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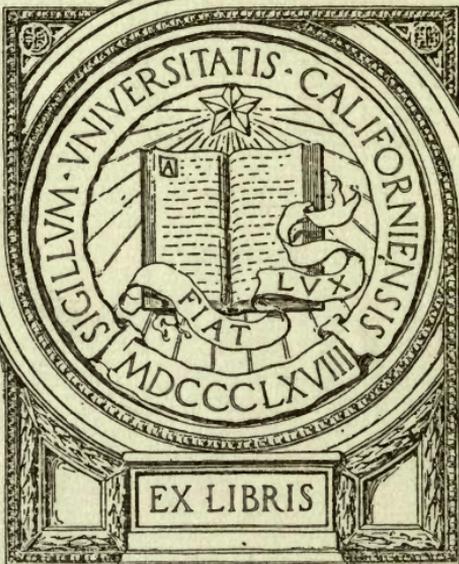
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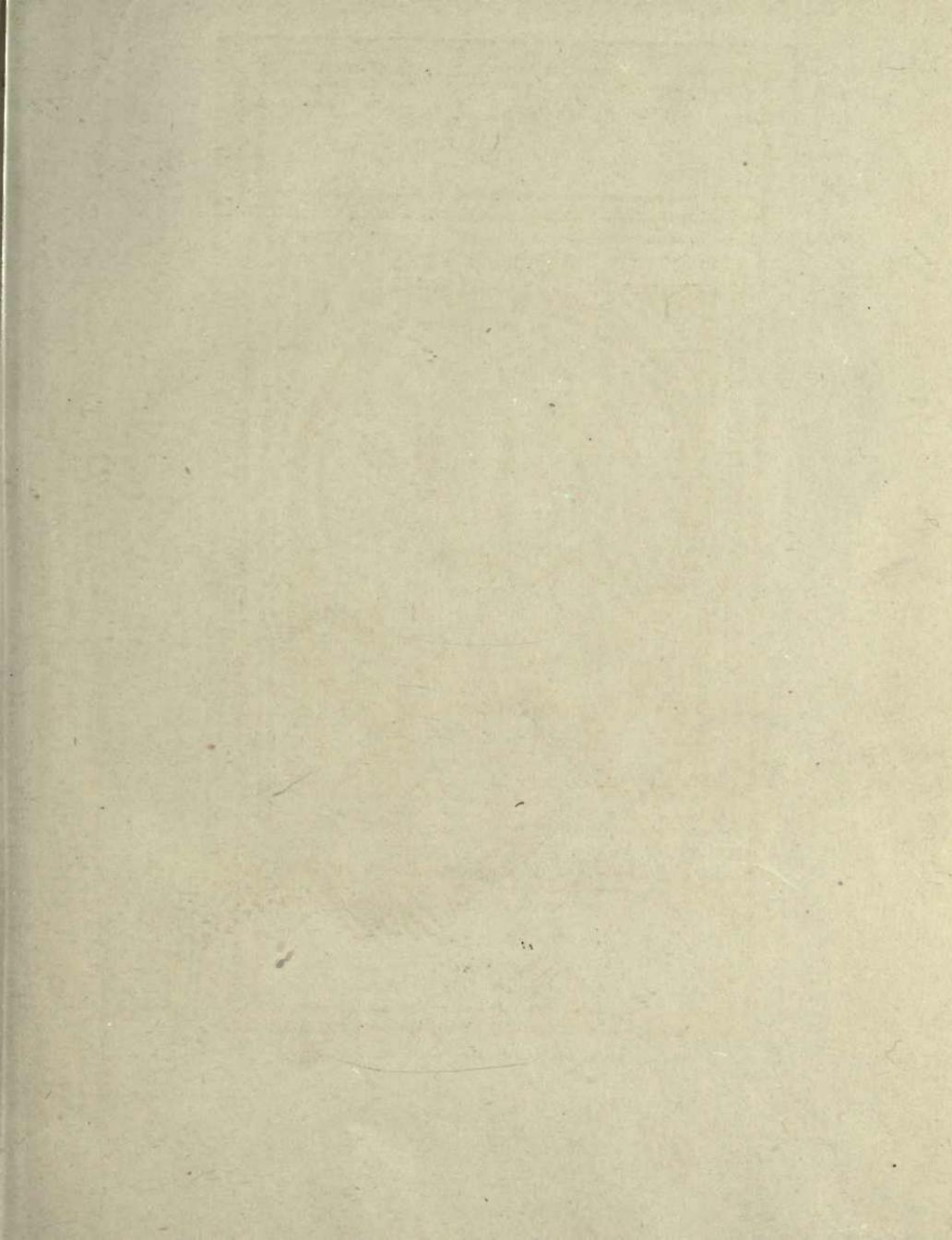
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*Part of the stage setting for the spring pageant of birds in Swope Park*



# BIRDS OF SWOPE PARK



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ANNALS

# BIRDS OF SWOPE PARK

IN THE HEART OF AMERICA

KANSAS CITY, MO.

BY

ALBERT E. SHIRLING, M. A.

Associate Member American Ornithologist Union;

Director of Natural Sciences in Teacher's

College, Kansas City, Mo.



*Illustrated*



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*"It seems as if one never gets to the end of all the delightful things there are to know and to observe and to speculate about in the world."*

\* \* \*

*"The casual glances or the admiring glances that we cast upon nature do not go very far in making us acquainted with her real ways."*

\* \* \*

*"Close scrutiny of an object in nature will nearly always yield some significant fact that our admiring gaze did not take in."*

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*Fig. 1—General View of Swope Park on a Holiday*

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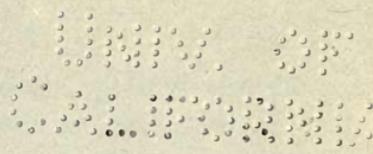
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*Fig. 2—Purple Coneflowers on the Prairie*



## INTRODUCTION

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Living at the very border of Swope Park, Kansas City, Mo., I have opportunity for making frequent excursions into its remote regions as well as opportunity for viewing the crowds and attractions of its more frequented portions. I have mingled with the thousands of human beings that thronged to view some attractions staged for the entertainment or education of the populace. Again, I have wandered for hours all alone in the various parts of the Park, and thus have been able to see certain beauties and attractions in this magnificent playground that those who mingle only with the crowds fail to see, or those who journey only in motor cars fail to hear.

With no reflection on the pleasures of the picnic crowd or on the value of the artificial attractions that are brought to the Park, I have frequently felt that the public generally, failed to realize some of the natural beauties and items of interest that this great Park holds in store for the nature lover who has learned to read the wonders of Nature's ways, and who has realized the solace of her secrets.

There are many phases of Nature study, and it is a puzzling question to decide which phase is the most interesting. Birds, in many ways impress themselves more prominently upon the casual observer, and so are, perhaps, of greater popular interest. Of almost equal common interest are the

flowers and the trees. Insects appeal strongly to the few who have had an introduction to their study, and even reptiles and mammals have secrets that are worth knowing.

Finally, after some hesitancy, I determined to re-write and re-arrange some rather extensive notes taken during the past few years relative to the birds of Swope Park; hoping thus to call the attention of a few more people to the pleasures that may be enjoyed through an appreciation of Nature. This appreciation, by the way, cannot be obtained through mere reading, but must be attained through patient looking and listening, and by frequent rambling alone or in small groups through the country. Books help, but it is the personal observation and experience that awaken the real spirit of response.

The discussion of Swope Park birds that follows is primarily a study of the species found in the Park during the summer, and hence they are classed as nesting birds. The discussion deals not only with the different species but also with the numbers of each species. Moreover, these are considered not only for the Park as a whole, but also for the different regions of the Park. This gives opportunity for comparisons, and for conclusions as to the conditions more favorable for bird population, and for the distribution of species.

The study would be incomplete without at least some mention of other birds of the Park besides those found nesting here; and hence some lesser consideration is given to the winter residents, and to those spring and autumn travelers that pay us a brief semi-annual visit.

There may be some readers of this report who are not

familiar with the appearance of the birds mentioned. It is suggested that those read it with some set of colored bird pictures at hand for reference. These colored bird pictures and descriptions of birds are now so readily obtained that no attempt has been made to burden this report with such detailed descriptions as would be necessary for identification of the different birds referred to.

Before leaving this introduction, I wish to state my appreciation of the help given me by other bird students and lovers of Nature. Mr. B. M. Stigall first initiated me into the secrets of Nature and gave me a taste of the joys of rambles through the woods when one is in tune and harmony with the world about. I am fortunate in having had his good influence. Mr. J. W. Baumgartner of the University of Kansas, next gave me the influence of his unselfish interest, urging me to make the special bird study as recorded in this book. Mr. Harry Harris and Mr. Ralph Hoffmann, both experts in bird study, gave much personal help in field work as well as their own personal records and lists. I shall never forget the pleasant excursions taken with these gentlemen. Mr. A. F. Smithson and Mr. Walter Cunningham also were of help in furnishing data concerning some of the Swope Park Birds.

The Kansas City Park Board very kindly gave me the use of their plates for figures 1, 4, 5, 6, 10, 11, 16, 19 and 25. The other figures are from my own photographs.

A. E. S.

GENERAL ECOLOGY OF SWOPE PARK

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As is well known, the general distribution of birds depends to a great extent on their surroundings. The presence or absence of water in the form of streams, lakes or marshes, and the dryness of the soil are of great importance with reference to the species that make up the bird population.

The general character of the vegetation, whether wooded, brushy or open; whether native prairie or cultivated land, is also an important factor in bird distribution and numbers. Even the species of plants that occur are important in that they furnish food and shelter for certain species of birds. For instance; the pine trees with their cones invite the Crossbills; the tall hedge rows lure the Shrike, and the shrubby thickets attract the Thrasher and the Catbird. Moreover, the presence or absence of man with his improvements has come to be a very important factor in bird distribution and numbers. All these factors of environment are collectively referred to as *Ecological Factors*.

Swope Park is located in the extreme southeast part of Kansas City, Missouri. It covers an area of thirteen hundred thirty-two acres.

The greater part of this area is wooded upland with hills having rather steep slopes. The hills were formed by the erosion of the Blue River that flows through the Park and by a number of smaller streams that find their way to the Blue and thence to the Missouri River.

The larger of these streams, especially the Blue River, have rich alluvial flood plains, covered for the most part with

a heavy growth of deciduous trees, including giant American elms, cork elms, sycamore, silver maple, walnut, hackberry, honey locust, coffee bean, ash, various oaks, four species of hickory, and other trees. There are also smaller trees like the buckeye, hop-hornbeam, redbud, dogwood, the haws and wild crab.

Covering the crests of the hills the soil is underlaid near the surface with Bethany Falls limestone, which crops out in ragged cliffs near the brow of the hills. In many places great fragments of the ledge have broken off and have slid a distance down the hills, the whole giving a picturesque wildness of scenery that is delightful.

The soil covering the upper hill slopes is so shallow that it becomes quite dry during dry summers and the vegetation is of a type that can endure such drouth. The predominating trees for these dryer regions are post oak and black oak with quite a sprinkling of other species that are more abundant in the valleys and on the slopes. In the more barren portions, the post oak is dwarfed to a mere shrub, while in more favored regions it grows to a height of forty feet or more.

