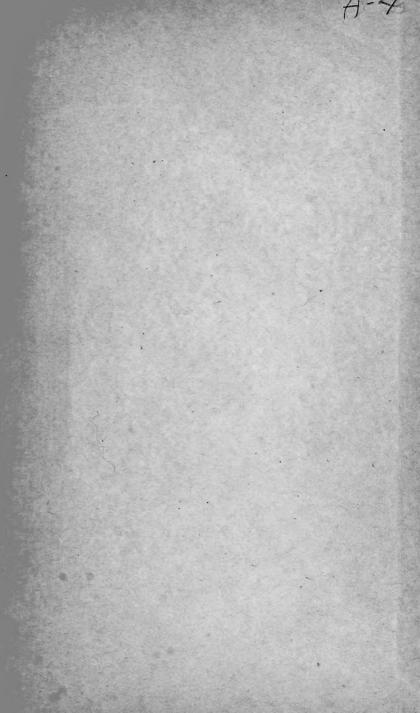
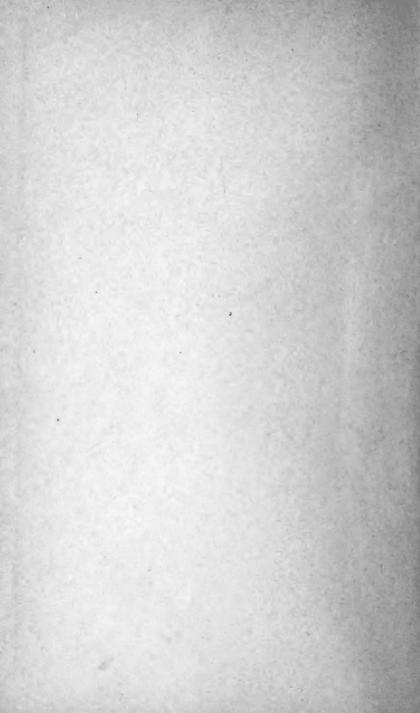


William Whiting









BIRDS OF WASHINGTON AND VICINITY



M47

BIRDS OF WASHINGTON AND VICINITY

INCLUDING ADJACENT PARTS OF

MARYLAND AND VIRGINIA

BY

MRS. L. W. MAYNARD

WITE

INTRODUCTION BY FLORENCE MERRIAM BAILEY

"So I say to you, if you would reap the purest pleasures of youth, manhood, and old age, go to the birds and through them be brought within the ennobling influences of nature."—F. M. CHAPMAN.

REVISED EDITION

WOODWARD & LOTHROP WASHINGTON, D. C. 1902



Copyright, 1898, By MRS. L. W. MAYNARD

Copyright, 1902, By MRS. L. W. MAYNARD

The Lord Galtimore (Press THE FRIEDENWALD CO. BALTIMORE, MD.

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.

The illustrations are reproduced from bulletin No. 3 by Dr. A. K. Fisher, and bulletin No. 54 by Prof. F. E. L. Beal, published by the Biological Survey, U. S. Department of Agriculture.

L. W. M.

Washington, D. C., September, 1898.

NOTE TO SECOND EDITION.

A general and increasing interest in birds having been gratifyingly shown by the appreciative reception given this book, a new edition is now offered, revised and brought down to date, with important additions.

L. W. M.

May, 1902.

TABLE OF CONTENTS

									PAGE
Introduction									ΙI
Where Birds may be looked	FO	R							19
ABOUT BIRDS IN GENERAL									21
FIELD KEY TO OUR COMMON BIR	DS								25
THRUSHES, ETC									40
GNATCATCHER									45
NUTHATCHES AND TITS .									46
THRASHERS AND WRENS									49
Warblers									58
Vireos									71
CEDAR WAXWING									76
Swallows									78
TANAGERS									84
Sparrows, etc	٠.								86
BLACKBIRDS AND ORIOLES									98
CROWS AND BLUE JAY .									106
FLYCATCHERS									110
SWIFT AND HUMMINGBIRD									117
Whip-poor-will and Nigi	нтн	AW	K						119
Woodpeckers									121
Kingfisher									128
Cuckoos									130
Owls									132
Hawks									137
TURTLE DOVE									148
QUAIL, GROUSE, AND WILL	T	UR	KE	Z					149
SHORE AND WATER BIRDS									151
MIGRATION OF BIRDS									156
DESCRIPTIONS OF MIGRANTS AND	Wı	NT	ER	R	ESI	DE	NT	s	159
LIST OF BIRDS FOUND IN THE DI	STR	ICT	0	F (Co	LU	мв	IA	
How to Attract Birds to Hou									187
BIRDS THAT MAY BE SEEN IN W									189
LOCAL LISTS									190
OBSERVATION OUTLINE									194
ORDERS AND FAMILIES									197
GAME LAW OF DISTRICT OF COL	UMI	BIA							200
Typny									202



INTRODUCTION.

In Washington one can surely follow Emerson and name most of the birds without a gun. With the Smithsonian collections of mounted birds and study skins, and the libraries of bird books to refer to, all but the most obscure species can easily be identified from careful notes made with the help of an opera glass in the field. 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 194.

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. Take careful descriptions of a few birds and then refer to a bird book and identify them.

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, as well as reference 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, who may 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-five 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 near by. 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 slatecolored Snowbirds—and one day I chanced along iust as a small Hawk darted down from his ambuscade scattering a little band 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 in the oaks of Washington Heights we 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. In park shrubbery throughout the city the cheering voice of the Song Sparrow may often be heard, sounding peculiarly gentle and melodious in contrast to the quarrelsome winter chatter of the English Sparrow. The whistle of the White-throat and the small notes of the Kinglets are also common winter park sounds. 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. During the midwinter snows Horned Larks, Tree Sparrows, and Purple Finches come into the city from their suburban weed patches, and the Larks are sometimes seen walking soberly along Pennsylvania Avenue, as well as on the quieter streets.

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 Seventh and U Streets a car ride of fifteen minutes takes you to the main 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 Baybreasted 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 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 marsh about Benning's bridge is one of the best places for Marsh Wrens. 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 connect the landscape with the quiet of the sky."

FLORENCE MERRIAM BAILEY.

Washington, D. C., May 1, 1902.

BIRDS OF THE WOODS.

Tanagers, Thrushes, Woodpeckers, Flycatchers, Vireos, Carolina Wren, Winter Wren, Cardinal, Kingfisher (wooded streams), Oven-bird, Chat, Black and White Creeper, Brown Creeper, Nuthatch, Titmouse, Chickadee, Gnatcatcher, Whip-poor-will, Night-hawk, 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, Yellow Warbler, 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, Grasshopper Sparrow, Henslow's Sparrow, Indigo-bird, Bluebird, Meadowlark, Bobolink, Blackbirds, Crow, Fish Crow, Nighthawk, Bob-white, Junco, Prairie Warbler, Chat, Brown Thrasher.

BIRDS OF ROADSIDE AND FENCES.

Sparrows, Kingbird, 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.

SIZE OF BIRDS.

Birds are measured from the tip of the bill to the end of the tail. An English Sparrow is about 61/4 inches long and a Robin 10 inches.

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 waterbirds, 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 the 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 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 "I" 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 and 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" 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.
- 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.

 - 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.
 - I. 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.

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.

- I. Throat yellow.
 - Throat and breast pure yellow, without streaks or spots.

 - 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-wèc-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, chee-chee-chee-chee, cher-wee, or chee-chee-chee-chee, way-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 wooodland; 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 olivegreen; 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.

- 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.

- I. Black and white birds.
 - A. Throat black.
 - a. Length over 6.00 inches.
 - a¹. Entire under parts black; nape buffy; rump white; a musical dweller of fields and meadows; frequently sings on the wing.

BOBOLINK, page 169.

a². Breast rose-red; rest of the plumage black and white; song rapid, loud and musical; call-note, peck; a tree dweller in rather open woodland.

ROSE-BREASTED GROSBEAK, page 168.

- a³. 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.
 - b¹. Crown black; cheeks white; back ashy; unstreaked; call, chick-a-dee or a musical, doublenoted whistle; a permanent resident.

CHICKADEE, page 178.

- B. Throat and under parts white or whitish.
 - a. Length 8.50 inches; upper parts blackish slatecolor; tail tipped with white; a bird of the air, catching its insect food on the wing, and occasion-3

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

Snowflake, page 180.

- 2. No white in 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-quër-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).
 - 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.
 - a¹. 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.

a². 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.

a³. 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.
 - b¹. Length 6.50 inches; a gray, crested bird; fore-head 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.

- c. Back brown.
 - c¹. 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.

c². 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.
 - a¹. Length 5.25 inches; bill black; a whitish line over the eye; a familiar bird of lawns and dooryards; song, a monotonous chippy-chippy-chippy.

CHIPPING SPARROW, page 90.

a². 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, cherwee, cheeo, dee-dee-dee-dee.

FIELD SPARROW, page 91.

- a³. Length 5.90 inches; forehead black; crown and wings chestnut-rufous; flanks pale grayish brown; haunts marshes; song, a rapidly repeated weetweet-weet, etc. SWAMP SPARROW, page 167.
- b. Crown not rufous or chestnut.
 - b¹. 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.
 - b¹. 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.
 - b². Length 6.35 inches; breast grayish with one spot in its center. Tree Sparrow, page 167.
- B. Back not streaked; breast spotted.
 - a. Length II.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.
 - b¹. Length 8.25 inches; breast and sides heavily marked with large, round, black spots; head and upper back brighter than lower back and tail; callnote, a sharp pit or liquid quirt.

WOOD THRUSH, page 44.

b². 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.

b³. 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.
 - c¹. 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. 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.

Townee, 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.

THRUSHES.

To the Thrush family belong the Bluebird and Robin, as well as all Thrushes so named except the Brown Thrush, which with the Catbird and Mocking-bird is classed with the Wrens, and the Golden-crowned and Water Thrushes, which are placed among the Warblers.

The Thrush family holds a high place in the scale of bird development, and the true Thrushes have voices of incomparable richness and beauty.



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 has all the 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.

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 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 too often ROBIN 43

only as a table delicacy, and unless given more protection he may soon be classed among our rarer birds. In the winter of 1896-97, 2600 Robins were offered for sale in the Washington market at one time, but through a strict enforcement of the law this trade has now practically ceased.

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 81/2 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 greenishblue 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 carulca.

Length 41/2 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 pcto of the Titmouse is heard it is likely to be followed by the day-day-day of the Chickadee and the vank-vank 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 housefurnishings 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 41/2 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-leé, wheedle-lay, and he also calls dec-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 a country 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 shows white and black.
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 111/2 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 101/2 inches.

Upper parts ashy-gray; wings and tail blackish, marked strongly with white.

