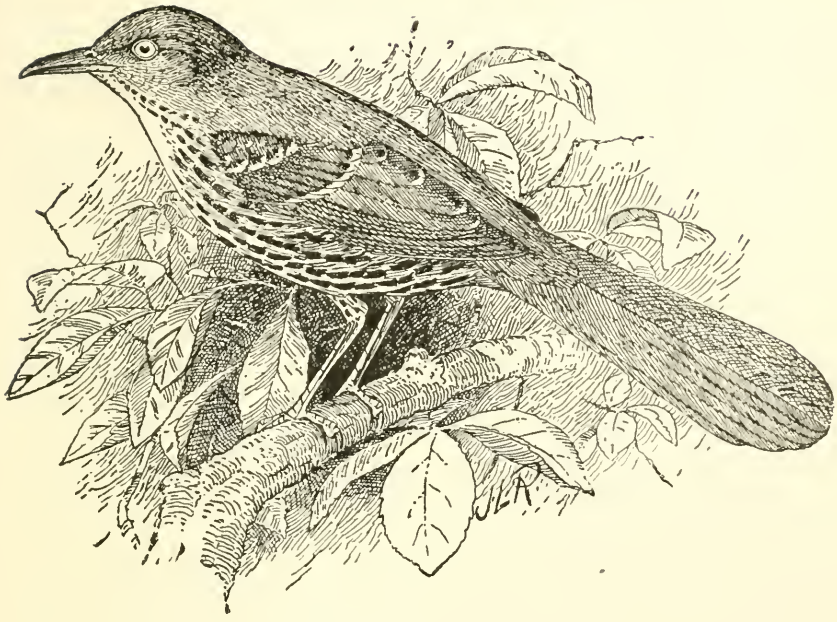
The Chickadee is a fluffy, restless mite of a bird, very common, especially in winter, but he is oftener heard than seen. His loud whistling song is written, *wheedle-lé, wheedle-lay,* and he also calls *dee-dee-dee,* rather softly as he flits about the trees, searching in the crevices of bark for insects and their eggs. He is shy and retiring in the nesting season, but at other times he is very friendly, and will even come about the house, picking up seeds and bread-crumbs thrown out to him.

He builds in holes, either remodelling a Woodpecker's hole, or digging one out for himself in rather soft dead wood. His bill is arched and strong, and he likes a deep nest, so he works away—with the help of his mate—until the hole is from six to twelve inches deep. Although the entrance is small, the nest is roomy at the bottom, and the soft lining is of moss, feathers, hair and wool—sometimes a bit of squirrel or rabbit fur. The eggs, 6 to 8, are white, spotted with brown.

White-breasted Nuthatch: *Sitta carolinensis.*

Length 6 inches.
Upper parts bluish gray; top of head glossy black.
Under parts and sides of head white.
Tail white with black patches.
Resident all the year, more common in winter.

The nasal *yank, yank* of the Nuthatch is a common sound in our woods when the nesting season is over and birds begin to gather in flocks. This call of the Nuthatch is so peculiar that it is soon learned, and his characteristic habit of creeping down tree trunks *head-first* identifies him to the eye. Besides insects, he eats nuts, acorns and corn, which he hammers into the crevices of rough bark or into cracks in fence rails, and then splits open with his sharp, strong bill. Like his comrades, the Titmouse and Chickadee, he nests in holes, often in one that a Downy Woodpecker has deserted, lining it with grasses, hair and feathers. Five speckled eggs are laid.



BROWN THRASHER.

Brown Thrasher; Brown Thrush: *Harporhynchus rufus.*

Length 11½ inches; *very long tail.*
Upper parts reddish-brown; two whitish wing-bars.
Under parts white, streaked with black.
Resident (very common) from April 15 to October 15; winters in the Southern States.

The Thrasher is one of our finest songsters. When he mounts to a tree-top and pours out his soul only the Mockingbird can be compared with him. There is indeed a decided resemblance in their songs, and in Maryland the Thrasher is called Sandy Mocking-bird, while farther south he goes by the name of French Mockingbird. Although he sings in tree-tops, he lives near the ground and is often seen in road-side thickets, or dusting himself in the road,—

themselves, we should say, for the pair are generally together unless one is on the nest. In the woods they scratch in dead leaves for bugs and worms, making as much noise as chickens.

Brown Thrashers are noted for devotion to their nest, and most pathetic is their pleading *whee-u* when it is approached; sometimes one will try to lure you from the place by lighting a little distance away and singing to you very softly and sweetly. Once when I stumbled on a Thrasher family where the young were evidently just out of the nest, the old birds became so wild with fright that I was about to retreat, when one of them flew to a low branch *between* me and the rest of the family, and sang an exquisite whisper-song with the obvious intention of charming me into forgetfulness of the precious fledglings.

The nest is on or near the ground, and the eggs, 3 to 6, are dull white, thickly speckled with brown. The Thrasher is distinguished from a Thrush by his long tail and light wing-bars. Langille says that he is easily domesticated and capable of remarkable friendship for man.

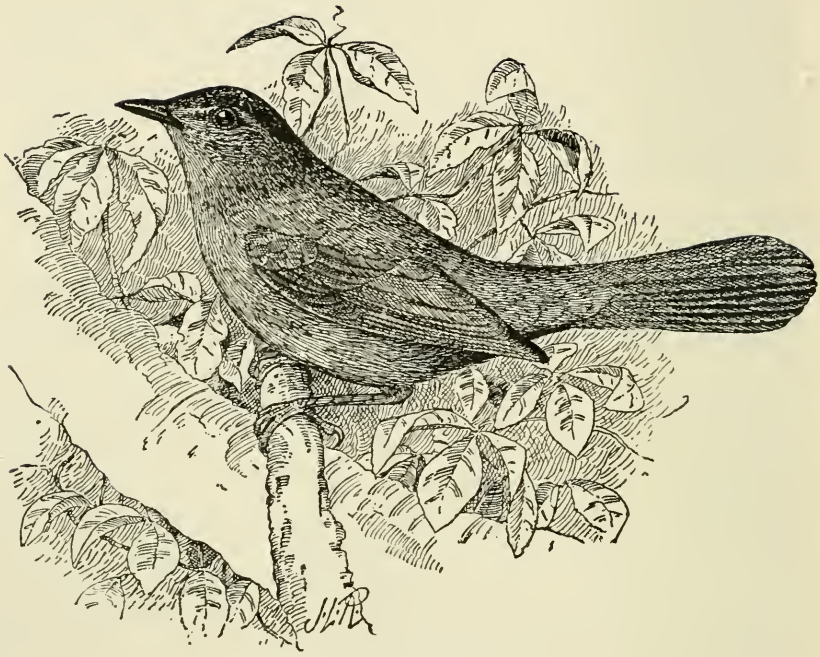
Mockingbird: *Mimus polyglottos.*

Length 10½ inches.
Upper parts ashy-gray; wings and tail blackish, marked with white.
Under parts grayish-white.
Resident (uncommon) all the year; winters from Virginia southward.

This famous vocalist rarely nests here, although he is found rather commonly at Colonial Beach, Piney Point, and other summer resorts somewhat south of us, and in lower Maryland breeds abundantly.

He is likely to build in thickets in open country, and in shrubbery about dwellings. Mr. Ridgway says a bunch of low, thick-topped trees canopied with wild grapevine suits him excellently, and Mr. William Palmer found a nest in an old apple tree. The nest is bulky, much like a Catbird's, and the bluish-gray eggs, 4 to 6, are thickly speckled with brown. Two broods, sometimes three, are raised in a season.

Mockingbirds are scarcely more rare about Washington in winter than in summer; Mr. W. F. Roberts has eight winter records.



CATBIRD.

Catbird: *Galeoscoptes carolinensis.*

Length about 9 inches.
General color slaty-gray; cap and tail black.
Chestnut-red patch under base of tail.
Resident from April 20 to October; winters in the Southern States, Cuba, and Central America.

The Catbird is one of the best known of our summer residents, being a tenant of most thickets, gardens and lawns in the country, and also of the shrubbery in our city parks. He is easily recognized by the mewing cry which gives him his name, and by a nervous jerking of the tail when perching.

His song is varied, and often exceedingly sweet, but he is a bird of surprises and we never know just what to expect from him. He has the family gift of mimicry (shared with the Mockingbird and

Thrasher) and we have many a time chased a strange note to find it coming from this old and supposedly well-known friend.

The Catbird is shrewd and suspicious, always looking out for trespassers on what he considers his domain, and usually successful in driving off an intruder, whether it be squirrel, cat or innocent bird-student; none will stay long to be pelted with his harsh cries. He is truly the policeman of the thickets, and one suspects this to be the reason that timid birds, like the Wood Thrush and Chewink, so often build their nests near his.

Two broods are raised in a season, and the bulky nest, built in a high bush or briary tangle, is of twigs, rootlets and grasses. The eggs, 4, are deep greenish-blue, unmarked.

The Catbird's love of fruit has given him a bad reputation, but it has been found that he does more good than harm, nearly half his food being injurious insects. He also prefers wild fruit to cultivated, and likes the Russian mulberry best of all, so fruit-growers are urged to plant a few wild berries in the garden, and an occasional mulberry tree in the orchard.

Carolina Wren; Mocking Wren: *Thryothorus ludovicianus.*

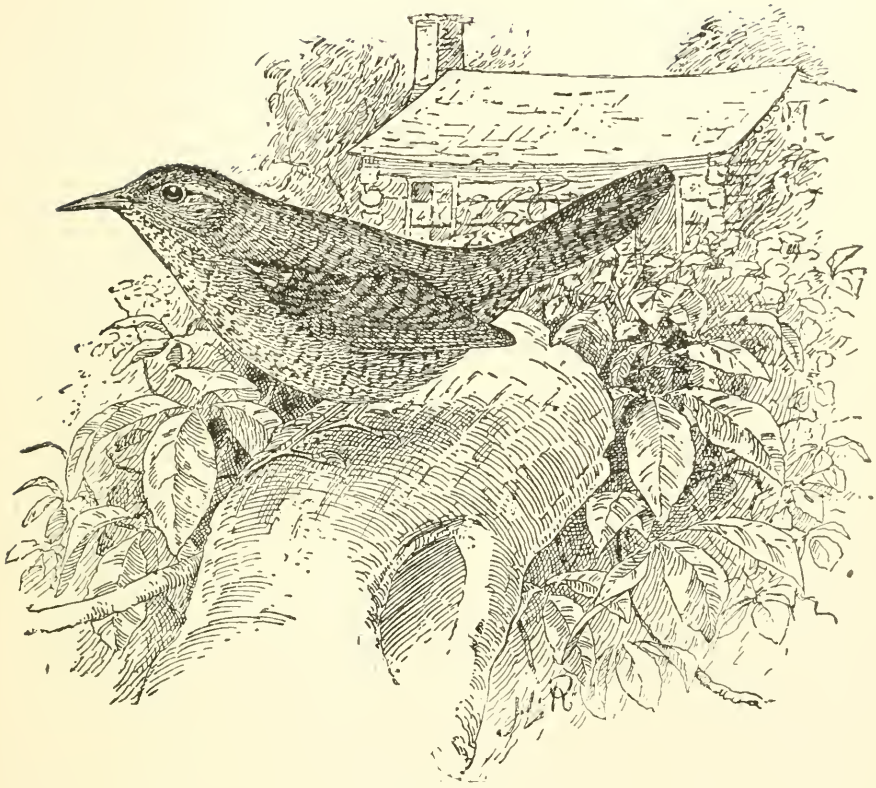
Length 5½ inches.
Upper parts dark reddish-brown; wings and tail barred with black.
Under parts buffy. A distinct white line over the eye.
Resident (common) all the year.

This Wren has a delightful voice, and we are especially fond of him because he sings when other birds

are quiet, even occasionally in winter. In the great blizzard of 1895, when the storm was at its height, Mr. Ridgway heard the loud, ringing voice of a Carolina Wren.

His common song is a whistling *whee-o-lee*, three or four times repeated, the accent either on the first or last syllable. Sometimes only two notes are heard, *whée-o*, when it sounds like a Cardinal's call. He also occasionally gives a varied performance resembling a Mockingbird's, from which he is named Mocking Wren. He lives in woods bordering streams, and is abundant all along Rock Creek and the Potomac.

While one may usually hear the Carolina, finding him is quite another matter. He seems to delight in playing hide-and-seek with the observer, keeping warily to the opposite side of a tree or stump, and flying entirely away if too closely pursued. Look for him in wild, secluded places; on fallen trees, about old logs and stumps, and under turf which overhangs small streams. When you catch sight of him you will be astonished that so great a voice can belong to so small a bird, for he is but little larger than the House Wren and much resembles him, his distinguishing marks being the white line over the eye, the more rusty back, and buffy under parts. The nest is usually in a hole in a stump or log, and is built of grasses, moss, feathers and hair.. The eggs, 6 to 7, are white, with lavender markings.



HOUSE WREN.

House Wren: *Troglodytes aëdon.*

Length 5 inches.

Upper parts brown; wings and tail finely barred with black.

Under parts dull whitish.

Resident from April 15 to September; winters in the Southern States.

If one wishes these merry little birds around a country house, he need only put up, out of the reach of cats, a box or gourd with a hole in the side about

an inch in diameter—large enough for the Wrens and too small for English Sparrows. Whatever is given them they will first nearly fill with twigs, and upon them build the nest. They also nest in hollow fence-posts or rails, in cavities in stumps and trees, and sometimes in most surprising places, such as an old hat or boot, the sleeve or pocket of a coat, or perhaps in the gourd-shaped mud nest of the Eave Swallow. One pair built in a teakettle, carrying twigs and other material in through the spout, and at the home of Mr. Ridgway they built in a clothes-pin bag left hanging outside, the hole made by the drawing-string being just the right size. They doubtless thought that the pins in the bottom of the bag had been kindly left there to lessen their labors.

House Wrens, if undisturbed, will return to the same place year after year. Two broods are raised in a season, and the pinkish eggs, 6 to 9, are thickly speckled with brown. These Wrens have a gushing, rippling little song, given with great animation and persistency.

Long-billed Marsh Wren: *Cistothorus palustris.*

Length about 5 inches.

Upper parts dark brown, streaked on the back with black and white.

Under parts pure white; brown along the sides.

Wings and tail barred with black; a white line over the eye.

Resident (abundant) from April 30 to October 30; winters in the Gulf States and Mexico.

Down on the Potomac marshes below Analostan Island, and also on the Eastern Branch near Benning's Bridge, Marsh Wrens may be found, and they

are such eccentric, entertaining little creatures, that it is well worth while to hunt them out. Usually there are numbers of them together, and as they all talk at once and are constantly in motion, it is a very lively corner of Birdland. Perched on a swaying reed, with head thrown back and tail cocked so that he looks half his real size, the Marsh Wren will gurgle and twitter at you for perhaps half a minute, when, his curiosity being satisfied, he is off about his own very important business.

The occupations of ordinary bird-life are not sufficient for these energetic Wrens, and they amuse themselves with building superfluous nests, sometimes half a dozen that are never used. The nest is very artistic, shaped like a ball, the entrance a hole at one side. It is built over the water, in tall reeds, several of which are woven into it with swamp grass. The nest that is to be the home is better finished than the others, and stuffed nearly full of soft bits of leaves, fine grasses, and plant down.

Marsh Wrens raise large families, often eight or nine little Wrenkins crowding the grassy nest. The eggs are so thickly speckled that they are of a nearly uniform brown color. The food of these Wrens is water-spiders, water-beetles, and other aquatic insects.

WARBLERS.

This is a large and puzzling family. When the student has conquered all the rest of his bird world, there will still remain some unidentified Warblers to give zest to woodland excursions. They have been described as "among our most abundant, most beautiful and least known birds."

Warblers that live near the ground, or in the lower stories of trees, as do most of those that nest in this part of the country, are comparatively easy to find and identify; the tantalizing ones are those that are here only in migrations and are likely to keep in the tree-tops, where they are so incessantly active that an opera-glass seems of little use. These are very small and have conspicuous white markings on the tail, which is frequently spread as they flit among the branches.

Contrary to what would be expected from the name, few of this family are fine songsters, and the tree-top Warblers in particular have small, thin voices that attract little attention, but the student soon comes to recognize their lisping, semi-musical notes, and to be alert for new species.

The wooded bank of the Potomac on the Virginia side, from Rosslyn to Chain Bridge, is a favorite ground for Warblers, both migrants and residents. It was near Chain Bridge that Dr. T. S. Palmer saw five species in one tree. In the Zoo one of the best places to find them is the bushy border of Rock Creek, just below the Prairie Dog enclosure.

Black and White Warbler: *Mniotilta varia.*

Length about 5¼ inches.
Male, finely streaked black and white all over.
Female, brown where the male is black, breast but faintly striped.
Resident (abundant) from April 12th to October 15th; winters from Florida southward.

The little Black and White Creeper is common in high open woods, where he is always scrambling over tree trunks and branches, hunting spiders and other insects. One may at first think him the Downy Woodpecker, but the Creeper is smaller and his stripes are finer and more uniform.

This Warbler's ground nest is exquisitely dainty, and so cunningly hidden at the foot of a tree or stump as to be rarely discovered. But if you see a mother-bird with a worm in her mouth and can patiently wait until her suspicions of you are quieted, you may be rewarded by seeing her drop straight to the nest instead of going down at some distance from it and running along, as most ground-building birds do. The eggs, 4 to 5, are white, speckled with brown, chiefly at the larger end.

The Creeping Warbler has a wiry little voice, not very musical, but it is always a welcome sound, announcing his gentle presence in the neighborhood.

Worm-eating Warbler: *Helmitherus vermivorus.*

Length 5½ inches.
Upper parts uniform olive-green.
Under parts buffy-white.
Four distinct black lines on the buffy head, two passing through the eyes.
Resident (rather common) from May 1 to September; winters in the tropics.

The Worm-eating Warbler is found in dense undergrowth, especially in that of thickly wooded ravines,

such as are along Rock Creek, and the Potomac on the Virginia side. He resembles the Oven-bird in habits and general appearance, but the four black stripes on his head and his unmarked breast will distinguish him from that species. He spends much time on the ground hunting worms and spiders, and flies to a low perch when disturbed, quite like the Oven-bird; like him also he builds a sheltered nest of dead leaves and rootlets, which Dr. Richmond says is nearly always lined with the reddish stems of moss. The eggs, 4 to 5, are minutely speckled with cinnamon-brown.

The song of this Warbler is much like that of the Chipping Sparrow, though faster.

Blue-winged Warbler: *Helminthophila pinus.*

Length less than 5 inches.

Crown and under parts bright yellow; a black line through the eye.

Back bright olive-green; wings and tail grayish-blue; white wing-bars and tail-patches.

A rare summer resident and not common in migrations; winters in the tropics.

These rarely seen Warblers live in wild thickets bordering woods, and in open, scrubby woodland. They are great insect-hunters and when fruit-trees are in blossom sometimes visit orchards. Their common song is "two drawled wheezy notes *swee-chee;* the first inhaled, the second exhaled."

The nest is on the ground, and the eggs, 4 to 6, are lightly speckled.

Parula Warbler: *Compsothlypis americana.*

Length less than 5 inches.
Upper parts bluish-gray, a yellowish patch on the back. Throat and breast yellow, a dark band across the breast.
Resident (uncommon) from April 20 to October 15; winters from Florida southward.

Parulas are common in migration but rare at other times. Some, however, always nest near Kensington, and at Great Falls on the Virginia side, building in the hanging Usnea moss which grows in those localities. One of their dainty nests may be seen at the Smithsonian. The eggs, 4 to 5, are creamy white, lightly speckled with cinnamon-brown.

The song of the Parula is described as "a short insect-like buzz."

Yellow Warbler; Summer Yellowbird: *Dendroica æstiva.*

Length about 5 inches.
Male, general color, bright yellow.
Under parts streaked with chestnut-red.
Female, much duller, without streaked breast.
Resident (common) from April 20 to September 30; winters in Northern South America.

Yellow Warblers are abundant in spring, and by the last week in April their happy voices are heard all over the city. Their song is a pleasant little warble, that has been written, *wee-chee, chee-chee, cher-wee.*

Most of them soon pass on north or into the country, but some always remain to nest in the parks and gardens of the city. They build in shrubbery or in the smaller trees, and the nest is usually in an upright fork. Fine grasses and plant-down are the choice materials used, very compactly woven together. The

eggs, 4 to 5, are bluish white, thickly speckled with brown.

In the country these Warblers are frequently imposed upon by the Cowbird, but they show great ingenuity in getting rid of the obnoxious egg by building a second story to their nest, thus covering it out of sight.

Yellow Warblers are among our most useful bird citizens, for besides winged-insects they eat canker-worms, spiders, plant-lice and small beetles.

Yellow-throated Warbler: *Dendroica dominica.*

Length 5¼ inches.
Upper parts gray; a yellow line in front of the eye and a white line over it.
Forehead and cheeks black; white patch on side of the neck; two white wing-bars.
Throat and breast yellow; belly white, sides streaked with black.
A rare summer resident, sometimes common in late July; winters in the tropics.

This handsome Warbler frequents woods that border streams, but he is a southern bird and is seldom common as far north as this. His song is said to resemble that of the Indigo-bird.

The nest is high in trees, often in pines. The eggs, 4 to 5, are thickly speckled with brown.

Pine Warbler: *Dendroica vigorsii.*

Length 5½ inches.
Upper parts bright olive-green; two whitish wing-bars; white patches on outer tail-feathers.
Under parts bright yellow. Female much duller.
Resident (rare in early summer) from March 28 to October 25; winters in the Southern States and the Bahamas.

The Pine Warbler is well named, for he is seldom found elsewhere than in pine woods, where he hunts

the trees over in search of the insects which live in crevices of the bark.

The nest is built at the end of a branch, where it is concealed by a tuft of pine needles. Four white eggs are laid, speckled with purple and brown. Although but few of these Warblers nest in this vicinity they are very common in early autumn, from the first of August to about the end of September. Their song is a clear, musical trill, resembling that of the Chipping Sparrow.

Prairie Warbler: *Dendroica discolor.*

Length less than 5 inches.
Upper parts olive-green; a broken patch of chestnut-red on the back; wing-bars yellowish, a yellow line over the eye, white patches on the tail.
Under parts bright yellow, the sides streaked with black.
Resident (very common) from April 20 to September; winters in southern Florida and the West Indies.

The Prairie is much like the Pine Warbler, but he is smaller and his sides are streaked with black. The reddish patch on his back—if it can be seen—identifies him surely. His chosen haunts are wild, bushy fields and thickets of young evergreens. His song is a sweet *zee-ing* run up the scale, and may always be heard in the Zoo in May and June. He is an expert fly-catcher and his food is largely winged insects.

The nest is likely to be in a briary bush or small evergreen, and the eggs, 3 to 6, are white, spotted with reddish-brown.

Oven-bird; Golden-crowned Thrush: *Seiurus aurocapillus.*

Length about 6 inches.
Upper parts brownish olive-green.
Under parts white, the breast and sides spotted with black like a thrush.
Center of the crown golden-brown, bordered by black lines.
Resident (abundant) from April 20 to October 15; winters in the West Indies and Central America.