A miscellaneous collection of vines and shrubs form a second strata of vegetation among the trees. Those of most prominence are the dogwoods, wahoo, buckbrush, bladder-nut, and wild gooseberry among the shrubs, and Virginia creeper, poison ivy, bitter-sweet, wild grape and wild smilax for the vines. There are also many herbaceous perennials, some of them being beautiful "wild flowers" when in bloom. This undergrowth of vegetation is undisturbed in much of the Park.

In the extreme south part of the Park there is a ridge



*Fig. 3—Prairie South of the Rifle Range*

where the timber belt merges into the prairie. (See Fig. 3.) Here we find some primeval prairie vegetation. This is an interesting region, where the timber and prairie meet—interesting not only for its vegetation and bird life, but also interesting because of the most beautiful of panoramic views of rolling piles of green forest-clad hills and swaths of green valleys in the distance, and with park-like clumps of trees scattered over the prairie border in the foreground.

There are two broad, natural meadows in the Park; one, about sixty acres in extent, spreads out at the foot of the prairie-topped hills just mentioned; the other, of about equal extent, lies near the mid-western portion, and was formed by the shifting of the Blue River.

This second meadow has now been artificially changed. A bit of dredging, and the building of a short dam has formed the Lagoon out of what was once a horseshoe bend of the Blue River. A boathouse has been constructed, and an athletic field with polo grounds has been laid out over the level expanse of natural blue grass sod. (See Fig. 10.) This artificiality, together with the number of people that now frequent the region, prevents it from being the haunt of birds that it was a few years ago.

A few years ago a brushy swamp extended along the present route of the Lagoon, and a rank meadow lay off to the west. In those days it was a bird paradise. Redwinged Blackbirds bound their nests to the reeds, and Meadowlarks and Dickcissels hid their homes in the tall grass. Mice and shrews dug branching runways arched over with dead grass,

while Marsh Hawks soared high then low as they searched the meadow for their rodent prey.

Two other cleared tracts should be mentioned: These are the golf courses; one east of the Pavillion at the west entrance of the Park, the other to the far east across the Blue River. Here the grass is close-cropped, and there are few opportunities for birds to hide their nests.

A considerable part of the territory about the Pavillion and the golf course is bordered with clumps of horticultural varieties of shrubs, and in some parts with a natural growth of buckbrush, sumach and native trees of crab and red haw, and clumps of evergreens, making excellent cover for certain species of birds.

The opportunities for water birds in the Park are but limited. The Blue River is too small to be of much attraction to them, and the Lagoon and the Lake of the Woods are both relatively small, and are lined with too many human fishermen to offer any inducement to the birds. It is true, however, that a few Green Herons fish along the Blue, and a Kingfisher or two frequent the Lake of the Woods. During severe weather of early migration, when few people are in the Park, weary waterfowl occasionally rest on these small bodies of water, and a few shore birds wade out in the shallows and probe the mud for snails and insect larvae.

To summarize: of the one thousand three hundred thirty-two acres in the Park, approximately five hundred fifty acres are lowland, of which four hundred acres are wooded and one hundred fifty acres cleared. About seven hundred ninety acres are hilly upland, some of it quite rough, of which five hundred

fifty acres are wooded and two hundred acres cleared. Or, again, nine hundred forty acres are wooded, and four hundred acres are open.



## GENERAL DISTRIBUTION OF BIRDS WITH REFERENCE TO ECOLOGICAL REGIONS

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The chief ways in which the bird life is related to the ecology of a region is through the dependence of the birds upon their environment for food, for nesting sites, and for shelter from the weather and protection from their enemies.

Different species of birds have different feeding habits. Some are insect eaters, some seed eaters. Some get their food from the water, some from the ground, others from the trees, and some are birds of prey. Birds like the Downy Woodpecker, Nuthatch, Creeper, Chickadee and Titmouse, get their insect food from the trunks and branches of the trees, while the Vireos, most of the Warblers, the Orioles and others, search the foliage for their insect food. These birds may be looked for among the trees and shrubs. The Meadowlark, Towhee, Grackle, Robin, Water-thrush, Dickcissel and Quail are types of birds that get their food from the ground, and so far as food alone is concerned, they might well be found in either field or wood. But other conditions interfere, and dur-

ing the nesting season, we find that the Wood Thrush, Towhee and Water-thrush, for instance, confine themselves to the region of shrubs and trees, while the Quail, the Dickcissel, the Meadowlark and Horned Lark hide their nests in the grasses of the fields and meadows.

Then there are the Flycatchers and the Swifts and the Nighthawks and the Swallows—birds that find insect food in the air while on the wing. One would think that it would make but little difference to them whether they were in the field or wood, and to some extent, they do have a wider range, but again other factors beside food give some preference as to the regions they inhabit.

Of almost equal importance with food as a factor in bird distribution, is their choice of environment for their nesting sites. Some species seem to prefer the protection offered by proximity to man, while others shun human beings and all marks of civilization, and are being driven to narrower and narrower quarters by the encroachment of mankind. This latter is becoming of serious consequence with reference to the continuation of certain species in a community. More mention will be made of this in the discussion of the different regions of Swope Park.

With the great majority of birds we find no appreciable change from their nesting habits of the past. The Thrasher and the Catbird will nest only in those yards that are supplied with a tangle of vines and shrubbery. Bell's Vireo is found only in connection with low bushes of the more open places. The Meadowlark has not been known to desert the ground be-

cause of the mower and the plow; the Kingfisher must still have a bank for his burrow and the Cardinal a bush for his lodge.

There are always exceptions to rules, and the rules are sometimes so greatly modified that by and by the modifica-



*Fig. 4—Music Pavilion*

tion becomes the rule and the old rule becomes the exception. We find this quite true in bird life. We are all quite well aware of the fact that birds have modified their nesting habits. The Eave Swallow that once used the rocks and banks, now uses human structures for the support of its clay-jug nests.

The Chimney Swifts have deserted the hollow trees for the chimneys. Martins and Wrens are almost entirely dependent for nesting places provided for by man.

In other cases the rule of the past is still the rule, with only an occasional exception. For instance, the Carolina Wren is still most frequently found nesting along wooded streams in brush piles and old stumps, but I have found its nest in a box of old junk in a wagon shed near a farm house. The Mourning Dove that usually nests in shrubs and trees, sometimes builds on the ground. I have found its nest on a projecting ledge of moss-covered rock. More unusual still, as it appears to me, is the case of a Prothonotary Warbler reported by an observer, who found this bird starting a nest in a tin can which was tacked above a rain barrel. The Prothonotary's attempt, however, was a failure, for a wren appeared and was too vigorous in his dispute over the nesting site. These exceptions and modifications could be extended to great length.

Of more interest and concern to us, is the fact that some species, like the Robin, Martin, House Wren, Bluebird, Kingbird, Mockingbird, Catbird, Red-headed Woodpecker, and others, have left the woods and secluded regions to nest in door yards and orchards near to human beings.

While the choice of nesting sites is often a matter of convenience, and while the usual styles are modified in particular instances, yet they are never completely revolutionized. The Martin and the Wren and the Red-headed Woodpecker may have a change of environment, but their nesting instincts are not so completely changed that the Red-head will build an

open nest of grass and twigs, nor the Robin leave his plastered house for a Woodpecker's hole.

To some extent we find that birds have changed their feeding habits to adapt themselves to their changed environment. The Flicker that is now more frequently found in the open, scattered groves than in the denser forests, has a bill and tongue evidently designed to take food from the tree trunks. Through change of habitat or through advanced instinct, it has found it easier to pick its quarry from the ground. The Red-headed Woodpecker, enjoying the protection afforded by association with man, digs its hole in a telephone pole, and finding a scarcity of insect borers in the fewer trees about its home, has become a modified flycatcher and may be seen darting about after an insect in the air after the manner of a Phoebe.



### CENSUS OF NESTING BIRDS IN SWOPE PARK.

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During the month of June, 1916, I made systematic survey of Swope Park in order to get a census of the nesting birds and to determine the relative numbers of the different species and their distribution.

Since the object was to determine not only the numbers and species for the Park as a whole, but also for the different regions in the Park, the whole territory was divided into a number of sections and each section was studied separately (See map of Park for boundary lines of sections and numbers.)

Both natural and artificial boundaries were chosen to outline these sections, for instance, the Blue River, the railroad tracks, driveways, ravines, etc. These boundaries were chosen both for convenience and also for the purpose of having certain ecological regions included in the same section.

Sometimes more than one morning would be spent in the study of a single section, but a different portion was traveled over each morning, and the number of birds for that section was listed. Only adult male birds were counted, and these were determined chiefly by noting their songs, but to some extent, by seeing the birds. At this season of the year the male

birds are in full song more or less intermittently during the morning hours, and bird students will all agree that identification by their songs and call notes, is one of the most certain means of identification of birds in the field.

The plan followed was to start out early in the morning, usually between four and five o'clock, and walk back and forth across the section, stopping now and then for a few minutes to listen, and to note carefully the bird calls within a certain radius. Then I would travel on till I was beyond this radius and make another pause; in the meantime being on the alert to detect by eye or ear any bird that had not already been listed.

Several years of practice in the identification of birds by their notes as well as by means of other characters was the necessary preliminary preparation for the census. In those cases wherein the notes of the different species were so nearly alike as to be indistinguishable, then other means of identification were used. This sometimes necessitated patient chasing, watching and waiting, and good use of field glasses. It was a sport far more interesting and exciting than hunting with a gun. The one who has never gotten into the game has no idea of the excitement of the chase, nor of the interest and keen pleasure with which the birds of one region were compared with those of another. Absences of looked for species were sometimes the cause of disappointment, and again, new and unlooked for species caused a thrill of pleasure and surprise. There were more thrills than disappointments and even the disappointments added zest to the chase. For instance, I was disappointed in not finding the Yellow Warblers, and am

still hoping to find it as a nesting bird in the Park, for it is quite common during migration, and is found nesting in other suburbs of the city.

No claim is made of having been able to get the exact number of birds, but it is thought that the error was always in the form of an under estimate rather than an over estimate. Very rarely, I think, was any individual bird listed twice, but it is evident that some might have been silent and hidden and have escaped notice even in early June.

The month of June was selected, because by that time, the migrating birds have passed on, and only the summer residents remain. Moreover, in most cases, at least, the young birds have not yet left the nest. In cases like the Tufted Titmouse and Chickadee where some young had left the nest, the birds were listed in groups; for instance, a flock of five or six Chickadees in a single clump of bushes were listed as one nesting pair or family.

It was a most fascinating study. I always felt repaid for the discomforts and fatigue of rising at four o'clock in the morning and wading out in the dew-laden grass and weeds and scrambling for miles through the brush, sometimes over soggy ground or through slimy mud. Frequently I was soaked to the waist by the wet foliage, while again, the mosquitoes added to the discomforts.