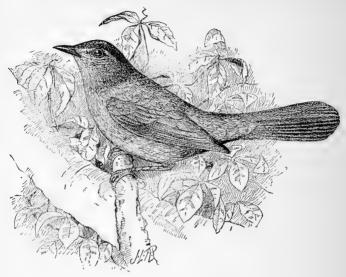
Under parts grayish-white.

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.

Cathird: Galcoscoptes carolinensis.

Length about o 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 Cathird 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 is 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 broads 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 greenishblue, 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 is said to like the native 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 Indovicianus.

Length 51/2 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.

One of his common songs 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 eve, 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; long bill.

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 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, in migration time, saw five species in one tree. In the Zoo one of the best places to find them is the bushy border of Rock Creek.

Black and White Warbler: Mniotilta varia.

Length about 51/4 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; win-

ters 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 51/2 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 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, an inconspicous 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 resembles that of the Prairie Warbler.

Yellow Warbler; Summer Yellowbird: Dendroica astiva.

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, chec-chee, cher-wee.

*The Usnea Warbler, a rather recently described subspecies of the Parula with a more northern breeding range, differs principally in having the band across the breast broad and conspicuous. See Auk, Jan. 1896, p. 44.

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 cankerworms, spiders, plant-lice and small beetles.

Yellow-throated Warbler: Dendroica dominica.

Length 51/4 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 seen 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 51/2 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 *zcc-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: Sciurius auro-capillus.

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 treetops, 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 thrushlike 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 ecstacy 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 Ovenbirds. The eggs, 4 to 5, are white, speckled with brown.

Louisiana Water-Thrush: Sciurus motacilla.

Length 61/4 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 teetering 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: Gcothlypis formosa.

Length about 51/2 inches.

Upper parts bright 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 castern 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 ad-

vanced, 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 Wrenlike 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, klurwee, 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 51/4 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 in spring migration 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 is given as rit a witch'a, several times repeated, and as witchery, witchery. 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; largest of his family.

Upper parts bright olive-green; black and white markings in front of and around eyes; no wing-bars.

Throat and breast bright yellow; belly white.

Resident (common) from May I 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-ruhrr that's it-chee-quack, cluck, yit-yit-now hit ittr-r-r-vhen-carv-carv-cut-tea-bov-ruho. mere, mere. 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 main 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: Sctophaga 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 perfectly 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, inchworms, 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: Virco gilvus.

Length 53/4 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 operaglass 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 pop-lar leaf

Yellow-throated Vireo: Virco flavifrons.

Length about 6 inches.

Upper parts bright olive-green; two distinct white wingbars.

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: Virco noveboracensis.

Length 51/2 inches.

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

Under parts white, breast and sides washed with greenish-

vellow.

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 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 cat 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 gray-ish-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, Roughwinged, 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 *cheé-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: Hirundo 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 $\,\iota\,$ 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 famous for their wonderful flights in migration, when it is said they fly fifteen hours a day, and as swift 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 53/4 inches.

Upper parts brownish-gray.

Throat and breast paler gray, belly white.

The outer wing-feather has a series of recurved hooklets. 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 readymade 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 71/4 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 71/2 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 is given as pe-túp-ka.

SPARROWS, ETC.

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 189.)

American Goldfinch; Thistle-bird: Astragalinus 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, Perchic-o-ree or O-wait-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: Poacetes 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:

Animodramus savannarum passerinus.

Length 51/4 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 finely 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 51/4 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-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: Spizellla pusilla.

Length 51/2 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 red-

dish-brown.

Resident (common) all the year.

The Field Sparrow is known by his red-brown color, and especially by the reddish bill. He is a bird of varied songs, all sweet and tuneful. Mr. Burroughs gives one as fe-o, fe-o, fe-o, few, few, few, fee, fee, fee "at first high and leisurely, but running very rapidly towards the close, which is low and soft." There are several 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 also that 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 melodia.

Length about 61/4 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 crythrophthalmus.

Length about 81/4 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 81/4 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 endured by sympathetic 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 cue, cue, kip, kip, kip, kip, in and says: "In the Washington Zoo Cardinals are common, and after February their song often rings through the bare woods."

Blue Grosbeak: Guiraca carulea.

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 writes: "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.

^{*} In Birds of Village and Field.

Indigo Bunting: Cyanospiza cyanea.

Length 51/2 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 I 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 also heard in the Zoo, particularly near the Columbia Road entrance.

English Sparrow; House Sparrow: Passer domesticus.

Length 61/4 inches.

Male, upper parts streaked with black and chestnut; sides of throat white, rest of throat and breast black; white wingbar.

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.

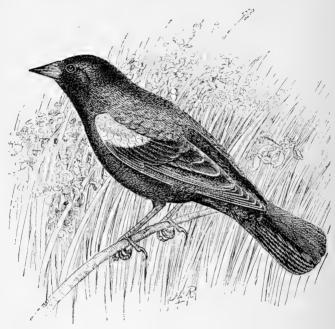
A rare permanent resident.

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 selfrespecting 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 phaniceus.

Length 91/2 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.

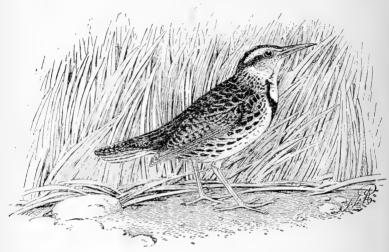
Resident (common) all the year; abundant in migrations.

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*, 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 II inches.

Upper parts mixed, brown, black and buffy; outer tailfeathers white.

Breast bright yellow, with a large black crescent.

Resident (common) all the year.

The Meadowlark will be seen flying up from a meadow or singing from a fence rail or a dead branch. He is known in flight by his white tail-feathers, and, when perching, if he faces you, by the black crescent on his vellow 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 71/2 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 I 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, rosebugs 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 are likely to nest in the Smithsonian grounds.

Orchard Oriole: Icterus spurius.

Length 71/4 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 females; second year males have a large black patch on the throat.

Resident (common) from May I 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 thicklyfoliaged 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, rosebugs and larvæ 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 semi106 CROW

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 fomerly covered from twelve to fifteen acres, and at times as many as one hundred and fifty thousand Crows gathered there nightly, but since the winter of '94-'95 the number has been greatly reduced and the roost has been broken up and scattered into several places about the District. The Agricultural Department published in 1895 a bulletin,

"The Common Crow," which is full of interesting 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 made 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 bluishgreen, 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 distressed cry from one bird will often 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 cinnamonbrown.

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: Tyrannus tyrannus.

Length 81/2 inches.

Upper parts slate-color; head black with concealed orangered 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, dark 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 potatobugs, 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 cupshaped, built of roots and grasses and lined with finer stuff. Three eggs are generally laid. sometimes four, much blotched and speckled with brown. Dr. Richmonds 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.

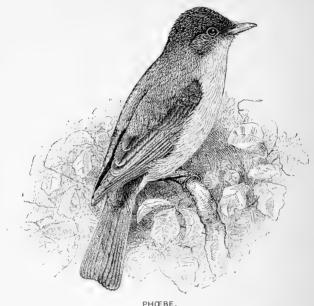
Throat and breast pearl-gray, belly yellow.

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: Sayornis phæbe.

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 phabe. He is often called Pewce, 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

Phoebe'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 I 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 Humming-bird'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: Chatura pelagica.

Length about 51/2 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 in the Children's Room at the Smithsonian.

Ruby-throated Hummingbird: Trochilus colubris.

Length 31/2 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 Humming-bird 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 feeds from

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

Whip-poor-will: Antrostomus vociferus.

Length 91/2 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 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: Mclanerpes crythrocephalus.

Length 91/2 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 Redheaded 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: Ceophlaus 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: Mclancrpes 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; 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 distinct 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 un-

familiar, 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: Coccysus 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.

^{*}The famous Owl colony in the Smithsonian towers has been broken up (1902).



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, Redtailed, 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: Butco 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 Redtailed 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: Butco 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 platypterus.

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 belong to the category of summer residents. It is often seen sailing over the Potomac and Anacostia 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: Haliæctus leucocephalus.

Length about 3 feet.

Adults, head, neck and tail white; rest of the plumage

dark brown. Bill and feet vellow.

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 the 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 21/2 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 II 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 71/2 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 101/2 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 and other places 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 Marshhen, 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": Nycticorax 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 and there is quite a large colony in the neighborhood of Bennings. 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. 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 movement 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.

On cloudy nights migrants fly low and their calls can be plainly heard. On foggy and rainy nights birds are likely to lose their way, and along the coast lighthouses attract them, so that often large numbers are killed by flying against the lights. In Washington they strike the Monument, and in the early morning after such a night the unfortunates may be picked up—sometimes rare species among them.

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 Golden Plover breeds in Arctic America and migrates the entire length of North and South America to Patagonia; and certain shore birds which nest in the islands of Bering Sea winter in the Hawaiian Islands, making a journey of two thousand miles, with apparently no opportunity to rest or feed on the way.

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 adjoining. 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; under parts whitish; sides of the throat and breast lightly spotted with brown, the spots small and wedge-shaped. 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. May 5 to 28.

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 5 to May 15. Common; may winter.

Ruby-crowned Kinglet: Regulus calendula.

Upper parts olive-green, wings and tail dusky, the former with two white bars; crown ruby 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 satrața.

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 $4\frac{1}{2}$ 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 $5\frac{1}{2}$ inches. September 25 to April 20. Common in winter.

Winter Wren: Anorthura 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: Thryomanes 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 I to 25; August. Rare.

Tennessee Warbler: Helminthophila peregrina.

Back bright olive-green, top and sides of head bluishgrav; 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 rubricapilla.

This Warbler is like the Tennessee except that the under parts are vellow 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 rare.

Black-throated Blue Warbler: Dendroica carulescens.

Male, upper parts grayish-blue; large white shot on wing: sides of head and throat black; under parts white, sides black and white mixed. Female, upper parts olive-green. under parts vellowish; white spot as in male. Length 51/4 inches. April 25 to May 25; August 25 to October 15. Abundant.

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 51/2 inches. October 1 to May 20. Common.

Magnolia Warbler: Dendroica maculosa.

Upper parts black, much white on wings and tail: a white line behind the eye; under parts and rump vellow, 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 wingbars 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 51/2 inches. May 10 to 20; September 1 to October 20. Sometimes common, usually uncommon

Black-poll Warbler: Dendroica striata.

Upper parts ashy streaked with black; two white wingbars 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 vellow. Length 51/2 inches. May I to June 5; September 6 to October 20. Abundant.

Blackburnian Warbler: Dendroica blackburnia.

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 vellow. Length 51/2 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 in male, mixed with yellowish in female: rest of under parts yellowish-white, the sides streaked with black. Length 5 inches. April 25 to May 28: August 28 to October 20. 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 5½ 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: Sciurus noveboracensis.