This is one of the commonest birds of our woods, and although classed among the Warblers, he has none of their proverbial restlessness or fancy for tree-tops, but spends most of his time on the ground scratching among the dead leaves for bugs and worms. He is known by his *walk*—for he is one of the few birds that do not hop—and by the thrush-like markings on his breast. He is so abundant that in May and June the woods ring with his peculiar chant, a rapid crescendo resembling chee-chee-*chee*-CHEE-CHEE. He also has a wonderful flight song which we hear but rarely, and only in nesting-time. Miss Merriam writes of it, "Though you think you know the Golden-crown, you have not realized what manner of bird he is until you have heard his famous love-song. It is as if a musician who has been playing scales had suddenly changed to an impassioned rhapsody. His ecstasy carries him off his feet and he flies higher and higher into the air, pouring out his rapturous love-song. I have often heard fragments of this song in the stillness of the night, when it is peculiarly poetic, as if the bird's joyous dreams had aroused him."

Dr. Richmond says, "This love-song may sometimes be heard in the Soldiers' Home woods. Late

May or June is the proper time and just before dusk. The song has some of the characters of an Indigo's performance."

The nest is built on the ground in dead leaves, and so artfully concealed that finding one is an event in which to take pride as well as pleasure. I once searched for days around a spot where I had seen an Oven-bird go down with a worm in its bill, and only found the nest at last by strategy—getting the Master of the House to absorb the attention of the birds by walking about in conspicuous shirt-sleeves, while I slipped into a clump of bushes near by. When he had gone and the birds believed themselves unobserved, one again dropped to the ground and I watched it run to the nest, some distance away. The nest is roofed over with leaves, and even to a close observer seems only a slight natural elevation. The entrance is at one side, and no nestlings have an easier time getting out into the big world than do the little Oven-birds. The eggs, 4 to 5, are white, speckled with brown.

Louisiana Water-Thrush: *Seiurus motacilla.*

Length 6¼ inches.

Upper parts grayish-olive; a conspicuous white line over the eye.

Under parts white, streaked like a Thrush, *except on the throat.*

Resident (rare) from April 14 to September 5; winters in the tropics.

The Water-Thrush frequents small streams where they flow through wild woods, and may be found on those that run into Rock Creek and the Potomac. He walks, like the Oven-bird, with a peculiar teeter-

ing motion, and he also resembles that bird in general appearance, but will be distinguished from him by the white line over the eye. He is very shy and difficult to approach. The nest, of twigs, rootlets and leaves, is generally under a shelving bank or the upturned roots of a fallen tree. The eggs, 4 to 6, are white, much speckled with reddish-brown. Mr. Chapman writes enthusiastically of his song and says "There is an almost fierce wildness in its ringing notes."

Kentucky Warbler: *Geothlypis formosa.*

Length about 5½ inches.
Upper parts olive-green; no wing-bars or tail-patches.
Under parts bright yellow.
Crown, cheeks, and sides of throat black.
Resident from May 5 to September 5; winters in Central America.

In "Birds of Village and Field," Miss Merriam writes so delightfully of her introduction to the Kentucky Warbler, that her story is given in full. "In the neighborhood of Washington, one of the best places for birds on the spring migration is along the eastern wooded bank of the Potomac. There, above High Island, opposite the 'amphitheatre,' one day early in May, we heard a song so like the famous Carolina Wren's that we hurried off in its direction. Crossing on a fallen tree that bridged the narrow arm of the Potomac, we were on the little island where the bird was singing. The song receded as we advanced, and we forced our way through the dense tangle of undergrowth to follow it, till we came suddenly upon a forest garden, a great blue rug spread on the floor of the woodland and lit up by the sun coming through the skylights of the freshly leafing trees. The

delicacy of the light blue phlox and its vine-like tracery of meadow rue made an exquisite spring picture. There was such a luxuriant growth of the phlox that negroes were picking it for the market. As we stood absorbed on the edge of the garden, suddenly, right before us, rang out the Wren-like song we had been following, and on a low bush, with head thrown back, the bird was singing. But—the *brown* Wren was a brilliant yellow, with black velvety bands bordering his throat! A Kentucky Warbler, we exclaimed in excited whispers, and then stood silent, afraid of startling the bird that, quite unmindful of us, now hopped down to the ground, and now mounted a bush to sing. '*Klur-wee, klur-wee, klur-wee*,' we repeated after him, to test for ourselves Mr. Torrey's phrasing of it, and, indeed, at times the bird pronounced the syllables as distinctly as a person. And with what richness of tone! Surely it is a song that goes well with the songster. Mr. Torrey, referring to his note-book, copies the exclamation made in the field, 'It is a beauty!' and no one, seeing the bird for the first time in such a setting as we saw him, can fail to share his enthusiasm."

This Warbler, like the Oven-bird, is a walker. His haunts are tangled woods near water, and he may be looked for along the Potomac on the Virginia side, on the islands near Glen Echo, back of Marshall Hall, and in similar places, but he is nowhere abundant in this section of the country. His nest is bulky, "of twigs and rootlets, firmly wrapped with several thicknesses of leaves," on or near the ground. The eggs, 4 to 5, are grayish-white, covered with fine speckles and coarser blotches.

Maryland Yellow-throat: *Geothlypis trichas.*

Length about 5¼ inches.

Male, upper parts olive-green; a broad black band bordered with gray, across the forehead, passing through and beyond the eyes.

Throat and breast bright yellow.

Female, without black mask, and her yellow breast duller.

Resident (abundant) from April 20 to October 20; winters in the Southern States, West Indies and Central America.

The Yellow-throat is an active, energetic little bird with a nervous habit of jerking his tail. He is a common inhabitant of thickets that border streams, and is seldom seen anywhere else except in spring migration, when he visits orchards and gardens to get the insects from fruit blossoms. His food is exclusively caterpillars, insects and larvæ, and he is entirely useful. His call-note is a sharp *chuck* and his common song Dr. Richmond gives as "rit-a-witch-a," several times repeated. He has also a pleasant chatter as he flits about the bushes, and rarely a warbling flight song. The last, Mr. Chapman says, "is usually uttered toward evening, when the bird springs several feet into the air, hovers a moment, and then drops back into the bushes." The nest is generally on the ground and so well hidden and guarded that it is not likely to be found by searching, nor will the vigilant birds be surprised into revealing its locality. The eggs, 3 to 5, are white, thinly speckled.

Yellow-breasted Chat: *Icteria virens.*

Length about 7½ inches.

Upper parts bright olive-green; black and white markings in front of and around eyes.

Throat and breast bright yellow; belly white.

Resident (common) from May 1 to September; winters in Central America.

The handsome Chat is a mocker and a ventriloquist, and the first time you hear his astonishing performance, you wonder if you are listening to one bird or half a dozen; and where is the singer? Is he in this tree, or that, over your head, or across the stream? As Mr. Burroughs says, "Now he barks like a puppy, then quacks like a Duck, then rattles like a Kingfisher, then squalls like a fox, then caws like a Crow, then mews like a cat: *C-r-r-r-r-r-whrr—that's it—chee—quack, cluck, yit-yit-yit—now hit it—tr-r-r—when—caw—caw—cut—tea-boy—who, who—mew, mew.* You may be pardoned for doubting that a bird can produce so strange a series of noises, but if you will go to the Chat's haunts in thickety openings in the woods, or other bushy places, and let him speak for himself, you will admit that our alphabet cannot do him justice. To hear the Chat is one thing, to see him quite another. But he will repay study, and if you will conceal yourself near his home you may see him deliver part of his repertoire while on the wing, with legs dangling, wings and tail flapping, and his whole appearance suggesting that of a bird who has had an unfortunate encounter with a charge of shot. But if the Chat's song is surprising when heard during the day, imagine the effect it creates at night when he has the stage to himself, for he is one of our few birds who sing regularly and freely during the night, moonlit nights being most often selected."

The Chat is a common summer resident and may be found in thickets on the edges of woods and in wild bushy fields, preferably near water. He is generally heard in the Zoo, often near the Chevy Chase entrance. The nest is bulky, of grasses, leaves and wild grape vine, and is usually in the crotch of a bush near the ground. The eggs, 4 to 5, are white, marked with reddish-brown.

American Redstart: *Setophaga ruticilla.*

Length about 5½ inches; tail long.

Male, upper parts, throat, and breast shining black.

Sides of the breast brilliant reddish-orange; belly white.

Wings and tail with orange band and wings lined with orange.

Female, very different; greenish-gray where the male is black, and yellow where he is red.

Uncommon in summer; winters in the tropics.

This little beauty is rarely seen here in mid-summer, but during the spring migration, from April eighteenth to the middle of May he is abundant, and is scarcely less so from the middle of August to the last of September. He will be found in trees in woodland, and is so active that it is hard to get him within the focus of your glass; but you can be sure of him without it, from his habit of constantly opening and shutting his tail like a fan as he flits zig-zag over the branches, searching for ants and spiders.

In Cuba he bears the pretty name of "Candelita," meaning little torch, so glowing is the flame-color on his coat. His song resembles the whistle in a rubber toy, although that comparison does not do it justice, for it is not unmusical.

Redstarts build a compact little nest in the crotch of a tree, ten to twenty feet up. The eggs, 4 to 5, are spotted, chiefly at the larger end, with reddish-brown.

VIREOS.

The Vireos, or Greenlets, are dainty little birds whose leaf-tinted dress harmonizes so well with the foliage of their haunts that they often pass unnoticed. They have sweet voices, and build beautiful basket nests, suspended from forked twigs. They are insect eaters and are most useful in preserving our shade trees from the ravages of caterpillars, inch-worms, and leaf-eating beetles. Four species nest here, the Red-eye, White-eye, Warbling, and Yellow-throated, while in migration the Blue-headed, and possibly the Philadelphia, may be seen.

Red-eyed Vireo: *Vireo olivaceus.*

Length about 6 inches.

Upper parts grayish-green; crown gray, bordered with black.

A conspicuous white line over the red eye.

Under parts pure white.

Resident (abundant) from April 25 to October 15; winters in Central and South America.

The Red-eye is the most common of our Vireos and is found wherever there are large trees—in woodland, in orchards, and in the shade trees of our lawns. Mr. Burroughs writes: "The first among the less common birds which I identified when I began the study of ornithology, was the Red-eyed Vireo, the little gray bird with a line over its eye, that moves about all day with its incessant cheerful warble, and it so fired my enthusiasm that before the end of the

season I had added a dozen or more (to me) new birds to my list."

The Red-eye is always hunting among the foliage for his insect food, and is most commonly seen with upturned head, carefully gleaning from the under side of leaves. He sings, or talks, as he works, in short musical sentences, given between mouthfuls, "Where's a worm? Where's a caterpillar? Where's a worm? he queries as he goes, answering his own questions very comfortably to himself," as Miss Merriam says. While his summer diet is chiefly insects, late in the season he eats berries and wild grapes, and Dr. Warren tells us "His white shirt front is often soiled with the bright juices of the fruits on which he feeds."

The basket nest of the Red-eye is woven of strips of grape-vine bark and lined with finer material. It hangs rather low from a forked twig, about which it is so firmly woven that it often withstands the winter storms in good condition, so well indeed that one must look twice to ascertain if it be old or new. The eggs, 3 to 4, are white, lightly speckled at the larger end.

This Vireo has a loud complaining note when troubled, somewhat like the Catbird's mewing cry.

Warbling Vireo: *Vireo gilvus.*

Length 5¾ inches.
Upper parts grayish-green; no wing-bars.
Under parts white, slightly washed with yellowish.
Resident (rather common) from April 28 to September 10; winters in the tropics.

Warbling Vireos are city birds, and when you wish to make their acquaintance you must take your opera-

glass and go to Lafayette or Franklin Park or to the Smithsonian grounds, rather than to the woods. They will be found in the upper stories of large trees, where they hang their pensile nests and warble the happy days away. These are thought to be the sweetest of the Vireo singers, and Langille characterizes their song as "an inimitable melody like that of some celestial flute or flageolet, never out of tune and never failing to charm."

Warbling Vireos have no distinguishing marks and their soft tints are almost exactly those of a poplar leaf.

Yellow-throated Vireo: *Vireo flavifrons.*

Length about 6 inches.
Upper parts bright olive-green; two distinct white wing-bars.
Throat and breast bright yellow; belly white.
Resident (common) from April 20 to September 15; winters in the tropics.

This Vireo is distinguished from the rest of his family by his bright yellow breast. He has the same coloring as the Yellow-breasted Chat, but is decidedly smaller and the Chat has no white wing-bars. While the Yellow-throat is considered a woodland bird, he is not shy and often comes near dwellings to build his nest, which is the prettiest of all the Vireo baskets, being decorated outside with delicate white lichens. It is generally found at the end of an oak branch, where it is sheltered from sun and rain, and hidden from observation by the thick overhanging leaves. Often the end of one or two leaves will be glued to the edge of the nest, making a secure canopy. In a nest found near Rockville, the hateful Cowbird had

deposited an egg, and soon after hatching, one of the Vireo babies was smothered in the over-crowded domicile. The strong, young Cowbird was the first to fly and the parent Vireos had a hard time trying to satisfy his ravenous appetite and yet care for their own nestlings. They came back to the nest at longer and longer intervals, finally deserting it entirely, and leaving the little Vireos to die of starvation. All Vireos are likely to be victims of Cowbird depravity, and when a large egg is found in a nest, it is only humane to throw it out.

The song of the Yellow-throat is much like that of the Red-eye, but his voice is richer, and his musical sentences are more connected.

White-eyed Vireo: *Vireo noveboracensis.*

Length 5½ inches.

Upper parts bright olive-green; two distinct yellowish wing-bars. Eyes white.

Under parts white, breast and sides washed with greenish-yellow.

Resident (common) from April 20 to October 7; winters from Florida southward.

Tangled, swampy thickets are the favorite haunts of the White-eye, and there the pensile nest will be hung, generally on the forked branch of a bush. These Vireos have a fancy for using bits of newspaper in their nest, and by that the owners may be known. One pair advertised "The Outlook" by turning a piece of its title-page to the passers-by. Their eggs, like those of all other Vireos, are pointed and lightly speckled at the larger end.

The White-eye resents intrusion, and when we invade his premises we are more likely to hear a sharp

chuck-chuck than his brilliant song. Mr. Chapman says, "He is a capital mimic and in the retirement of his home sometimes amuses himself by combining the songs of other birds in an intricate potpourri."

One must be very near him or have a good glass to see the white iris which gives this Vireo his name.

CEDAR-BIRD.

Cedar Waxwing: *Ampelis cedrorum.*

Length 7 inches.

Whole body delicate fawn-color. A conspicuous crest. Area around bill, and line through the eye velvety black, a yellow band across the end of the tail; wings often with red wax-like tips. In young birds, the breast is paler and striped.

Resident (common) all the year.

In spring and early summer, Cedar-birds are abundant, and are then always in small flocks like the Goldfinches. They have a characteristic way of flying close together, and when they light often sit huddled in a row. Mrs. Wright says, "Your best chance to watch them is either before the leaves are

out or after they have fallen, when a flock will sometimes sit for half an hour in a bare tree, exchanging civilities, stroking each other's feathers and passing food around. One will find a dainty morsel and offer it to his next neighbor who passes it on—hunt-the-slipper fashion—until some one makes up his mind to eat it or returns it to the original owner."

In spring Cedar-birds visit orchards to get the insects which infest the bark and blossoms of fruit trees, and of which they eat enormous quantities. If later, when cherries are ripe, they return for their well-earned share, we will not grudge it. Although not at all shy when in flocks, coming freely into the gardens and parks of the city, after they separate and retire to woods or orchards for the breeding season, they are so quiet and stealthy in their ways that they are less frequently seen than much rarer birds. They nest late, seldom before the middle of June. The nest is bulky, and is generally in trees, from ten to twenty feet above the ground. The eggs, 3 to 5, are grayish-white, speckled and spotted with black.

Waxwings are especially abundant in autumn, when they roam about in large flocks, young and old together.

SWALLOWS.

Swallows have long, powerful wings, small, weak feet, and wide, gaping bills. Much of their time is spent in the air in pursuit of winged insects, and as they destroy incalculable numbers of flies and mosquitoes, they are among our most valuable birds. We have nesting here the Barn, Bank, Rough-winged, and Eave Swallows, and the Purple Martin. In migration the Tree Swallow is common.

Purple Martin: *Progne subis.*

Length 8 inches.
Shining blue-black all over; tail but slightly forked.
Female duller, and grayish-white below.
Resident (uncommon) from April 15 to September; winters in Central and South America.

The unbroken color and large size of the Martin distinguish him from other Swallows. He is a bird that likes the proximity of man and was once very common in Washington, nesting in bird houses, and also numerously in the capitals of the columns of our public buildings, but the aggressive, nagging English Sparrows have driven him away. He is a brave bird and will fight Hawks and Owls—so that farmers put up boxes for him in their barnyards as protection to poultry—but he cannot endure the persecution of the Sparrows. " Dr. John R. Everhart, of West Chester, Pa., appreciating that his flock of chattering Martins was rapidly diminishing before the advance of the

Sparrows, some few years ago erected in his yard a large pole with cross-pieces, from which he suspended, by brass wire chains, each about eighteen inches long, a number of boxes, in which the Martins, also Wrens and Bluebirds, nest without any trouble from their feathered enemy. The swaying motion of these pendent boxes appears to frighten the Sparrows, as not one has ever been observed to alight on or enter them." (Warren.)

Besides the Martin's cheerful twittering, he has a loud musical call *chĕ-u*, several times repeated, and a charming, liquid, warbling song; his flight is swift and graceful, he devours quantities of insects, especially mosquitoes, wasps, bees and beetles, and is altogether a most desirable neighbor.

BARN SWALLOW.

Barn Swallow: *Chelidon erythrogastra.*

Length 7 inches; tail nearly half the length.

Upper parts steel-blue; tail deeply forked, with white spots.

Throat and upper breast chestnut-red; a steel-blue collar; belly white.

Resident (common) from April 1 to September; winters in South America.

His long, forked tail and chestnut breast identify the Barn Swallow. Seen from below, the spots on the tail show as a white band.

When not skimming through the air after insects, these swallows are likely to be seen perched in rows on telegraph wires, where

"They twitter and flutter and fold their wings;
Perhaps they think that for them and their sires
Stretched always, on purpose, those wonderful strings."

Barn swallows once built in caves, but now universally in barns or old vacant dwellings. The nest is of mud and hay plastered against a rafter, and inside is good soft stuffing of hay and feathers. A perching place is often built near, where the male roosts at night, and to which the young birds take their first outing. The eggs, 4 to 6, are white, thickly spotted with brown.

Dr. Brewer writes of these Swallows: "There is no evil blended with the many benefits they confer on man; they destroy the insects that annoy his cattle, injure his fruit trees, sting his fruit or molest his person."

Barn Swallows are noted for their wonderful flights in migration, when it is said they fly fifteen hours a day, and as swiftly as a mile a minute.

Eave Swallow; Cliff Swallow: *Petrochelidon lunifrons.*

Length 6 inches.

Back and crown steel-blue; forehead whitish; throat and sides of head chestnut.

Breast brown, a steel-blue patch in center; belly white. *A light rusty spot on the rump;* tail not forked.

Resident (rare) from April to September; winters in the tropics.

The distinguishing mark of this Swallow is the light spot on the rump, and he may readily be known from his neighbor, the Barn Swallow, by his short,

unforked tail. Eave Swallows build most interesting adobe nests under the eaves of barns and other outbuildings, or beneath the edge of an overhanging cliff. These ingenious nests are shaped like a flattened gourd or water-bottle, and are plastered against the ceiling, the neck of the bottle—from three to five inches long—having a slight downward curve. They are constructed of bits of clay rolled into pellets, and stuck together with some mucilaginous substance, making a rather brittle, pebbly-looking wall.

It is believed that the settlement of these Swallows in a neighborhood is determined by the presence of the right sort of clay for their masonry. They are greatly persecuted by English Sparrows, which try to take possession of their nests, and they will desert any place when the Sparrows become too numerous.

It is estimated that every Eave Swallow destroys a thousand insects a day—flies, mosquitoes, wheat-midgets, and the beetles that injure fruit-trees.

Bank Swallow: *Clivicola riparia.*

Length 5 inches.

Upper parts grayish-brown, a band of the same color across the white breast.

Resident from April 15 to September 25. Winters as far south as Brazil.

This, the smallest of our Swallows, is known by the dark band across his breast. He is rather common about Washington and may be looked for wherever sand banks rise perpendicularly out of the water, for he nests in holes excavated in a vertical wall. The nest is generally two or three feet in from the entrance, and the white eggs, 4 to 6, are unmarked. Bank Swallows nest in colonies, and rows of their nesting

holes may be seen in the Potomac banks below the city, and at Bay Ridge.

The Bank Swallow is famous for having a greater range than any other land bird, and is found over the entire temperate portion of the world.

Rough-winged Swallow: *Stelgidopteryx serripennis.*

Length 5¾ inches.
Upper parts brownish-gray.
Throat and breast paler gray, belly white.
The outer wing-feather has a rough edge.
Resident (common) from April 7 to September; winters in the tropics.

The Rough-winged is much like the Bank Swallow in general appearance, but without the dark band across the breast. He nests in holes in sand-banks, although not in colonies like the Bank Swallow, and he does not excavate for himself, but takes a ready-made burrow, sometimes the abandoned hole of a Kingfisher. Most frequently, however, he builds in cavities in masonry, and all along the canal above Georgetown nests may be found in crevices of the canal walls; also about Aqueduct Bridge and at Glen Echo.

These nests are usually composed of bits of dead leaves, but Dr. Coues says that the birds take any material that is at hand, and tells of a nest near a poultry yard which was entirely of feathers. The eggs, 4 to 5, are pure white.

Scarlet Tanager: *Piranga erythromelas.*

Length 7¼ inches.
Male, bright scarlet, except wings and tail, which are black.
Female, olive-green above, greenish-yellow below.
Resident (not common) from April 28 to October 7; winters in Central and northern South America.

This brilliant beauty is a northern bird and has no fancy for the lowlands about Washington, but as the country rises north and west of the city one is occasionally seen, and as far out as Rockville and Sandy Spring, he is not uncommon. During the spring migration he is abundant everywhere, and a common and picturesque sight is a flock of Scarlet Tanagers flitting about in the blossoming dogwood trees. The males precede the females by several days, and no one would guess that the demure leaf-tinted birds following along by themselves belong to the gay, stylish company ahead.

The Tanager's scarlet coat is a shining mark for bird enemies, both animal and human, as the beauty doubtless knows, for he always greets intruders with an anxious, querulous *chip-churr* quite at variance with his joyous tree-top song—a swinging song which bears a strong resemblance to that of the Robin.

While the natural habitat of Tanagers is secluded woodland, they sometimes come close to dwellings to build, evidently seeking protection from Crows and other enemies. Their nest is frequently on the lower branch of a large tree, and is likely to overhang a path or wood-road.

Scarlet Tanagers will immediately desert an unfinished nest if they find themselves watched, and in studying their operations one must be exceedingly wary to keep them for neighbors. The nest is built

of fine rootlets and its walls are often so thin that the eggs can be counted from below. The eggs, 3 to 4, are bluish-white, much speckled with brown.

Summer Tanager: *Piranga rubra.*

Length 7½ inches.
Male, rose-red all over, except a little brown on the wings.
Female, olive-green above, and yellowish below.
Resident (uncommon) from April 15 to September 25; winters in Central and South America.

The Summer Tanager is less brilliant than his scarlet cousin and without the black wings and tail. He is a bird of the Southern States, and Washington is nearly the northern limit of his breeding range. While uncommon in this vicinity, he is not so rare near the city as the Scarlet Tanager, and may generally be found at Takoma Park and Brookland, also at Mount Vernon. He likes open, deciduous woods, and builds much like the Scarlet.