But to hear those wonderful calls of the birds! To see the morning mist hang lazily over the green treetops along the Blue River, to see the sun rise in indescribable glory over the rolling jumble of tree-clad hills, and to feel that I was part of the whole great plan of nature—all this was worth twice

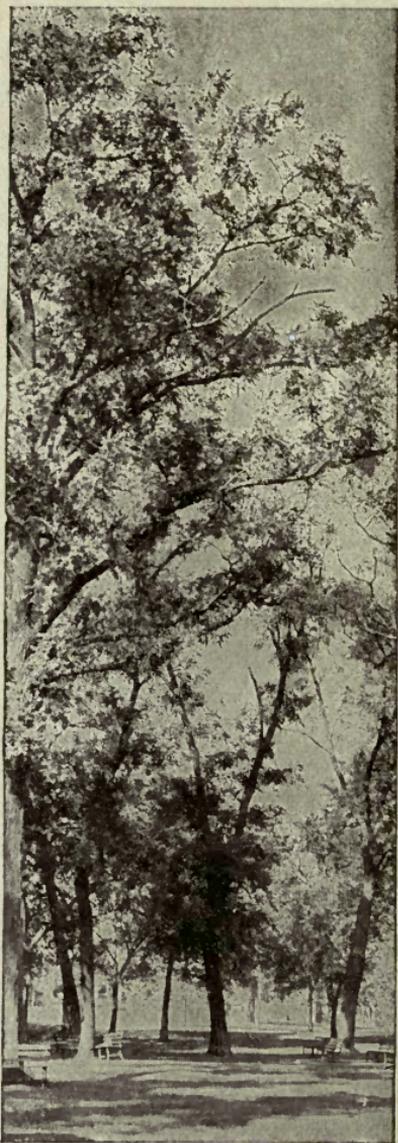
the discomforts and effort.

I so often thought of this quotation as I looked over the great panorama of hills and trees and cloud and sun, and heard with a thrill of wonder the answering bird notes ringing from tree to tree:

“How rich the days, how poor are we!  
The morning breaks upon what beauteous scenes!  
What gates of pearl let in the blushing light!  
What songs of herald angels might  
We hear from every mountain top,  
If our souls but woke with the opening of our drowsy lids!  
But we rise enwrap't with cloudy cares,  
And dawn for us, means twilight,  
Drenched with fogs that hide the stars.”

A reference to the map will indicate, roughly, the ecological regions of wooded areas, streams and cleared ground. The red lines will show the boundaries of the sections, and the numbers may be of help in locating the sections as they are referred to in the text. Several changes and developments in the Park have been made since the time the census was taken. A few of the driveways indicated on the map are not yet built, but merely proposed.





*Fig. 5—Grove in the Picnic Grounds*

## REPORT ON SUMMER BIRDS OF THE PARK BY SECTIONS.

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### SECTIONS NUMBER 1, 2 AND 3

Sections number 1, 2 and 3 are so closely related that they will be discussed collectively. They include the partly open and improved region about the west entrance to the Park. There is a small grove of trees to the north, but in most places they are quite scattered. The open region is bordered in part by shrubs and various horticultural plantings.

This region is the most frequented portion of the Park. In addition to the great crowds of people, it is a great resort for Robins, Thrashers, Catbirds and Wood Thrushes. At the time the census was taken the Robins were conspicuous over all of the tract, hopping about on the lawn and singing gloriously, while the Catbirds and Thrashers sang and scolded from the border of shrubs about the Pavillion near the Park entrance. This section probably had a greater number of prominent singers than any other section of the Park.

The grove of trees to the north was sufficiently extensive and wild to furnish a hiding place for a Screech Owl, a Tufted Titmouse and the Chickadee, and yet was open enough and had enough human visitors to furnish attractive nesting sites for a number of Wood Thrush. The Wood Thrushes are par-

tial to borders of the woods and prefer to be not too far away from human beings.

The considerable territory used for lawn and for the golf course, where the grass was close-cropped, reduced the number of nesting birds for this region.

There was a scarcity of Bluebirds, due probably to the absence of nesting sites. A few bird boxes placed about the Pavillion for Wrens and Bluebirds would no doubt be occupied by these birds, provided they received some assistance in their struggle with the English Sparrows.

One Robin chose a projecting ledge of rock in the wall of the Pavillion for a foundation for his mud-lined nest, while the chimneys gave nesting places for the Chimney Swifts.

No Bell's Vireo was found in the region this year (1916), but in previous years I could always find them along a brushy ditch north of the Pavillion. This season they seem to have deserted this nesting place for a vacant lot across the street. A few vacant lots here have grown up with golden-rod, asters, milkweed, elder berry and elm sprouts, and afford excellent hiding places for their nests. A Mockingbird and a Shrike also nest in this tract across the street from the Park. They might well be classed as park birds.

In 1914 I found a nest of a Horned Lark in the grass-plot just west of the Pavillion. Adding these three latter birds to the list of summer birds for this section, we have the relatively large number of 27 species to be found nesting at the very front door of the Park; but the great throngs of people that frequent this region daily pass them by unnoticed, or perhaps note only the Robins and Thrashers and a very few others.

The following species were found as summer birds for this section. The numbers refer to the number of male birds counted, and hence represents approximately the number of nesting pairs of birds. This list and others that follow, will be given in order of number of birds found rather than in the ornithological order. (See check list on page — for scientific names of the birds.)

THE LIST—SECTIONS NUMBER 1, 2 AND 3

Robin .....	14	Yellow-billed Cuckoo .....	2
Brown Thrasher .....	12	Crested Flycatcher . . . . .	2
Catbird .....	10	Bob White .....	1
Wood Thrush .....	8	Screech Owl .....	1
Meadowlark .....	6	Downy Woodpecker .....	1
Blue Jay .....	5	Cowbird . . . . .	1
Red-headed Woodpecker .....	4	Wood Peewee .....	1
Kingbird .....	4	Towhee .....	1
Baltimore Oriole .....	4	Tufted Titmouse .....	1
Chimney Swift .....	4	Chickadee .....	1
Flicker . . . . .	2	Bluebird .....	1
Mourning Dove .....	2		
Total Species, 23; Male Birds.....			88

SECTION NUMBER 4

Section Number 4 is more wooded. The trees are generally larger but there is not much underbrush, save in the eastern half where it slopes toward a small stream which wanders southeasterly through Yate's Hollow. (See map.)

Yate's Hollow is thickly overgrown with red haws, dogwood, buckbrush, greenbriar, poison ivy, sumach and other plants including the common species of trees. It has never been cleared nor greatly disturbed, except by the paths worn by people strolling through the Park.

Since this was written a macadam boulevard has been begun along the west slope of the hollow, cutting a broad swath through what was the jungle home of Towhees and Thrashers.

This section also includes the picnic ground with its shelter house. This spot is frequented by great crowds of people throughout the summer. Many of the picnickers wander off along the paths into the more secluded jungle to the east.

Blue-winged Warblers nest regularly along the dry slopes of the Hollow, arriving in the latter part of April. They are beautiful yellow birds with bluish shade to the wings and back. They can be most easily identified by their queer insect-like song, an inhaled note followed by a queer grasshopper-like exhaled note.

A Yellow-breasted Chat also has here a rendezvous of his own, in perfect keeping with its reputation except that the region is now not as secluded as we should expect the Chat to choose. Perhaps the site was selected a few years ago, before the picnic grounds were arranged, and when the region was not so frequented as it is now. The Chat has continued to return in spite of the gay colors and loud voices of the picnic parties. I wonder how many of these gay strollers ever notice his crazy tilts and darts in the air, or hear his idiotic calls and jeers and ejaculations!

Very few of the wanderers in the Park are ever attracted by the lipping sizz of the Blue-winged Warbler. They will hear only the clearer notes of the Cardinal and the Meadowlark and Thrasher, and may be thrilled by the wonderful melody of the Wood Thrushes, but they lose the silvery fairy-bell tinkle of

the Field Sparrow and the softer tones of the Kinglet and Chickadee and other more modest singers. How much they miss!

The Grackles for this region, as well as for other sections studied, vary greatly in numbers from day to day. The lunch fragments left by the picnic parties are great attractions to these big crow-like birds as well as to the Blue Jays. At times dozens of Bronze Grackles may be seen walking about on the grass or perched on the benches and tables. It is evident that they do not all nest here, but that they fly to the feeding ground from various parts of the Park. For two successive years a pair nested in a big elm tree near my home, one block north of the Park.

Squirrels are numerous in this part of the Park, and no doubt the squirrels and Jays and Grackles help to reduce the number of other species nesting here, for they are all inclined to be sneaking nest robbers.

#### THE LIST—SECTION NUMBER 4.

Brown Thrasher .....	12	Catbird .....	3
Crested Flycatcher .....	9	Blue-winged Warbler .....	3
Towhee .....	9	Downy Woodpecker .....	3
Cowbird .....	7	Robin .....	3
Blue Jay .....	6	Bluebird .....	3
Cardinal .....	5	Bronze Grackle .....	2
Field Sparrow .....	5	Red-headed Woodpecker .....	2
Tufted Titmouse .....	5	Wood Peewee .....	2
Chickadee .....	5	Baltimore Oriole .....	2
Indigo Bunting .....	4	Blue-gray Gnatcatcher .....	2
Wood Thrush .....	4	Chipping Sparrow .....	1
Mourning Dove .....	4	Yellow-breasted Chat .....	1
Yellow-billed Cuckoo .....	3	Maryland Yellowthroat .....	1
Flicker .....	3	White-breasted Nuthatch .....	1
Meadowlark .....	3		

Total Species, 29; Male Birds.....113

SECTION NUMBER 5

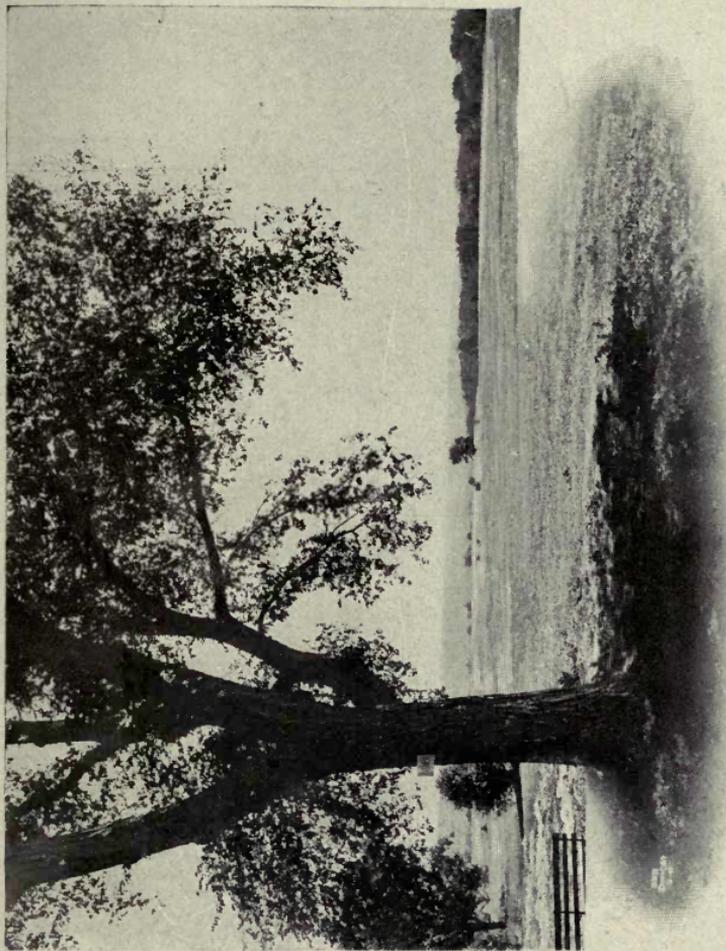
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Section Number 5 is nearly all woods and unimproved. It consists of rocky hill slopes with the narrow valley of Buckeye Hollow between. A small area of shrubby grass-grown tract lies on top of the ridge bordering the driveway.