Upper parts dull grayish-olive; no white wing-bars or tail-patches; a buffy line over the eye; under parts yellow-ish-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 $5\frac{1}{2}$ inches. Rare in spring, late May; common from August 28 to October 15.

Mourning Warbler: Gcothlypis philadelphia.

This species is like the preceding, but has shorter wings and longer tail, and no white eye-ring; breast black. 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 $5\frac{1}{2}$ inches. May I 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. Uncommon.

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. Common.

Philadelphia Vireo: Virco philadelphicus.

Much like the Warbling Vireo but smaller, and entire under parts are pale greenish-yellow. May and September. Very rare.

Blue-headed Vireo: Virco 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.

Loggerhead 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: Tachycincta 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.

^{*} Migrant Shrike; Wm. Palmer, Auk, July, 1898.

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; feathers of wings and tail yellow at base; under parts buffy-white, heavily streaked with black. Length 5 inches. October to April. 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 three white stripes; white patch on throat; 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 in Zoological Park.

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 breast; two whitish wing-bars. Length 6½ inches. November I 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 6½ 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 striped 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 winglinings with large patches of rose-red. Female, brownish, with a white line through the crown and over the eye; saffron-vellow under wings. Length 8 inches. May I to 20; August 25 to October 1. Rather common.



Dickcissel; Black-throated Bunting: Spisa 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 orysiv-011115

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 71/4 inches. Common in spring, May I to 25, 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 91/2 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 71/2 inches. Common November to April.

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; wingbars 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 I 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 olivegreen; wing-bars and eye-ring yellowish. The bright yellow under parts distinguish this from other Flycatchers. Length $5\frac{1}{2}$ inches. May I to 30; August I to October I. 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 a cadica.

Upper parts cinnamon-brown, the back and wings spotted with white; tail with three white bars. Length $7\frac{1}{2}$ 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 II 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 brownishgray. 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 1.4 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: Helodromas 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: Porsana 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 21/2 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 reddishbrown, 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 reddishbrown; serrate bill, the upper mandible hooked. Length 22 inches. Female, head gravish-brown, upper parts ashygray. 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.

174 MIGRANTS AND WINTER RESIDENTS

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 2½ 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 13/4 feet. Winter visitant. Rare.

Scaup Duck: Aythya marila.

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 11/2 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 11/2 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 cinnamonbrown, 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 gravish-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 suithsonianus.

Back and wings pearl-gray, the wings with black markings; rest of plumage white. Length 2 feet. October to March. Common, especially in spring. Flocks of this and the following species may often be seen at low tide on the mud flats along the Eastern Branch.

Ring-billed Gull: Larus delavvarensis.

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.

	٥	Permanent Residents.	Summer Residents.	Spring and Autumn Migrants.	Winter Residents.	Casual Visitors.	Accidental Stragglers.	
2.	Bluebird	×	×	×	× ×*			April to Oct.
	Wilson's Thrush			×				April and May; Aug. and Sept. May; Sept. and Oct. Several records; Oct.
6.	Bicknell's Thrush			\times^*				3, 1885; May 14 and
8.	Olive-backed Thrush Hermit Thrush Golden-crowned Kinglet			× × ×	×* ×			(18, 1888, etc. May; Sept. and Oct. Oct. to May. Usually rare in winter. Sept. to April.
10.	Ruby-crowned Kinglet			×	\times^*			Sept. to Nov.; April to May. Rare in
12. 13.	Blue-gray Gnatcatcher White-breasted Nuthatch. Red-breasted Nuthatch Tufted Titmouse	×	×	× ? ×	×××			(winter. April to Sept. Sept. to May.
	Chickadee				\times^*	\times		Irregular; Oct. to April.
	Carolina Chickadee Brown Creeper	×	×	×	×			Sept. to April.
18.	Mockingbird	\times^*	\times	Ì	×			ton; very rare in winter.
19.	Catbird	\times^*	×	×	×			April to Sept. Rare in winter.
	Brown Thrasher	?	×	X	\times			April to Oct. Rare in winter.
	Carolina Wren	×	×		X			March and April;
23,	House Wren		×	×* × ×	×*			Nov. and Dec. April to Sept. or Oct. Sept. to May.

^{*}Rare at this season.

_		٠.	1	1111	8			
		nent Residents	Residents.	Autumn	Vinter Residents.	Casual Visitors.	ental Stragglers.	
		rent česio	resic	and Au igrants.	Resi	ris.	tal	
		Permanent Resi	Summer R	g ar	ter	nal	Accidental Strag	
		Per	Sun	Spring and Migran	IV in	Cas	Acc	
_								Two records: May 9,
	Short-billed Marsh Wren.			×*		?		1890; May 3, 1893.
	Long-billed Marsh Wren. American Pipit		×	×	×*			April to Oct. Oct. to May.
28.	Black and White Warbler.		×	X				April to Oct. (Three or four rec-
	Prothonotary Warbler					\times		ords in May.
	Worm-eating warbler Blue-winged Warbler		× ×*	×*				April to Sept.
32.	Brewster's Warbler			\times				Two records: May 15,1885; May 1,1895
33.	Golden-winged Warbler			×*				May, Aug., and prob- ably Sept.
34.	Nashville Warbler			\times^*				May; Sept.
35.	Orange-crowned Warbler:			\times^*				Two records: Oct. 13, 1889; Oct. 14, 1894.
36.	Tennessee Warbler			\times^*	i			May (very rare); Aug. to Oct.
37.	Parula Warbler		×	×				April to Oct.
	Usnea Warbler			×				April to May; Sept. to Oct.
	Cape May WarblerYellow Warbler		×	×				May; Aug. to Oct. April to Sept.
	Black-throated Blue	i		×				April to Oct.
42.	Warbler Street Myrtle Warbler Myrtle Warbler	1		×	X			Sept. to May.
43.	Magnolia Warbler	ĺ		×				April and May; Aug.
41.	Cerulean Warbler			\times^*		?		Two records: May 5, 1888; May 11, 1890.
45.	Chestnut-sided Warbler			×				April and May; Aug.
46.	Bay-breasted Warbler			×				May; Aug. to Oct. Ir- regularly common.
47.	Black-poll Warbler			×				April to June; Aug.
	Blackburnian Warbler			X				May; Aug. to Oct.
49.	Yellow-throated Warbler.		\times^*	?				April or May to Sept. Rare in summer.
50.	Black-throated Green { Warbler			×				April and May; Aug.
51.	Kirtland's Warbler			\times^*		?		One record: Sept. 25,
	Pine Warbler		×	X				March to Oct.
53.	Palm Warbler			\times^*				Late April to May Sept. and Oct.
54.	Yellow Palm Warbler			×				March and early April; Sept. and
55. 56	Prairie Warbler		X	×				(Oct. April to Sept. April to Oct.
	Oven-bird		^	×				April and May; July
91,	THE USE							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: Mand Aug.
59. Louisiana Water-Thrush 60. Kentucky Warbler		×	×				April to Sept. May to Sept.
31. Connecticut Warbler			×				May (rare); Aug.
52. Mourning Warbler 63. Maryland Yellow-throat 64. Yellow-breasted Chat		×	×* × ×				May, Aug. to Oct. April to Oct. April to Sept.
55. Hooded Warbler		?	\times^*				April to June; Au and Sept.
66. Wilson's Warbler. 77. Canadian Warbler. 68. American Redstart. 69. Red-eyed Vireo. 70. Philadelphia Vireo. 71. Warbling Vireo. 72. Yellow-throated Vireo. 73. Blue-headed Vireo. 74. White-eyed Vireo. 75. Northern Shrike. 76. Loggerhead Shrike.		×* × ×	× × × × × × × × × × × × × × × × × × ×	×* ×*			May; Aug. and Sej May; Aug. and Sej April to Sept. April to Sept. April to Sept. April to Sept. April to Oct. April to Oct. Nov. to Feb. Aug. to April.
77. Cedar Waxwing	$1 \times$	\times^*	?	\times^*			Common in spring and autumn.
78. Purple Martin		×* ×* *	×××				April to Sept. April to Sept. March to Sept. March to May; Ju
81. Tree Swallow. 82. Bank Swallow. 83. Rough-winged Swallow. 84. Scarlet Tanager. 85. Summer Tanager.		× × × × × × × × × × × × × × × × × × ×	XXXX				to Oct. April to Sept. April to Sept. April to Oct. April to Sept. No recent records.
87. Purple Finch	i		×	×*	×		Sept. to May. (Formerly rare as
88. American Crossbill	?	?		×	?		irregular; no common in winte
89. White-winged Crossbill 90. Redpoll				×* ×*	$\overset{\times}{\times}$		No recent records. No recent records. Nests very late;
91. American Goldfinch	×	×		×			July-Sept.
92. Pine Siskin			×	×	?		Irregularly common in winter; Oct. May.
93. Snowflake				×	\times		Irregular. One record: Dec. 1
94. Lapland Longspur				×	\times		1886.
95. Vesper Sparrow	X	××	×	\times^*			Oct. to May; rare mid winter.
96. Savanna Sparrow			×	\times		· .	Oct. to May; rare:
97. Grasshopper Sparrow		X	×			1	March to Oct.

^{*} Rare at this season.

			e> 1				
	Permanent Residents.	Summer Residents.	Spring and Autumn Migrants.	Vinter Residents.	Casual Visitors.	Accidental Stragglers.	
·	Ь	S	Spr	4	0	A	
98. Henslow's Sparrow		×	1 ~ 1				April to Oct.
99. Nelson's Sparrow		^	×		?		Two records: Sept.
200 210.002 5 Epers) 1862; Sept. 18, 1893. (Several records:
100. Lark Sparrow						X	Aug. 25 and 27, 1877 Aug. 8, 1886.
							Oct. to May, irregu-
101. White-crowned Sparrow			×	?			lar and rare in winter.
102. White-throated Sparrow.			×	×			Sept. to May. Nov. to April.
104. Chipping Sparrow	×	×	×	×*			March; Nov. Rar
105. Field Sparrow	×	×				1	in midwinter.
106. Slate-colored Junco	,		×	×		1	Sept. to May. One instance: Apri
167. Shufeldt's Junco						×	28, 1890.
108. Bachman's Sparrow					X		One instance: April 29, 1896.
109. Song Sparrow	×	×	×	×			Common, but mor
110. Lincoln's Sparrow			×*		?		so in migrations. Several records:
•				- cds			Nay and Oct.
111. Swamp Sparrow			×	×*			in midwinter.
112. Fox Sparrow			×	×*			oct. to April. Rar
113. Towhee; Chewink	×	×	×	×*		İ	April to Oct. Irregularly present
III. TOWNER, CHEWINK		1	. ^				winter.
114. Cardinal	\times	×	?	X			Less common that formerly.
115. Rose-breasted Grosbeak.			X				May; Aug. to Sept.
116. Blue Grosbeak		X					May to Sept.; of local distribution.
117. Indigo Bunting		1×	×				May to Oct.
118. Dickcissel		X	* X	:			now very rare
119. European House Sparrow	v ×	×		×			(seen.
120. Bobolink	: ×		* ×	×*	ķ.		May, Aug to Oat
122. Yellow-headed Blackbird	1 ' '	^				\times	May; Aug. to Oct. j One record; Aug. 2
123. Red-winged Blackbird		×	×	×		1	1892.
124. Meadowlark		×		×			April to Sept. Comm
125. Orchard Oriole		X	×				√ in th
126. Baltimore Oriole		×	X				April to Sept. migra
127. Rusty Blackbird			X	×			Oct. to April. Winters only in ver
128. Purple Grackle	. ×	$*^! \times$	\times	1 ×	*		mild seasons.