Mr. Ridgway thinks the Summer Tanager a finer songster than the Scarlet and says his song is "very Robin-like but much more vigorous and sustained than that of the Robin." His call-note Dr. Palmer gives as *pe-túp-ka.*

Grosbeaks, Finches and Sparrows are included in one family, and so we find classed together, the brilliant Cardinal, sunshiny Goldfinch, and plain little Chippy. While these differ greatly in form, color and habits, they are all alike in being seed-eaters, and have *stout, conical bills*, admirably adapted to cracking seeds.

The dull-colored birds live generally in open fields where their brownish, striped coats make them almost invisible to enemies, while those of brighter plumage find it safer to keep under the cover of trees.

All these birds feed largely on insects in summer, but the rest of the year they live almost entirely on seeds of weeds and grasses. Their economic value as destroyers of the seeds of injurious plants cannot be overestimated.

Those of this family resident here in summer are the Indigo-bird, Blue and Cardinal Grosbeaks, Chewink, Goldfinch, Song, Field, Vesper, Chipping, Grasshopper, and Henslow's Sparrows. Several of these remain through the winter. (See list of winter birds, page 187.)

American Goldfinch; Thistle-bird: *Spinus tristis.*

Length 5 inches.
Male, whole body bright yellow.
Cap, wings and tail black, with some white markings.
Female, brownish, without black cap, her wings and tail dark brown.
Resident (common) all the year.

It is easy to know the merry Goldfinches from other yellow birds by the black wings and tail, and the

"little black cap tipped down over the eyes." They are also known by their bounding flight "as if sailing over imaginary billows." They sing as they go, *Per-chic-o-ree* or *O-wăit-for-me*, in the sweetest of voices. They are often called "Wild Canaries," and both their call and warbling love-song resemble those of the common Canary, but the notes have a more plaintive tenderness.

Goldfinches are always in small flocks except when nesting, and they are the latest of all our birds to build. Indeed, the happy-go-lucky little creatures put off their housekeeping so long it is a wonder that some Goldfinch babies are not frost-bitten before they get their feathers. Although supposed to build in July, we found a nest near Washington in which the last egg hatched the first day of September and have heard of others still later. The little home is exquisite, composed largely of thistle-down, or other plant down, interlaced and bound together with fine strips like grape-vine bark. It is often built in a fruit-tree, resting on a horizontal branch and woven about some upright twigs. The eggs, 3 to 6, match well the dainty nest, being clear white, tinged with green or blue.

If you want a flower garden gay with Goldfinches plant in one corner small sun-flowers and fancy grasses, and when their seeds are ripe the birds will surely come. In autumn the male Goldfinch changes his yellow coat for a brown one, like that of his mate.

Vesper Sparrow; Grass Finch: *Poocætes gramineus.*

Length 6 inches.
Upper parts brown streaked with black.
Under parts white, breast and sides streaked with black.
Outer tail-feathers white.
A rare permanent resident, but abundant in migrations.

In spring and autumn, Vesper Sparrows are seen in small flocks, when they are readily known by their white tail-feathers, which are very conspicuous as they fly. They are true to the name of Grass Finch and keep to grassy fields, preferably to those that are high and dry. We seldom see them outside of migrations, although their nests have been found in a wild field north of Fort Myer, and also near Silver Spring. The nest is sunk in the ground, and the eggs, 4 to 5, are thickly spotted.

Mr. Chapman writes of the song of the Vesper Sparrow: "When singing he generally selects an elevated perch and gives himself entirely to his musical devotions. Early morning and late afternoon are his favorite hours, but he can be heard at other times. His song, which is loud, clear, and ringing, may be heard at a distance of several hundred yards. It resembles that of the Song Sparrow, but is sweeter and more plaintive. When heard in the evening it is a truly inspired and inspiring melody."

Grasshopper Sparrow; Yellow-winged Sparrow: *Ammodramus savannarum passerinus.*

Length 5¼ inches.
Upper parts streaked black, brown and ashy; crown black with buffy line through the center; bend of the wing bright yellow.
Under parts buffy, *unstreaked.*
Resident (common) from April 15 to October 25; winters from North Carolina to Cuba.

The Grasshopper is one of the prettiest of the Sparrows, the dark markings above, and plain, light under parts having a particularly trim, tailor-made effect. Look for yellow on the wings and a black crown with a yellowish line through the center.

Although this Sparrow is common, he is not often seen, as he lives in wild, weedy fields and seldom mounts higher than the tip of a blackberry spray, or at most a fence rail, to sing his odd little grasshopper-like song, which the listener must be very near to hear. The grassy nest is on the ground, and the eggs, 4 to 5, are white, thickly speckled.

Henslow's Sparrow: *Ammodramus henslowii.*

Length 5 inches.
Upper parts chestnut, streaked with brown and ashy; bend of the wing pale yellow; crown light olive-green, streaked with black.
Under parts white, washed with buffy, the breast and sides streaked with black.
Resident (locally common) from April 12 to October; winters in the Southern States.

Henslow's much resembles the Grasshopper Sparrow, but his crown is greenish and black, and his breast and sides are streaked. While not generally distributed, in the places where found he is abundant.

His known haunts near the city are the wild fields about Rock Creek Church and Soldiers' Home, and those between Arlington and the Potomac. He is also common at Falls Church and Kensington. He keeps close in the weeds and must be hunted with patience and perseverance.

The nest is on the ground in a tuft of grass, and the eggs, 4 to 5, are greenish-white, thickly speckled with reddish-brown. Dr. Richmond says, "The nest of both this and the Grasshopper Sparrow are so thoroughly concealed that expert students are often unable to find them." His song is given by Mr. Jouy as *Sis-r-r-rit—srit-srit*, with the accent on the first and last syllables. He often sings on moonlight nights.

Chipping Sparrow; Hairbird: *Spizella socialis.*

Length 5¼ inches.

Upper parts brownish, streaked with black; forehead black; *top of head bright chestnut.*

Under parts grayish-white, unmarked.

Resident (abundant) from March 15 to November; winters in the Gulf States and Mexico.

Chippy is the smallest and most friendly of our common Sparrows. He might be called the little children's bird, he is so tame, and always on the ground about the house and garden. Noisy plays do not disturb him, and he will come almost within reach of the shortest arms, busily looking for food or hunting stuff for his pretty nest. If bits of string are left in his way some will be found woven in or attached as ornament. He gets the name of Hairbird from the quantity of hair used in lining the nest, usually horse hair, or that from a cow's tail. One wonders that

enough hair can be found for so many nests, as Chipping Sparrows are very common and raise two or three broods in a season. They build low, in a bush or small tree, and the eggs, 4 to 5, are light blue, somewhat speckled.

Chippy's distinguishing mark is his red-brown cap. When he feels like singing he chants his own name rapidly, in a high key, *chippy-chippy-chippy-chippy*. It is likely to be the first bird-sound at daybreak and the last in the evening, and is sometimes given softly in the night, as if to assure the brooding mate of his protecting presence.

Field Sparrow: *Spizella pusilla.*

Length 5½ inches.

Upper parts bright reddish-brown finely streaked with black and ashy; crown and bill reddish-brown; whitish wing-bars.

Under parts white, unstreaked, and tinged with pale reddish-brown.

Resident (common) all the year.

The Field Sparrow is known by his red-brown color, and especially by his reddish bill. He is a bird of varied songs, all sweet and tuneful. Mr. Burroughs gives one as *fe-o, fe-o, fe-o, fee, fee, fee, fee, fee*, "at first high and leisurely, but running very rapidly towards the close, which is low and soft." There are two others commonly heard in Maryland, one of which can be given very nearly on the piano. Take C, then A below, G adjoining, and back to C. Strike each key rather rapidly four times, except the last, which may be one note, three or five, and is sometimes trilled an octave higher, or it may be any other note than C. It must be remembered that bird songs

vary with individual singers, and the same bird does not always sing the same notes.

This Sparrow frequents wild fields, particularly those that are overgrown with bushes and small evergreens. He may generally be found in nesting time in a field just west of Chevy Chase Circle, but he is so shy and cunning that it is difficult to get a good look at him, as he will usually manage to keep something, if only a leaf, between himself and the observer.

The nest is on the ground or in a low bush, and the white eggs, 4 to 5, are much speckled with brown.

Song Sparrow: *Melospiza fasciata.*

Length about 6¼ inches.
Upper parts streaked, black, brown and gray.
Under parts white, with conspicuous dark streaks; *a dark blotch in center of the breast.*
Resident (abundant) all the year.

"The blessed little Song Sparrow!" exclaims Mrs. Olive Thorne Miller, and so say we all. No bird is dearer to us than this plain-coated little fellow, whose sweet and cheery song is heard in all weathers throughout the year. It sounds especially happy in early spring, when with the Bluebird he announces the departure of winter. Go into the Smithsonian grounds on any mild day in March or even in February, and your heart may be thrilled by this delicious bit of melody. It begins often with two or three loud, clear notes, and then goes rippling round, according to the fancy of the singer. A homely translation but one that helps the learner is "Maids, maids, put on the tea kettle, ettle, ettle."

The distinguishing mark of the Song Sparrow is the dark blotch on his breast. He lives near water and

will not be found far away from it. The nest is on the ground or in a low bush, and the eggs, 4 to 5, are bluish or greenish-white, speckled with brown.

Chewink; Towhee: *Pipilo erythrophthalmus.*

Length about 8¼ inches.

Upper parts, throat, and breast black; sides chestnut-red, belly white.

Wings have white patches, and outer tail-feathers are edged and tipped with white.

Female, brown, where male is black.

Resident (very common) from April 15 to October 15; winters in the Southern States; may winter here.

Passing along a country road, bordered by woods where the undergrowth is thick, you are likely to see the Chewink flitting about in the bushes, showing his white tail-feathers as he flies, and you may hear the musical questioning call which has given him his name—*che-wink?* He will also be found in any woodsy, bushy place where last year's leaves are not cleared away.

The nest, flat on the ground, is apt to be overhung by that of a Catbird or Wood Thrush, while in deeply secluded places the Cardinal may be found in the same company. It is generally built in dead leaves, and harmonizes so perfectly with its surroundings, the whitish eggs being thickly speckled with brown, that any but the sharpest eyes will overlook it.

The Chewink is very handsome in his tri-colored suit of black, white, and chestnut-red, and his rich voice has a metallic quality which would put him among the brasses in full orchestra. He has only a few different tones, but by transposition he gets a variety of sweet phrases. His most common song has been translated "Come with me," the last word trilled on his highest note.

Chewinks are anxious parents, as well they may be with their open nest at the mercy of every prowling cat and chipmunk. Dr. Richmond says: "If you go into a thicket and 'squeak up' some birds, the first to come forward and complain of your presence are Chewinks, Catbirds and Vireos." "Squeaking" is imitating the cry of young birds, which may be done by kissing the back of the hand.

"Marsh Robin," "Swamp Robin," and "Ground Robin" are local names for the Chewink.

Cardinal; Virginia Red-Bird: *Cardinalis cardinalis.*

Length 8¼ inches.

Male, whole body and bill bright cardinal-red.

A black mask surrounds the bill and extends on the throat; a fine long crest.

Female, yellowish-brown, with red bill and a little red on her crest, wings and tail.

Resident (common) all the year.

Winter and early spring are the best times to look for the glorious Cardinals, as they are much less shy than when they have a nest or young birds to guard. They have been so hunted for cage-birds that it is no wonder they are timid, and hide their nestlings in the wildest of wet undergrowth where we can with difficulty follow. A caged Cardinal, condemned to solitary confinement with no other occupation than jumping between two sticks a foot apart, is a pitiful sight, and not to be willingly endured by any readers of that immortal story—"A Kentucky Cardinal."

The rich delicious songs of this Grosbeak—for he has several—can be heard in almost any wild spot near water. Miss Merriam * writes one as "*cŭe, cŭe,*

* In Birds of Village and Field.

kip, kip, kip, kip," and says: "In the Washington Zoo Cardinals are common, and after February their song often rings through the bare woods."

Blue Grosbeak: *Guiraca cærulea.*

Length 7 inches.
Male, general color deep blue.
Wings and tail black, edged with blue, the wings marked with two chestnut bands.
Bill heavy and bluish.
Female, upper parts grayish-brown, under parts brownish-buff.
Resident (rare) from May 1 to September 30.

The dark blue of the male Grosbeak needs sunshine to bring out its rich beauty, for seen in the shade it looks almost black. His mate is entirely different, having soft neutral tints which make her difficult to discern in the weeds and tangled briars where they make their home. They frequent the wild growth which borders small streams, and there, in the crotch of a bush, or in tall weeds, the grassy nest is built, and in it are laid three or four bluish-white eggs.

These birds are quiet and sedate in their movements, and have a habit, fortunate for the observer, of sitting motionless for some minutes at a time. Mr. Ridgway says, "The usual note is a strong, harsh *ptchick*, and the song of the male is a very beautiful, though rather feeble, warble." While Blue Grosbeaks are considered rare, they are not infrequently seen about Kensington, Falls Church and Anacostia.

Indigo Bunting: *Passerina cyanea.*

Length 5½ inches.
Male, general color bright greenish-blue, darkest on the head, brightest on the back.
Wings and tail black, margined with blue.
Female, looks like a sparrow; grayish-brown above, whitish below, under parts indistinctly streaked.
Resident (common) from May 1 to October 15; winters in Central America.

Indigo-birds are found with the Sparrows in wild bushy fields. The coat of the male is one of the most brilliant blues in nature, but his mate is as brown and plain as her Sparrow companions. The Indigo is sometimes called "Blue Canary," and he is an especially happy, persistent songster, warbling on when the heat of summer days has silenced most birds. Although a ground bird, building in a low bush and feeding on worms, caterpillars, and grasshoppers, when not kept below by domestic duties or hunger he mounts to the tallest tree-top and "sings to the passing clouds."

In nesting season, Indigo-birds are almost always found in the grounds south of the Soldiers' Home bordering Glenwood Cemetery, and they are often heard in the Zoo, particularly near the Columbia Road entrance.

English Sparrow; House Sparrow: *Passer domesticus.*

Length 6¼ inches.
Male, upper parts streaked with black and chestnut; sides of throat white, rest of throat and breast black; white wing-bar.
Female, without black breast, or white on throat or wings.

English Sparrows are generally regarded as an unmitigated nuisance, but in spite of their noise and filth,

if they could be kept in check they might be tolerated in the city, where they give a certain life to the streets and parks and furnish some entertainment to children and house-bound invalids.

It is in the suburbs and country that they are most objectionable, for they drive away from dwellings and barns the native birds which would naturally build about them, and their incessant, unmusical cries drown all other bird voices. Besides being of no use —for they eat neither insects nor weed seeds in appreciable quantities—they are positively injurious. In the spring they eat the buds of fruit trees, particularly those of peach and pear trees, and of currant and berry bushes and grape vines, while later they peck at all kinds of fruit and green vegetables. They also eat an immense amount of grain.

As they are such undesirable tenants, it is worth while in the country to make an effort to get rid of them. A shot-gun used occasionally is effective in keeping them from getting a foot-hold on a new place, for they are quick to take a hint, and if one or two of a visiting flock are killed the others fly away and usually do not return. Nests should be watched for and destroyed—an iron hook at the end of a long pole is useful in tearing them out. However numerous these Sparrows have become anywhere, they may be driven away by persistent shooting and destroying nests. Poison is sometimes used—grain soaked in arsenic or strychnine—but not many birds will be caught by it, and it cannot be recommended as a safe remedy.

Cowbird: *Molothrus ater.*

Length 8 inches.
Head, neck and breast brown; rest of the plumage glossy black with metallic reflections.
Female, dark gray, lighter below.
A rare permanent resident.

In early May if a large gray bird is seen *walking* about the lawn, and pecking in the grass like a chicken, you may be sure it is the female Cowbird, and that the home of some happy little songster in the neighborhood is likely to be disturbed, if not ruined, by her intrusion. Mr. Chapman, in his "Birds of Eastern North America," writes strongly of this bird: "The Cowbird is an acknowledged villain and has no standing in the bird world. English Sparrows, either because they are not aware of the customs of New-World bird life, or because of a possible and not unlikely affinity, associate with him; but no self-respecting American bird will be found in his company. . . . In small flocks they visit both pasture and woodland, and are given to following cattle, clustering about the feet of the herd, presumably to feed on the insects found there. They build no nest, and the females, lacking every moral and maternal instinct, leave their companions only long enough to deposit their eggs in the nests of other and smaller birds. I can imagine no sight more strongly suggestive of a thoroughly despicable nature than a female Cowbird sneaking through the trees or bushes in search of a victim upon whom to shift the duties of motherhood.

"The ill-gotten offspring are born with the Cowbird character fully developed. They demand by far the greater share of the food, and through gluttony or mere size alone, starve or crowd out the rightful occu

pants of the nest. They accept the attention of their foster-parents long after they could care for themselves; and when nothing more is to be gained, desert them and join the growing flocks of their kind in the grain fields."

The rather large egg of the Cowbird is white, evenly speckled with brown.

RED-WINGED BLACKBIRD.

Red-winged Blackbird; Marsh Blackbird: *Agelaius phœniceus.*

Length 9½ inches; female smaller.

Male, glossy black, except the shoulders, which are scarlet edged with buff.

Female, quite different; conspicuously streaked all over with brown, black and whitish; shoulder patches rusty-red, sometimes pinkish; touches of yellowish-white on wings.

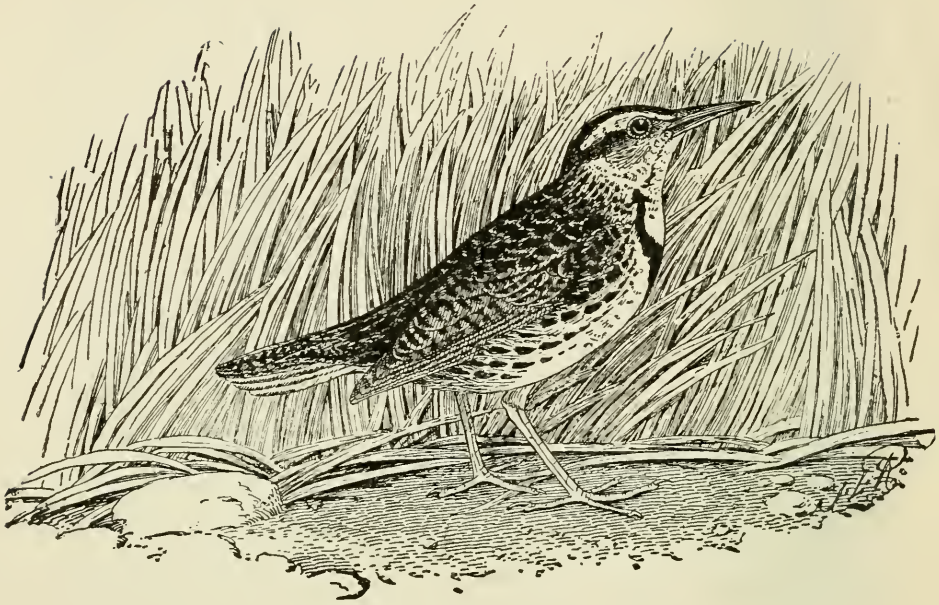
Resident (common) all the year; abundant in migrations.

Early in March these picturesque birds arrive in flocks from the South, joining their hardier or more

courageous brothers who have spent the winter here. The males, gorgeous in their epaulets of scarlet and gold, precede by some days their less showy but equally well-dressed wives. *Quonk-er-rée, Quonk-er-rée,* they cry, and the musical call is as much a part of spring on the marshes as is the frog chorus with which it mingles.

Most of the Red-wings soon pass on north, but some remain to breed in the marshes of the Potomac and Anacostia Rivers, and in other swampy places in the neighborhood. Their nest is built low in the reeds or bushes, and is composed of coarse marsh grasses and weed stalks, well lined with finer grass and rootlets. The eggs, 3 to 5, vary in color, but are most commonly pale blue, scrawled and blotched in heavy dark lines, as if done with a broad stub pen.

These Blackbirds are most abundant in autumn, when they flock over the Potomac flats in company with the Reed-birds (Bobolinks). They begin to gather as early as the first week in August and grow more numerous with frequent arrivals from the north until October, when most of them depart to spend the winter gleaning in southern rice fields.



MEADOWLARK.

Meadowlark: *Sturnella magna.*

Length about 11 inches.
Upper parts mixed, brown, black and buffy; outer tail-feathers white.
Breast bright yellow, with a large black crescent.
Resident (common) all the year.

The Meadowlark is seen flying over meadows, or singing from a fence rail or a dead branch. He will be known in flight by his white tail-feathers, and, when perching, if he faces you, by the black crescent on his yellow breast.

The Lark has a heavenly voice, and we are grateful to him for being so generous with it; all day long it rises from the meadows, and he sings much earlier and later in the year than most birds. In bird orchestra his voice is the flute, carrying a clear, sustained

melody through all the varied music of fields and thickets.

The nest is on the ground and is often domed to look like a tussock of dried grass. It will only be found by accident or diligent search, for the old birds do not drop directly to it, but go down some distance away and run along through the grass or clover. The rather large eggs, 4 to 6, are white, thickly speckled with cinnamon-brown.

The winter plumage of the Meadowlark is much duller than that of summer. Prof. Beal counts him among our most useful birds, and says he is "entitled to all possible protection."

Baltimore Oriole: *Icterus galbula.*

Length 7½ inches.

Male, head, neck and upper back black.

Under parts and lower back bright orange; wings and tail mostly black.

Female, upper parts brown and black; under parts dull orange; white wing-bars.

Resident (rather common) from May 1 to September; winters in Central America.

We are always delighted when a pair of Baltimore Orioles elect to swing their hammock in one of our tree-tops. Life seems uncommonly well worth living when set to such joyous music as they shower down on us all day long in early summer; and then it is a rare pleasure to see the golden beauty flashing in and out of the foliage, and to watch the domestic ways of his pretty brown mate with the white wing-bars, whose identity was such a puzzle when we first began to make bird acquaintances. One little dame was friendly enough to let us overlook her weaving and to graciously accept the bits of string we offered her. The

Oriole's nest is a marvel of intelligence and skill, and one wonders that all the other birds do not learn weaving and take it for a model. It is a deep pocket, flexible and strong, hung far out at the end of a branch, on twigs too slender to support the weight of marauding crow or squirrel, and so constructed that the wildest winds cannot loosen it or spill out eggs or nestlings. Even human ingenuity could scarcely suggest an improvement.

As a destroyer of injurious insects, this Oriole is of great value. Nearly half his food is caterpillars and the rest is largely beetles, ants, grasshoppers, rose-bugs and spiders. What a difference in our foliage, fruit and flowers when we have these for bird neighbors!

While the song of the Baltimore is especially mellow and flute-like, his talking note is a rather harsh *kr-r-r-r-r*. This note is usually heard when the birds are about, in or out of the song season. Both Baltimore and Orchard Orioles nest in the Smithsonian grounds.

Orchard Oriole: *Icterus spurius.*

Length 7¼ inches.

Male, head, neck and upper back black; rest of the body rich chestnut; wings and tail blackish.

Female, upper parts olive-green; under parts dull yellow; wings dark brown with white bars.

First year males are like female; second year males have a large black patch on the throat.

Resident (common) from May 1 to September; winters in Central America.

The Orchard Oriole is more common than the Baltimore, but is less frequently noticed, as his colors are inconspicuous and he keeps rather close in thickly-

foliaged trees. He is quite as desirable a neighbor as his gay cousin. Their songs are much alike, though that of the Orchard usually ends with a graceful flourish, the note next the last the highest, while the Baltimore leaves his hanging in mid-air with no suggestion of finish.