The principal bird-inhabited region is Buckeye Hollow, with its stream and flood plain. This hollow is densely wooded with buckeye trees that grow in the shade of elms and oaks and walnuts. The hillside facing the south and west is dry and rocky, and the vegetation is more stunted and thicket-like. Dogwood, sumach, wahoo, wildrose, bittersweet and other plants are common.

This section is more secluded than the former ones discussed, nevertheless even here there is quite a disturbance by human beings, for strolling lovers wander down its shady paths and children in search of wild flowers scamper through the bushes so that the more retiring birds are annoyed by the presence and voices of mankind.

This partial seclusion seems to be unfavorable to the Robin, the Thrasher, Catbird and Wood Thrush. The Thrashers and Catbirds that were found, occurred in the southwest portion near the driveway where they were more exposed to human surroundings. The vegetation as a whole, is scarcely different from most of the preceding section, but we find certain species disappearing and other species appearing in increasing numbers, so that the Robins and the Thrashers no longer head the list.



*Fig. 6—The Old Golf Course*

## THE LIST—SECTION NUMBER 5.

Tufted Titmouse .....	10	Meadowlark .....	2
Towhee .....	8	Blue-winged Warbler .....	2
Cardinal .....	7	Kentucky Warbler .....	2
Chickadee .....	6	Catbird .....	2
Indigo Bunting .....	5	Blue-gray Gnatcatcher .....	2
Field Sparrow .....	4	Bob White Quail .....	1
Blue Jay .....	4	Red-headed Woodpecker .....	1
American Crow .....	3	Kingbird .....	1
Crested Flycatcher .....	3	Goldfinch .....	1
Brown Thrasher .....	3	Maryland Yellowthroat .....	1
Flicker .....	3	Yellow-breasted Chat .....	1
Yellow-billed Cuckoo .....	2	Carolina Wren .....	1
Downy Woodpecker .....	2	Wood Thrush .....	1
Cowbird .....	2		

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Total Species, 27; Male Birds.....80

Note: This tract was canvassed in the early morning of June 7th. On that date I heard three Olive-backed Thrushes singing their weirdly beautiful songs. They had delayed their northward migration journey unusually long and this was a surprisingly late date to find them in this region. The sex instincts of the males had impelled them to begin their love songs, and there was no mistaking the note, for when once heard and learned, it is never forgotten. I had heard faint undertone snatches of their songs before, but never so enticingly thrilling as on this morning. I was carried away in memory to a summer spent in the woods of the Great Northwest, where among the firs and hemlocks and canvas tents, I learned to know and to love the indescribable notes of the Russet-back Thrush, a western variety of our Olive-back. I could recall no difference in the songs of the two birds.

SECTION NUMBER 6

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In section number 6 (See map), we again are in regions exposed to crowds of humanity. It is mostly open ground with scattered red haws and open groves of other trees, but there are three regions that are wooded; one a narrow thicket-ravine, extends along the driveway leading to the Zoological Gardens, and another, a rocky bluff, borders the railroad, the third is a ravine that extends northeast of the Zoo. All of these wooded thickets are comparatively small and are exposed on all sides to scores of loiterers and picnic parties. The conditions are ideal for those birds that love the proximity of man, provided they have shelter and hiding places for their nests. Therefore, the Thrashers, Jays, Towhees, Catbirds and Robins are the most common birds, with the Thrasher far in the lead.

These little brushy vales are great haunts of the migrating Sparrows during early spring. It is well worth one's while to visit the ravine west of the Zoo in March or April and see the Purple Finches feeding on the buckbrush berries, or stop and listen to the gurgled trills and high-piped notes of the Harris Sparrows. The White-throat Sparrows may also be found adding their ventriloquistic powers for your entertainment.

So much of the area in this section number 6 is taken up by the Zoological Garden enclosures which are naturally unfavorable for a wild bird population, that a list of one hundred five nesting pairs of birds for the whole section means a dense bird population for those parts that are adapted to bird life.

Bronze Grackles are at times found in considerable num-

bers, as also are crows that fly here to pick up scraps of food. These, however, were not included in the list of nesting birds.

It is interesting to compare the list for this section with that of the preceding, both as to species and as to the birds that are most numerous.

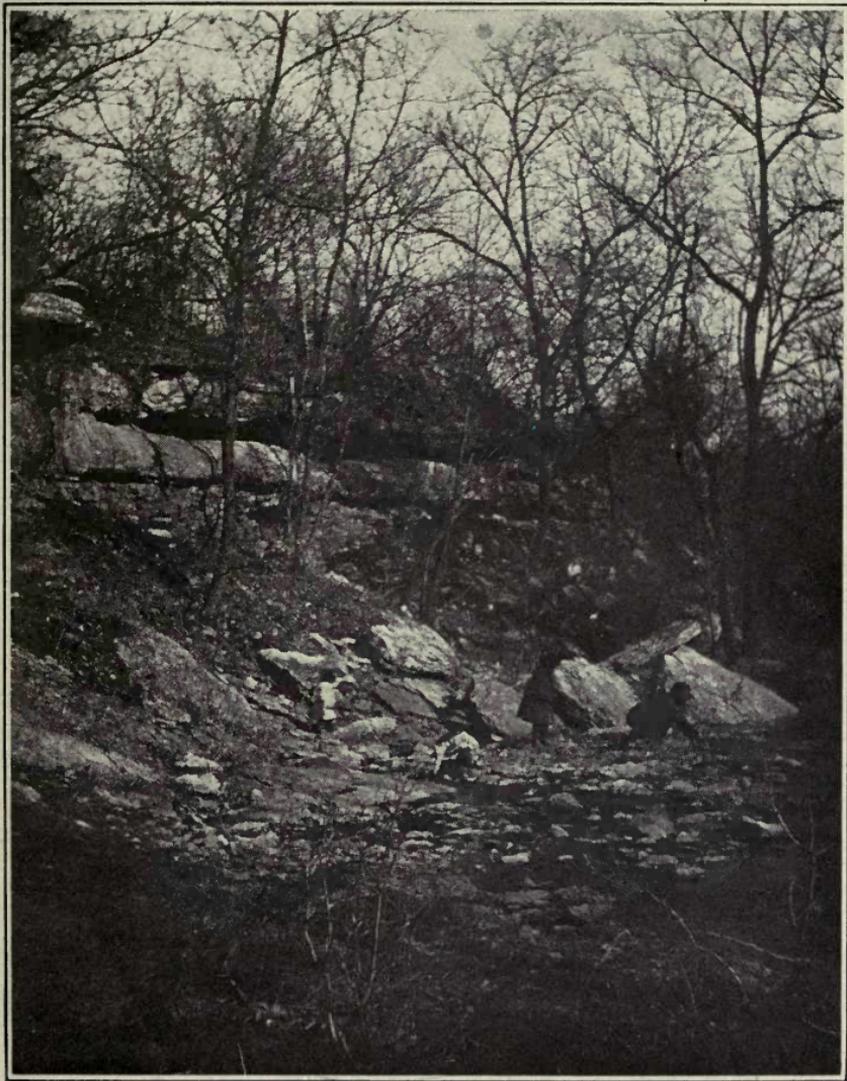
#### THE LIST—SECTION NUMBER 6

Brown Thrasher .....	19	Tufted Titmouse .....	3
Blue Jay .....	7	Downy Woodpecker .....	2
Towhee .....	6	Bluebird .....	2
Mourning Dove .....	5	Flicker .....	2
Yellow-billed Cuckoo .....	5	Meadowlark .....	2
Catbird .....	5	American Goldfinch .....	2
Chickadee .....	5	Hairy Woodpecker .....	1
Robin .....	5	Red-bellied Woodpecker .....	1
Red-headed Woodpecker .....	4	Kingbird .....	1
Crested Flycatcher .....	4	Bronze Grackle .....	1
Baltimore Oriole .....	4	Phoebe .....	1
Cardinal .....	4	Blue-winged Warbler .....	1
Wood Thrush .....	4	Shrike .....	1
Cowbird .....	3	Chipping Sparrow .....	1
		Purple Martin .....	1

Total Species, 30; Male Birds.....105

#### SECTION NUMBER 7

The territory included in the region numbered seven, is mostly open grassland, with a few scattered trees. One wooded valley of about two acres extent lies north of the residence of the foreman of the Park. A limestone ledge crops out along the east slope near the railroad tracks. This slope is partly overgrown with vines and bushes and a few trees, in places becoming a dense thicket. Unfortunately for the birds, it is hardly extensive enough to harbor any very great number of nesting birds. Nevertheless, in this bit of a wilderness there



*Fig. 7—Autumn on the Blue River*

were three pairs of Indigo Buntings, a Yellow-breasted Chat, a Scarlet Tanager, a Summer Tanager and a number of other common species.

Wood Thrushes were common in the bit of wooded valley. This is an ideal place for them, for it is near human influence and yet cool and well shaded and protected.

The only House Wren found in the Park was found about the rubbish in the vicinity of the green houses. It seemed strange that there were not more House Wrens in the Park for there are several residence buildings and sheds and conditions that would seem to be favorable to the Wrens.

A lone Nighthawk was seen among the bushes along the thicket to the east, where it may have been nesting on one of the rock ledges. It was the only one of the species found as a summer bird in the Park. They are very common, of course, during migration.

#### THE LIST—SECTION NUMBER 7.

Wood Thrush .....	6	Cowbird .....	2
Robin .....	6	Baltimore Oriole .....	2
Brown Thrasher .....	5	Scarlet Tanager .....	2
Mourning Dove .....	4	Bob White Quail .....	1
Blue Jay .....	4	Downy Woodpecker .....	1
Tufted Titmouse .....	4	Red-headed Woodpecker .....	1
Bluebird .....	4	Flicker .....	1
Crested Flycatcher .....	3	Night Hawk .....	1
Towhee .....	3	Orchard Oriole .....	1
Indigo Bunting .....	3	Bronze Grackle .....	1
Purple Martin .....	3	Chipping Sparrow .....	1
Catbird .....	3	Cardinal .....	1
Chickadee .....	3	Rose-breasted Grosbeak .....	1
Kingbird .....	2	Summer Tanager .....	1
Wood Peewee .....	2	Yellow-breasted Chat .....	1
		House Wren .....	1

Total Species, 31; Male Birds.....74

## SECTION NUMBER 8

The morning this section was canvassed was very wet from a rain of the night before. The heavy fog, the wet grass and weeds, and the chilly air had a great tendency to dampen my enthusiasm as well as my clothes.