^{*} Rare at this season.

	Permanent Residents.	Summer Residents.	Spring and Autumn Migrants.	Winter Residents.	Casual Visitors.	Accidental Stragglers.	
129. Bronzed Grackle	×	× ×	×	×* ×			
132. Fish Crow	×	×	?	× × *		×	Aug. to April?
136. Kingbird		×	×				April to Sept. One record: Sept. 30
137. Arkansas Kingbird 138. Crested Flycatcher 139. Ph@be	×	×	×	×*		× ,	April to Sept. Winters irregularly
140. Olive-sided Flycatcher		1				,	One record: Sept.
141. Wood pewee142. Yellow-bellied Flycatcher143. Green-crested Flycatcher144. Alder Flycatcher (Traill's)		×	×××				May to Oct. May; Aug. to Oct. May to Sept. May; Aug. to Sept.
145. Least Flycatcher			×				April and May; Aug
146. Ruby throated Hum- mingbird	×	× × × × × × × ×	×××××××××××××××××××××××××××××××××××××××	×* ×*			Late April to Oct. April to Sept. or Oct April to Oct. April to Sept. Sept. to April. Rare
153. Pileated Woodpecker	×	×*		×*			in winter. Frequent near Fall
154. Red-headed Woodpecker.155. Red-bellied Woodpecker.156. Flicker	×	×	× ?	×* ×* ×*			Church.
157. Belted Kingfisher	×	×		\times^*			A permanent resi
158. Yellow-billed Cuckoo 159. Black-billed Cuckoo		\times^*	×				(are very mild. May to Oct. May to Oct. Rare.
160. Carolina Paroquet							Now exterminated one recorded in
161. American Long-eared	×	×	1	×		,	(stance, Sept., 1865. Nests in pine wood:) in old crows' nests.
162. Short-eared Owl			×	\times			Found along the marshes.
163. Barred Owl	×	×		×			Uncommon in the
164. Saw-whet Owl	×	×	?	×*			Oct. to March.
166. Great Horned Owl	×	×		×			Rare in immediate vicinity of Wash-ington.

•	Permanent Residents.	Summer Residents.	Spring and Autumn Migrants.	Winter Residents.	Casual Fisitors.	Accidental Stragglers.	
167. Snowy Owl	×	×		×	× ?		Irregular; sometimes common in winter Nests in Smithsoniar and Jail towers. In two instances Aug. 3 1895 and 1895 and
170. Marsh Hawk 171. Sharp-shinned Hawk 172. Cooper's Hawk 173. American Goshawk	×	×	? ?	× × × ?			Aug. 3, 1895, and April 11, 1897. July to April. Irregular.
174. Red-tailed Hawk 175. Red-shouldered Hawk 176. Broad-winged Hawk 177. American Rough- legged Hawk 178. Golden Eagle	×××	×* × ×	5 5	× × × × × × × × × × × × × × × × × × ×			Rather uncommon.
179. Bald Eagle	×	×		×	×		Serveds at Mt. Vernor and Great Falls. Uncommon.
181. Pigeon Hawk	×	× ×*	×	× ×			Most common in winter. Seen at times in sum mer, but does no nest.
184. Turkey Vulture; Buz- zard	×	×		×		×	In one instance;
186. Passenger Pigeon			×*				March 30, 1895. Now very irregular mainly in Sept and Oct.
187. Mourning Dove	×	×	X	×*		×	Rare in midwinter. 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	×	×	×* ×* ? ×*	× or or	×		Several records.
195. Semipalmated Plover 196. Belted Piping Plover			×* ×*		×		May, Aug. and Sept. March; May. Two records. Remains in very

^{*} Rare at this season.

			22				
	Permanent Residents.	Summer Residents.	Spring and Autum. Migrants.	Winter Residents.	Casual Visitors.	Accidental Stragglers.	
198. Wilson's Snipe			×	×*			Remains in very
199. Dowitcher					?		One record: Sept.
200. Long-billed Dowitcher					?		One instance: April.
201. Stilt Sandpiper					?	×	One record: Sept. 8
202. Pectoral Sandpiper			×		•		1885. April; Aug. to Oct.
203. Baird's Sandpiper			2		?	×	Two records: Sept. 3, 1894, and Sept.
204. Least Sandpiper 205. Red-backed Sandpiper 206. Semipalmated Sandpiper 207. Western Sandpiper 208. Sanderling.			×* ×* ×* ×*				(25, 1894. May; Aug. to Oct. April; Oct. May; Aug. to Oct. Sept. Sept. and Oct.
209. Greater Yellow-legs			×				April and May; July to Oct. or later.
210. Yellow-legs			×	ĺ			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		?	\times^*				March to May; July to Sept.
215. Spotted Sandpiper 216. Long-billed Curlew		×	×*				April to Sept. or later.
217. Red Phalarope						×	One record: Oct. 17,
218. Northern Phalarope						\times	One record: Aug. 31,
219. King Rail		X	×				1891. May occur in winter.
220. Clapper Rail						×	One record: Sept. 8,
221. Virginia Rail			X				May remain until
222. Sora			×				March to May? and Aug. to Nov.
223. Yellow Rail			×				March to April or May? and Sept.? to Nov.
224. Black Rail		٠	×				Sept.; Oct. Few rec-
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 229. Least Bittern	1	×*	×	×			Aug. to April. May to Sept.
230. Great Blue Heron	×	?	?	×			Found throughout year, but does not
231. American Egret			×*				breed here? Usually rare. May to
232. Snowy Heron			×*		?		July or later. Late summer or
233. Little Blue Heron. 234. Green Heron. 235. Black-crowned Night Heron.	×	×	×* ×	×*	?) early autumn. July and Aug. May to Sept.
235a. Yellow-crowned Night							One Instance; Smithsonian grounds, Aug., 1901.
236. Wood Ibis					×		Several records in July. One record, about
237. Glossy Ibis						×	1817. Liable to oc-
238. American Merganser 239. Red-breasted Merganser.			×	×* ×			Sept. to March.
240. Hooded Merganser			×	\times			Sept. to March or later.
241. Mallard			×	× × ×			Oct. to April. Oct. to April. Aug. to April.
244. Widgeon					×		(Two records: spring and fall.
245. Baldpate			×	×			Oct. to April. One instance: April,
246. European Teal						×	1885.
247. Green-winged Teal			×	×			Sept. to April or May. Sept. to June. Sept. to March or
249. Shoveller:			×	×			April.
250. Pintail			×	×			Oct. to April. (Rare in summer;
251. Wood Duck	X	××	?	×			less so in spring and fall.
252. Redhead		××*	× × × × × × ×	×* × × × ×			Oct. to May. Oct. to April. Oct. to March. Oct. to April. Sept. to April. Oct. to April.
258. Barrow's Golden-eye 259. Buffle-head			×	×		×	Two instances? Sept. to April.
260. Old-squaw			×	×			Uncommon. Oct. to
261. American Eider						?	One instance long ago.
262. American Scoter 263. White-winged Scoter 264. Surf Scoter				×*	or > or > or >	<	Oct. and Nov.

^{*} Rare at this season.

		~			1	
Permanent Residents.	Summer Residents.	Spring and Autum. Migrants.	Winter Residents.	Casual Visitors.	Accidental Stragglers.	
	×	×				Sept. to April. Oct. to probably April.
1		\times^*	\times^*	or×		Oct. to March or April. Casual in spring and
	,		2	×		autumn. April; July; proba-
			Ĺ	?		Two or three in- stances.
				×		Several instances. (Two specimens (hur- ricane of Aug. 29,
					×	(1893). One instance, many years ago (about
					×	(1859). One instance, long
		×	×		×	oct. to March. Oct. to Nov. and Feb.
		×		V*		to early April. In Sept. Very few records.
		×				Oct. to Nov. and March to May. Late summer and
		,		×		early autumn. No recent records. (In one instance, after
					×	hurricane of Sept. 29, 1896.
				×		In late summer or early autumn. Spring and autumn.
				×		Spring and autumn. (Common in early autumn (Aug. and
		^				Sept.). Rare or wanting in spring. Several specimens
			\times^*		×	late in Dec., 1896, No other records here. (Sept. to April, Less
		×	×			common in mid- winter. (Very few records; all
		?	\times^*	×		in late autumn or early winter.
		\times^*	?			Sept. to Nov. Possibly through winter to April.
		×	×			Oct. to May. Less common in aug. to May. midwinter.
	Permanent Residents.	?	* X X X X X X X X X	* * * * * * * * * * * * * * * * * * *		

HOW TO ATTRACT BIRDS TO HOUSES.

There are several ways in which we may attract birds to our country and suburban homes. One of these is by providing suitable nesting places for them. Fruit trees, shrubs, evergreens and thickets will furnish shelter and nesting sites for many species, while the Wren, Bluebird and Martin like a hanging gourd, or a covered box with a hole cut in it, which may be set up on a post or nailed against a tree. Care should be taken that the front of the box is flat, with no place for Sparrows to light; the wild birds will fly straight into the hole, but English Sparrows must first perch near it.

Another way to bring the birds is by furnishing food for them. They particularly like raspberries, mulberries, wild cherries and small wild grapes; also the berries that grow on shrubs of various kinds. Of the latter the fruit of the common wild Cornel (Cornus circinata) is a great favorite. This handsome shrub has small blue berries growing in flat clusters and when they are ripe the bushes will be full of birds of many kinds, as this fruit is liked by all species not purely insectivorous. The fruit of the shrub Hercules Club (Aralia spinosa) is another favorite. Sunflower and Cornflower (Centaurea) seeds, the seeds of millet and other grasses will also attract birds in late summer and autumn. Then in winter our permanent residents and northern visitors will appreciate bread

crumbs and uncooked breakfast cereals scattered on porches or placed in shallow boxes; some species are partial to buckwheat. Almost all winter birds will eat suet, pieces of which may be nailed against trees or posts.