As the name implies, this is a bird of the orchards, and the nest is generally in a fruit tree; it is pensile and flexible, but not so deep as the Baltimore's and is fastened to upright twigs, so that it has not the free swing of the other. It is most beautifully woven of fresh grasses, and often keeps its green color throughout the season. The eggs, 3 to 5, are bluish-white, spotted and scrawled with dark brown. The young, in pale tints of brown, green and gold, are among the prettiest in Birdland. Major Bendire writes: "Few birds do more good and less harm than the Orchard Oriole, especially to the fruit grower. The bulk of its food consists of small beetles, plant lice, flies, hairless caterpillars, cabbage-worms, grasshoppers, rose-bugs and larvae of all kinds."

Purple Grackle; Crow Blackbird: *Quiscalus quiscula.*

Length 12 inches.

Head, neck and breast iridescent purple and green; rest of the body glossy black.

Female, without iridescence.

Common in migration and in summer; a few winter here; winters generally in the Southern States.

The earliest of all the feathered flocks to arrive are the Crow Blackbirds. Often by the 20th of February they have taken possession of the large evergreen trees in the Smithsonian grounds, and "the air is filled

with crackling, splintering, spurting semi-musical sounds which are like pepper and salt to the ear." (Burroughs.)

Grackles spend much time on the ground, hunting worms, grasshoppers and other insects, and as they walk about the city parks, or in the country over greening meadows and new-ploughed fields, they are a picturesque part of the spring landscape.

They nest in small colonies, generally building in the tops of trees. The nest is bulky and deep, and the eggs, 4 to 6, are dingy white, scrawled and spotted with brown.

American Crow: *Corvus americanus.*

Length 19 inches.
Black all over, with steel-blue and purplish reflections.
Resident (abundant) all the year.

Residents of Washington are familiar with the sight of a seemingly endless procession of Crows straggling across the sunset sky to the famous roost at Arlington. In the earliest morning hours the same birds might have been seen passing eastward to their feeding grounds on the Chesapeake shores. Why Crows should take this long journey twice a day, often against strong winds and winter storms, is a mystery; we wonder that they do not choose a roosting place nearer their food supply.

The Arlington roost covers from twelve to fifteen acres, and at times as many as one hundred and fifty thousand Crows have gathered there nightly, but since the winter of '94-'95 the number has been much reduced. The Agricultural Department publishes a bulletin, "The Common Crow" which is full of in-

teresting information concerning the habits and peculiarities of this very intelligent bird.

In spring Crows leave the roost and scatter over the country to breed, building their nests high in trees, generally in pines. They are most likely to build on the edge of the woods, but sometimes in a detached tree in the open. The nest is composed of sticks, corn-husks, and other coarse material, all very substantially put together, and lined with grass, leaves and rags. It is about two feet in diameter outside. Four to six eggs are laid, generally bluish-green, thickly marked with brown. "The young are born blind and naked, and remain in the nest about three weeks."

If a young Crow is taken about the time he is ready to leave the nest, he readily adapts himself to new conditions and makes an interesting pet. He will want raw egg and bits of fresh meat at first, but afterwards any scraps from the table are acceptable. A tame Crow shows no preference for corn, and only eats it when he can get nothing else.

Fish Crow: *Corvus ossifragus.*

The Fish Crow is smaller than the Common Crow, but the difference is not perceptible in the field. He can there be distinguished only by his voice, which has a pronounced nasal quality. Instead of *caw*, he cries *car*, "as if through his nose."

Fish Crows will not be found far from water. They are extremely common about Washington and are almost always seen in the Smithsonian grounds and along Rock Creek in the Zoological Park. They are said to be more destructive to the eggs and nestlings

of other birds than are the Common Crows. About the Smithsonian they have been seen picking young English Sparrows out of their nests. They build in the tops of pine trees, rather higher than other Crows.

Blue Jay: *Cyanocitta cristata.*

Length about 12 inches.

Upper parts and crest grayish-blue; wings and fan-shaped tail bright blue, barred with black and patched with white.

Under parts grayish-white, a black collar extending up across the back of the head.

Resident (rather rare) all the year; common in migrations.

The Blue Jay is so large and handsome and noisy that one need not hunt him with an opera glass nor puzzle over his identity. His shrill voice at once attracts attention, and the high crest, black collar, and barred wings and tail are all conspicuous marks. Among his many calls and cries one suggests his own name, *jay, jay*, another a creaking cart-wheel.

The Jay is uncommon about Washington, which is not to be altogether regretted, for he is a great disturber of the peace in Birdland. Out in Maryland, when we hear a commotion among the woodland birds, we are pretty sure that a Jay or Crow is at the bottom of the trouble, and are more likely to hear the tantalizing scream of the Blue Jay as he flies off than the contemptuous *caw* of the black cannibal. Both these birds are nest-robbers, though ornithologists say the Jay is not so bad as his reputation, as few remains of eggs or nestlings have been found in the stomachs examined; so it may be concluded that he is more mischievous than dangerous. In watching birds in the woods it is interesting to see how different species will unite against a common enemy—a dis-

tressed cry from one bird will bring all the others in the neighborhood.

The usefulness of the Blue Jay seems to be in eating the moth which is destructive to grapes, and in planting trees. He hides nuts and acorns in holes in the ground and many of them sprout and grow, so that we are indebted to him for some of our finest forest trees—oak, chestnut, and beech.

Jays build in trees, from ten to fifteen feet above the ground, generally where a branch joins the trunk. The eggs, 4 to 6, are thickly marked with cinnamon-brown.

FLYCATCHERS.

Flycatchers have big heads and shoulders, and long, flat bills, slightly hooked at the end. Their manner of feeding is hawklike: from a prominent perch, which gives a free, wide outlook, one will dash out after a passing insect, seize it with a click of the hooked bill, and return to his stand in readiness for the next comer.

As Flycatchers live entirely on insects, they go south early in the fall. We have nesting here the Phœbe, Kingbird, Wood Pewee, the Acadian and Great Crested Flycatchers, and in migration may see the Alder, Yellow-bellied, and the Least—also called Chebec.

KINGBIRD.

Kingbird: *Tyrannus tyrannus.*

Length 8½ inches.

Upper parts slate-color; head black with concealed orange-red crest; tail black, with terminal band of white.

Under parts white.

Resident (common) from April 20 to September; winters in Central and South America.

When a bird is seen chasing a Crow or Hawk and driving it far out of the neighborhood, that is probably the brave Kingbird defending his nest. And if a rather large gray bird with a white breast, and black tail tipped with white, is seen perched on a fence-post or telegraph wire from which he frequently circles out,

it is doubtless this Flycatcher getting his dinner. If near enough you would hear a sharp click of the bill at every foray, for he seldom misses his mark.

Kingbirds are abundant, which is fortunate for the country, as nearly nine-tenths of their food is injurious insects. They are especially partial to potato-bugs, grasshoppers, and rose-chafers.

The nest is usually in large trees, from ten to thirty feet up, and is placed well out on a branch. It is cup-shaped, built of roots and grasses and lined with finer stuff. Three eggs are generally laid, sometimes four, much blotched and speckled with brown. Dr. Richmond says "Kingbirds prefer solitary trees in which to build their nests, probably because they can keep closer watch on their preserves." These birds are devoted to their nest and are so vigilant that it is safe to say it is never molested unawares. The young are the most petted and pampered of bird children, and are kept in the tree-tops and fed until they are as large as their parents and can be distinguished from them only by the shorter tail.

The fear which Crows have of the Kings was shown very amusingly by a tame Crow we once had. Whenever Kingbirds came about the lawn the Crow would scurry under the porch or fly to us for protection.

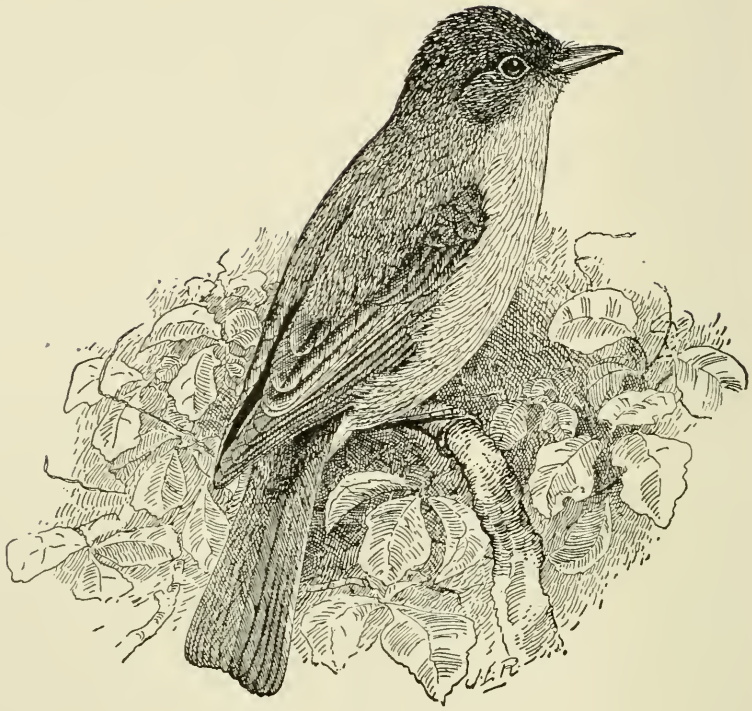
Great Crested Flycatcher: *Myiarchus crinitus.*

Length 9 inches.
Upper parts olive-green. A low pointed crest.
Throat and breast pearl-gray, belly yellow.
Resident (common) from April 25 to September; winters in southern Florida and Central America.

The Crested Flycatcher is partial to wooded, rocky hillsides where arbutus and laurel grow, but he may

be found in any open woods, and he also comes to well shaded lawns. He announces his presence by a ringing shout, a sort of "Hurrah," so characteristic that after a first hearing one is not likely to mistake it for any other bird-call, but will say with confidence, "There's a Great Crest!" He is a handsome, distinguished-looking bird as he stands erect on his perch, turning his crested head this way and that, watching for winged insects to come within his range. The pearl-gray and lemon-yellow of his waistcoat are a particularly esthetic combination.

This Flycatcher's nest is in a hole, not like a Woodpecker's, but in a natural cavity, and most often in a hollow limb. The nest is interesting from the bird's habit of using cast-off snake skin in its construction, presumably with the intention of frightening away intruders. The eggs, 4 to 6, are creamy-white or buff, streaked lengthwise with fine lines as if done with a pen. These Flycatchers may generally be seen—or heard—in the Zoological Park, and in the Soldiers' Home woods.



PHŒBE.

Phœbe: *Sayornis phœbe.*

Length 7 inches.

Upper parts olive-brown; crown, wings and tail darker.

Under parts white, slightly washed with yellowish; a touch of white on outer tail-feathers.

Resident from March 5 to October; winters from North Carolina to Cuba and Mexico.

One of the earliest bird-notes country people hear in spring is this Flycatcher's pleasant call of *phœ'-be*. He is often called Pewee, but incorrectly, as the latter name belongs strictly to his relative the Wood Pewee. The two birds are much alike, but the Pewee has white wing-bars. Mr. Ridgway says an easy and infallible means of distinguishing between them is the Phœbe's

habit of swinging his tail when perching; this the Pewee never does.

Phœbes build about porches, and in barns and sheds, generally on a beam; also about bridges, and sometimes under a shelving bank or rock as their ancestors did when there was no other shelter. The nest is of mud, lined with fine grasses and horse hair, and is usually covered outside with bits of feathery moss which must conceal it admirably when built on mossy rocks. The eggs, 4 to 6, are pure white, generally unmarked.

No birds are more useful than Phœbes in destroying tormenting insects, and those that injure fruit, flowers and vegetables, and we are fortunate if a pair settle themselves on our premises, for they can be depended upon to return year after year.

Wood Pewee: *Contopus virens.*

Length 6½ inches.
Upper parts dark olive.
Under parts brown, washed with gray on sides of the throat and breast.
Two more or less distinct white wing-bars.
Resident (common) from May 1 to October 16; winters in Central America.

The woodland song that one is most sure of hearing any time of day the summer through is the tender adagio strain of the Wood Pewee. *Pé-a-weé, pé wee,* he dreamily sings, and we feel at once something of the peace and restfulness of the woods.

The shallow nest is built high, generally in large trees, and is covered with lichens like the Hummingbird's. It so perfectly resembles a knot of the branch on which it rests that unless you see the bird go on or off you will not suspect it of being anything else.

The eggs, 3 to 4, are white with a wreath of dark spots at the larger end. A Pewee's nest with the mother-bird on may be seen at the Smithsonian.

Acadian Flycatcher; Green-crested Flycatcher: *Empidonax virescens.*

Length nearly 6 inches.

Upper parts grayish-green, wings and tail darker; two conspicuous white wing-bars.

Under parts white, washed with yellowish.

Resident (common) from May 5 to September 15; winters in Central America.

The Acadian, although common, is perhaps not so well known as the other Flycatchers, for he keeps to the shady, secluded corners of our woods and must be looked for. His haunts are in woods near water, generally by small streams, ponds and springs, and he is likely to be seen in the lower branches of young trees, especially where these grow in Nature's own wild, crowded fashion.

The call-note of the Acadian is peculiar, and is given as *wick-up* and *hick-up*, from which he gets a nickname of "Hick-up Bird." The nest is shallow and thin, woven of fine rootlets, grass and dry blossoms, and the rim is attached to a forked twig near the end of a branch, like the Vireo nests. Almost always some loose bit of stuff is left hanging from the center.

The eggs, 4, are creamy-white, spotted at the larger end with cinnamon-brown.

Chimney Swift; Chimney Swallow: *Chætura pelagica.*

Length about 5½ inches.
General color, sooty; throat whitish.
Wings long and slender; tail short and tipped with spines.
Resident (abundant) from April 15 to October 16; winters in Central America.

"Few sights in the bird world are more familiar than the bow-and-arrow-like forms of these rapidly flying birds, silhouetted against the sky." (Chapman.) It is interesting to watch a flock at dusk circling about a big chimney, into which, with a twittering good-night to the darkening world, they drop one by one, until the last has disappeared.

There are many chimneys in and about the city which are the summer homes of Swifts, and out in the country there are but few old ones unoccupied by them. Swifts are peculiar in never perching as other birds do, but they hang themselves up against the brick or stone wall of a chimney by catching their claws into a crevice and using the short, stiff tail as a prop.

The nest is a basket of twigs fastened together and against the wall with glutinous saliva. They gather the material for it on the wing, breaking off dead twigs with beak or feet. The eggs, 4 to 6, are pure white, as in the hidden home no protective markings are needed.

A Swift's nest in a section of old chimney may be seen at the Smithsonian.

Ruby-throated Hummingbird: *Trochilus colubris.*

Length 3½ inches.
Upper parts shining green; throat metallic ruby-red.
Female, without red throat.
Resident (common) from April 25 to September; winters from southern Florida to Central America.

"Was it a gem half bird?
Or was it a bird half gem?"

The poet's questions seem to suggest this exquisite little creature better than prosy facts as to color and size; and indeed, if we see it only when it comes flashing about our honeysuckle and weigelia bushes—poising an instant on unseen wings before each dainty blossom—we can scarcely believe that it has the same matter-of-fact existence as other birds. But that tiny body holds as many joys, hopes, and fears as any of its larger brothers, and it holds also an intense devotion to the loveliest and smallest nest in Birdland.

It is often the bird's anxiety about her nest that enables you to find it. Walking through the woods you will perhaps be startled by a loud humming noise circling your head, and then you may see a Hummingbird light, uttering a sharp little *chip* which is her only speech. By this you will know that the nest is near, and you need only look over the rather high, slender branches in the vicinity to discover it. It is possibly an inch and a half in diameter and saddled to a limb about the same thickness. It is composed of plant down, most skillfully felted together, and the outside is so beautifully stuccoed with lichens that it looks exactly like a knot on the limb; inside it is scarcely larger than a thimble, and contains two pearly eggs unmarred by spot or line.

The beautiful Sphinx moth, which also feeds from

flower cups, is sometimes mistaken for a Hummingbird, but close observation will show the difference in feet and bill.

Whip-poor-will: *Antrostomus vociferus.*

Length 9½ inches.

Mottled all over with black, brown and white; *a conspicuous white band across the upper breast.*

Three outer tail-feathers white, shown distinctly in flight.

Female has buff instead of white band and patches.

Resident from April 20 to October; winters from Florida southward.

Whip-poor-wills live in dense, wild woods, consequently are not heard near the city, but at Takoma Park and farther out they are not uncommon. As they fly only at night they are seldom seen, but in passing through a bit of thick woods in daytime you may sometimes start one up, when he will fly low for a short distance and settle lengthwise on a limb or log. His flight is so noiseless that it seems weird in the deeply shaded woods. He feeds entirely on insects, chiefly moths, and can engulf the largest in his great mouth, aided by the long stiff bristles which surround it. No nest is built, the two speckled eggs being laid on the bare ground, or on dry leaves.

If near the Whip-poor-will when he is singing, you may hear the peculiar double *chuck* he gives between calls, and can imagine that he says to himself, "I won't," after each threat to whip poor Will. One little boy, whose summer home is near woods where he always hears the Whip-poor-will at twilight, calls him the bedtime bird, and thinks he says "go to sleep, go to sleep."

Nighthawk; Bull Bat: *Chordeiles virginianus.*

Length 10 inches.

Male, upper parts mottled, black, brown, and yellowish-white.

Under parts lighter, banded across with waving lines of brown.

A broad triangular band of white on the throat, a large white spot on the wings, and a band of white across the tail.

Female, without white on throat and tail.

Resident (not uncommon) from April 25 to October; winters in South America.

The Nighthawk is seen in the late afternoon and early evening flying high in the air in erratic bat-like fashion in pursuit of his "daily bread." As he flies he utters at intervals a loud squeak, and in breeding season sometimes drops suddenly toward the earth with a whirring noise which has been likened to that made by the swift turning of a spinning-wheel. This is produced by the air rushing through the stiffened wings and tail, and can be heard at some distance. The white spots on the long narrow wings look round from below, and are spoken of as "a hole in the wing."

Nighthawks, when resting, perch lengthwise on limb or log like the Whip-poor-will, and are invisible to careless observers. They build no nest, and the two thickly speckled eggs are laid on the ground or on a rock where they seem to be part of their surroundings and only very sharp eyes will discover them. If found out and the old birds know it, they will at once remove them to another place, carrying them in their capacious mouths. Warren says: "I have known the Nighthawk to move its eggs a distance of over two hundred yards within an hour after I had discovered them."

These birds sometimes breed in the city, laying their eggs on the roofs of houses.

WOODPECKERS.

Woodpeckers have a large powerful bill, which is very sharp and is used as a chisel to excavate holes in trees, and to dig out insects that burrow in the wood. The tongue is long and barbed and can be thrust far out of the mouth to extract such insects as the bill cannot reach. These birds do an immense amount of good in preserving our forests and orchards from the ravages of wood-borers, ants, and other insects injurious to wood.

Instead of having three toes in front and one behind, as most birds do, Woodpeckers have two stout toes behind and two in front which enable them to climb tree-trunks easily, and when they stop to dig or rest they are propped by the hind toes, and by their stiff, pointed tail-feathers. They are said to often sleep in this position.

Woodpeckers do not sing, but with the bill drum their love-song on a dead limb or other resonant surface. Their hammering power is tremendous, as was realized by the inmates of a slab-covered lodge which Red-heads sometimes visited. One could imagine the consternation among the denizens of a tree-trunk when a Woodpecker knocks for admittance. He is often seen to tap and then turn his head to listen as if locating his prey, which he is said to do unerringly.

Woodpeckers' holes are small at the surface but roomy inside, and are from six to twenty-four inches deep. Their eggs are always pure white without markings.

Downy Woodpecker: *Dryobates pubescens.*

Length nearly 7 inches.

Upper parts black with a white stripe down the middle of the back, and in the male, a scarlet band across the back of the neck.

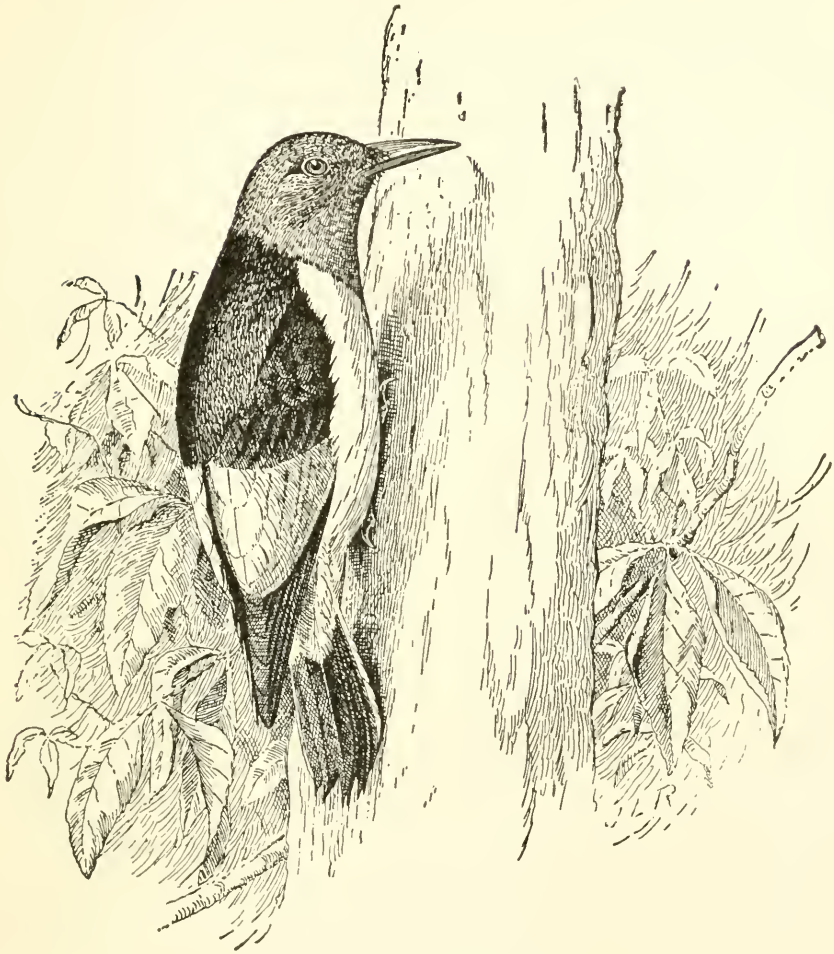
Wings and tail black, thickly spotted with white; outer tail-feathers white, barred with black.

Resident (common) all the year.

The Downy is our smallest and commonest Woodpecker, and is likely to be seen wherever there are old trees, even about those of our lawns and gardens. In spring he is a persistent drummer, and beats his rolling tattoo on a dead limb or a tin roof with equal energy and satisfaction to himself. He frequently calls out *peek, peek,* and gives besides a harsh trill which he probably intends for a song. When nesting begins he is much more sedate and we hear only a quiet tap, tap, tapping on the trees as he goes about in search of food. He is a sociable fellow, and in autumn often joins the cheery group of Chickadees, Tufted Tits, and Nuthatches which roam our woods through the winter. Mr. Chapman asks, "Who can estimate the enormous numbers of insects' eggs and larvæ which these patient explorers of twig and trunk destroy?"

Hairy Woodpecker: *Dryobates villosus.*

The Hairy Woodpecker is like the Downy except that the outer tail-feathers are not barred with black, and he is much larger, being nearly ten inches long. He seldom nests here, but is not uncommon in spring and autumn and is sometimes found in winter.



RED-HEADED WOODPECKER.

Red-headed Woodpecker: *Melanerpes erythrocephalus.*

Length 9½ inches.

Head, neck and upper breast crimson-red.

Upper back, wings and tail bluish-black.

Lower back, under parts, and a broad stripe across the wings, white.