The notes of the Acadian Flycatcher, the Cerulean Warbler, Parula Warbler, Kentucky Warbler and a great assemblage of Chickadees, Buntings and Titmice soon brought back my enthusiasm to such a warmth that I forgot about my soggy shoes and dripping trousers. Anyone who could have heard the twittering, warbling, trilling chorus of beauty singers that brought sweetness and warmth of life into the jungled woods that morning, and still have been aware of trivial discomforts, is no member of Nature Lover's Clan. What matter if the leaves did drip water down my back; a dozen Indigo Birds were singing! Who could think of mosquitoes when a Black-and-white Warbler was creeping about over the tree trunks! I had not even hoped to find the bird in the Park during summer.

At last my census-taking had led me far enough into the wildwood of the Park to get away from the parts frequented by man, and into parts inhabited by such birds as the casual observer knows nothing about. It is true that the numbers of these more retiring birds were but few, but it was a beginning which promised many additions as I continued my observations into the deeper parts of the Park.

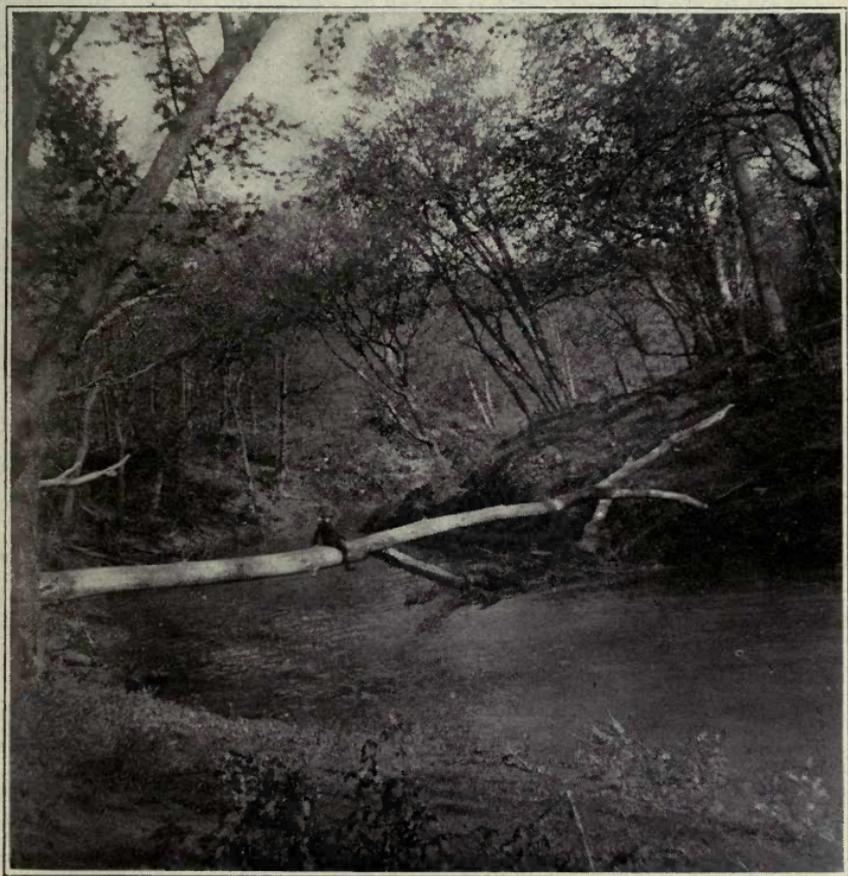
The west boundary of the Park here has a jog made by a tract of forty acres being under private ownership. It is un-

fortunate that this is so, for the forty acres excluded from the Park is one of the most picturesque regions to be found. It is the lower part of a well wooded, rocky valley that has its beginning at Sixty-ninth street and Cleveland avenue, and extends eastward for about three-fourths of a mile to the Blue River. Great masses of limestone have broken off from the ledge near the top of the bluff and have slid partly down the steep slope. A fine alluvial flood plain borders the stream below. Both slope and valley are well wooded.

This beautiful valley is called Shiloh Hollow. It furnishes an ideal walk for the nature lover, whether he be interested in birds or in flowers and trees, or merely in the beauty of the scenery. It is one of the favorite migration routes for hundreds of Warblers, Vireos, Sparrows and other birds, and the whole region should be given some protection from the vandals that are already beginning to despoil it. There are few regions near the city that are its equal in picturesque beauty, but it is not within the Park and hence its interesting bird population cannot be included in this census.\*

\*Since this was written many changes have taken place. Many of the trees in Shiloh Hollow have been cut. The woods is closely pastured, the flowers mostly gone and the birds are taking up their abode elsewhere. Not only have changes taken place in Shiloh, but even in the Park. A fine boulevard has been built along the eastern edge of the tract, and a wide clearing made through the central part of the woods where the seclusive Warblers and Flycatchers had made their frontier stand.

The bordering region that is included within the Park, is



*Fig. 8—Autumn on the Blue River*

mostly dry upland, and lacks the rare beauty of Shiloh Hollow. It is rather densely wooded and quite secluded; few people caring to penetrate through the tangle of weeds and brush beneath the scraggly black oak trees. If its boundaries could but be made to include Shiloh Hollow and then the whole made into a bird sanctuary, it might mean the preservation of species of birds for Kansas City that otherwise, sooner or later, are certain to be driven away.

The driveway indicated on the map was not yet built at the time the census was made.

#### THE LIST—SECTION NUMBER 8.

Chickadee .....	13	Kentucky Warbler .....	2
Indigo Bunting .....	12	Bluebird .....	2
Tufted Titmouse .....	11	Cooper's Hawk .....	1
Red-eyed Vireo .....	7	Mourning Dove .....	1
Towhee .....	5	Red-bellied Woodpecker .....	1
Downy Woodpecker .....	4	Wood Peewee .....	1
Goldfinch .....	4	Kingbird .....	1
Acadian Flycatcher .....	3	Chipping Sparrow .....	1
Cardinal .....	3	Blue-winged Warbler .....	1
Yellow-billed Cuckoo .....	2	Parula Warbler .....	1
Great Crested Flycatcher .....	2	Cerulean Warbler .....	1
Crow .....	2	Black-and-white Warbler .....	1
Cowbird .....	2	Wood Thrush .....	1
Purple Martin .....	2	Hummingbird .....	1

Total Species, 28; Male Birds.....88

The Cooper's Hawk was found on its nest high up among the upper branches of a dead oak. Seeing me, it left its nest and swooped directly toward me, but veered off overhead, uttering a few chuckling notes.

CENSUS OF NESTING BIRDS  
SECTIONS NUMBER 9, 10, 11 AND 12

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For convenience, the whole strip west of the Blue River, between the river and the railroad tracks is included in one report.

This was the most difficult region to canvass. Heavy rains earlier in the season had flooded portions of the valley, leaving a layer of fine mud sediment. Other rains during the census, kept the mud-bespattered weeds and grasses wet, and made the flood sediment a soft, slippery, slimy ooze.

The tract is all flood plain, and nearly all wooded. The few open places being small, brushy meadows along the railroad track, and portions of the old South Nursery.

The wooded part of the strip is similar throughout, with reference to elevation, drainage and vegetation, but different parts differ with reference to seclusion from mankind. Depending on this seclusion, there are some rather noticeable differences in the distribution of birds. For instance, the horse-shoe bend of the river included in section 10, is rather isolated from human interference, only an occasional fisherman wandering through the deep shade of its elms and buckeyes. There are no Thrashers nor Wood-Thrushes nor Catbirds nor Robins nor Towhees nor Bluebirds to be found in this section during the nesting period. A few, however, were found in the region of the railroad station where human influence seems to have offered attraction to these species.

The old South Nursery is little frequented and although it is partly open, brushy territory fringed with thick woods, there were no Thrashers nor Catbirds nor Towhees found

nesting here. In contrast to this, compare the more frequented North Nursery discussed on page. 45.

The far off triangular corner numbered 12, is a fragment of one of the best bird regions in the Park. The bordering country to the south and east is well wooded and well populated by those species that love the seclusion of the unfrequented woods and stream. Again, for the sake of a long list, I regretted that the Park did not include another forty acres of bordering land. The small triangular strip numbered 12, however, is well worth visiting by the bird lover. Acadian Flycatchers, Red-eyed Vireos, White-eyed Vireos, Redstarts, Cerulean Warblers, Parula Warblers, Kentucky Warblers and Worm-eating Warblers were found. These are all birds that seek the more secluded regions. They are valuable and all the more interesting because of the haunts they inhabit. Oven-birds also were probably here, but I failed to find any during the trip. Here, again, we may look in vain for the Wood Thrush, the Thrasher and the Towhee, and other birds that love the companionship of man.

It was in this section that a Worm-eating Warbler flew down to a low shrub near which I was standing. There was an eager fluttering and chirping and I saw the parent bird drop a worm into the open mouth of its fledged young. What a thrill the sight gave me! Before that time I did not even suspect that the Worm-eating Warbler nested in the Park. Following lists will show that the bird is not at all uncommon as a summer bird in the Park, but it must be looked for in its proper environment of secluded woods-covered slopes.

## THE LIST—SECTIONS NUMBER 9, 10, 11 AND 12

Chickadee .....	25	Cerulean Warbler .....	3
Tufted Titmouse .....	20	Redstart .....	3
Indigo Bunting .....	16	Carolina Wren .....	3
Cardinal .....	11	Scarlet Tanager .....	2
Parula Warbler .....	10	Maryland Yellowthroat .....	2
Downy Woodpecker .....	9	Yellow-breasted Chat .....	2
Crested Flycatcher .....	9	Bluebird .....	2
Yellow-billed Cuckoo .....	8	Green Heron .....	2
Red-eyed Vireo .....	8	Phoebe .....	2
Crow .....	7	Acadian Flycatcher .....	2
Kentucky Warbler .....	7	Meadowlark .....	2
Wood Thrush .....	7	Kingfisher .....	1
Red-bellied Woodpecker .....	5	Hairy Woodpecker .....	1
Blue Jay .....	5	Flicker .....	1
Field Sparrow .....	5	Baltimore Oriole .....	1
Wood Peewee .....	4	Louisiana Water Thrush .....	1
Goldfinch .....	4	Brown Thrasher .....	1
Dickcissel .....	4	Robin .....	1
Bronze Grackle .....	3	Worm-eating Warbler .....	1
Chipping Sparrow .....	3	Yellow-throated Vireo .....	1
Total Species, 41; Male Birds.....			211

## SECTION NUMBER 13

Section 13 is like numbers 10 and 11 in every respect except that it is more frequented and disturbed by man. There is a cottage in the nursery where the gardener with his family live. The nursery itself, is cultivated and affords fewer hiding places for the birds and their nests than does the Old South Nursery.

The woods to the north of the nursery is identical with that of section 10 in the horseshoe bend of the Blue River. There are great cork elms and other trees, with a lower stratum of buckeye trees, various bushes and vines. This dense woods, however, is bordered on three sides by regions that are fre-

quented by man, with the result that the bird population is somewhat different from the more secluded section of number 10. There were numbers of Wood Thrushes, Crested Flycatchers, Brown Thrashers and even Robins, a Towhee and a Catbird.