The best way of all to bring summer birds is by supplying them with fresh water, which should be put in shallow dishes placed on the ground. Mr. Ridgway says that in forty-eight hours after he has prepared drinking and bathing places for them he believes all the birds within a radius of half a mile know of it. He also says that at times they come in such numbers that they fight for place at the dishes. As showing the results of systematic and continued kindness to our wild birds, on Mr. Ridgway's place at Brookland (comprising less than half an acre) he last summer counted twenty-seven species in half an hour, and while watering his ferns with a garden hose a Magnolia Warbler flew into the spray.

In trying to attract the songsters one must not neglect to exclude, as far as possible, cats and English Sparrows. Ways of discouraging the latter are given on page 97.

BIRDS THAT MAY BE SEEN IN WINTER.

Meadowlark

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

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 Long-billed Marsh Wren

Song Sparrow Yellow Warbler

Catbird Rough-winged Swallow

Wood Thrush* Cedar Waxwing
Cardinal Grosbeak Red-eyed Vireo

Chipping Sparrow Yellow-throated Vireo

House Wren Warbling Vireo
Bluebird Nighthawk
Orchard Oriole Chimney Swift
Baltimore Oriole Hummingbird
Red-headed Woodpecker Fish Crow
Carolina Chickadee Purple Grackle

Carolina Chickadee Purple Grackle Barn Owl Tufted Titmouse

ADDITIONAL SPECIES BREEDING IN BROOKLAND

(Furnished by Mr. Robert Ridgway.)

Brown Thrasher American Crow
Towhee; Chewink Wood Pewee
Field Sparrow Summer Tanager
Carolina Wren Indigo-bird
Prairie Warbler Goldfinch

Redstart Great Crested Flycatcher

Oven-bird Flicker

Yellow-breasted Chat Maryland Yellow-throat

White-eyed Vireo

^{*} In the summer of 1901 a pair of Wood Thrushes built in the square bounded by V and W, Twelfth and Thirteenth Streets.

SPRING LIST.

Birds seen at Field Meeting of Audubon Society, Forest Glen, Md., May 11, 1901.

Bluebird Grasshopper Sparrow
Robin White-throated Sparrow
Wood Thrush Chipping Sparrow
Wilson's Thrush; Veery Field Sparrow
Blue-gray Gnatcatcher Song Sparrow
White-breasted Nuthatch Swamp Sparrow

Tufted Tit Chewink Carolina Chickadee Cardinal

Catbird Rose-breasted Grosbeak

Brown Thrasher . Indigo Bunting. Carolina Wren Bobolink

House Wren Red-winged Blackbird

Black-and-white Warbler Meadowlark
Parula Warbler Baltimore Oriole
Yellow Warbler Orchard Oriole
Black-throated Blue Warber Purple Grackle

Myrtle Warbler Blue Jay
Chestnut-sided Warbler Crow
Blackburnian Warbler Fish Crow
Black-throated Green Warbler Kingbird

Prairie Warbler Great-crested Flycatcher

Oven-bird Phæbe '
Maryland Yellow-throat Wood Pewee
Yellow-breasted Chat Acadian Flycatcher
Redstart Chimney Swift
Red-eyed Vireo Downy Woodpecker
Yellow-throated Vireo Red-headed Woodpecker

White-eyed Vireo Flicker

Barn Swallow Turkey Vulture
Scarlet Tanager Solitary Sandpiper
Summer Tanager Little Green Heron

Goldfinch

SUMMER LIST.

Birds seen by Henry W. Maynard at Rockville, Md., June 23, 1901. Early morning.

Bluebird Song Sparrow
Robin Chewink
Wood Thrush Cardinal
White-breasted Nuthatch Indigo Bunting

Tufted Titmouse Cowbird

Carolina Chickadee Red-winged Blackbird

Catbird Meadowlark
Brown Thrasher Baltimore Oriole
Carolina Wren Orchard Oriole
House Wren Purple Grackle

Black-and-white Warbler
Worm-eating Warbler
Parula Warbler
Prairie Warbler
Oven-bird
Wood Pewee

Louisiana Water-thrush Great-crested Flycatcher Kentucky Warbler Acadian Flycatcher

Maryland Yellow-throat Ruby-throated Hummingbird

Yellow-breasted Chat Chimney Swift

Red-eyed Vireo Red-headed Woodpecker

Yellow-throated Vireo Flicker

White-eyed Vireo Turkey Vulture
Scarlet Tanager Mourning Dove
Goldfinch Bob-white
Grasshopper Sparrow Killdeer

Henslow's Sparrow Spotted Sandpiper Chipping Sparrow Wood Duck

Field Sparrow

AUTUMN LIST.

Birds seen by Mr. William Palmer at Kensington, Md., September 15, 1895.

Wilson's Thrush Chickadee Gray-cheeked Thrush Catbird

Tufted Titmouse Black and White Creeper

Tennessee Warbler Indigo-bird
Parula Warbler * American Crow

Magnolia Warbler Yellow-bellied Flycatcher

Black-poll Warbler Chimney Swift
Black-throated Green Warbler Whip-poor-will
Pine Warbler Nighthawk

Oven-bird Downy Woodpecker
Water-Thrush Red-headed Woodpecker

Redstart Flicker

Philadelphia Vireo Sharp-shinned Hawk Goldfinch Turkey Buzzard

Cardinal Maryland Yellow-throat

WINTER LIST.

Birds seen by Henry W. Maynard, Chevy Chase to Zoological Park along Broad Branch Road, February 9, 1902, 12.00-2.00 P. M.

Golden-crowned Kinglet Chipping Sparrow White-breasted Nuthatch Field Sparrow Red-breasted Nuthatch Slate-colored Junco Tufted Titmouse Song Sparrow Carolina Chickadee Cardinal Brown Creeper Meadowlark Brown Thrasher Blue Jav Carolina Wren Crow Winter Wren Fish Crow Myrtle Warbler Horned Lark

Goldfinch Downy Woodpecker
White-throated Sparrow Turkey Vulture

OBSERVATION OUTLINE

ABRIDGED FROM

"BIRDS OF VILLAGE AND FIELD"

BY

FLORENCE A. MERRIAM.

By permission of Houghton, Mifflin & Co.

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.

- I. TOP OF HEAD.
- 2. Back.
- 3. Breast.
- 4. Wings.
- 5. TAIL.

IV. Shape.

- I. Body.-Long and slender-Short and stocky.
- 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.

- 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.

- 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.

- GO IN FLOCKS.
- 2. Form roosts.—Winter—Summer—Migration.
- 3. Perform curious actions during courtship.—
 Dances—Aerial evolutions.

XI. Nest.

- I. 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.
- 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.

- I. NUMBER.
- 2. Color.
- 3. MARKINGS.

XIII. Incubation.

- I. LENGTH OF INCUBATION.
- HABITS OF MALE DURING TIME.—Takes place of female on nest—Feeds female on nest.

XIV. Young.

- IN NEST.
 - Position of feather tracts.
 - Times when eyes open.
 - Time spent in nest.
- CARED FOR BY PARENTS.—Food brought in bill— Food regurgitated.
- 3. CONDITION ON LEAVING NEST.
- 4. Notes and actions of young.
- 5. NESTLING PLUMAGE.

CLASSIFICATION.

Our birds are embraced in the following Orders and Families.

I. ORDER OF PERCHING BIRDS (Passeres).

- Family of Thrushes
 (Turdidæ)
 Bluebird
 American Robin
 Wood Thrush
 Wilson's Thrush; Veery
 Gray-cheeked Thrush
 Olive-backed Thrush
 Hermit Thrush
- Family of Kinglets and Gnatcatchers (Sylviidæ). Golden-crowned Kinglet Ruby-crowned Kinglet Blue-gray Gnatcatcher
- Family of Nuthatches and Tits (Paridæ).
 White-breasted Nuthatch Red-breasted Nuthatch Tufted Titmouse Chickadee
- 4. Family of Thrashers and
 Wrens (Troglodytidæ).
 Brown Thrasher
 Mockingbird
 Catbird
 Carolina Wren
 House Wren
 Long-billed Marsh Wren
- Family of Warblers (Mniotiltidæ).
 Black and White Warbler Worm-eating Warbler
 Blue-winged Warbler

- Parula Warbler
 Yellow Warbler
 Yellow-throated Warbler
 Pine Warbler
 Prairie Warbler
 Oven-bird; Golden-crowned
 Thrush
 Louisiana Water Thrush
 Kentucky Warbler
 Maryland Yellow-throat
 Yellow-breasted Chat
 American Redstart
- 6. Family of Vireos
 (Vireonidæ)
 Red-eyed Vireo
 Warbling Vireo
 Yellow-throated Vireo
 White-eyed Vireo
- Family of Waxwings (Ampelidæ).
 Cedar Waxwing
- 8. Family of Swallows
 (Hirundinidæ)
 Purple Martin
 Barn Swallow
 Eave Swallow
 Bank Swallow
 Rough-winged Swallow
- Family of Tanagers (Tanagridæ).
 Scarlet Tanager
 Summer Tanager

- Io. Family of Sparrows
 (Fringillidæ).
 American Goldfinch
 Vesper Sparrow
 Grasshopper Sparrow
 Henslow's Sparrow
 Chipping Sparrow
 Field Sparrow
 Song Sparrow
 Chewink; Towhee
 Cardinal
 Blue Grosbeak
 Indigo Bunting
 English Sparrow
- II. Family of Blackbirds and Orioles (Icteridæ). Bobolink; Reedbird Cowbird

Red-winged Blackbird Meadowlark Orchard Oriole Baltimore Oriole Purple Grackle

- 12. Family of Crows and Jays (Corvidæ). American Crow Fish Crow Blue Jay
- 13. Family of Flycatchers (Tyrannidæ). Kingbird Great Crested Flycatcher Phœbe Wood Pewee Acadian Flycatcher

II. ORDER OF GOATSUCKERS, ETC. (Macrochires).

- Family of Swifts
 (Micropodidæ).
 Chimney Swifts
- Family of Hummingbirds (Trochilidæ).
 Ruby-throated Hummingbird

 Family of Goatsuckers (Caprimulgidæ). Whip-poor-will Nighthawk

III. ORDER OF WOODPECKERS, ETC. (Pici).

I. Family of Woodpeckers (Picidæ). Downy Woodpecker Hairy Woodpecker Red-headed Woodpecker Pileated Woodpecker Red-bellied Woodpecker Flicker

IV. ORDER OF CUCKOOS, KINGFISHERS, ETC. (Coccyges).

 Family of Kingfishers (Alcedinidæ). Belted Kingfisher Family of Cuckoos (Cuculidæ).
 Yellow-billed Cuckoo
 Black-billed Cuckoo