Young, gray where adults are red.

An uncommon summer and rare winter resident.

In "Birds in the Bush," Bradford Torrey writes of the Red-headed Woodpecker: "This showy bird has

for a good many years been very rare in Massachusetts; and therefore when, during the freshness of my ornithological researches, I went to Washington for a month's visit, it was one of the things which I had especially in mind, to make his acquaintance. But I looked for him without success till, at the end of a fortnight, I made a pilgrimage to Mount Vernon. Here, after visiting the grave and going over the house, as every visitor does, I sauntered about the grounds, thinking of the great man who used to do the same so many years before, but all the while keeping my eyes open for the present feathered inhabitants of the sacred spot. Soon a bird darted by me and struck against the trunk of an adjacent tree, and glancing up quickly I beheld my much-sought Red-headed Woodpecker. How appropriately patriotic he looked at the home of Washington, wearing the national colors, red, white and blue! After this he became abundant about the capital, so that I saw him often and took much pleasure in his frolicsome ways."

The Red-heads are found in various open oak woods north of the city, at Mount Pleasant, about Freedmen's Hospital, in Glenwood Cemetery, and often on the heights above Florida Avenue; but they are wandering, irregular birds and their presence in any particular locality cannot be depended upon. Out in the country they are often noticed about old orchards.

In spring they are the noisiest of drummers and also have a loud, rattling call which proclaims their presence, but in nesting time they are very quiet.

The hole of the Red-head is often in a half-dead tree, rather high up, and the eggs, 4 to 6, are laid on the fine chips left by the bird carpenters.

Pileated Woodpecker; Cock-of-the-Woods: *Ceophlœus pileatus.*

Length 17 inches.
General color dull black.
Head and pointed crest scarlet; male with a scarlet line from base of bill back to neck.
Some yellowish-white marks about the head and on the wings, the latter shown conspicuously in flight.
A rare permanent resident.

The Pileated is much the largest of our Woodpeckers, and is so rare here that the sight of him is an event even in an ornithologist's calendar. It is said he was once common all over this country, but he is by nature wild and wary, keeping to heavy timber, and with the advance of civilization has withdrawn to the most secluded localities, until now but few places can boast his presence. He is still occasionally seen near Falls Church.

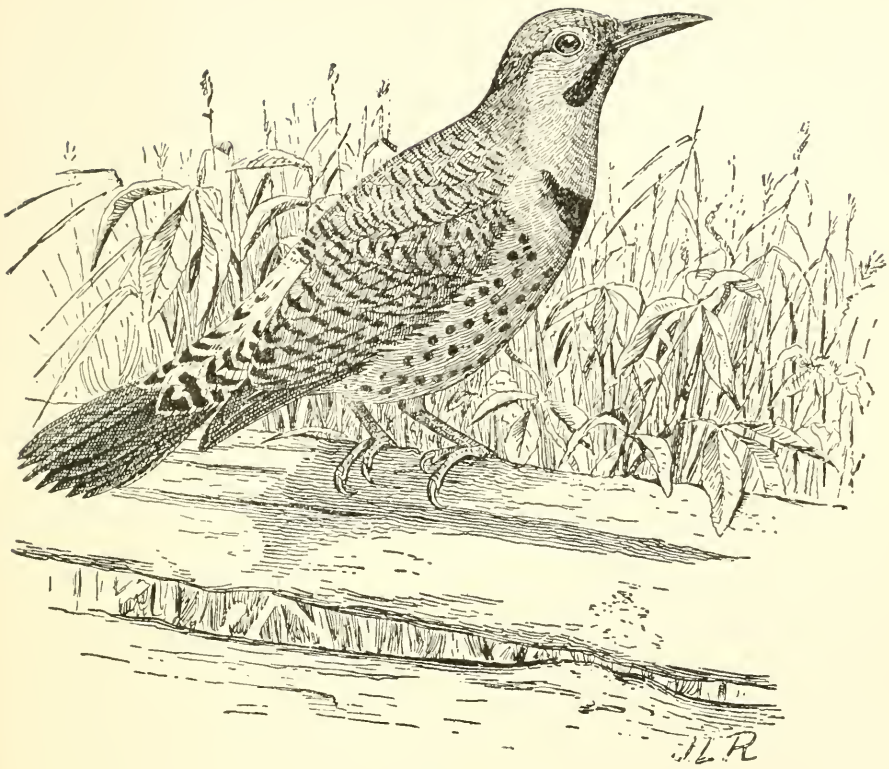
Look for him in the tops of the largest trees, and listen for the hammering of a giant, so loud that the tapping of an ordinary Woodpecker seems but an echo in comparison. The hole of the Pileated will be from 30 to 80 feet above the ground.

Red-bellied Woodpecker: *Melanerpes carolinus.*

Length 10 inches.
Top of head and back of neck light scarlet; back, wings and tail regularly barred with black and white.
Under parts dull white, the belly more or less tinged with red.
Female with top of head ashy-gray.
A rare permanent resident.

The Red-bellied is a southern bird, and this is about the northern limit of his range. Perhaps the only place in the District where he may be looked for

with confidence is in a piece of thick, wet woods where the Fourteenth Street road crosses Piney Branch; but he is said to be common near Laurel, Maryland. He cannot be mistaken for any other Woodpecker, as he is the only one we have here that is barred *crosswise*, evenly and distinctly. The red on the belly from which he gets his name is not conspicuous. He gives a loud *chuck* as he lights against a tree-trunk, which he ascends in a characteristic jerky fashion. His hole is about twenty feet from the ground.



FLICKER.

Flicker; Yellowhammer: *Colaptes auratus.*

Length 12 inches.

Upper parts yellowish-brown barred with black, a scarlet band across the back of the neck.

Under parts brownish-white, spotted with black, a broad black crescent across the breast.

Lining of wings and tail golden yellow. Rump white, shown conspicuously in flight.

A common summer and rare winter resident.

The Flicker is strikingly handsome and easy to identify. If he faces you he will be known by the black crescent across his spotted breast, and when he

flies before you the large white spot on his lower back will name him. He is a vigorous, dashing bird, and he and his comrades make a jolly racket in the woods with their drumming, hammering and loud cries. His song, *wicka-wicka-wicka*, Audubon calls "a prolonged, jovial laugh."

Unlike other Woodpeckers, the Flicker spends much time on the ground, where he hunts ants—his favorite food. Thrusting his long, barbed, sticky tongue into an ant-hill, he draws out numbers at a time; three thousand were found in one Flicker stomach.

The Flicker's hole is in a dead or half-dead tree, or in an old stump, and is at varying heights above the ground—"two and a half to sixty feet, mostly between ten and twenty feet." The eggs are pure white, and have a lustre as if enameled. The usual number is six or seven, but if the nest is robbed, the bird keeps on laying, and there is a record of thirty-seven eggs having been taken from one nest.

Belted Kingfisher: *Ceryle alcyon.*

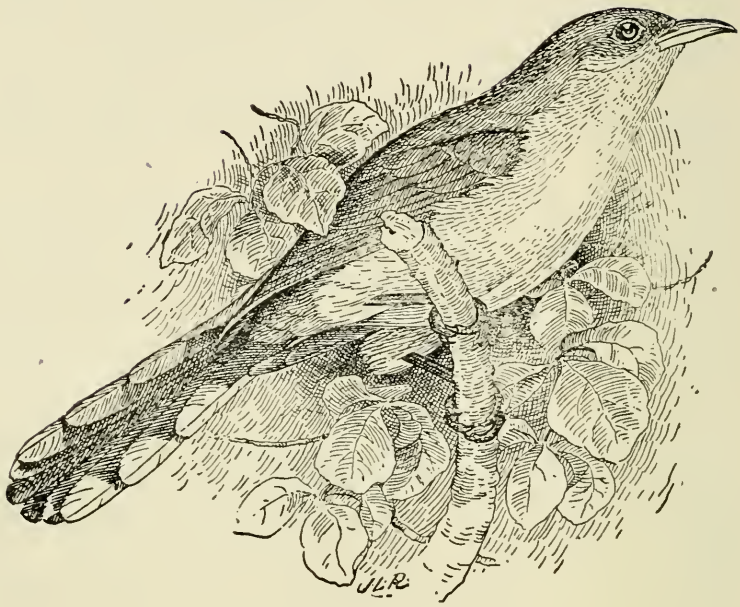
Length 13 inches.
Upper parts and high crest bluish-gray; a white spot before the eye.
Under parts white, a bluish band across the breast.
Female, band and sides brown instead of blue.
Resident (common) all the year.

The Kingfisher is a big bird, considerably larger than the Robin, with a conspicuous crest and a very long, heavy bill. He is found along streams wherever there are good fishing places, and is frequently seen from Rock Creek bridge in the Zoological Park. He stations himself on a branch overhanging the

water and watches until a fish passes below, when down he plunges after him, often going entirely under, but instantly emerging with the fish in his bill. Flying to a perch near by he shakes himself, beats the fish against a branch until it is dead, then swallows it whole.

Each pair of Kingfishers is said to have its own fishing grounds and not to trespass on a neighbor's preserves. They always fish up stream and when they come to the end of their route make a wide detour back to the starting place, sweeping in with the loud, rattling cry which is their characteristic call.

The nest is in a hole in a high bank of the stream and is at the end of a long burrow, five or six feet from the entrance. A half dozen pure white eggs are laid.



YELLOW-BILLED CUCKOO.

Yellow-billed Cuckoo: *Coccyzus americanus.*

Length 12 inches; tail half the length.

Upper parts brownish-gray with a greenish gloss; wings black, washed with reddish-brown; outer tail-feathers black with white patches. Bill yellow at base and on lower mandible.

Under parts white.

Resident (common) from May 2 to October 15; winters in Central and South America.

We have two Cuckoos, the Yellow-billed and the Black-billed, much alike except for the color of the bill. The Yellow-billed is the common species, the other being quite rare. Although a large bird and rather conspicuous from his long tail with its white "thumb-marks," he keeps so closely in the densest trees and is so noiseless in his movements that we seldom notice him. His call, however, is not unfamiliar,

and is written *k-kuk, k-kuk, k-kuk.* As it is supposed to be a sign of rain, he is commonly called "Rain-crow."

A Cuckoo was heard in Iowa Circle recently, but that was unusual, for he is a shy bird and seldom ventures into the city, probably only when the trees are full of caterpillars. His favorite food is tent caterpillars, the sort that make their ugly nests in our trees and ruin the foliage, and he is therefore extremely useful. Mr. Chapman tells of shooting a Cuckoo at six o'clock in the morning which had forty-three of these caterpillars in his stomach.

"Family cares rest lightly on the Cuckoo. The nest of both species is a ram-shackle affair—a mere bundle of twigs and sticks without a rim to keep the eggs from rolling from the bush, where they rest, to the ground. The over-worked mother-bird often lays an egg while brooding over its nearly hatched companion, and the two or three half-grown fledglings already in the nest may roll the large greenish eggs out upon the ground, while both parents are off hunting for food to quiet their noisy clamorings." (Neltje Blanchan.) In this part of the country the Cuckoo more often nests in trees than in bushes.

Black-billed Cuckoo: *Coccyzus erythrophthalmus.*

The Black-billed Cuckoo is much like the Yellow-billed, but besides the different bill his wings have no brown on them, and his tail-feathers are but slightly tipped with white. The voice of the Black-billed is softer than that of the common Cuckoo and his notes are more connected. The nest and eggs are much the same. Resident (rare) from May 2 to October 15.

Owls are nocturnal birds of prey, and at twilight take up the work of the day-feeding Hawks. While they do great good in ridding the earth of mischievous rodents, it must be said that they are destructive to woodland birds and other harmless creatures.

The plumage of Owls is so soft and downy that it offers but slight resistance to the air and their flight is practically noiseless. They catch their prey in their talons and small victims are swallowed whole, the indigestible portions—bones, hair or feathers—being afterwards ejected from the mouth in the form of pellets. Numbers of these pellets will be found about the roosting places of Owls.

Owls' eyes are in front instead of at the sides, as are those of other birds, and they are fixed so that the birds cannot roll them, but must always move the head to look about; curiously enough, they have the power of turning the head entirely around from front to back. In the Owl family, as in that of Hawks, the females are larger than the males.

Several of our Owls may be seen in cages at the Zoo.

American Barn Owl; Monkey-faced Owl: *Strix pratincola.*

Length 18 inches.

Upper parts mixed gray and yellow, speckled with white and black.

Under parts varying from white to bright tawny, dotted with small round black spots.

Face triangular in shape. Eyes small and black.

Resident (not rare) all the year.

While most Owls inhabit woods, the Barn Owl lives in barns, church-belfries and similar places. In the

towers of the Smithsonian, and also in the Jail towers, he makes his home and rears his young. His food is largely rats and mice, sometimes birds, all of which, if small enough, he swallows whole, as is the custom of Owls.

The nest is composed of any convenient rubbish, together with a few feathers. The eggs, 5 to 9, are white, and somewhat pointed.

American Long-eared Owl: *Asio wilsonianus.*

Length 15 inches.
Upper parts mottled, gray, tawny and blackish.
Under parts grayish-white indistinctly barred with brown, black and tawny.
Face bright buff, bordered narrowly with black.
Long, conspicuous ear-tufts. Eyes yellow.
Resident (common) all the year.

"The Long-eared Owl is one of our most beneficial species, destroying vast numbers of injurious rodents and seldom touching insectivorous birds." (Fisher.) This Owl never hunts during the day, but keeps closely in thick evergreen woods or swampy thickets. It seldom builds a new nest, but remodels an old one of a Crow or Hawk. Five eggs are usually laid.

BARRED OWL (SYRNIUM NEBULOSUM).

Barred Owl; Hoot Owl: *Syrnium nebulosum.*

Length 20 inches.

No ear-tufts. Eyes large and black. General color dark brown and buffy-white, barred crosswise all over except on the belly, which is striped.

Resident (not uncommon) all the year.

This is the Hoot Owl, whose nocturnal cry is so startling to the unaccustomed ear. "*Who, who, who*

pesterin' we all?" Uncle Remus gives it, and it is heard at a long distance.

This large Owl must be a terror to the smaller inhabitants of the woods, for it eats rabbits, squirrels, shrews and moles, as well as mice. It sometimes takes poultry, but not often, and is considered on the whole beneficial. It spends the day sleeping in thick, dark woods, rarely hunting except at twilight.

The Hoot Owl nests in a hollow tree and occupies the same place year after year. Only two or three eggs are usually laid; these are more than two inches long.

Screech Owl: *Megascops asio.*

Length 7 to 10 inches.
Our only small Owl with conspicuous ear-tufts.
Upper parts reddish-brown or sometimes gray.
Under parts paler, mottled and streaked with black.
Resident (common) all the year.

Screech Owls are very common and so useful that Dr. Fisher says "Whoever destroys them through ignorance or prejudice should be severely condemned." The wailing cry of the Screech Owl is an uncanny sound at night, and makes the listener glad of human companionship.

These Owls nest rather low in hollow trees. Old orchards are favorite places, and they keep the same home for years. They hunt in the daytime as well as at night.

The plumage of the Screech Owl is sometimes reddish-brown and sometimes gray, "two totally distinct phases, having no relation to sex, age or season."

Great Horned Owl: *Bubo virginianus.*

Length about 2 feet.
Large, conspicuous ear-tufts. Eyes large and yellow.
Upper parts mottled, black, brown, and gray; wings and tail barred; white band on the throat.
Under parts buff, barred with black.
Resident (rare) all the year.

The Great Horned Owl is fortunately rare in this vicinity. Dr. Fisher calls him "a tiger among birds," and says that, besides eating all kinds of poultry, birds and rabbits, he takes Hawks, Crows and even other Owls. His loud, deep notes are all on one tone, *who, who, who*, and at a distance are said to resemble the barking of a dog.

These Owls do not often build, but fix up an old nest of Crow, Hawk or Squirrel, more often in evergreens than in deciduous trees, and usually near the top. The eggs, two in number, are laid early in February.

HAWKS.

The first thing to learn about these birds is that there are good Hawks and bad Hawks. We have six species resident in this vicinity, only two of which are harmful; the others are among the farmers' best friends. The shooting of a good Hawk always results in a distinct loss to the farmer of such products as are destroyed by field mice, rats and rabbits. In some agricultural districts, where there has been ignorant and indiscriminate shooting of all Hawks, there has frequently followed a field-mouse plague, which has done incalculable damage.

It is not so difficult as one might suppose to distinguish between injurious Hawks and those that are beneficial. The two harmful species, Cooper's and the Sharp-shinned, have long tails and slender bodies; while the good Hawks,—the Red-shouldered, Red-tailed, Broad-winged and Sparrow Hawk—are rather stocky, with short tails. The different habits of the two kinds are even more distinguishing than their appearance. The Poultry Hawk conceals himself in a clump of evergreens or dense shrubbery near farm buildings, from which he darts out among the poultry, seizes a chicken and is off, perhaps without being seen or heard.

Chicken Hawks seldom soar in the open as do the mouse-hunting Hawks. Useful species often suffer for the sins of the chicken thieves, for if a farmer misses poultry and observes a Hawk soaring over his meadows, he at once concludes that he sees the miscreant and gets his gun, when the real culprit is probably concealed in the nearest thicket, digesting his last meal.

When either a Cooper's or a Sharp-shinned Hawk finds a poultry yard easy of access he generally continues his visits until all the chickens are gone or he is killed. On one farm sixty chickens were taken and a large number of useful Hawks were unfortunately shot before the thief—a Cooper's—was discovered.

Notice the size of the different Hawks. Cooper's is sixteen inches long, the same as the Broad-winged, and the Sharp-shinned is eleven inches, about the same as the useful little Sparrow Hawk. The other good species, the Red-tailed and Red-shouldered, are larger, the former being a foot and a half and the latter two feet long.

Sharp-shinned Hawk: *Accipiter velox.*

Length 11 inches.

Upper parts slaty-gray, with a few white spots; tail lighter, with dark band and tipped with whitish.

Under parts white, barred with light brown, the throat with dark streaks. The young are dark brown and rusty above, and streaked instead of barred beneath.

Resident (common) all the year.

The food of the Sharp-shinned consists almost entirely of young poultry and small birds, and Dr. A. K. Fisher of the Biological Survey, the authority on Hawks and Owls, says there is little in its favor except its fondness for the English Sparrow, and that it "is gradually learning that there is a never-failing supply of food for it in the larger towns and cities." He has seen it chasing Sparrows in the Washington parks.

The Sharp-shinned nests later than other Hawks and usually builds in a thick evergreen tree about twenty feet from the ground. The eggs, 4 to 5, are heavily spotted and blotched.

COOPER'S HAWK (Accipiter cooperii).

Cooper's Hawk: *Accipiter cooperii.*

This little Hawk is like the Sharp-shinned, but larger, being 16 inches long.

Resident (common) all the year.

"Chicken Hawk" is a common and fitting name for Cooper's. He takes larger poultry than the Sharp-shinned and is especially fond of tame pigeons, as well as all kinds of wild birds. Meadowlarks, Robins and Flickers are mentioned as frequent victims. He also eats English Sparrows.

The nest is usually in the top of a tree, either evergreen or deciduous, and looks like a Crow's nest. The eggs, 4 to 5, are bluish-white, sometimes lightly spotted with brown.

RED-TAILED HAWK (BUTEO BOREALIS).

Red-tailed Hawk: *Buteo borealis.*

Length about 2 feet.
Upper parts very dark brown marked with reddish-brown and whitish; *tail in adults rusty red* with black band near the end, and white tip.
Under parts white tinged with buffy; belly streaked with brown.
Common in winter, rare in summer.

The Red-tailed is the Hawk most frequently seen in winter circling high over open ground. He eats mice, rats and other small mammals. Dr. Fisher says that on the new land of the Potomac flats a rank vegetation has grown up which gives shelter and sustenance to hordes of mice, and "in winter and early spring it is not uncommon to see ten or fifteen Red-tailed Hawks in different parts of this flat attracted hither by the abundance of their natural food." In migration he has seen a flock of sixty-five Red-tails passing southward in large sweeping circles. He also says that when taken young this Hawk soon becomes reconciled to captivity and makes a gentle and interesting pet. The nest is generally in a high tree from forty to seventy feet up. The eggs, 2 to 4, are dull white lightly marked with brown.

Red-shouldered Hawk: *Buteo lineatus.*

Length about 18 inches.
Upper parts dark brown with a reddish cast; *shoulders rusty red;* tail black, with white bars and a white tip.
Under parts reddish-brown barred with white.
Resident (common) all the year.

The Red-shouldered Hawk receives only praise from those who know its habits. Sixty-five per cent of its food is mice, and the rest various small mammals, frogs, fish and insects. Dr. Fisher says that in

all his experience he has never seen it attack a fowl nor has he found the remains of one in the stomachs examined. He writes: "This Hawk, like most other birds of prey, makes a very interesting pet, and on account of its varied food is easy to keep. Apparently it is less shy than the Red-tail, nevertheless under ordinary circumstances it will not allow a man on foot to approach within gunshot. Like other Hawks, it shows no fear for one on horse-back or in a wagon, and in this way can be easily approached. Bottom lands grown up with large deciduous trees, or the neighboring hill-sides, are the favorite nesting-sites of this bird. The nest is placed in one of the large trees, forty to eighty feet from the ground, and usually in the fork where the main branches diverge from the trunk. A pair will inhabit the same locality for years and often occupy a nest for several seasons."

Broad-winged Hawk: *Buteo latissimus.*

Length 16 inches.

Upper parts dark brown, darker on the back; tail blackish with broad bands of gray or brownish-white.

Under parts reddish-brown, broken by white transverse spotting.

The food of this Hawk consists principally of insects, small mammals, reptiles and batrachians, and occasionally of young or disabled birds.

"During the summer the Broad-winged Hawk often may be seen sitting for hours on the dead top of some high tree. At other times it is found on the smaller trees in the deep woods, along streams, or on the ground, where its food is more often procured. Although sluggish and unusually heavy in its flight, it is capable of rapid motion and sometimes soars high

in the air. One of its notes resembles quite closely that of the Wood Pewee." (Fisher.)

The Broad-winged nests late for a Hawk, generally about the middle of May. The nest is like that of the Crow, but larger, and two or three eggs are laid. The male is said to assist in incubating the eggs as well as in bringing up the young.

Sparrow Hawk: *Falco sparverius.*

Length 10 inches.

Male, upper parts bright reddish-brown generally barred with black, the tail bordered with a broad black band and tipped with white; forehead gray, irregular black stripes on the side of the head; wings grayish-blue with black markings. Under parts generally buffy or pale reddish-brown, with or without black markings.

Female, under parts streaked with brown. The wings are brown barred with dusky, and the tail is narrowly barred with dusky.

Common in winter, rare in summer.

The handsome Sparrow Hawk is the smallest of his family, being about the size of a Robin. His hooked bill and high shoulders proclaim him a Hawk, and the gray forehead and distinct black markings on the side of the head identify him. He is supposed to eat small birds, hence his name, but rarely have any been found in the great number of stomachs examined at the Biological Survey, except in winter, and then only when other food could not be obtained. He is a great destroyer of meadow-mice and injurious insects, especially grasshoppers and crickets, so he should be protected.

The nest, unlike that of other Hawks, is in a hole in a tree, either in a natural cavity or an old Woodpecker's hole.

The eggs, 5 to 7, are finely and evenly marked. Sparrow Hawks are more common here in winter than in summer. They have been suspected of nesting in the Smithsonian towers.

SPARROW HAWK (FALCO SPARVERIUS).