Along the Blue River and the smaller stream to the east, the woods is not bordered by regions frequented by man and here were found Kentucky Warblers, Parula Warblers, Cerulean Warblers, the Louisiana Water Thrush and the Vireos.

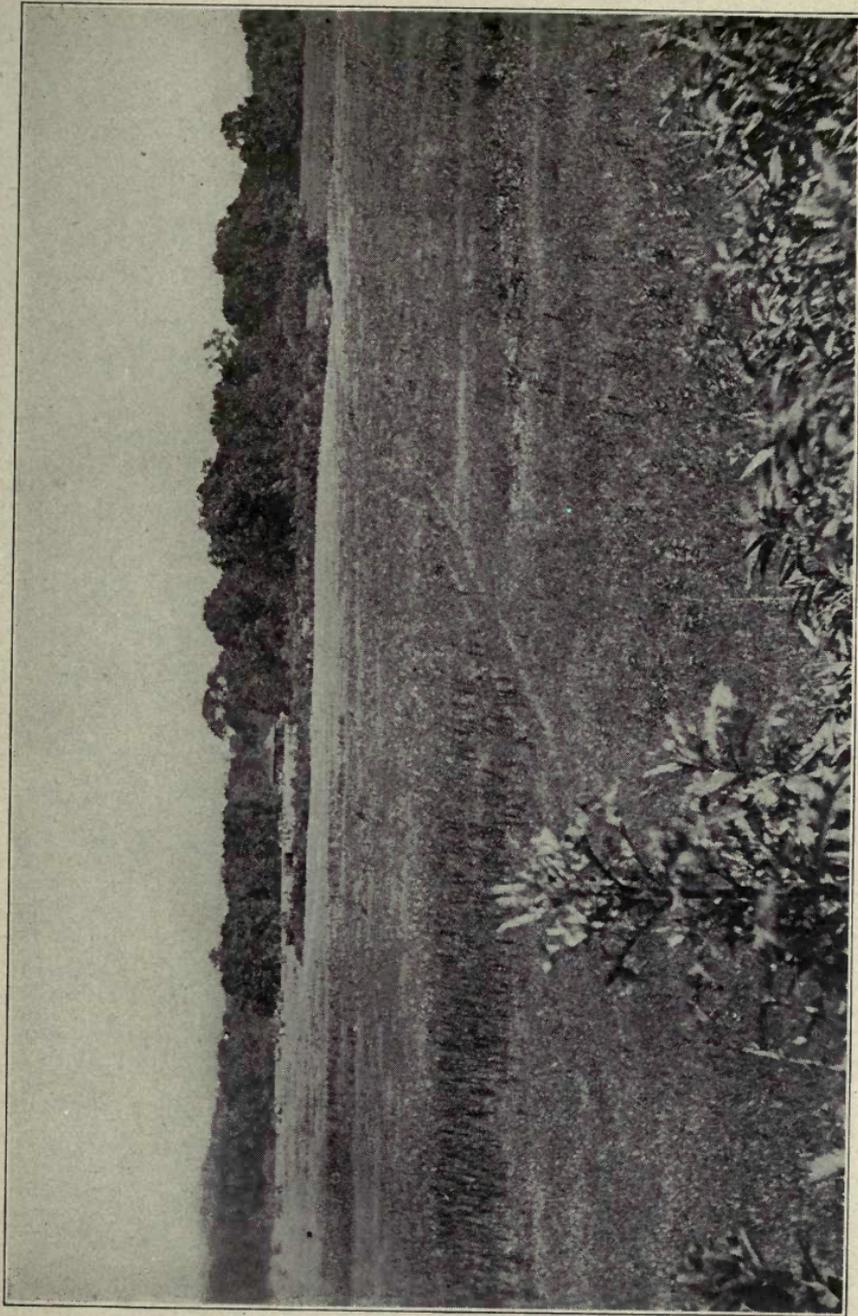
The thick shady woods, with a large number of broken limbs, knot holes and rubbish, was a great attraction for the nesting Chickadees and Tufted Titmice, which were much in evidence.

The more open ground of the nursery produced the Goldfinches and the Sparrows.

#### THE LIST—SECTION NUMBER 13.

Wood Thrush .....	13	Parula Warbler .....	3
Tufted Titmouse .....	12	Wood Peewee .....	3
Chickadee .....	10	Crow .....	2
Cerulean Warbler .....	9	Field Sparrow .....	2
Blue Jay .....	8	Scarlet Tanager .....	2
Cowbird .....	8	Redstart .....	2
Red-eyed Vireo .....	8	Carolina Wren .....	2
Crested Flycatcher .....	7	Robin .....	2
Indigo Bunting .....	7	Green Heron .....	1
Downy Woodpecker .....	6	Screech Owl .....	1
Cardinal .....	6	Flicker .....	1
Kentucky Warbler .....	6	Hairy Woodpecker .....	1
Brown Thrasher .....	5	Hummingbird .....	1
Goldfinch .....	4	Towhee .....	1
Yellow-bellied Woodpecker ..	3	Summer Tanager .....	1
Yellow-billed Cuckoo .....	3	Louisiana Water Thrush .....	1
Chipping Sparrow .....	3	Catbird .....	1

Total Species, 34; Male Birds.....144



*Fig. 9—Looking North Across the Rifle Range, Swope Park. Here Are the Homes of Dickcissels and Meadowlarks*

BIRDS OF SWOPE PARK  
SECTION NUMBER 14

One of the most interesting walks of the whole investigation was the canvass of the Old Rifle Range and the country bordering it. The Rifle Range itself, is a broad meadow of blue grass and weeds. Bordering it to the east is a still more extensive meadow of alfalfa and timothy, with plenty of daisy, fleabane and other weeds.

Off to the south lies a range of hills and rock ledges. The upper slopes are covered with prairie vegetation, but lower down the slope this merges into a tangled growth of brush and trees. (See page —.)

Along the Blue River is a strip of dense woods inhabited by Warblers, Titmice and Chickadees.

The meadow is remarkable for its number of Dickcissels. Their notes were ringing out in all directions. Every weed stalk was a chorister's platform. It was impossible to accurately count the singers, but a conservative estimate was made by counting the singing birds over a narrow strip and then multiplying this by the number of similar strips included in the tract. This estimate gave fifty male Dickcissels for the whole section which I think is not far from correct.

The thicket-like extension of the bordering woods that projected into the meadow, was a favorite place for the White-eyed Vireo. One of these birds gave me an excellent demonstration of his vocal powers. He was truly a great singer, with a wonderful variety of trills and warbles, yet he always kept the peculiar quality of the White-eyed Vireo. The variations, however, were so great that I was obliged to stop and spend

nearly a half hour trying to get a satisfactory view of the shy ventriloquist. He persisted in keeping hidden behind a leafy screen and I could not tell by the sound whether he was near or far, or to the right or to the left.

Off to the south, along a rocky ledge where the woods and prairie meet, a Blue-winged Warbler flushed up from my very feet. It rested on a twig only a few yards away and displayed all of its beautiful colors and markings, even to the black streak from bill to the eye. In spite of the fact that I had almost stepped on it I had trouble in finding the nest, so well was it hidden in a clump of blue-stem grass and ironweed. The nest contained three newly hatched birds and two eggs and was well constructed with an outer covering of dead leaves and an inner lining of delicate grass rootlets and fiber.

Mr. Harry Harris reported finding a nest and egg of the Turkey Buzzard in this same region a few weeks earlier. The rock crevices afford good nesting sites for this big bird, and in all probability more than one nesting pair might have been found.

The best find for the section was made about a month after the regular census-taking trip. On July 8th a pair of Prothonotary Warblers were found in a fringe of wood along the Blue River just north of the Rifle Range. The parent warblers were feeding their fully fledged young that had left the nest, but were still clamoring for help from the "home folks." It was rare sport to watch them, for while they are common enough as nesting birds in the woods along the Missouri River, they are not at all common this far from the

River. These were the only Prothonotary Warblers found in the Park as summer birds.

The Rifle Range is no longer used as a shooting ground, and the region is quite undisturbed. The meadow is cut, but most of the Meadowlarks have left the nest before the mower disturbs them. The Dickcissels are not always so fortunate and many a nest is torn up by the hayrake.

Note: In June, 1913, and therefore a later record than the regular census, I found a Grasshopper Sparrow collecting worms in the alfalfa meadow. This brands it as a nesting bird for the region and adds another to the total for the Park. A week earlier I heard and saw a number in the meadow, and I have no doubt that a half dozen or more Grasshopper Sparrows nest regularly in the region, but they are so shy and have such a habit of sneaking under the grass and remaining out of sight that it is almost an accident to find them.



Fig. 10—*A Bit of the Lagoon and Its Border Land*

## THE LIST—SECTION NUMBER 14.

Dickcissel .....	50	Kentucky Warbler .....	4
Indigo Bunting .....	17	Wood Peewee .....	3
Chickadee .....	17	Crow .....	3
Tufted Titmouse .....	12	Cowbird .....	3
Cardinal .....	9	Carolina Wren .....	3
Yellow-billed Cuckoo .....	8	Chipping Sparrow .....	2
Downy Woodpecker .....	8	Parula Warbler .....	2
Red-eyed Vireo .....	8	Louisiana Water Thrush .....	2
Meadowlark .....	7	American Redstart .....	2
Field Sparrow .....	7	Hairy Woodpecker .....	1
Maryland Yellowthroat .....	6	Flicker .....	1
Yellow-breasted Chat .....	6	Kingbird .....	1
Blue Jay .....	5	Phoebe .....	1
Goldfinch .....	5	White-breasted Nuthatch .....	1
Red-bellied Woodpecker .....	4	Bluebird .....	1
Crested Flycatcher .....	4	Black-and-white Warbler .....	1
Scarlet Tanager .....	4	Prothonotary Warbler .....	1
White-eyed Vireo .....	4	Cooper's Hawk .....	1
Cerulean Warbler .....	4	Sparrow Hawk .....	1
Blue-winged Warbler .....	4	Turkey Buzzard .....	1

Total Species, 40; Male Birds.....224

(This does not include the Grasshopper Sparrow and the Blue-gray Gnatcatcher found at a later date.)



Fig. 11—Wildcat Hollow is still frequented by wild birds in spite of the motor cars.

BIRDS OF SWOPE PARK  
SECTION NUMBER 15

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This embraces the great open meadow about the Lagoon, where conditions are now quite artificial and where few birds have opportunity for nesting. A few years ago this was one of the greatest bird resorts for the whole Park. At that time the region about the Lagoon was as great a resort for Dickcissels and Meadowlarks as the Rifle Range now is. The woods to the north and east was also then a primeval wilderness for the more retiring birds. The building of a macadam road up



*Fig. 11—Wildcat Hollow Is Still Frequented by Wild Birds in Spite of the Motor Cars*

Wild-cat Hollow, together with the crowds now frequenting the bordering meadow and the Lagoon, has brought about a great change.

Some few of the more retiring species, however, still stay in the woods by the stream and inhabit the slope farther north and east, but the meadow is almost deserted by birds in summer.