V. ORDER OF BIRDS OF PREY (Raptores).

I. Family of Barn Owls (Strigidæ).

American Barn Owl

2. Family of Horned Owls, etc. (Bubonidæ). American Long-eared Owl Barred Owl: Hoot Owl Screech Owl Great Horned Owl

3. Family of Hawks and Eagles (Falconidæ).

Sharp-shinned Hawk Cooper's Hawk Red-tailed Hawk Red-shouldered Hawk Broad-winged Hawk Sparrow Hawk Marsh Hawk Fish Hawk Bald Eagle

4. Family of American Vultures (Cathartidæ). Buzzard: Turkev Vulture

VI. ORDER OF PIGEONS AND DOVES (Columbæ).

I. Family Columbidæ Mourning Dove; Turtle Dove

VII. ORDER OF GALLINACEOUS BIRDS (Gallinæ).

I. Family of Grouse, Bob-whites, 2. Family of Pheasants etc. (Tetraonidæ). (Phasianidæ). Bob-white: Quail Wild Turkey Ruffed Grouse Wild Turkey

VIII. ORDER OF SHORE BIRDS (Limicolæ).

I. Family of Snipes (Scolopacidæ). American Woodcock Spotted Sandpiper

2. Family of Plovers (Charadriidæ). Killdeer

IX. ORDER OF MARSH BIRDS (Paludicolæ).

I. Family of Rails. (Rallidæ). King Rail Virginia Rail

X. ORDER OF SWAMP BIRDS (Herodiones).

I. Family of Herons (Ardeidæ). Green Heron

Great Blue Heron Black-crowned Night Heron Least Bittern

XI. ORDER OF SWIMMING BIRDS (Anseres).

I. Family of Ducks, Geese and Swans (Anatidæ). Wood Duck Mallard Shoveller; Spoonbill Scaup Duck Whistler: Golden-eve Buffle-head: Butter-ball

American Merganser

Red-breasted Merganser Green-winged Teal Blue-winged Teal Pintail Red-head Canvas-back Ring-necked Duck Ruddy Duck Canada Goose

XII. ORDER OF LONG-WINGED SWIMMERS (Longipennes).

I. Family of Gulls and Terns (Laridæ). American Herring Gull; Sea Black Tern. Gull.

Ring-billed Gull Bonaparte's Gull

XIII. ORDER OF DIVING BIRDS (Pygopodes).

I. Family of Grebes (Podicipidæ). Horned Grebe Pied-billed Grebe 2. Family of Loons (Urinatoridæ). Loon.

LAW FOR THE PROTECTION OF BIRDS AND EGGS IN THE DISTRICT OF GOLUMBIA.

[Act of March 3, 1901—31 Statutes at Large, 1091.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled * * *

Section 3. That for the purposes of this Act the following only shall be considered game birds: The Anatidæ, commonly known as swans, geese, brant, river and sea ducks; the Rallidæ, commonly known as rails, coots, mud hens, and gallinules; the Limicolæ, commonly known as shore birds, plovers, surf birds, snipe, woodcock, sandpipers, tattlers, and curlews; the Gallinæ, commonly known as wild turkeys, grouse, prairie chickens, pheasants, partridges, and quails, and the species of Icteridæ, commonly known as marsh blackbirds and reed birds or rice birds.

That no person shall kill, catch, expose for sale, or have in his or her possession, living or dead, any wild bird other than a game bird, English sparrow, crow, Cooper's hawk, sharpshinned hawk, or great horned owl; nor rob the nest of any such wild bird of eggs or young; nor destroy such nest except in the clearing of land of trees or brush, under a penalty of five dollars for every such bird killed, caught, exposed for sale, or had in his or her possession, either dead or alive, and for each nest destroyed, and in default thereof to be imprisoned in the workhouse for a period not exceeding thirty days: Provided, That this section shall not apply to birds or eggs collected for scientific purposes under permits issued by the superintendent of police of the District of Columbia in accordance with such instructions as the secretary of the Smithsonian Institution may prescribe, such permits to be in force for one year from date of issue and non-transferable. That no person shall trap, net, or ensnare any waterfowl or other wild bird (except the English sparrow), or have in his or her possession any trap, snare, net, or illuminating device for the purpose of killing or capturing, any such bird, under a penalty of five dollars for each waterfowl or other wild bird (except the English sparrow) killed or captured, and in default thereof to be imprisoned in the workhouse not exceeding thirty days: *Provided*, That this Act shall not apply to birds, or animals heretofore stuffed or to birds or animals hereafter killed in open season and subsequently stuffed.

Section I, which relates to game birds, prescribes the following close seasons and penalties:

CLOSE SEASONS.

Ruffed grouse or pheasant, wild turkey .		Dec. 26-Nov. 1*
Woodcock		Jan. 1-July 1
Rail or ortolan, reed bird, marsh blackbird		Feb. 1—Sept. 1
Partridge or quail		Mar. 15 -Nov. 1
Prairie chicken or pinnated grouse		Mar. 15-Sept. 1
Wild duck, wild goose, brant, snipe, or plove	r	April 1—Sept. 1

*The open seasons may be found by reading these dates backward.

Penalties: For each ruffed grouse, wild turkey, woodcock, quail, prairie chicken, wild duck, wild goose, brant, snipe, or plover, killed, exposed for sale, or had in possession dead or alive, during the close season, a fine of \$5, or imprisonment 30 days to 6 months; for each rail, reed bird, or marsh blackbird, a fine of \$2, or imprisonment 15 days to 6 months.

INDEX

About Birds in General 21 Acadian Flycatcher 116 Accipiter cooperii 140 velox 188 Actitis macularia 152 Ægialitis vocifera 152 Agelaius pheniceus 100 Aix sponsa 155 Alder Flycatcher 169 Ammodramus henslowii 89 sandwichensis savanna 166 savannarum passerinus 89		Belted Piping Plover 183 Bewick's Wren 160 Bicknell's Thrush 178 Birds found in District of Columbia 178 migration of 156 of garden and orchard 19 of meadow and wild field 19 of roadside and fences 19 of the woods 19 seen in winter 189 size of 20 that show white in flying 19 Bittern American 173
Ampelis cedrorum 76		Least 154
Anas boschas 173		Black and White Warbler 59 Black and Yellow Warbler (see Mag-
carolinensis 173		nolia Warbler)
discors 174		Black-billed Cuckoo 131
Amonthura hiemalis 160		Blackbird
Amthus nonsilvanicus 101		Crow 105
Antrostomus vociferus 115		Marsh 100
Ardea		Red-winged 100
herodias 154 virescens 153		Rusty 169
Ardetta exilis 154		Yellow-headed 181 Blackburnian Warbler 163
Arkansas Kingbird 182		Black-crowned Night Heron 155
Asio		Black Duck 185
accipitrinus 170		Black-poll Warbler 163
wilconianus 133		Black Rail 184
A otrogralinus tristis 80		Black Skimmer 186
Audubon's Shearwater 100		Di-le From 176
Aythya		Black-throated Blue Warbler 162
americana 174		
collaris 175		Black-throated Butting 163
marila 174 vallisneria 174		Black Vulture 183
Vallisheria 1+1		Bluebird 41
Bachman's Sparrow 181		Blue Canary 96 Blue-gray Gnatcatcher 45
Bailey, Florence Merriam.	Intro-	Blue Grosbeak 95
duction 11		Blue-headed Vireo 165
Baird's Sandpiper 184		Blue Jay 108
Bald Eagle 147		Plus winged Teal 174
Raldnate 185		Blue-winged Warbler 60
Baltimore Oriole 103		Bobolink 109
Bank Swallow 82		Bob-white 149
Barn Owl, American 132		Bonaparte's Gull 176
Barn Swallow 80		Bonasa umbellus 150
Barred Owl 134 Barrow's Golden-eye 185		Botarus lentiginosus 173
Bartramia longicauda 172		Brant 186
Bartramian Sandpiper 172		Branta canadensis 175 Brewster's Warbler 179
Box-breasted Warbler 105		Brewster's Walbier 143 Broad-winged Hawk 143
Belted Kingfisher 128		Broad-Milled Trans-
20100		

Bronzed Grackle 182	C-1
Program Constitution 700	Colaptes auratus 127
Prown Creeper 100	Colinus virginianus 149
Brown Creeper 160 Brown Thrasher 49	Columbus assisted The
Brown Thrush 49	Colymbus auritus 177
Deile - 1-1 as	Common Tern 186
Brünnich's Murre 186	Compsothlypis americana 61
Bubo virginianus 136	Compositify pis afficiation of
Buffle-head 175	Connecticut Warbler 164
Dume-nead 1/5	Contopus virens 115
Bull Bat 120	Cooper's Hamle 140
Bunting	Cooper's Hawk 140
	Coot, American 172
Black-throated 168	Cormorant, Double-crested 186
Indigo (Indigo-bird) 96	Cormorant, Double-crested 186
Buteo	Corvus
	americanus 106
borealis 142	
	ossifragus 107
platypterus 143	Cowbird 98
lineatus 142	
Butter-ball 175	Crane, Sandhill 184
David Ball 110	Creeper, Brown 160
Buzzard 148	Crested Flyontohon (Crest Court 1)
	Creeper, Brown 160 Crested Flycatcher (Great Crested)
Canada Carra 155	112
Canada Goose 175	Crossbill
Canadian Warbler 165	
Canary	American 166
Canary	White-winged 180
Wild 87	Crow
Blue 96	
	American 106
Canvas-back 174	Fish 107
Cape May Warbler 161	
Condinal Of	Crow Blackbird 105
Cardinal 91	Cuckoo
Cardinalis cardinalis 94	
Carolina Chickadee 47	Black-billed 131
Carotina Chickadee 47	Yellow-billed 130
Carolina Paroquet 182	Curlow Long bill-1 104
Carolina Wren 53	Curlew, Long-billed 184
	Cyanocitta cristata 108
Carpodacus purpureus 166	Cyanospiza Cyanea 96
Caspian Tern 186	Cyanospiza Cyanea 90
Cathird 52	
	Dafila acuta 174
Cathartes aura 148	Dendroica
Cedar Waxwing 76	
Cedal Waxwing 10	æstiva 61
Ceophlœus pileatus 125	blackburniæ 163
Certhia familiaris americana 160	
	cærulescens 162
Cerulean Warbler 179	castanea 162
Ceryle alcyon 128	
Chature polonice 117	coronata 162
Chætura pelagica 117	discolor 63
Chapman, Frank M., Field Key 25	dominica 62
Charitonetta albeola 175	
Classic Classi	maculosa 162
Chat, Yellow-breasted 69	palmarum 164
Chebec 169	mal
	palmarum hypochrysea 164
Chestnut-sided Warbler 162	pensylvanica 162
Chewink (Towhee) 93	striata 163
Chickadee 178	
	tigrina 161
Chickadee, Carolina 47	vigorsii 63
Chicken Hawk 140	
	virens 163
Chimney Swallow 117	Dickeissel 168
Chimney Swift 117	Dipper 177
Chipping Sparrow 90 Chippy, Winter 167	Dibber 111
Olipping Sparrow 90	Dolichonyx oryzivorus 169
Chippy, Winter 167	Double-crested Cormorant 186
Chordeiles virginianus 120	Down
Circus hudening 140	Dove
Circus hudsonius 146	Ground 183
Cistothorus palustris 56	Mourning 148
Clangula clangula americana 175	m. 17 at 10
Ol Pail angula americana 175	Turtle 148
Clapper Rail 184	Dowitcher 184
Classification 197	
	Long-billed 184
Cliff Swallow 81	Downy Woodpecker 122
Clivicola riparia 82	Drychates
	Dryobates
Coccyzus	pubescens 122
americanus 130	villosus 122
erythrophthalmus 131	Day-1-
Cook of the Woods 101	Duck
Cock-of-the-Woods 125	American Scaup 174