Marsh Hawk; Harrier: *Circus hudsonius.*

Length 19 inches.
Male, general color ashy-gray; under parts white, finely marked with rusty; *rump white* in both sexes, shown conspicuously in flight.
Female, general color rusty brown.
July to April. Common.

The Marsh Hawk will be seen beating low over marshes or meadows in search of mice and insects. It is not known to breed in this vicinity, but is so common the greater part of the year that it is thought best to distinguish it as a good Hawk. Doctor Fisher writes: "Its presence and increase should be encouraged in every way possible, not only by protecting it by law, but by disseminating a knowledge of the benefits it confers. It is probably the most active and determined foe of meadow mice and ground squirrels, destroying greater numbers of these pests than any other species, and this fact alone should entitle it to protection, even if it destroyed no other injurious animals."

The nest is on the ground in marshes. Eggs, 4 to 6, are dull white, unmarked.

Fish Hawk; American Osprey: *Pandion haliaëtus carolinensis.*

Length about 2 feet.
Upper parts dark brown; tail banded.
Head and under parts white, sometimes spotted.
Resident (uncommon) from March 25 to October.

"We do not know of any nests within the District, but have seen them lower down the river; the species properly belongs to the category of summer residents. It is often seen sailing over the Potomac and Ana-

costia Rivers, or perched upon the branches of dead trees overhanging their banks. Its migrations correspond to some extent with those of the fish upon which it feeds, and it consequently appears in spring about the time the fishing season begins." (Avifauna Columbiana.)

The note of the Fish Hawk is said to be a high, rapidly repeated, plaintive whistle.

Bald Eagle: *Haliœetus leucocephalus.*

Length about 3 feet.

Adults, head, neck and tail white; rest of the plumage dark brown. Bill and feet yellow.

The plumage of the first-year birds is a uniform dark brown, almost black, with no white perceptible, while that of the second-year birds is a lighter color and begins to show white on head and tail.

Resident (not common) all the year.

Our national bird very appropriately makes his home at Mount Vernon, where one pair have lived for many years. He is also found at Great Falls, and in both localities may be seen soaring high over the Potomac with characteristic dignity and grace. He lives almost entirely on fish, and, it is said, often makes the Fish Hawk give up his prey.

The nest is generally in the top of a tall tree and is very large—a platform of sticks, often six feet across and three or four feet in depth; it is lined with coarse marsh grass. Two large white eggs are laid.

Buzzard; Turkey Vulture: *Cathartes aura.*

Length 2½ feet.
Plumage, blackish edged with gray.
Head and neck without feathers, the skin bright red; bill white. Young with head and bill blackish.
Resident (abundant) all the year.

Buzzards are valuable scavengers, and by their prompt disposition of all carrion, keep the woods and fields clean. Their scientific name, *cathartes*, means "purifier." They are protected by law, a fine being imposed for killing one.

Numbers of these great Vultures will sometimes be seen perched on a fence in the vicinity of their latest meal, grotesque and unattractive; but when they mount into the air, and far above the earth circle about for hours at a time with the utmost ease and grace, they command our admiration. Their sight and sense of smell are wonderfully acute, and they patrol a large territory.

Buzzards do not build nests, but the eggs are laid on the ground, often under a pile of rails or brush, or in a hollow stump. When the nest is disturbed, the old bird makes a blowing sound like escaping steam. Two large eggs are laid, much blotched and speckled.

Mourning Dove; Turtle Dove: *Zenaidura macroura.*

Length 12 inches.
General color dark fawn; sides of the neck iridescent; a dark spot on the side of the head.
Tail bordered with black and tipped with white.
Under parts pinkish.
Resident all the year, common in summer.

The mournful, monotonous *coo-ah, coo-ah, coo* of the Turtle Dove is not the most cheerful of rural sounds,

but he is such a dainty, pretty creature that we are always glad to have one come whirring our way, or to see a pair fly up before us in a woodsy road.

They build in a variety of places—on the ground, in a bush, on a stump, or on the lower branch of a tree. They use a few dry twigs and rootlets which they put together so loosely as to justify the observation of a Maryland Uncle Remus that "dey builds mighty triflin' nesses." Two pure white eggs are laid. Langille says "The young doves are well matured before they leave the nest, and sit side by side upon the ordinarily rude affair. At night the old one sits crosswise upon them, even when they are quite large, the nest and birds together making a grotesque pile." Outside of nesting season these doves gather in flocks and visit grain and corn-fields.

Bob-white; Quail; Partridge: *Colinus virginianus.*

Length 10 inches.

General color chestnut-brown, marked with black, gray, and yellowish-brown; throat, and a broad line over the eye white; a black patch on the upper breast.

Female is buff where male is white.

Resident (common) all the year.

How familiar and pleasant is the clear, musical whistle of the Bob-white! When you hear it floating over the fields, let your glass sweep all the fence-stakes in the direction of the sound, and on the top of one you will almost surely discover the handsome "game-bird." He is so shy and gentle that we always ardently hope he may escape the merciless dog and gun which we know will soon be after him and his pretty flock.

Quail know well the value of their protective coloring, and when surprised they keep to the ground,

scattering in every direction, and then are so still that they can scarcely be seen even when the eye rests on them. If forced to take wing, they rise with a loud *whirr* that is startling to one who does not know what to expect. When all danger is past, soft, sweet call-notes bring them together again.

The nest is on the ground in grassy fields, and the eggs (usually 10 to 15, although Mr. Ridgway once found 26) are pure white. As soon as the downy young are out of the shell, they run about and are marvelously quick. Quail are extremely useful to agriculturists, eating potato-bugs and the moths that produce cut-worms.

Ruffed Grouse: *Bonasa umbellus.*

Length about 18 inches.

General color reddish-brown, variegated with black, buff, gray, and white.

Under parts whitish, barred with brown.

A broad black band at the end of the tail which is tipped with gray.

A large loose tuft of glossy black feathers on each side of the neck, like a ruff.

Resident all the year, but very uncommon.

Mr. Rowland Robinson writes: "The wild turkey is passing away, and it is a question of but few years when he shall have departed forever. In some localities the next noblest of our game birds, the ruffed grouse, has become almost a thing of the past, and in some years is everywhere so scarce that there are sad forebodings of his complete disappearance from the rugged hills of which he seems as much a belonging as the lichened rocks, the arbutus and the windswept evergreens."

The Ruffed Grouse likes the wildest, thickest woods, preferably those which have never been disturbed by man. He may still be found in some places in Virginia, rarely at Falls Church.

Wild Turkey: *Meleagris gallopavo.*

The Wild Turkey resembles the domestic fowl, but is more brilliant in color and his tail and its coverts are tipped with chestnut-red instead of white.

The nest is on the ground, generally under a bush.

Resident (rare) all the year.

American Woodcock: *Philohela minor.*

Length 11 inches.

Upper parts mixed black, brown, tawny, and gray.

Under parts reddish brown of different shades; a white patch on the throat.

Very long bill, and short, round tail.

Resident (rather common) from February to November; a few winter.

Woodcock will be found in damp woods or thickets near the Potomac or Anacostia swamps. They keep secluded during the day and go out towards evening to bore for worms. If, in the late afternoon, you come across a group of small round holes freshly bored in the mud you may know that Woodcock are near. They are exceedingly shy birds and only by keeping yourself unseen and unheard may you perhaps "catch the beam of that dark liquid eye that has no equal on earth," or witness the famous aerial dance.

The nest is on the ground, generally in the woods, but sometimes in a corn-field. Four buffy, speckled eggs are laid in a depression in the earth, with only a few leaves under them. When the bird is sitting she looks so like dead leaves herself that it is hard to see her.

Spotted Sandpiper; Tilt-up: *Actitis macularia.*

Length 7½ inches.
Olive-brown above, white below, *spotted all over* with *round* black spots. Young without spots below.
Very long legs and long bill.
Resident (uncommon) from April 5 to September 3; more abundant in winter.

This pretty little Sandpiper will be known by his distinctly spotted plumage, and also by the peculiar tilting of his body when on the ground. When flying he often sails for a short distance and then his long, narrow wings show a white band. He calls *peet weet* as he flies.

He is likely to be found anywhere along streams, and is commonly seen by Rock Creek in the Zoological Park.

The nest is on the ground, frequently in planted fields near water. The eggs, 4, are buff, much spotted and speckled with brown.

Killdeer: *Ægialitis vocifera.*

Length 10½ inches.
Upper parts grayish-brown and rusty; forehead, throat, collar and wing-patches white.
Upper tail bright orange-brown; tail-feathers tipped with black and white.
Under parts white, two black bands across the breast. Long yellowish legs.
Resident all the year; abundant only in migration.

Killdeer are usually seen in small flocks in ploughed or grassy fields. They have a characteristic way of running rapidly over the ground hunting worms and grasshoppers, and when startled take wing with a shrill cry of *kildee*, or *dee, dee*. This cry is unmistakable and as distinguishing as their peculiar markings.

Killdeer are found most commonly in the vicinity of water. While few nest in the District of Columbia, they are not uncommon in Montgomery County, Maryland, and are said to breed abundantly about Gainesville and Manassas in Virginia. The nest is in the grass and the four blotched eggs are pear-shaped.

King Rail: *Rallus elegans.*

Length 15 inches.
Upper parts blackish, the feathers edged with olive-gray; chin white and some white on wings.
Neck and breast bright chestnut; belly and sides dark brown barred with white.
The downy young are black.
An uncommon summer resident; may occur in winter.

The King Rail is also called Fresh-water Marsh-hen, which name indicates his haunts. All Rails are timid and hide in heavy grass, only flying when forced.

The nest is on the ground in a tussock of grass. The eggs, 7 to 12, are buffy, much speckled with brown.

Green Heron; Fly-up-the-Creek: *Ardea virescens.*

Length 18 inches.
Upper parts and low crest bright glossy green; long neck, bright chestnut.
Lower parts grayish.
Resident (common) from April 15 to September; winters from Florida southward.

Herons are quaint, foreign-looking birds with their long necks and low plumy crests. The Green Heron is likely to be found in any damp woods near water. Its nest is in trees or bushes, and is only a platform

of twigs and sticks. Before the young are large enough to fly, they creep about in the tree-tops or sit in a row on a branch waiting to be fed. The eggs, 3 to 6, are dull greenish-blue.

Great Blue Heron: *Ardea herodias.*

Length about 4 feet.
Upper parts bluish-gray; long neck pale brownish-gray, streaked with black spots down the front.
Low crest black, except middle feathers, which are white.

This splendid Heron is more or less common all the year, and is supposed to breed in this vicinity, but is not positively known to do so. He wanders about in the water, hunting fish and frogs, and is said to eat mice and snakes also. He hunts at night as well as by day. These Herons nest and roost in trees, generally in colonies. The nest is a platform of sticks, and the eggs, 3 to 4, are dull blue.

Least Bittern: *Ardetta exilis.*

Length 13 inches.
Male, head and neck glossy black; back of neck chestnut-red.
Under parts buffy.
Female, head and back brownish; under parts darker than in male and streaked with brown.
Resident (not common) May 5 to September 25.

This is the smallest of the Herons and is exceedingly shy and retiring, keeping in the thickest reeds and grasses of the marshes. He seldom flies unless alarmed and then only a few yards. He feeds mostly at night and is not likely to be seen before sunset.

The nest is on the ground in thick rushes or in a low bush. The eggs, 3 to 6, are bluish-white.

Black-crowned Night Heron; "Quawk": *Nyctico-rax nycticorax nævius.*

Length about 2 feet.

Crown and upper back glossy greenish-black; lower back, wings and short tail, ashy-gray.

Under parts white, often tinged with yellowish or lilac.

Long bill, black. The adults frequently have three long white plumes on the head.

Not uncommon in summer; occasional in winter.

The Black-crowned Herons live in colonies, building in the tops of small pines. They are generally found on the road to Falls Church. The nests are built of sticks and the eggs, 4 to 5, are dull blue.

These Herons keep quiet during the day, only going out after sunset, unless they have young birds to feed. As they fly they call *quawk*, from which they get their common name.

Wood Duck: *Aix sponsa.*

Length 18 inches.

Greenish crest; white markings on sides of head; back greenish-brown; neck and upper breast bright chestnut, with fine white spots. Lower parts white, the sides barred with black.

Female, head brownish; breast and sides grayish-brown streaked with buffy.

Resident (uncommon) all the year.

The beautiful Wood Duck is less rare in spring and fall than the rest of the year, and may be found by streams and ponds where they are bordered with woods.

The nest is in a hole in a tree or stump. The eggs, 8 to 14, are buffy white. It is said the downy young are carried from the nest to the ground in the bill of the parent.

MIGRATION.

There are two annual migrations of birds, one in autumn and one in spring. On the approach of cold weather most insect-eating birds go south and remain through the winter, returning in spring as soon as their food is assured. The birds that do not migrate live on flesh, buds of trees, wild berries, and the seeds of weeds and grasses, which may be found at any time. A few species that are insect-eating to a great extent, change their diet to one of seeds and buds when winter comes, and are thus enabled to remain in a cold climate. On the other hand, many seed-eating birds go south because they find food more abundant there.

In both spring and fall migration the time of arrival of every species at a given place is known, and seldom varies more than a few days except in case of unusual storm. In the spring of 1882 extreme cold and very severe storms occurred along the Atlantic coast with the effect of retarding all migrants at points south of Washington; these being suddenly released by a change of weather came on in hosts, and for several days the streets and parks of the city were crowded with the most beautiful and rare birds—a sight never to be forgotten. In this part of the country migrants from the south pass up the coast to Cape Henry, thence up the Chesapeake Bay, and up the Potomac, Delaware and Susquehanna Rivers to their northern breeding-places.

It is interesting to notice that as these migrants roam through the woods in search of food all move-

ment is in the direction of their migration, and thus the close of a day finds them some distance farther on their way. The male birds of some species migrate before the females and the adults before the young.

Although many birds, like the Warblers and Thrushes, travel leisurely and consume weeks in the journey, some make wonderful flights. Pigeons have been killed in New England with their crops full of undigested rice, which could only have been picked up the day before in the great rice-fields of Georgia or Carolina. Ducks and geese fly at the rate of sixty or seventy miles an hour, while the Northern Black Cloud Swift, it is said, averages eighty miles an hour, and can cover from fifteen hundred to two thousand miles a day.

The distances between the summer and winter homes of different birds vary greatly. Many of our summer residents winter in the Southern States, comparatively near, while other birds that nest far north migrate to South America.

The vernal migration is much more satisfactory to observers than the autumnal, for in spring the birds are in song, and the males wear their gayest colors, while in fall their voices are heard only in call-notes, many of the males have changed to dull and inconspicuous hues, and the strange-plumaged young are also there to complicate matters. From the middle of April to the last of May, however, a morning spent among the birds is not only interesting but is positively exciting as one tries to identify the many species within sight and hearing.

Around Washington there is no better place to observe the migrations than the unfrequented parts of the Zoological Park and Rock Creek Park adjoin-

ing. This piece of well-wooded and watered country has long been known to ornithologists as a regular stopping-place for many migrants, including some rare ones, and its public use has not yet made any perceptible change in the birds, except with such extremely shy species as naturally avoid man.

C. M.

DESCRIPTIONS OF MIGRANTS AND WINTER RESIDENTS.

Wilson's Thrush; Veery: *Turdus fuscescens.*

Upper parts cinnamon-brown, not so bright as in the Wood Thrush; sides of the throat and breast lightly spotted with brown, the spots small and wedge-shaped; sides whitish. Length 7½ inches. April 25 to May 28. Common.

Gray-cheeked Thrush: *Turdus aliciæ.*

Whole of upper parts uniform greenish-olive; eye-ring and cheeks grayish; under parts white, sides of throat and breast faintly tinged with yellowish and spotted with black; sides ashy. Length 7½ inches. May 10 to June 5. Rather common.

Olive-backed Thrush: *Turdus ustulatus swainsonii.*

Like the Gray-cheeked, except that the eye-ring is deep cream-buff, and whole throat and breast are strongly tinged with yellowish. Length 7 inches.

Hermit Thrush: *Turdus aonalaschkæ pallasii.*

Upper parts olive-brown; tail reddish-brown, contrasting strongly with color of back; under parts white, breast and sides of throat heavily spotted with black. Length 7½ inches. April 20 to May 3. Very common; may winter.

Ruby-crowned Kinglet: *Regulus calendula.*

Upper parts olive-green, wings and tail dusky, the former with two white bars: crown bright red; under parts white,

slightly washed with yellowish. *Female* and young without the red crown. Length 4½ inches. April 5 to May 8. Abundant.

Golden-crowned Kinglet: *Regulus satrapa.*

Upper parts olive-green, wings and tail dusky; crown rich orange in *male,* yellow in *female,* in both bordered with black; under parts dull whitish. Length 4 inches. October 5 to April 25. Abundant.

Red-breasted Nuthatch: *Sitta canadensis.*

Upper parts bluish-gray; top of head and a wide stripe through the eye, black in the *male,* bluish-gray in *female*; line over eye white; white patches on the tail; under parts reddish-brown. Length 4½ inches. September 18 to May 10. Irregularly abundant.

Brown Creeper: *Certhia familiaris americana.*

Upper parts brown, streaked and mottled like the bark of a tree; rump light reddish-brown; tail-feathers stiff and sharply pointed; under parts white. Length 5½ inches. September 25 to April 20. Common in winter.

Winter Wren: *Troglodytes hiemalis.*

Upper parts dark cinnamon-brown, wings and tail finely barred with black; under parts paler, the sides and belly barred with black. Tail very short, carried more or less erect. Length 4 inches. September 25 to May 1. Common in winter.

Bewick's Wren: *Thryothorus bewickii.*

Upper parts dark cinnamon-brown; central tail-feathers barred, outer ones black with whitish tips; tail longer than wings; a white line over the eye; under parts white. Length 5 inches. April 5 to 20; November 25 to December 20. Rare.

American Pipit; Titlark: *Anthus pensilvanicus.*

Upper parts brownish-gray, a white line over the eye; outer tail-feathers white; under parts buffy, streaked with black. Hind toe-nail as long as the toe. Length 6½ inches. October 15 to April 25. Sometimes abundant in winter.

Golden-winged Warbler: *Helminthophila chrysoptera.*

Upper parts bluish-gray; crown and large wing-patch golden-yellow; white tail-patches; white and black markings about the head; a black patch on the throat and upper breast, which is grayish in *female;* rest of under parts white. Length 5 inches. May 1 to 25; August. Uncommon.

Tennessee Warbler: *Helminthophila peregrina.*

Back bright olive-green, top and sides of head bluish-gray; no wing-bars; under parts white. Length 5 inches. Very rare in May, sometimes common in fall from August 25 to October 15.

Nashville Warbler: *Helminthophila ruficapilla.*

This Warbler is like the Tennessee except that the under parts are yellow instead of white, and there is a partially concealed chestnut patch in the center of the crown. Wings and tail edged with olive-green. May 5 to 20; September 5 to 20. Uncommon.

Cape May Warbler: *Dendroica tigrina.*

Upper parts olive-green streaked with black; white on the wings; ear-patch chestnut-red; under parts yellow, heavily streaked with black. *Female* without ear-patch. Length 5 inches. May 5 to 20; August 5 to October 5. Sometimes common, usually uncommon.

Black-throated Blue Warbler: *Dendroica cærulescens.*

Male, upper parts grayish-blue; a white spot on wing; sides of head and throat black; under parts white, sides black and white mixed. *Female*, upper parts olive-green, under parts yellow. Length 5¼ inches. April 25 to May 25: August 25 to October 15. Very common.

Myrtle Warbler; Yellow-rumped Warbler: *Dendroica coronata.*

Upper parts bluish-gray streaked with black; breast marked with black more heavily in the *male;* wing-bars, tail-patches and throat white; rump, crown and sides of breast yellow. Length 5½ inches. October 1 to May 20. Abundant.

Magnolia Warbler: *Dendroica maculosa.*

Upper parts black, much white on wings and tail; a white line behind the eye; under parts and rump yellow, the breast and sides distinctly streaked with black. Length 5 inches. April 25 to May 30; August 15 to October 10. Common.

Chapman says this bird may be known in any plumage by the white patches on the tail being at the tips instead of near the middle of the feathers.

Chestnut-sided Warbler: *Dendroica pensylvanica.*

Upper parts olive-gray streaked with black; sides chestnut; crown yellow, bordered with black; sides of head and under parts white. *Young very different;* upper parts yellowish-green; under parts white, the sides sometimes with spots of chestnut. Length 5 inches. April 28 to June 1; August 10 to October 1. Abundant.

Bay-breasted Warbler: *Dendroica castanea.*

Back thickly streaked with black and gray; white wing-bars and tail-patches; crown chestnut in *male*, olive-green and black in *female;* forehead and sides of head black; throat, upper breast and sides chestnut-red; lower breast and belly buffy-white. Length 5½ inches. May 10 to 20; September 1 to October 20. Sometimes abundant, usually uncommon.

Black-poll Warbler: *Dendroica striata.*

Upper parts ashy streaked with black; two white wing-bars and white tail-patches; crown black; under parts white streaked with black. *Female*, upper parts olive-green, distinctly streaked with black; under parts tinged with yellow. Length 5½ inches. May 1 to June 5; September 6 to October 20. Abundant.

Blackburnian Warbler: *Dendroica blackburniæ.*

Upper parts chiefly black, wings and tail largely marked with white; throat and breast, cheeks, and center of black crown bright orange-red. In the young the orange is dull yellow. Length 5½ inches. May 6 to 20; August 20 to October. Common.

Black-throated Green Warbler: *Dendroica virens.*

Upper parts clear olive-green; wings and tail dusky; wings with two white bars, outer tail-feathers mostly white; forehead and sides of head yellow; throat and upper breast glossy black; rest of under parts yellowish-white, the sides streaked with black. Length 5 inches. April 25 to May 28; August 28. to October 20. Very common.

Yellow Palm Warbler: *Dendroica palmarum hypochrysea.*

Upper parts olive, greener on the rump; crown chestnut, brighter in *male;* no wing-bars; tail with broad white patches near the end; under parts, and line over the eye bright yellow; throat, breast, and sides streaked with chestnut. Length 5¼ inches. March 28 to April 30; October. Common.

Palm Warbler: *Dendroica palmarum.*

Much like the preceding, but the belly is dull whitish instead of yellow. April 30 to May 18; September. Rare.

Water-Thrush: *Seiurus noveboracensis.*

Upper parts dull grayish-olive; no white wing-bars or tail-patches; a buffy line over the eye; under parts yellowish-white, streaked all over with black, including throat. Length 6 inches. April 25 to May 25; July 20 to September. Common.

Connecticut Warbler: *Geothlypis agilis.*

Upper parts olive-green, no wing-bars or tail-patches; head and breast ashy; eye-ring white; belly yellow; sides washed with olive-green. Length 5½ inches. Rare in spring, late May; common from August 28 to October 15.

Mourning Warbler: *Geothlypis philadelphia.*

This species is like the preceding, but has shorter wings and longer tail, and no white eye-ring. May 15 to 30; August. Very rare.

Hooded Warbler: *Wilsonia mitrata.*

Upper parts olive-green, head and neck glossy black, a broad band of golden-yellow passing through and beyond the eye; under parts bright yellow. Length 5½ inches. May 1 to 30; August 15 to September 15. Rare.

Wilson's Warbler: *Wilsonia pusilla.*

Upper parts bright olive-green, no marks on wings or tail; black crown-cap; under parts bright yellow. *Female and young* without black cap. Length 5 inches. May 8 to 20; August 28 to September 15. Rather common.

Canadian Warbler: *Wilsonia canadensis.*

Whole upper parts gray; a necklace of black spots across the yellow breast. *Female* duller. Length 5½ inches. May 5 to 25; August 7 to September 25. Very common.