Still farther north, but outside of the Park, a change in the course of the Blue River years ago, has left a low swampy place now overgrown with marsh mallows, button-bush and other swamp plants. A number of Red-wing Blackbirds nest here.

## THE LIST—SECTION 15

Tufted Titmouse .....	18	Worm-eating Warbler .....	3
Chickadee .....	13	Scarlet Tanager .....	3
Meadowlark .....	9	Wood Thrush .....	3
Red-eyed Vireo .....	9	Hairy Woodpecker .....	2
Downy Woodpecker .....	8	Bronze Grackle .....	2
Cardinal .....	7	Goldfinch .....	2
Yellow-billed Cuckoo .....	6	Louisiana Water Thrush .....	2
Blue Jay .....	6	Yellow-breasted Chat .....	2
Crested Flycatcher .....	5	Black-and-white Warbler .....	2
Wood Pewee .....	5	Sparrow Hawk .....	1
Indigo Bunting .....	5	Mourning Dove .....	1
Cerulean Warbler .....	5	Kingbird .....	1
Kentucky Warbler .....	5	Acadian Flycatcher .....	1
Redstart .....	5	Phoebe .....	1
Blue-gray Gnatcatcher .....	5	Baltimore Oriole .....	1
Carolina Wren .....	5	Field Sparrow .....	1
Red-headed Woodpecker .....	4	Towhee .....	1
Red-bellied Woodpecker .....	4	White-eyed Vireo .....	1
Dickcissel .....	4	Maryland Yellowthroat .....	1
Parula Warbler .....	4	Catbird .....	1
Crow .....	3	Brown Thrasher .....	1
Cowbird .....	3	Summer Tanager .....	1

Total Species, 44; Male Birds.....172

Section Number 16 was so large and so densely overgrown that it was canvassed with difficulty. Part of the dry, post oak-covered ridge between Southeast Hollow and Hazel Dell was passed over rather hastily. The ground was covered with bittersweet vines, blackberry vines, shrubs and brush, which not only made travel difficult but also made it difficult to determine the exact amount of territory explored.

The birds were not at all numerous in this dry upland. Those found were mostly Indigo Buntings, Gnatcatchers, a few Chickadees and now and then a stray of some other species.

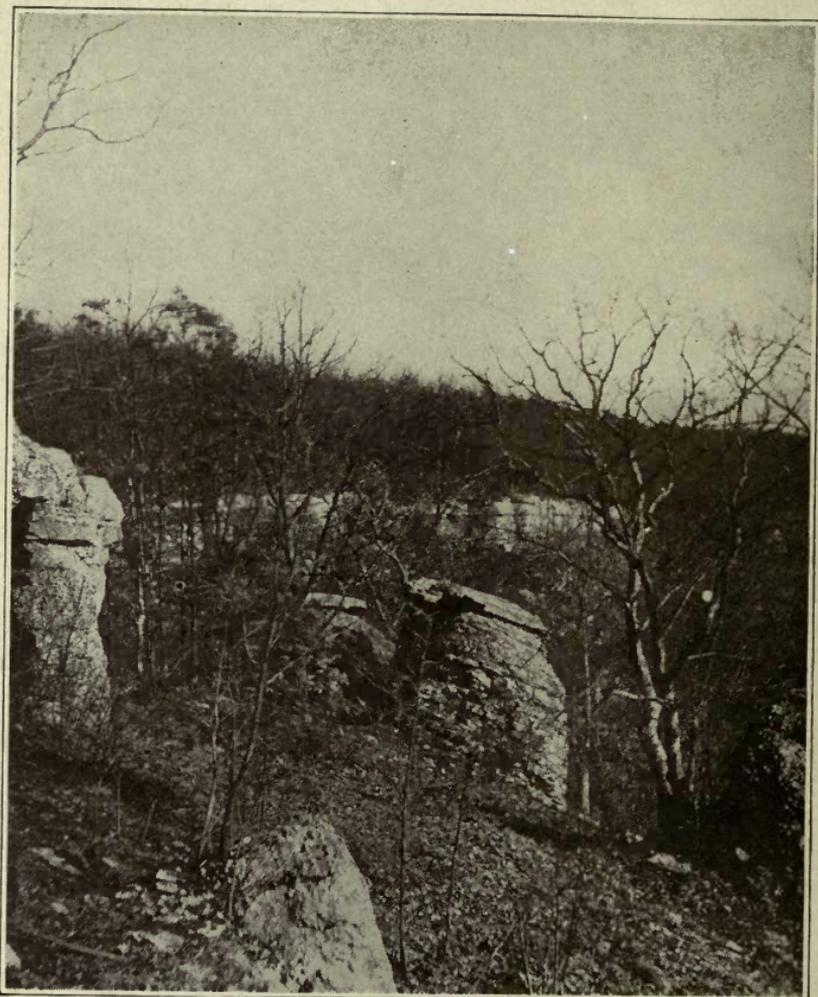
While the upland was not so well inhabited, the slopes of Southeast Hollow and the similar region in Hazel Dell to the north are at present the best bird lands in the Park for the more retiring species. These slopes are well wooded, and except in the very driest weather, well watered by the humidity from the little stream and moist valley below. They are wild and picturesque and beautiful.

Present plans of the Park Board, if carried out, will doubtless interfere somewhat with the bird population of this fine region. These plans, as indicated on the map, include an automobile road through Southeast Hollow and another one leading down into the head of Hazel Dell. These improvements will be met with favor by the great majority of people who wish to see the beauties of the Park from an automobile. But they will not be quite so welcomed by the naturalist, who looks with suspicion on all artificiality. Personally, I belong

to the minority and to me the honk of the auto horn and the rattle of the car in such a region jars the celestial harmonies of nature. The fragrance of the wild flowers is marred by the odor of gasoline. I can but foresee that the more shy feathered friends of man will be driven from the Park, and in the course of time, completely exterminated, but perhaps I am too pessimistic as well as too selfish. Nevertheless, there is good argument in favor of having some part of the Park left in all of its natural, wonderful wildness as a rendezvous of the birds, of the wild flowers and of the nature lover.

I find it difficult to distinguish the note of the Ovenbird from the note of the Kentucky Warbler when heard separately or at a distance. This difficulty brought me a most interesting experience. On the south slope of Hazel Dell I crept up a little ravine in order to identify one of these species by sight that I heard singing at intervals. After a little I sat down to listen and locate the bird when suddenly I was thrilled by seeing an Ovenbird fly into the low branches of an oak and feed her new fledged young. What a great sight to find a whole family of this rather rare bird! But surprises, like troubles, sometimes do not come singly. I had hardly recovered from the shock of finding the Ovenbird when another thrill was added by finding only a few yards away, a brood of Black-and-white Warblers, with the parent birds fluttering about. Only the bird lover can appreciate the situation.

To add to the excitement, a Worm-eating Warbler and a White-eyed Vireo were both singing near by, and off across the stream I could hear both the Parula and the Cerulean Warblers singing from the tree tops. Now and then, an



*Fig. 13—Bethany Falls Limestone Where Buzzards Nest and Where Rattlesnakes Are Said to Hide*

Acadian Flycatcher sounded his woody whistle, and I could occasionally see the gleam of orange and black of Redstarts as they flitted among the green leaves for their food. An acrobatic Chat tipped up, then down from his perch as he whistled and jeered at the other birds; and all about were thick woods and flowers and ferns and dripping dew.

Across on the north side of Southeast Hollow a prominent, broken limestone ledge crops out, and all along here I found several roosting places of the Turkey Buzzards. I discovered no nests nor eggs, but really did not take time to stop and hunt the crevices of the rocks. The big black aviators are seen floating about high in the air over this region from early March throughout the summer. It is interesting to watch them. Their roosting places, however, are not so fascinating.

## THE LIST—SECTION NUMBER 16

Indigo Bunting .....	38	Parula Warbler .....	6
Tufted Titmouse .....	33	Goldfinch .....	5
Chickadee .....	33	White-eyed Vireo .....	4
Kentucky Warbler .....	22	Blue-winged Warbler .....	4
Red-eyed Vireo .....	22	Ovenbird .....	4
Downy Woodpecker .....	16	Carolina Wren .....	4
Yellow-billed Cuckoo .....	15	Blue-gray Gnatcatcher .....	4
Acadian Flycatcher .....	13	Summer Tanager .....	3
Turkey Buzzard .....	12	Yellow-breasted Chat .....	3
Crested Flycatcher .....	10	American Redstart .....	2
Cerulean Warbler .....	10	Bluebird .....	2
Worm-eating Warbler .....	10	Yellow-throated Vireo .....	2
Red-bellied Woodpecker .....	9	Bob White .....	1
Hairy Woodpecker .....	9	Cooper's Hawk .....	1
Blue Jay .....	9	Flicker .....	1
Wood Pewee .....	8	Hummingbird .....	1
Cardinal .....	8	Rose-breasted Grosbeak .....	1
Wood Thrush .....	8	Purple Martin .....	1
Crow .....	6	Black-and-white Warbler .....	1
		Scarlet Tanager .....	6
Total Species, 39; Male Birds.....			357

Several different trips were made in the canvass of Section 17. One of these trips included a whole night spent on the ridge bordering the golf links. I wanted to get some estimate of the number of Whippoorwills in this section of the Park, and also to listen to the Owls, and to any other night sounds.

The Whippoorwills sang intermittently all through the



*Fig. 14—Young Whippoorwills in Hazel Dell*

night and they could be heard from all directions. They were still singing at 5:30 A. M. during one of my early morning trips.

Other parts of the Park are equally favorable for the Owls and the Whippoorwills, and no doubt they are distributed over the greater portion of the Park woods, but I did not have the opportunity of making night trips to all of the sections. From my home I frequently have heard them singing in the northwest part of the Park, especially during the early part of the summer.

During the summer of 1917, through the help of two bird students, I was directed to a mother Whippoorwill and her two young in the woods just east of Hazel Dell and outside of the Park. I succeeded in getting a good picture of the young. The mother was so concerned over the matter that she perched on a limb within fifteen feet of me and even gave me a chance of getting a picture of her.

The greater part of Section 17 is dry upland. It was overrun with Indigo Buntings, Titmice, Gnatcatchers and Kentucky Warblers, as the list at the end of this discussion will show. These more numerous birds were distributed over the dryer upland, while most of the others were found nearer the more moist region of Hazel Dell.

Besides the dry upland, the section includes the north slope of Hazel Dell, and also a branch hollow extending off to the northeast. These ravines are well wooded and are well adapted to the wood-loving species that seek retirement. Here were found many Chickadees and Red-eyed Vireos and Kentucky Warblers and Flycatchers.

The rather extensive golf links in this part of the Park are unfavorable for birds, and but few were found over the close-cropped sod.

The steep slope to the west, leading down toward the Lagoon, seems to be the especial home of the Crows; a number of nests and young were found. Evidently the Crows nest



*Fig. 15—Shrubby Sunny Slopes Where Indigo Birds Resort. Nest of Indigo Bird*

and roost here and then fly across to the picnic grounds for much of their food.