Duck	Glossy Ibis 185
Black 185	Gnatcatcher, Blue-gray 45
Fish 173	Golden-crowned Kinglet 160 Golden-crowned Thrush 64
Lesser Scaup 185	Golden-crowned Thrush 64
Ringed-necked 175	Golden Eagle 183
Ruddy 175	Golden-eye
Wood 155	American 175
Duck Hawk 183	Golden-eye
Family	Barrow's 185
Eagle Bald 147	Golden Warbler (see Yellow Warb-
Golden 183	Golden-winged Warbler 161
Eave Swallow 81	Goldfinch, American 86
Egret, American 185	Goose
Eider, American 185	Canada 175
Empidonax	Wild 175
flaviventris 169	Goosander 173
minimus 169	Goshawk, American 183
traillii alnorum 169	Grackle
virescens 116	Bronzed 182
English Sparrow 96	Purple 105
Erismatura jamaicensis 175	Grass Finch 88
European Teal 185	Grasshopper Sparrow 89
77-1	Gray-cheeked Thrush 159
Falco columbarius 170	Great Blue Heron 154
sparverius 145	Great Crested Flycatcher 112 Greater Yellow-legs 171
Field Key (F. M. Chapman) 25	Great Horned Owl 136
Field Sparrow 91	Grebe
Finches 86	Holbæll's 186
Finch	Horned 177
Grass 88	Pied-billed 177
Purple 166	Green-crested Flycatcher 116
Fish Crow 107	Green Heron 153
Fish Duck 173	Greenlets 71
Fish Hawk 146	Green-winged Teal 173
Flicker 127	Grinnell's Water-Thrush 180
Flycatchers 110	Grosbeaks 86
Flycatcher	Grosbeak
Acadian 116 Alder 169	Blue 95 Cardinal 94
Great-crested 112	Pine 180
Green-crested 116	Rose-breasted 168
Least 169	Ground Dove 183
Olive-sided 182	Ground Robin 94
Scissor-tailed 182	Grouse, Ruffed 150
Yellow-bellied 169	Guiraca cærulea 95
Fly-up-the-Creek 153	Gull
Florida Gallinule 184	American Herring 176
Forster's Tern 186	Bonaparte's 176
Fox Sparrow 167	Laughing 186
Fresh-water Marsh Hen 153	Ring-billed 176
Fulica americana 172	Sea 176 Gull-billed Tern 186
Gadwall 185	Guir-bined Telli 100
Galeoscoptes carolinensis 52	Habia ludoviciana 168
Gallinago delicata 171	Hairbird 90
Gallinule, Florida 184	Hairy Woodpecker 122
Game Law of D. C. 201	Haliæetus leucocephalus 147
Gavia imber 176	Harporhynchus rufus 49
Geothlypis	Harrier 146
agilis 164	Hawaiian Petrel 186
formosa 66	Hawks 137
philadelphia 164	Hawk
trichas 68	American Rough-legged 183

Hawk	1 771-1
Broad-winged 143	Kinglet
Cooper's (Chicken Hawk) 140	Golden-crowned 160 Ruby-crowned 159
Duck 183	King Rail 153
Fish 146	Kirtland's Warbler 179
Marsh 146	Kite, Swallow-tailed 183
Pigeon 170	,
Red-shouldered 142	Lanius ludovicianus migrans 165
Red-tailed 142	Lapland Longspur 180
Sharp-shinned 138 Sparrow 144	Lark
Helminthophila	Horned 169
chrysoptera 161	Prairie Horned 182
peregrina 161	Shore (Horned Lark) 169
pinus 60	Lark Sparrow 181
rubricapilla 161	Larus
Helmitherus vermivorus 59	argentatus smithsonianus 176 delawarensis 176
Helodromas solitarius 172	philadelphia 176
Henslow's Sparrow 89	Laughing Gull 186
Hermit Thrush 159 Heron	Leach's Petrel 186
Black-crowned Night 155	Least Bittern 154
Great Blue 154	Least Flycatcher 169
Little Blue 185	Least Sandpiper 171
Green 153	Least Tern 186
Snowy 185	Lesser Scaup Duck 185
Yellow-crowned Night 185	Lincoln's Sparrow 167
Hick-up Bird 116	Little Blue Heron 185 Local Lists 189
Hirundo erythrogastra 80	Loggerhead Shrike (Migrant Shrike)
Holbæll's Grebe 186	180
Hooded Merganser 185 Hooded Warbler 164	Long-billed Curlew 184
Hoot Owl 134	Long-billed Dowitcher 184
Horned Grebe 177	Long-billed Marsh Wren 56
Horned Lark 169	Long-cared Owl, American 133
Prairie 182	Longspur, Lapland 180 Loon 176
House Sparrow 96	Red-throated 186
House Wren 55	Louisiana Water-Thrush 65
How to Attract Birds to Houses 187 Hummingbird, Ruby-throated 118	Loxia curvirostra minor 166
Hydrochelidon nigra surinamensis	
176	Magnolia Warbler 162
	Mallard 173
Ibis	Marsh Blackbird 100
Glossy 185	Marsh Hawk 146
Wood 185	Marsh Robin 94 Martin, Purple 78
Icteria virens 69 Icterus	Maryland Yellow-throat 68
galbula 103	Meadowlark 102
spurius 104	Megascops asio 135
Indian Hen 173	Melancrpes
Indigo Bunting (Indigo-bird) 96	carolinus 125
	erythrocephalus 123
Jay, Blue 108	Meleagris gallopavo 151 Melospiza
Junco	melodia 92
Shufeldt's 181	georgiana 167
Slate-colored 167	lineolnii 167
Junco hyemalis 167	Merganser
Kentucky Washles co	American 173
Kentucky Warbler 66 Killdeer 152	Hooded 185
Kingbird 111	Red-breasted 173 Merganser
Arkansas 182	americanus 173
Kingfisher, Belted 128	serrator 173

Merriam, Florence A. Observation Outline 194 Merula migratoria 42 Migrant Shrike (Loggerhead Shrike) 165 Migrants 159 Migration of Birds 156 Mimus polyglottos 50 Mniotilta varia 59 Mockingbird 50 Mocking Wren 53 Molothrus ater 98 Monkey-faced Owl 132 Mourning Dove 148 Mourning Warbler 164 Mud Hen 172 Murre, Brünnich's 186 Myiarchus crinitus 112 Myrtle Warbler 162

Nashville Warbler 161
Nelson's Sparrow 181
Nighthawk 120
Northern Phalarope 184
Northern Shrike 180
Nuthatch
Red-breasted 160
White-breasted 48
Nyctala acadica 170
Nyctea nyctea 170
Nyctear nycticorax nævius 155

Observation Outline
Florence A. Merriam 192
Old-squaw 185
Olive-backed Thrush 159
Olive-sided Flycatcher 182
Orange-crowned Warbler 179
Orchard Oriole 104
Orders and Families 197
Oriole
Bultimore 103

Baltimore 103 Orchard 104 Ortolan 172 Osprey, American 146 Otocoris alpestris 169 Oven-bird 64 Owls 132 Owl

American Barn 132 American Long-eared 133 Barred 134 Great Horned 136 Hoot 131 Monkey-faced 132 Saw-whet 170 Screech 135 Short-eared 170 Snowy 170

Palm Warbler 164 Pandion haliaëtus carolinensis 146 Paroquet, Carolina 182 Partridge 149 Parula Warbler 61 Parus bicolor 46 Parus carolinensis 47 Passenger Pigeon 183 Passer domesticus 96 Passarella iliaca 167 Peabody Bird 167 Pectoral Sandpiper 171 Pelican, American White 186 Petrel Hawaiian 186 Leach's 186 Wilson's 186 Petrochelidon lunifrons 81 Pewee, Wood 115 Phalarope Northern 184 Red 184 Philadelphia Vireo 165 Philohela minor 151 Phœbe 114 Pied-billed Grebe 177 Pigeon Hawk 170 Pigeon, Passenger 183 Pileated Woodpecker 125 Pine Grosbcak 180 Pine Siskin 166 Pine Warbler 63 Pintail 174 Pipilo erythrophthalmus 93 Finit, American 161 Piranga erythromelas 84 rubra 85 Piover American Golden 183 Belted Piping 183 Semipalmated 183 Upland 172 Poditýmbus podiceps 177 Polioptila cærulea 45 Poocætes gramineus 88 Porzana carolina 172 Prairie Horned Lark 182

Poocætes gramineus 88
Porzana carolina 172
Prairie Horned Lark 182
Prairie Warbler 63
Progne subis 78
Prothonotary Warbler 179
Purple Finch 166
Purple Grackle 105
Purple Martin 78
Ouail 149