Philadelphia Vireo: *Vireo philadelphicus.*

Much like the Warbling Vireo but without spurious primary, and entire under parts are pale greenish-yellow. May to September. Very rare.

Blue-headed Vireo: *Vireo solitarius.*

Upper parts olive-green; top and sides of head bluish gray; eye-ring white; two white wing-bars, and white on tail. Length 5½ inches. April 10 to May 10; September to October 25. Common.

***Migrant Shrike:** *Lanius ludovicianus migrans.*

Upper parts slaty-gray; wings and tail black, the wings with a large white spot, and the outer tail-feathers tipped with white; under parts white. Length 9 inches. August 10 to April 5. Rare.

Tree Swallow; White-bellied Swallow: *Tachycineta bicolor.*

Upper parts glossy metallic-green; under parts pure white. The young are bluish-gray above, with white on wings. Length 6 inches. April 1 to May 25; July 10 to September. Common.

*Wm. Palmer, Auk, July, 1898, p. 244.

Purple Finch: *Carpodacus purpureus.*

Male, general color rose-red, brightest on crown, rump and breast. Under parts lighter, becoming white on the belly. *Female*, very different; upper parts grayish, finely streaked with black like a sparrow; under parts white, streaked and spotted. Length 6¼ inches. September 15 to May 15. Common in migrations.

American Crossbill: *Loxia curvirostra minor.*

Tips of bill crossed; body dull red. *Female and young* dull olive-green, the young sometimes mixed with red. Length 6 inches. Irregular winter visitors, sometimes abundant.

Pine Siskin: *Spinus pinus.*

Upper parts streaked brown and gray, darkest on head and neck; lower back, rump and wings pale sulphur-yellow; under parts buffy-white, heavily streaked with black. Length 5 inches. Irregularly abundant.

Savanna Sparrow: *Ammodramus sandwichensis savanna.*

Pale yellow line over the eye and yellow on the bend of the wing; upper parts dark, under parts light, much streaked all over with black and brown, the marks on the breast wedge-shaped. Length 5½ inches. March 20 to May 5; October 15 to November 15. Abundant in migration; a few winter.

White-crowned Sparrow: *Zonotrichia leucophrys.*

Top of head has pure white stripe bordered by black lines of equal width; general color ashy-gray, the wings and tail darker, and wings with touches of white. Length 7 inches. April 15 to May 1; October 15 to December 1. Irregularly common; may winter.

White-throated Sparrow; Peabody Bird: *Zonotrichia albicollis.*

A black crown divided by white stripe; white patch on throat; yellow line before eye and bend of wing yellow; upper parts brown streaked with black; two white wing-bars; under parts whitish. Length 6¾ inches. September 28 to May 20. Very common.

Tree Sparrow; Winter Chippy: *Spizella monticola.*

Crown bright chestnut; line over eye, cheeks, throat and breast gray; rest of plumage brownish streaked with darker; black spot on throat; two whitish wing-bars. Length 6¼ inches. November 1 to April 5. Abundant winter visitant.

Slate-colored Junco; Snowbird: *Junco hyemalis.*

Upper parts, throat and breast slate color; belly pure white; no wing-bars; outer tail-feathers white. Length 6¼ inches. October 5 to April 25. Abundant.

Lincoln's Sparrow: *Melospiza lincolnii.*

Lincoln's Sparrow, which is a rare migrant, is distinguished by a cream-buff band across the breast. Length 5¼ inches. May and October.

Swamp Sparrow: *Melospiza georgiana.*

Forehead black; crown chestnut-red, in winter with black stripes; a gray line over the eye, and sides of neck gray; back brown, broadly striped with black, with touches of buff and rusty; throat and belly white, breast grayish. Length 5½ inches. April to May 15; September 25 to October 30. Very common migrant; a few winter.

Fox Sparrow: *Passerella iliaca.*

Our largest Sparrow. Upper parts reddish-brown, wings and tail brighter; under parts whitish; throat, breast and sides heavily spotted with reddish-brown like a Thrush. Length 7½ inches. February to April 5; October 25 to November. Abundant migrant; a few winter.

Rose-breasted Grosbeak: *Habia ludoviciana.*

Male, upper parts and throat black; under parts and rump white; much white on wings and tail; breast and wing-linings with large patches of rose-red. *Female,* brownish, with a white line through the crown and over the eye; saffron-yellow under wings. Length 8 inches. May 1 to 20; August 25 to October 1. Rather common.

BOBOLINK.

Dickcissel; Black-throated Bunting: *Spiza americana.*

Upper parts brownish, streaked very much like English Sparrow; a yellow line over the eye; throat black, breast yellow, with black patch in the center. *Female,* duller, without black on throat and breast. Length 6 inches. Formerly common, now very rarely seen.

Bobolink; Reed-bird; Rice-bird: *Dolichonyx oryzivorus.*

Male in spring plumage, head, wings, tail and under parts black; back largely grayish-white, a buff patch on the back of the neck. *Female, young, and male in fall,* brownish streaked with black; under parts buffy. Length 7¼ inches. Common in spring, abundant in fall.

Rusty Blackbird: *Scolecophagus carolinus.*

Lustrous bluish-black all over; *female* in spring, slate color. Winter plumage of both birds tipped with rusty. Length 9½ inches. October 25 to April 25. Common.

Horned Lark; Shore Lark: *Otocoris alpestris.*

Upper parts pinkish brown; tail black, outer feathers marked with white; forehead, throat and line over the eye sulphur-yellow. Horns, sides of throat, and a patch on the breast black. Length 7½ inches.

Alder Flycatcher: *Empidonax traillii alnorum.*

Upper parts olive-brown, wings and tail dusky; under parts whitish, washed with gray on the breast and sides, and on the belly with yellowish; throat pure white; wing-bars whitish. Length 6 inches. May 10 to 28; August 15 to September 25. Irregularly common.

Least Flycatcher; Chebec: *Empidonax minimus.*

This is almost precisely like the Alder, but is smaller, being only about 5 inches long. April 25 to May 25; September 1 to 25. Common.

Yellow-bellied Flycatcher: *Empidonax flaviventris.*

Upper parts bright olive-green; under parts yellow, brightest on the belly; throat, breast and sides washed with olive-green; wing-bars and eye-ring yellowish. The bright

yellow under parts distinguish this from other Flycatchers. Length 5½ inches. May 1 to 30; August 1 to October 1. Rather common.

Yellow-bellied Sapsucker: *Sphyrapicus varius.*

Crown and throat deep scarlet. Upper parts black and yellowish-white in irregular bars; a broad white line from the bill outlines the scarlet throat-patch, and a narrow white line passes through the eye; breast black; belly yellow; much white on wings. *Female* paler and duller, without scarlet patches. March and April; October. Occasional in winter; common migrant.

Pigeon Hawk: *Falco columbarius.*

Upper parts slaty-blue, a broken rusty collar; indistinct wing-bars; tail banded with gray or tawny, and tipped with white; throat white; under parts tawny, heavily streaked with dark brown. Length 10 inches. Not uncommon in migrations.

Short-eared Owl: *Asio accipitrinus.*

General color tawny; upper parts variegated with dark brown; tail barred broadly and evenly with dark brown; under parts streaked with brown. Length 16 inches. Common winter visitant.

Saw-whet Owl: *Nyctala acadica.*

Upper parts cinnamon-brown, the back and wings spotted with white; tail with three white bars. Length 7½ inches. The smallest Owl in the Eastern States. A rare winter visitant; October to March.

Snowy Owl: *Nyctea nyctea.*

White, more or less barred with brown. Length 2 feet. Irregular; sometimes common in winter.

Wilson's Snipe: *Gallinago delicata.*

Crown black, divided by a buff stripe; upper parts dark brown, barred and mottled with bright tawny and buff; throat and belly white; breast pale cinnamon, indistinctly marked with darker; narrow white wing-bars. Length 11 inches. March to May; fall. Common. Remains in very mild winters only.

Dr. Coues says he used to go Snipe shooting in the "slashes" north of N and west of Fourteenth streets.

Pectoral Sandpiper: *Tringa maculata.*

Upper parts black, the feathers all bordered with light tawny; throat white; neck and breast heavily streaked with black and buffy; upper tail-coverts black. Winter plumage similar but darker. Length 9 inches. April; August to November. Common.

Least Sandpiper: *Tringa minutilla.*

Upper parts blackish, the feathers edged with bright chestnut, more or less tipped with white; under parts white, the breast speckled with blackish. Toes without webs between the bases. Winter plumage upper parts brownish-gray. Length 6 inches. May; August to October. Uncommon.

Greater Yellow-legs; Yellow-shanks: *Totanus melanoleucus.*

Upper parts black, streaked and speckled with white; conspicuous white rump; tail barred irregularly with white; white breast heavily spotted with black; belly white. Winter plumage, upper parts brownish-gray, edged with whitish; breast only lightly streaked. Length 14 inches. April and May; July 25 to November. Rather common.

Yellow-legs; Summer Yellow-legs: *Totanus flavipes.*

Like the Greater Yellow-legs, but smaller. Length 10 or 11 inches. Rather common.

Solitary Sandpiper: *Totanus solitarius.*

Upper parts dark olive-brown, faintly speckled with white; under parts white, dark brown markings on throat, breast and sides. Winter plumage, upper parts grayish-brown; dark markings fainter. Length 8½ inches. April to May 25; July 25 to November. Common.

Bartramian Sandpiper; Upland Plover: *Bartramia longicauda.*

Head, neck and upper parts, black and yellowish-brown; breast faint yellowish marked with dusky; belly and throat white; crown divided by a buff line. Length 11½ inches. April to May; July to September. Rare.

Virginia Rail: *Rallus virginianus.*

General effect of color chestnut-red. Upper parts dark brown streaked with chestnut; throat white, under parts chestnut. Length 9½ inches.

Sora; Ortolan: *Porzana carolina.*

Upper parts mixed, olive-brown and black, feathers edged with white; throat and breast pale bluish-gray; belly white; flanks barred with black and white. Length 8½ inches. March to May; July to November. Common.

American Coot; Mud Hen: *Fulica americana.*

General color dark slate, paler below; head and neck black; bill flesh color, red at the base; legs and feet greenish. Length 15 inches. March to May; September to October 15. Common.

American Bittern; Indian Hen: *Botaurus lentiginosus.*

General color greenish-brown, upper parts speckled with different shades of brown, black and white; a glossy black patch on either side of the neck; throat white; under parts buffy white with wide streaks of brown and gray. Length 2½ feet. Rather common.

American Merganser; Goosander: *Merganser americanus.*

Head and upper neck dark glossy green; lower neck, greater part of wings, breast and belly white; back black; under parts tinged with salmon. *Female,* head reddish-brown, upper parts ashy-gray. Length 2 feet. Rare.

Red-breasted Merganser; Fish Duck: *Merganser serrator.*

Head and throat greenish-black; a white ring around the neck; upper breast and sides of lower neck bright reddish-brown; serrate bill, the upper mandible hooked. Length 22 inches. *Female,* head grayish-brown, upper parts ashy-gray. Winter resident. Uncommon.

Mallard: *Anas boschas.*

Head and neck glossy greenish- or bluish-black, bordered below by a white ring; breast rich chestnut; under parts pale gray, marked with undulating black lines. Length about 2 feet. Winter resident. Common; was once resident all the year.

Green-winged Teal: *Anas carolinensis.*

Head and neck bright chestnut, except a shining green band from eye to nape of neck; green band on wing; a white band in front of the wing; belly white. *Female,* brownish, without green except on wing. Length 15 inches. September to April. Common.

Blue-winged Teal: *Anas discors.*

A curving white band in front of each eye: blue on wings, also white. *Female*, without white band before the eye, and throat white. September to April. Common.

Shoveller; Spoonbill: *Spatula clypeata.*

Head and upper neck dark glossy green; lower neck and upper breast white; lower breast and belly bright chestnut; patches of white and grayish-blue on the wings. A distinguishing feature of the Shoveller is the spoon-shaped bill, which is much longer than the head, and twice as wide at the end as at the base. Length 20 inches. Winter resident. Not common.

Pintail: *Dafila acuta.*

Head and neck glossy olive-brown; back of neck striped with black and white; back grayish; a green patch on wing; lower parts white. Central tail-feathers much elongated. *Female*, duller, no green wing-patch. Length 2¼ feet. October to April. Not uncommon.

Redhead: *Aythya americana.*

Head and upper neck bright chestnut-red; lower neck, extending on the upper breast and back, black; rest of the body grayish; lighter below. *Female*, head and neck grayish-brown; upper throat white. Length about 1½ feet. Common in winter.

Canvas-back: *Aythya vallisneria.*

Much like the Redhead, but the bill is longer, the head is brown, and crown and chin are black. Length 1¾ feet. Winter visitant. Rare.

American Scaup Duck: *Aythya marila nearctica.*

Head and neck, extending on breast and back, black, the head with greenish reflections; back with wavy bars of black and white; under parts white, belly and sides marked

with wavy black bars. *Female*, brown where *male* is black; region around bill white. Length 1½ feet. Winter resident. Rather common.

Ring-necked Duck: *Aythya collaris.*

Similar to Scaup, but has a chestnut band around the neck. *Female* like female Redhead, but smaller and browner. Length 1½ feet. Winter resident. Not rare.

American Golden-eye; Whistler: *Clangula clangula americana.*

Head green, an oval white patch in front of the eye; iris golden-yellow; neck, under parts and large area on wings white; rest of plumage black. *Female*, head cinnamon-brown, and less white. Length 20 inches. October to April. Not rare.

Buffle-head; Butter-ball: *Charitonetta albeola.*

A broad white band across the back of the head; rest of head and neck beautiful iridescent green and blue; back black; remainder of plumage mostly white. *Female*, throat and upper parts dark brown; a white patch on sides of the head. Length 15 inches. September to April. Common.

Ruddy Duck; Rook: *Erismatura jamaicensis.*

Crown black, cheeks and chin white; neck, back and sides of the body chestnut-red; under parts silvery-white, sometimes mottled; stiff, pointed tail-feathers. *Female*, upper parts dark grayish-brown and buffy; sides of head and throat whitish. Length 15 inches. September to April. Common.

Canada Goose; Wild Goose: *Branta canadensis.*

"Winter visitant, arriving in the fall on the approach of cold weather. Few probably settle on the waters within the District, but it is no uncommon sight to see files of geese flying over, and they are

found in the markets and restaurants all through the winter." (Avifauna Columbiana.)

American Herring Gull; Sea Gull: *Larus argentatus smithsonianus.*

Back and wings pearl-gray, the wings with black markings; rest of plumage white. Length 2 feet. October to March. Common.

Ring-billed Gull: *Larus delawarensis.*

Back and wings pearl-gray; wings marked with black and white; rest of plumage white; bill greenish-yellow, encircled near the end with a broad black band. Length 20 inches. February to April 5; October to November. Very common.

Bonaparte's Gull: *Larus philadelphia.*

Much smaller than the preceding. In summer, head and upper neck dark slate color; back and wings pearl-gray; rest of plumage white. Immature birds and adults in fall without black head. Length 14 inches. April to May 5; October to November. Common.

Black Tern: *Hydrochelidon nigra surinamensis.*

In summer, head, neck and under parts black; back, wings and tail slate color; bill and feet black. In winter, forehead and under parts white. Length 10 inches. Sometimes common in August and September.

Loon: *Gavia imber.*

Head and neck dark bluish-green, patches of mottled white on throat and sides of neck; upper parts and sides glossy black, conspicuously spotted with white; under parts white. Length 2½ feet. September to April 25. Common.

Horned Grebe: *Colymbus auritus.*

Large black ruff around the head, two brownish yellow plumes above the eyes; back and wings blackish; neck, upper breast and sides chestnut; belly white. Length 14 inches. In winter, all under parts silvery-white. October to May. Common.

Pied-billed Grebe; Dipper: *Podilymbus podiceps.*

Upper parts blackish-brown; throat black; upper breast and sides mottled; under parts white; black band across the bill. In summer, throat white and no black band on bill. Length 14 inches. August 25 to May. Common, but less so in midwinter.

LIST OF ALL BIRDS FOUND IN THE DISTRICT OF COLUMBIA.

BY

DR. C. W. RICHMOND,

OF THE SMITHSONIAN INSTITUTION.

	Permanent Residents.	*Summer Residents.*	*Spring and Autumn Migrants.*	*Winter Residents.*	*Casual Visitors.*	*Accidental Stragglers.*	
1. Bluebird	×	×	×	×			
2. American Robin	×	×	×	×*			April to Oct.
3. Wood Thrush		×	×				April and May; Aug. and Sept.
4. Wilson's Thrush			×				May; Sept. and Oct.
5. Gray-cheeked Thrush.			×				Several records; Oct. 3, 1885; May 14 and 18, 1888, etc.
6. Bicknell's Thrush			×*				May; Sept. and Oct.
7. Olive-backed Thrush			×				Oct. to May. Usually rare in winter.
8. Hermit Thrush			×	×*			Sept. to April.
9. Golden-crowned Kinglet			×	×			Sept. to Nov.; April to May. Rare in winter.
10. Ruby-crowned Kinglet			×	×*			April to Sept.
11. Blue-gray Gnatcatcher		×	×				
12. White-breasted Nuthatch	×	×	?	×			Sept. to May.
13. Red-breasted Nuthatch			×	×			
14. Tufted Titmouse	×	×		×			Irregular; Oct. to April.
15. Chickadee				×*	×		
16. Carolina Chickadee	×	×		×			Sept. to April.
17. Brown Creeper.			×	×			Rare near Washington; very rare in winter.
18. Mockingbird	×*	×		×			April to Sept. Rare in winter.
19. Catbird	×*	×	×	×			April to Oct. Rare in winter.
20. Brown Thrasher	?	×	×	×			
21. Carolina Wren.	×	×		×			March and April; Nov. and Dec.
22. Bewick's Wren			×*	×*			April to Sept. or Oct.
23. House Wren		×	×				Sept. to May.
24. Winter Wren			×	×			

* Rare at this season.

	Permanent Residents.	Summer Residents.	Spring and Autumn Migrants.	Winter Residents.	Casual Visitors.	Accidental Stragglers.	
25. Short-billed Marsh Wren			×*		?		Two records: May 9, 1890; May 3, 1893.
26. Long-billed Marsh Wren		×	×				April to Oct.
27. American Pipit			×	×*			Oct. to May.
28. Black and White Warbler		×	×				April to Oct.
29. Prothonotary Warbler					×		Three or four records in May.
30. Worm-eating Warbler		×	×				April to Sept
31. Blue-winged Warbler		×*	×*				April to Sept.
32. Brewster's Warbler			×*				Two records: May 15, 1885; May 1, 1895.
33. Golden-winged Warbler			×*				May, Aug., and probably Sept.
34. Nashville Warbler			×*				May; Sept.
35. Orange-crowned Warbler			×*				Two records: Oct. 13, 1889; Oct. 14, 1894.
36. Tennessee Warbler			×*				May (very rare); Aug. to Oct.
37. Parula Warbler		×	×				April to Oct.
38. Usnea Warbler			×				April to May; Sept. to Oct.
39. Cape May Warbler			×				May; Aug. to Oct.
40. Yellow Warbler		×	×				April to Sept.
41. Black-throated Blue Warbler			×				April to Oct.
42. Myrtle Warbler			×	×			Sept. to May.
43. Magnolia Warbler			×				April and May; Aug. to Oct.
44. Cerulean Warbler			×*		?		Two records: May 5, 1888; May 11, 1890.
45. Chestnut-sided Warbler			×				April and May; Aug. to Sept.
46. Bay-breasted Warbler			×				May; Aug. to Oct. Irregularly common.
47. Black-poll Warbler			×				April to June; Aug. to Oct.
48. Blackburnian Warbler			×				May; Aug. to Oct.
49. Yellow-throated Warbler		×*	?				April or May to Sept. Rare in summer.
50. Black-throated Green Warbler			×				April and May; Aug. to Oct.
51. Kirtland's Warbler			×*		?		One record: Sept. 25, 1887.
52. Pine Warbler		×	×				March to Oct.
53. Palm Warbler			×*				Late April to May; Sept. and Oct.
54. Yellow Palm Warbler			×				March and early April; Sept. and Oct.
55. Prairie Warbler		×	×				April to Sept.
56. Oven-bird		×	×				April to Oct.
57. Water-Thrush			×				April and May; July to Sept.

* Rare at this season.

	Permanent Residents.	*Summer Residents.*	*Spring and Autumn Migrants.*	*Winter Residents.*	*Casual Visitors.*	*Accidental Stragglers.*	
58. Grinnell's Water-Thrush			×		×		Three records: May and Aug.
59. Louisiana Water-Thrush		×	×				April to Sept.
60. Kentucky Warbler		×	×				May to Sept.
61. Connecticut Warbler			×				May (rare); Aug. to Oct.
62. Mourning Warbler			×*				May; Aug. to Oct.
63. Maryland Yellow-throat.		×	×				April to Oct.
64. Yellow-breasted Chat		×	×				April to Sept.
65. Hooded Warbler		?	×*				April to June; Aug. and Sept.
66. Wilson's Warbler			×				May; Aug. and Sept.
67. Canadian Warbler			×				May; Aug. and Sept.
68. American Redstart		×*	×				April to Sept.
69. Red-eyed Vireo		×	×				April to Oct.
70. Philadelphia Vireo			×*				May; Sept.
71. Warbling Vireo		×	×				April to Sept.
72. Yellow-throated Vireo		×	×				April to Sept.
73. Blue-headed Vireo			×				April to Oct.
74. White-eyed Vireo		×	×				April to Oct.
75. Northern Shrike				×*			Nov. to Feb.
76. Loggerhead Shrike			?	×*			Aug. to April.
77. Cedar Waxwing	×	×*	?	×*			Common in spring and autumn.
78. Purple Martin		×	×				April to Sept.
79. Cliff Swallow		×*	×				April to Sept.
80. Barn Swallow		×	×				March to Sept.
81. Tree Swallow		?	×				March to May; July to Oct.
82. Bank Swallow		×	×				April to Sept.
83. Rough-winged Swallow		×	×				April to Sept.
84. Scarlet Tanager		×*	×				April to Oct.
85. Summer Tanager		×*	×				April to Sept.
86. Pine Grosbeak							No recent records.
87. Purple Finch			×	×*	×		Sept. to May,
88. American Crossbill	?	?		×	?		Formerly rare and irregular; now common in winter.
89. White-winged Crossbill				×*	×		No recent records.
90. Redpoll				×*	×		No recent records.
91. American Goldfinch	×	×		×			Nests very late; July-Sept.
92. Pine Siskin			×	×	?		Irregularly common in winter; Oct. to May.
93. Snowflake				×	×		Irregular.
94. Lapland Longspur				×	×		One record; Dec. 11, 1886.
95. Vesper Sparrow	×	×*	×	×*			Oct. to May; rare in mid-winter.
96. Savanna Sparrow			×	×*			Oct. to May; rare in mid-winter.
97. Grasshopper Sparrow		×	×				March to Oct.

* Rare at this season.

	Permanent Residents.	*Summer Residents.*	*Spring and Autumn Migrants.*	*Winter Residents.*	*Casual Visitors.*	*Accidental Stragglers.*	
98. Henslow's Sparrow		×	×				April to Oct.
99. Nelson's Sparrow			×		?		Two records: Sept., 1862; Sept. 18, 1893.
100. Lark Sparrow						×	Several records: Aug. 25 and 27, 1877; Aug. 8, 1886.
101. White-crowned Sparrow.			×	?			Oct. to May; irregular and rare in winter.
102. White-throated Sparrow.			×	×			Sept. to May.
103. Tree Sparrow				×			Nov. to April.
104. Chipping Sparrow	×	×	×	×*			March; Nov. Rare in mid-winter.
105. Field Sparrow	×	×	×	×			
106. Slate-colored Junco			×	×			Sept. to May.
107. Shufeldt's Junco						×	One instance: April 28, 1890.
108. Bachman's Sparrow					×		One instance: April 29, 1896.
109. Song Sparrow	×	×	×	×			Common, but more so in migrations.
110. Lincoln's Sparrow			×*		?		Several records: May and Oct.
111. Swamp Sparrow			×	×*			Sept. to May. Rare in mid-winter.
112. Fox Sparrow			×	×*			Oct. to April. Rare in mid-winter.
113. Towhee; Chewink	×	×	×	×*			April to Oct. Irregularly present in winter.
114. Cardinal	×	×	?	×			Less common than formerly.
115. Rose-breasted Grosbeak.			×				May; Aug. to Sept.
116. Blue Grosbeak		×*	×				May to Sept.; of local distribution.
117. Indigo Bunting		×	×				May to Oct.
118. Dickcissel		×*	×*				Formerly common, now very rarely seen.
119. European House Sparrow	×	×		×			
120. Bobolink			×				May; Aug. to Oct.
121. Cowbird	×*	×*	×	×*			
122. Yellow-headed Blackbird						×	One record: Aug. 29, 1892.
123. Red-winged Blackbird	×	×	×	×			
124. Meadowlark	×	×	×	×			
125. Orchard Oriole		×	×				April to Sept. (Most common in the migrations.)
126. Baltimore Oriole		×	×				April to Sept. (Most common in the migrations.)
127. Rusty Blackbird			×	×			Oct. to April.
128. Purple Grackle	×*	×	×	×*			Winters only in very mild seasons.

* Rare at this season.

	Permanent Residents.	*Summer Residents.*	*Spring and Autumn Migrants.*	*Winter Residents.*	*Casual Visitors.*	*Accidental Stragglers.*	
129. Bronzed Grackle			×				
130. Blue Jay	×	×*	×	×*			
131. American Crow	×	×		×			
132. Fish Crow	×	×		×			
133. Horned Lark			?	×			
134. Prairie Horned Lark			?	×*			Aug. to April ?
135. Scissor-tailed Flycatcher						×	
136. Kingbird		×	×				April to Sept.
137. Arkansas Kingbird						×	One record: Sept. 30, 1874.
138. Crested Flycatcher		×	×				April to Sept.
139. Phœbe	×	×	×	×*			Winters irregularly.
140. Olive-sided Flycatcher						?	One record: Sept., 1881.
141. Wood Pewee		×	×				May to Oct.
142. Yellow-bellied Flycatcher			×				May; Aug. to Oct.
143. Green-crested Flycatcher		×	×				May to Sept.
144. Alder Flycatcher (Traill's)			×				May; Aug. to Sept.
145. Least Flycatcher			×				April and May; Aug. to Sept.
146. Ruby-throated Humming-bird		×	×				Late April to Oct.
147. Chimney Swift		×	×				April to Sept. or Oct.
148. Whip-poor-will		×	×				April to Oct.
149. Nighthawk		×*	×				April to Sept.
150. Hairy Woodpecker	×	×*		×*			
151. Downy Woodpecker	×	×		×			
152. Yellow-bellied Sapsucker			×	×*			Sept. to April. Rare in winter.
153. Pileated Woodpecker	×	×*		×*			Frequent near Falls Church.
154. Red-headed Woodpecker	×	×	×	×*			
155. Red-bellied Woodpecker	×	×	?	×			
156. Flicker	×	×	×	×*			
157. Belted Kingfisher	×	×		×*			A permanent resident when winters are very mild.
158. Yellow-billed Cuckoo		×	×				May to Oct.
159. Black-billed Cuckoo		×*	×				May to Oct. Rare.
160. Carolina Paroquet							Now exterminated; one recorded instance, Sept., 1865.
161. American Long-eared Owl	×	×		×			Nests in pine woods in old crows' nests.
162. Short-eared Owl			×	×			Found along the marshes.
163. Barred Owl	×	×		×			Uncommon in the immediate vicinity of Washington.
164. Saw-whet Owl			?	×*			Oct. to March.
165. Screech Owl	×	×		×			
166. Great Horned Owl	×	×		×			Rare in immediate vicinity of Washington.

* Rare at this season.

	Permanent Residents.	Summer Residents.	Spring and Autumn Migrants.	Winter Residents.	Casual Visitors.	Accidental Stragglers.	
167. Snowy Owl					×		Irregular; sometimes common in winter.
168. American Barn Owl	×	×		×			Nests in Smithsonian and Jail towers.
169. Swallow-tailed Kite					?		In two instances; Aug. 3, 1895, and April 11, 1897.
170. Marsh Hawk			×	×			July to April.
171. Sharp-shinned Hawk	×	×	?	×			
172. Cooper's Hawk	×	×	?	×			Irregular.
173. American Goshawk				?			
174. Red-tailed Hawk	×	×*	?	×			
175. Red-shouldered Hawk	×	×	?	×			Rather uncommon.
176. Broad-winged Hawk	×	×	?	×			
177. American Rough-legged Hawk				×*			Irregular.
178. Golden Eagle				×*			
179. Bald Eagle	×	×		×			Breeds at Mt. Vernon and Great Falls.
180. Duck Hawk					×		Uncommon.
181. Pigeon Hawk			×	?			Most common in winter.
182. Sparrow Hawk	×	×	×	×			
183. American Osprey		×*	×				Seen at times in summer, but does not nest.
184. Turkey Vulture; Buzzard	×	×		×			
185. Black Vulture						×	In one instance; March 30, 1895.
186. Passenger Pigeon			×*				Now very irregular; mainly in Sept. and Oct.
187. Mourning Dove	×	×	×	×*			Rare in mid-winter,
188. Ground Dove						×	In two instances; Sept., 1844, and Oct. 14, 1888.
189. Wild Turkey	×*	×		×			Rare or exterminated near Washington, but found in heavy timber in Virginia.
190. Bob-white	×	×		×			
191. Ruffed Grouse	×	×		×			
192. Turnstone			×*	or	×		Several records.
193. American Golden Plover			×*	or	×		
194. Killdeer	×	×	?	×			
195. Semipalmated Plover			×*				May; Aug. and Sept.
196. Belted Piping Plover			×*		×		March; May. Two records.
197. American Woodcock	×	×	×	×*			Remains in very mild winters only.

* Rare at this season.

	Permanent Residents.	*Summer Residents.*	*Spring and Autumn Migrants.*	*Winter Residents.*	*Casual Visitors.*	*Accidental Stragglers.*	
198. Wilson's Snipe			×	×*			Remains in very mild winters only.
199. Dowitcher					?		One record: Sept. 1879.
200. Long-billed Dowitcher					?		One instance: April, 1884.
201. Stilt Sandpiper					?	×	One record: Sept. 8, 1885.
202. Pectoral Sandpiper			×				April; Aug. to Oct.
203. Baird's Sandpiper			?		?	×	Two records; Sept. 3, 1894, and Sept. 25, 1894.
204. Least Sandpiper			×				May; Aug. to Oct.
205. Red-backed Sandpiper			×*				April; Oct.
206. Semipalmated Sandpiper			×				May; Aug. to Oct.
207. Western Sandpiper			×*				Sept.
208. Sanderling			×*				Sept. and Oct.
209. Greater Yellow-legs			×				April and May; July to Oct. or later.
210. Yellow-legs			×				April and May; Aug. to Oct. or later.
211. Solitary Sandpiper			×				April and May; July to Nov.
212. Willet			×*				
213. Ruff						×	In one instance; Sept. 3, 1894.
214. Bartramian Sandpiper		?	×*				March to May; July to Sept.
215. Spotted Sandpiper		×	×				April to Sept. or later.
216. Long-billed Curlew			×*				
217. Red Phalarope						×	One record: Oct. 17, 1885.
218. Northern Phalarope						×	One record: Aug. 31, 1891.
219. King Rail		×	×				May occur in winter.
220. Clapper Rail						×	One record: Sept. 8, 1882.
221. Virginia Rail			×				May remain until winter.
222. Sora			×				March to May ? and Aug. to Nov.
223. Yellow Rail			×				March to April or May ? and Sept. ? to Nov.
224. Black Rail			×				Sept.; Oct. Few records.
225. Florida Gallinule			×				April —; Aug. to Oct. Possible in mid-winter.
226. American Coot			×	×			March to May; Sept. to Oct. or later.
227. Sandhill Crane						×	One instance years ago.

* Rare at this season.

	Permanent Residents.	*Summer Residents.*	*Spring and Autumn Migrants.*	*Winter Residents.*	*Casual Visitors.*	*Accidental Stragglers.*	
228. American Bittern			×	×			Aug. to April.
229. Least Bittern		×*	×				May to Sept.
230. Great Blue Heron	×	?	?	×			Found throughout year, but does not breed here?
231. American Egret			×*				Usually rare. May to July or later.
232. Snowy Heron			×*		?		Irregular in late summer or early autumn.
233. Little Blue Heron			×*		?		July and Aug.
234. Green Heron		×	×				May to Sept.
235. Black-crowned Night Heron	×	×		×*			
236. Wood Ibis					×		Several records in July.
237. Glossy Ibis						×	One record, about 1817. Liable to occur in spring.
238. American Merganser			×	×*			Sept. to March.
239. Red-breasted Merganser			×	×			
240. Hooded Merganser			×	×			Sept. to March or later.
241. Mallard			×	×			Oct. to April.
242. Black Duck			×	×			Oct. to April.
243. Gadwall			×	×			Aug. to April.
244. Widgeon					×		Two records: spring and fall.
245. Baldpate			×	×			Oct. to April.
246. European Teal						×	One instance: April, 1885.
247. Green-winged Teal			×	×			Sept. to April or May.
248. Blue-winged Teal			×	×			Sept. to June.
249. Shoveller			×	×			Sept. to March or April.
250. Pintail			×	×			Oct. to April.
251. Wood Duck	×	×*	?	×			Rare in summer: less so in spring and fall.
252. Redhead		×	×	×			Oct. to May.
253. Canvas-back		×*	×*	×*			Oct. to April.
254. American Scaup Duck			×	×			Oct. to March.
255. Lesser Scaup Duck			×	×			Oct. to April.
256. Ring-necked Duck			×	×			Sept. to April.
257. American Golden-eye			×	×			Oct. to April.
258. Barrow's Golden-eye							Two instances?
259. Buffle-head			×	×		×	Sept. to April.
260. Old-squaw			×	×			Uncommon. Oct. to April.
261. American Eider						?	One instance long ago.
262. American Scoter				×*	or ×		
263. White-winged Scoter				×*	or ×		Oct. and Nov.
264. Surf Scoter				×*	or ×		

*Rare at this season.

	Permanent Residents.	*Summer Residents.*	*Spring and Autumn Migrants.*	*Winter Residents.*	*Casual Visitors.*	*Accidental Stragglers.*	
265 Ruddy Duck		×	×				Sept. to April.
266. Canada Goose							Oct. to probably April.
267. Brant				×*	or ×		
268. Whistling Swan			×*	×*			Oct. to March or April.
269. American White Pelican.					×		Casual in spring and autumn.
270. Double-crested Cormorant		?	×*	?	?		April; July; probably also in autumn.
271. Audubon's Shearwater					?		Two or three instances.
272. Leach's Petrel					×		Several instances.
273. Hawaiian Petrel						×	Two specimens (hurricane of Aug. 29, 1893.)
274. Wilson's Petrel						×	One instance, many years ago (about 1859.)
275. Black Skimmer						×	One instance, long ago (Sept. 8, 1858.)
276. American Herring Gull			×	×			Oct. to March.
277. Ring-billed Gull			×				Oct. to Nov. and Feb. to early April.
278. Laughing Gull					×*		In Sept. Very few records.
279. Bonaparte's Gull			×				Oct. to Nov. and March to May.
280. Gull-billed Tern					×		Late summer and early autumn. No recent records.
281. Caspian Tern						×	In one instance, after hurricane of Sept. 29, 1896.
282. Forster's Tern					×		In late summer or early autumn.
283. Common Tern					×		Spring and autumn.
284. Least Tern					×		Spring and autumn.
285. Black Tern			×				Common in early autumn (Aug. and Sept.) Rare or wanting in spring.
286. Brünnich's Murre				×*		×	Several specimens late in Dec., 1896. No other records here.
287. Loon			×	×			Sept. to April. Less common in mid-winter.
288. Red-throated Loon			?	×*	×		Very few records; all in late autumn or early winter.
289. Holbœll's Grebe			×*	?			Sept. to Nov. Possibly through winter to April.
290. Horned Grebe			×	×			Oct. to May } Less common in mid-winter
291. Pied-billed Grebe			×	×			Aug. to May }

* Rare at this season.

BIRDS THAT MAY BE SEEN IN WINTER.

Bluebird
American Robin*
Hermit Thrush*
Ruby-crowned Kinglet*
Golden-crowned Kinglet
Carolina Chickadee
Chickadee*
Tufted Titmouse
Red-breasted Nuthatch
White-breasted Nuthatch
Brown Creeper
Winter Wren
Carolina Wren
Mockingbird*
American Pipit*
Myrtle Warbler*
Loggerhead Shrike*
Northern Shrike*
Cedar Waxwing*
Cardinal
Towhee; Chewink*
Fox Sparrow*
Swamp Sparrow*
Song Sparrow
Slate-colored Junco
Field Sparrow
Chipping Sparrow*
Tree Sparrow
White-throated Sparrow
Savanna Sparrow
Vesper Sparrow*
Pine Siskin*
American Goldfinch
American Crossbill
Purple Finch*
Purple Grackle*
Rusty Blackbird
Meadowlark
Red-winged Blackbird
Cowbird*
Fish Crow
American Crow
Blue Jay*
Prairie Horned Lark*
Horned Lark
Phœbe*
Flicker*
Red-bellied Woodpecker
Red-headed Woodpecker*
Pileated Woodpecker*
Yellow-bellied Sapsucker*
Downy Woodpecker
Hairy Woodpecker*
Belted Kingfisher*
Great Horned Owl
Screech Owl
Saw-whet Owl*
Barred Owl
Short-eared Owl
American Long-eared Owl
American Barn Owl
Sparrow Hawk
Bald Eagle
Broad-winged Hawk*
Red-shouldered Hawk
Red-tailed Hawk
Cooper's Hawk
Sharp-shinned Hawk
Marsh Hawk
Turkey Vulture; Buzzard
Mourning Dove*
Wild Turkey*
Ruffed Grouse*
Bob-white

* Rare.

BIRDS THAT NEST WITHIN THE CITY LIMITS.

(Furnished by Dr. A. K. Fisher.)

Robin
Song Sparrow
Catbird
Wood Thrush
Cardinal Grosbeak
Chipping Sparrow
House Wren
Purple Martin
Orchard Oriole
Baltimore Oriole
Red-headed Woodpecker
Carolina Chickadee
Barn Owl
Long-billed Marsh Wren
Yellow Warbler
Rough-winged Swallow
Cedar Waxwing
Red-eyed Vireo
Yellow-throated Vireo
Warbling Vireo
Nighthawk
Chimney Swift
Hummingbird
Fish Crow
Purple Grackle
Tufted Titmouse

ADDITIONAL SPECIES BREEDING IN BROOKLAND.

(Furnished by Mr. Robert Ridgway.)

Bluebird
Brown Thrasher
Towhee; Chewink
Field Sparrow
Carolina Wren
Prairie Warbler
Redstart
Oven-bird
Yellow-breasted Chat
White-eyed Vireo
American Crow
Wood Pewee
Summer Tanager
Indigo-bird
Goldfinch
Great Crested Flycatcher
Flicker
Maryland Yellow-throat

BIRDS SEEN BY MR. WILLIAM PALMER AT MT. VERNON,

May 25, 1894, evening.

Bluebird
Wood Thrush
Catbird
Song Sparrow
Cardinal
Indigo-bird

Marsh Wren
Black and White Creeper
Yellow Warbler
Maryland Yellow-throat
Yellow-breasted Chat
Redstart
Red-eyed Vireo
White-eyed Vireo
Barn Swallow
Bank Swallow
Grasshopper Sparrow
Henslow's Sparrow
Field Sparrow
Bobolink
Meadowlark
American Crow
Kingbird
Wood Pewee
Chimney Swift
Downy Woodpecker
Turkey Buzzard
Bald Eagle
Osprey
Spotted Sandpiper
Wood Duck

BIRDS SEEN BY MR. WILLIAM PALMER AT KENSINGTON,

September 15, 1895.

Wilson's Thrush
Gray-cheeked Thrush
Tufted Titmouse
Chickadee
Catbird
Black and White Creeper
Tennessee Warbler
Parula Warbler
Magnolia Warbler
Black-poll Warbler
Black-throated Green Warbler
Pine Warbler
Oven-bird
Water-Thrush
Redstart
Philadelphia Vireo
Goldfinch
Cardinal
Indigo-bird
American Crow
Yellow-bellied Flycatcher
Chimney Swift
Whip-poor-will
Nighthawk
Downy Woodpecker
Red-headed Woodpecker
Flicker
Sharp-shinned Hawk
Turkey Buzzard
Maryland Yellow-throat

BIRDS SEEN BY MR. WILLIAM PALMER AT KENSINGTON,

May 10, 1896.

Bluebird
Robin
Wood Thrush
Scarlet Tanager
Pine Siskin
Grasshopper Sparrow

Olive-backed Thrush
Chickadee
Carolina Chickadee
Catbird
Brown Thrasher
Carolina Wren
House Wren
Black and White Creeper
Worm-eating Warbler
Parula Warbler
Black-throated Blue Warbler
Myrtle Warbler
Magnolia Warbler
Chestnut-sided Warbler
Bay-breasted Warbler
Black-poll Warbler
Black-throated Green Warbler
Prairie Warbler
Oven-bird
Maryland Yellow-throat
Yellow-breasted Chat
Canadian Warbler
American Redstart
Red-eyed Vireo
Yellow-throated Vireo
Cedar Waxwing
Rough-winged Swallow
Henslow's Sparrow
White-throated Sparrow
Chipping Sparrow
Field Sparrow
Song Sparrow
Chewink
Indigo-bird
Bobolink
Meadowlark
Orchard Oriole
Blue Jay
American Crow
Kingbird
Great Crested Flycatcher
Phœbe
Wood Pewee
Green-crested Flycatcher
Least Flycatcher
Hummingbird
Chimney Swift
Downy Woodpecker
Flicker
Kingfisher
Yellow-billed Cuckoo
Sharp-shinned Hawk
Turkey Buzzard
Spotted Sandpiper
Solitary Sandpiper

BIRDS SEEN BY A BOY IN ZOOLOGICAL PARK,

On the morning of May 14, 1898.

H. W. M.

Yellow Warbler
Blackbird
Mourning Dove
Song Sparrow
Catbird
Chipping Sparrow
Wood Thrush
Blue Jay
Cedar Waxwing
Golden-crowned Kinglet
White-throated Sparrow
Phœbe
Myrtle Warbler
Chimney Swift

Hummingbird
Crow
Cardinal
Carolina Wren
Maryland Yellow-throat
Goldfinch
Yellow-breasted Chat
Chewink
Oven-bird
Flicker
Indigo-bird
Black and White Creeper
Scarlet Tanager
Baltimore Oriole
Black-throated Blue Warbler
Red-eyed Vireo
Chestnut-sided Warbler
Redstart
Spotted Sandpiper
Yellow-throated Vireo
Buzzard
Prairie Warbler

OBSERVATION OUTLINE

ABRIDGED FROM

"BIRDS OF VILLAGE AND FIELD"

BY

FLORENCE A. MERRIAM.

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POINTS TO NOTE TO ASSIST IN IDENTIFICATION.

Name Common.
Scientific. Date,

I. Size (compared with English Sparrow, Robin, Crow).

II. Colors. Bright—Dull.

III. Markings.

1. Top of Head.
2. Back.
3. Breast.
4. Wings.
5. Tail.

IV. Shape.

1. Body.—Long and slender—Short and stocky.
2. Bill.—Short and stout—Long and slender—Long and heavy—Hooked—Curved.
3. Wings.—Short and round—Long and slender.
4. Tail.—Forked—Notched—Square—Fan-shaped.

V. Movements.—Hop—Walk—Creep up trees—Bob head and wag tail—Twitch tail from side to side.

VI. Flight.

1. FAST.—Direct—Abrupt and zigzag—Smooth and circling.
2. SLOW.—Flapping—Sailing or soaring—Flapping and sailing alternately.

VII. Localities frequented.— Gardens—Orchards—Roadside fences—Meadows—Thickets—Woods—Rivers—Lakes—Marshes.

VIII. Food and manner of obtaining it.

IX. Song.

1. MANNER AND TIME OF SINGING.—From perch—In the air.
2. CHARACTER OF SONG.—Plaintive—Happy—Long—Short.
3. CALL NOTES.— Signal—Warning—Anger—Fear—Pain—Protest.

X. Habits.

1. GO IN FLOCKS.
2. FORM ROOSTS.—Winter—Summer—Migration.
3. PERFORM CURIOUS ACTIONS DURING COURTSHIP.—Dances—Aerial evolutions.

XI. Nest.

1. LOCATION.—In or on the ground—In tree trunks—On branches—Hanging from branches.
2. SIZE (compared with Hummingbird, Robin, Crow).
3. SHAPE.—Cup—Pocket—Basket—Wall-pocket—Oven—Gourd.
4. MATERIALS. — Clay — Grass — Rootlets — Leaves—Twigs—Hair—Fur—Feathers.

5. Method of construction.—Excavated—Woven—Plastered.

6. Number of days required.
7. Habits of male during nest-building.—Works with female—Works alone—Sings while female works—Brings material to female—Absents himself from nest.

XII. Eggs.

1. Number.
2. Color.
3. Markings.

XIII. Incubation.

1. Length of incubation.
2. Habits of male during time.—Takes place of female on nest—Feeds female on nest.

XIV. Young.

1. In nest.
   Position of feather tracts.
   Times when eyes open
   Time spent in nest.
2. Cared for by parents.—Food brought in bill—Food regurgitated.
3. Condition on leaving nest.

4. Notes and actions of young.

5. Nestling plumage.

USEFUL BOOKS FOR BIRD STUDENTS.

Robert Ridgway,	Manual of North American Birds. 2d ed., 1896	$7 50
	Nomenclature of Colors	4 00
Elliott Coues,	Key to North American Birds	7 50
Florence A. Merriam,	Birds of Village and Field	2 00
	A-Birding on a Broncho	1 25
	Birds through an Opera-Glass	75
Frank M. Chapman,	Handbook of Birds of Eastern North America	3 00
	Bird-Life	1 75
John Burroughs,	Wake-Robin	1 25
	Signs and Seasons	1 25
	Pepacton	1 25
Olive Thorne Miller,	In Nesting Time	1 25
	Little Brothers of the Air	1 25
Mabel Osgood Wright,	Birdcraft. 2d ed., 1897	3 00
Mabel Osgood Wright, Elliott Coues,	Citizen Bird	1 75
Neltje Blanchan,	Bird Neighbors	2 00
Bradford Torrey,	Birds in the Bush	1 25
Frank Bolles,	From Blomidon to Smoky	1 25
J. M. Baskett,	The Story of the Birds	65
F. C. Kirkwood,	List of the Birds of Maryland	1 00
Coues and Prentiss,	Avifauna Columbiana	2 00
William C. Rives,	Birds of the Virginias	60

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