Quawk 155 Cuiscalus quiscula 105

Black 184 Clapper 184 King 153 Virginia 172 Yellow 184 Rain Crow 130 Rallus

Rail

elegans 153 virginianus 172 Red-backed Sandpiper 184

Red-bellied Woodpecker 125	Seiurus	
Red-bird, Virginia 94	aurocapillus 64	
Ked-breasted Merganser 173	motacilla 65	
Red-breasted Nuthatch 160	noveboracensis 164	
Red-eyed Vireo 71	Semipalmated Plover 183	
Redhead 174	Semipalmated Sandpiper 184	
Red-headed Woodpecker 123		
	Setophaga ruticilla 70	
Red Phalarope 184	Sharp-shinned Hawk 138	
Redpoll 180	Shearwater, Audubon's 186 Shore Lark 169	
Red-shouldered Hawk 142	Shore Lark 109	
Redstart, American 70	Short-billed Marsh Wren 179	
Red-tailed Hawk 142	Short-cared Owl 170	
Red-throated Loon 186	Shoveller 174	
Red-winged Blackbird 100	Shufeldt's Junco 181	
Reed-bird 169	Snrike	
Regulus	Loggerhead (Migrant Shrike)	
calendula 159	180	
satrapa 160	Migrant 165	
Rice-bird 169	Northern 180	
Richmond, Dr. C. W.	Sialia sialis 41	
List of Birds found in District	Siskin, Pine 166	
of Columbia 178	Sitta	
Ring-billed Gull 176	canadensis 160	
Ring-necked Duck 175	carolinensis 48	
Robin, American 42	Size of Birds 40	
Rook 175	Skimmer, Black 186	
Rose-breasted Grosbeak 168	Slate-colored Junco 167	
Rough-winged Swallow 83	Snipe, Wilson's 171	
	Snowbird 167	
Ruby-crowned Kinglet 159	Snowflake 180	
Ruby-throated Hummingbird 118		
Ruddy Duck 175	Snowy Heron 185	
Ruff 184	Snowy Owl 170	
Ruffed Grouse 150	Solitary Sandpiper 172	
Rusty Blackbird 169	Song Sparrow 92	
	Sora 172	
Sanderling 184	Sparrows 86	
Sandhill Crane 184	Sparrow	
Sandpiper	Bachman's 181	
Baird's 184	Chipping 90	
Bartramian 172	English 96	
Least 171	Field 91	
Pectoral 171	Fox 167	
Red-backed 184	Grasshopper 89	
Semipalmated 184	Henslow's 89	
Solitary 172	House 96	
Spotted 152	Lark 181	
Stilt 184	Lincoln's 167	
Western 184	Nelson's 181	
Sapsucker, Yellow-bellied 170	Savanna 166	
Savanna Sparrow 166	Song 92	
Saw-whet Owl 170	Swamp 167	
	Tree 167	
Sayornis phæbe 114	Vesper 88	
Scarlet Tanager 84	White-crowned 166	
Scaup Duck	White-throated 167	
American 174	Yellow-winged 89	
Lesser 185	Sparrow Hawk 144	
Scissor-tailed Flycatcher 182	Spatula clypeata 174	
Scolecophagus carolinus 169	Sphyrapicus varius 170	
Scoter	Spinus pinus 166	
American 185	Spiza americana 168	
Surf 185	Spizella	
White-winged 185	pusilla 91	
Screech Owl 135	monticola 167	
Sea Gull 176	socialis 90	
New Odd. 110	BOCIAIIS OU	

Spoonbill 174	Tringa
Snotted Sandpiper 152	maculata 171
Stelgidopteryx serripennis 83	minutilla 171
Stilt Sandpiper 184	Trochilus colubris 118
Strix pratincola 132	Troglodytes aëdon 55
Sturnella magna 102	Tufted Titmouse 46
Summer Tanager 95	Turdus
Summer Tanager 85 Summer Yellowbird 61 Summer Yellow-legs 172	
Summer Yellowbird 61	aliciæ 159
Summer Yellow-legs 172	aonalaschkæ pallasii 159
Surf Scoter 185	fuscescens 159
Swallows 78	mustelinus 44
Swallow	
	ustulatus swainsonii 159
Bank 82	Turnstone 183
Barn 80	Turkey Vulture 148
Cliff 81	Turkey, Wild 151
Eave 81	Turkey Vulture 148 Turkey, Wild 151 Turtle Dove 148
Rough-winged 83	Tyrannus tyrannus 111
Tree 165	
White-bellied 165	Upland Plover 172
Swallow-tailed Kite 183	Usnea Warbler 179
Swamp Sparrow 167	O SILCE THE SILCE TO
Cusaman Bahin 04	V 150
Swamp Robin 94	Veery 159
Swamp Robin 94 Swan, Whistling 186 Swift, Chimney 117	Vesper Sparrow 88
Swift, Chimney 117	Vireos 71
Syrnium nebulosum 134	Vireo
ng the and another and	Blue-headed 165
W1	
Tachycineta bicolor 165	Philadelphia 165
Tanager	Red-eyed 71
Scarlet 84	Warbling 72
Summer 85	White-eyed 74
Teal	Yellow-throated 73
Blue-winged 174	flavifrons 73
European 185	gilvus 72
Green-winged 173	noveboracensis 74
Tennessee Warbler 161	olivaceus 71
Tern	
	philadelphicus 165
Black 176	solitarius 165
Caspian 186	Virginia Rail 172
Common 186	Virginia Red-Bird 94
Forster's 186	Vulture
Gull-billed 186	Black 183
Least 186	
	Turkey 148
Thistle-bird 86	
Thrasher, Brown 49	Warblers 58
Thrushes 40	Warbler
Thrush	
Bicknell's 178	Bay-breasted 163
	Black and White 59
Brown 49	Black and Yellow (see Magnolia
Golden-crowned 64	Warbler)
Gray-cheeked 159	Blackburnian 163
Hermit 159	Black-poll 163
Olive-backed 159	
Wilson's 159	Black-throated Blue 162
	Black-throated Green 163
Wood 44	Blue-winged 60
Thryomanes bewickii 160	Brewster's 179
Thryothorus ludovicianus 53	Canadian 165
Tilt-up 152	
Titlows 101	Cape May 161
Titlark 161	Cerulean 179
Titmouse, Tufted 46	Chestnut-sided 162
Totanus	Connecticut 164
flavipes 172	Golden-winged 161
melanoleucus 171	
	Golden (see Yellow Warbler)
Towhee (Chewink) 93	Hooded 164
Tree Sparrow 167	Kentucky 66
Tree Swallow 165	Kirtland's 179

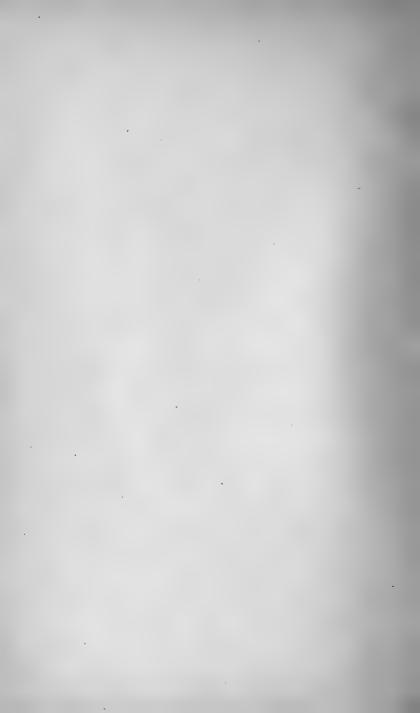
Warbler	
Magnolia 162	
Mourning 164	
Myrtle 162	
Nashville 161	
Orange-crowned 1	79
Palm 164	
Parula 61	
Pine 63	
Prairie 63	
Prothonotary 179	
Tennessee 161	
Usnea 179	
Wilson's 165	
Worm-eating 59	
Yellow 61	
Yellow Palm 164	_
Yellow-rumped 16	
Yellow-throated 6	2
Warbling Vireo 72	
Water-Thrush 164	
Grinnell's 180 Louisiana 65	
Waxwing, Cedar 76 Western Sandpiper 18	4
Whip-poor-will 119	±
Whistler 175	
Whistling Swan 186	
White-bellied Swallow	165
White-breasted Nutha	
White-crowned Sparro	
White-eyed Vireo 74	200
White-throated Sparro	w 167
White-winged Crossbi	
White-winged Scoter	
Widgeon 185	
Wild Canary 87	
Wild Goose 175	
Wild Turkey 151	
Willet 184	
Wilsonia	
canadensis 165	
mitrata 164	
pusilla 165	
Wilson's Petrel 186	
Wilson's Snipe 171	
Wilson's Thrush 159	
Wilson's Warbler 165	
Winter Chippy 167	

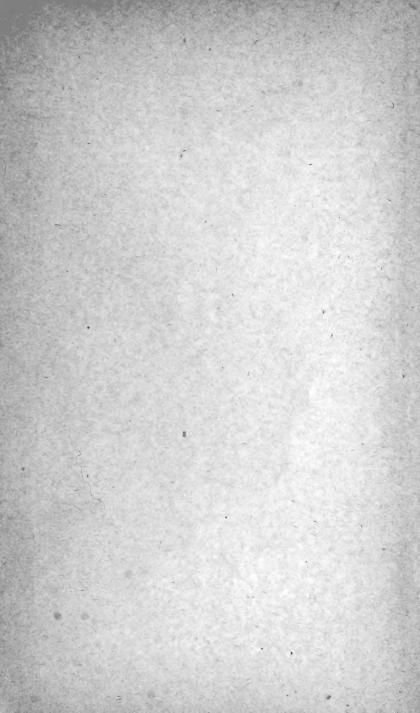
```
Winter Residents 159
Winter Wren 160
Woodcock, American 151
Wood Duck 155
Wood Ibis 185
Wood Thrush 44
Woodpeckers 121
Woodpecker
    Downy 122
Hairy 122
Pileated 125
    Red-bellied 125
Red-headed 123
Wood Pewee 115
Worm-eating Warbler 59
Wren
     Bewick's 160
     Carolina 53
     House 55
     Long-billed Marsh 56
    Mocking 53
Short-billed Marsh 179
   Winter 160
```

Yellow-bellied Flycatcher 169
Yellow-bellied Sapsucker 170
Yellow-billed Cuckoo 130
Yellow-breasted Chat 69
Yellow-breasted Chat 69
Yellow-headed Blackbird 181
Yellow-legs 172
Greater 171
Summer 172
Yellow Palm Warbler 164
Yellow Rail 184
Yellow-rumped Warbler 162
1ellow-shanks 171
Yellow-throated Vireo 73
Yellow-throated Vireo 73
Yellow-throated Marbler 62
Yellow Warbler 61
Yellow Warbler 61
Yellow-winged Sparrow 89

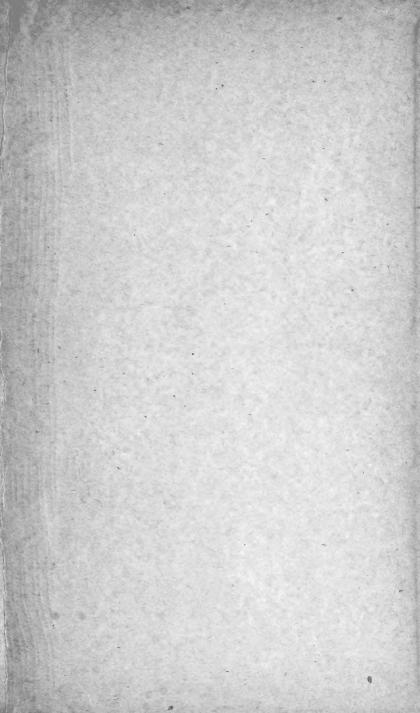
Zenaidura macroura 148 Zonotrichia albicollis 167 leucophrys 166













150 160 % selections and Calaba