People are coming to this part of the Park in increasing numbers during the past few years and many improvements are in operation. Up to the present time there has been but little effect on the birds. The proposed drives and the new Club House that is planned will no doubt soon make a difference in the bird population.\*

\*At this time, 1920, there have been many changes in this region. A drive has been built winding up the steep west hillside. A large club house has been built for the golfers, a tomb in memory of Colonel Swope has been erected, and many people now wend their way up over the hills to see the sights or to play golf, or to have a picnic lunch.

#### THE LIST—SECTION NUMBER 17

Indigo Bunting .....	57	Hairy Woodpecker .....	5
Tufted Titmouse .....	29	Turkey Buzzard .....	4
Kentucky Warbler .....	26	Red-bellied Woodpecker .....	3
Red-eyed Vireo .....	24	Scarlet Tanager .....	3
Blue-gray Gnatcatcher .....	23	Redstart .....	3
Chickadee .....	22	Ovenbird .....	3
Cowbird .....	20	White-eyed Vireo .....	3
Crow .....	16	Cerulean Warbler .....	2
Downy Woodpecker .....	15	Yellow-breasted Chat .....	2
Blue Jay .....	14	Blue-winged Warbler .....	2
Crested Flycatcher .....	13	Summer Tanager .....	2
Wood Peewee .....	11	Kingfisher .....	1
Yellow-billed Cuckoo .....	11	Horned Owl .....	1
Goldfinch .....	9	Screech Owl .....	1
Cardinal .....	9	Red-headed Woodpecker .....	1
Acadian Flycatcher .....	8	Meadowlark .....	1
Worm-eating Warbler .....	7	Purple Martin .....	1
Whippoorwill .....	6	Field Sparrow .....	1
Parula Warbler .....	6	Louisiana Water Thrush.....	1

Total Species, 38; Male Birds.....375

Most readers will be surprised at the results of the census. I have asked several people to guess which bird was the most numerous in the Park during the summer. Each gave a different answer, some guessing the Robin, some the Mourning Dove, some the Blue Jay but none guessing the Indigo Bunting. In nearly every case the "guess" was some bird more frequently seen about the home or in the more frequented parts of the Park. Previous to the census, my own guess would have been of this character.

The Robin, the Thrasher, the Dove and the Towhee are most conspicuous and numerous in the regions most frequented but away out in the Park over the dry hilltops and slopes covered with a scraggy growth of pots oak, fragrant sumach and other shrubbery trees and bushes and tangled vines, the Indigo Bunting finds both the sunshine and the shelter that seems to appeal to his bird-sense.

In the regions of heavier timber along the valley of the Blue River and of the tributary streams, where broken limbs and dead stubs and drift rubbish accumulate, there the Chickadees and the Tufted Titmice find their ideals of nesting places and of food. Since both of these types of territory are still quite extensive in the Park we find the Indigo Bunting, the Tufted Titmouse and the Chickadee take the lead in point of numbers for the summer birds of the Park.

A further study of the list will show some interesting comparisons. For instance, in the Park during the summer there are more Parula Warblers than Robins; more Worm-

eating Warblers than Doves; more Blue-winged Warblers than Orioles; more Kentucky Warblers than Thrashers; more Ovenbirds than Wrens.

Two hundred forty-four Warblers of 12 different species nest in the Park; 105 singing virees of 5 different species were counted; 156 flycatchers representing 5 different species were found. These numbers refer to male birds only. How many of these birds are known by the throngs of people who walk or drive through the Park?

It is hoped that this report will stimulate a desire on the part of the reader to become acquainted with some of these numerous feathered friends. As Miss Blanchan says, "We ought to have at least a bowing acquaintance with those friends of our very doorstep who do us the most good."

Before leaving this discussion of the summer birds of Swope Park, it might be well to arrange them in order of numbers of each species for the whole park. Thus we will be able to see at a glance which ones are the most numerous. Such a summary is given on page 65. For the sake of the more scientific reader, who may wish to know more definitely the species and sub-species found, this list includes the scientific name as listed in the check list of the American Ornithologist Union.

As in the reports for the separate sections of the park, the birds are listed in the order of numbers, beginning with the most numerous.



*Fig. 12—The Wild Beauty of Hazel Dell Is the Delight of the Nature Lover, and the Home of Retiring Birds and Wild Flowers*

SUMMARY OF CENSUS OF SUMMER BIRDS IN  
SWOPE PARK.

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(Numbers indicate the total number of male birds.)

Indigo Bunting, <i>Passerina cyanes</i> (Linn.).....	164
Tufted Titmouse, <i>Baeolophus Bicolor</i> (Linn.).....	158
Chickadee, <i>Penthestes atricapillus atricapillus</i> (Linn.).....	153
Red-eyed Vireo, <i>Vireosylva olivaceae</i> (Linn.).....	86
Kentucky Warbler, <i>Oporonis formosus</i> (Wilson).....	74
Blue Jay, <i>Cyanocitta cristata cristata</i> (Linn.).....	73
Downy Woodpecker, <i>Dryobates pubescens medianus</i> (Swainson)....	76
Crested Flycatcher, <i>Myiarchus crinitus</i> (Linn.).....	71
Cardinal, <i>Cardinalis cardinalis cardinalis</i> (Linn.).....	70
Yellow-billed Cuckoo, <i>Coccyzus americanus americanus</i> (Linn.)....	65
Brown Thrasher, <i>Toxostoma rufum</i> (Linn.).....	58
Dickcissel, <i>Spiza americana</i> (Gmelin).....	58
Wood Thrush, <i>Hylocichla mustelina</i> (Gmelin).....	55
Cowbird, <i>Molothrus ater ater</i> (Boddaert).....	51
Wood Peewee, <i>Miochanes virens</i> (Linn.).....	42
Crow, <i>Corvus brachyrhynchos brachyrhynchos</i> Brehm.....	42
Goldfinch, <i>Astragalinus tristis tristis</i> (Linn.).....	36
Towhee, <i>Pipilo erythrophthalmus erythrophthalmus</i> (Linn.).....	34
Cerulean Warbler, <i>Dendroica cerulea</i> (Wilson).....	34
Blue-gray Gnatcatcher, <i>Polioptila coerulea coerulea</i> (Linn.).....	34
Meadowlark, <i>Sturnella magna magna</i> (Linn.).....	32
Northern Parula Warbler, <i>Compsothlypis americana usnea</i> Brewster	32
Robin, <i>Planesticus migratorius migratorius</i> (Linn.).....	31
Red-bellied Woodpecker, <i>Centurus carolinus</i> (Linn.).....	30
Acadian Flycatcher, <i>Empidonax virescens</i> (Vieillot).....	27
Field Sparrow, <i>Spizella pusilla pusilla</i> (Wilson).....	25
Catbird, <i>Dumatella carolinensis</i> (Linn.).....	25
Red-headed Woodpecker, <i>Melanerpes erythrocephalus</i> (Linn.).....	24
Scarlet Tanager, <i>Piranga erythromelas</i> (Vieillot).....	22
Worm-eating Warbler, <i>Helmintherus vermivorus</i> (Gmelin).....	21

Hairy Woodpecker, <i>Dryobates villosus villosus</i> (Linn.)	20
Yellow-breasted Chat, <i>Icteria virens virens</i> (Linn.)	18
Carolina Wren, <i>Thryothorus ludovicianus ludovicianus</i> (Latham)	18
Mourning Dove, <i>Zenaidura macroura carolinensis</i> (Linn.)	17
Redstart, <i>Setophaga ruticilla</i> (Linn.)	17
Bluebird, <i>Sialis sialis silais</i> (Linn.)	17
Blue-Winged Warbler, <i>Vermivora pinus</i> (Linn.)	17
Turkey Vulture, <i>Carthartes aura septentrionalis</i> Wied.	16
Northern Flicker, <i>Colaptes auratus luteus</i> Bangs	15
Baltimore Oriole, <i>Icterus galbula</i> (Linn.)	14
Chipping Sparrow, <i>Spizella passerina passerina</i> (Beckstein)	12
Kingbird, <i>Tyrannus tyrannus</i> (Linn.)	11
White-eyed Vireo, <i>Vireo griseus griseus</i> (Boddaert)	11
Maryland Yellowthroat, <i>Geothlypis trichas trichas</i> (Linn.)	11
Bronze Grackle, <i>Quiscalus quiscula aenas</i> Ridge	9
Purple Martin, <i>Progne subis subis</i> (Linn.)	8
Summer Tanager, <i>Piranga rubra rubra</i> (Linn.)	8
Oven-bird, <i>Seiurus aurocapillus</i> (Linn.)	7
Louisiana Water Thrush, <i>Seiurus motacilla</i> (Vieillot)	7
Whip-poor-will, <i>Antrostomus vociferus</i> (Wilson)	6
Black-and-white Warbler, <i>Mniotilta varia</i> (Linn.)	5
Phoebe, <i>Sayornis phoebe</i> (Linn.)	5
Bob-White, <i>Colinus virginianus virginianus</i> (Linn.)	4
Chimney Swift, <i>Chaetura pelagica</i> (Linn.)	4
Green Heron, <i>Butorides virescens virescens</i> (Linn.)	4
Cooper's Hawk, <i>Accipiter cooperi</i> (Bonaparte)	3
Screech Owl, <i>Otis asio asio</i> (Linn.)	3
Ruby-throated Hummingbird, <i>Archilochus colubris</i> (Linn.)	3
Yellow-throated Vireo, <i>Lanivireo flavifrons</i> (Vieillot)	3
Migrant Shrike, <i>Lanus Ludovicianus migrans</i> W. Palmer	2
Sparrow Hawk, <i>Falco sparvireus sparvireus</i> (Linn.)	2
Kingfisher, <i>Ceryle alcyon</i> (Linn.)	2
Rose-breasted Grosbeak, <i>Zamelodia ludoviciana</i> (Linn.)	2
White-breasted Nuthatch, <i>Sitta carolinensis carolinensis</i> Latham	2
Great Horned Owl, <i>Bubo virginianus virginianus</i> (Gmelin)	1
Night Hawk, <i>Chordeiles virginianus</i> (Gmelin)	1
Horned Lark, <i>Otocoris alpestris praticola</i> Henshaw	1
Orchard Oriole, <i>Icterus spurius</i> (Linn.)	1
Prothonotary Warbler, <i>Protonaria citrea</i> (Boddaert)	1
Warbling Vireo, <i>Vireo gilva gilva</i> (Vieillot)	1
Bell's Vireo, <i>Vireo belli belli</i> Audobon	1
Mockingbird, <i>Mimus polyglottus polyglottus</i> (Linn.)	1
House Wren, <i>Troglodytes aedon parkmani</i> Audobon	1
Total species, 73; total male birds, 2,025.	

Since the census was taken, I have been able to add five more species to the list of nesting birds in the Park, namely:

Broad-winged Hawk, <i>Buteo platypterus</i> (Vieillot) .....	1
Barn Owl, <i>Stryx pratincola</i> (Bonaparte) .....	1
Goldfinch, <i>Astragalinus tristis tristis</i> (Linn.) .....	1
Grasshopper Sparrow, <i>Ammodramus savannarum australis</i> Maynard	1
Lark Sparrow, <i>Chondestes grammacus grammacus</i> (Say) .....	1

Total Species, 73; total Male Birds.....2,025



Fig. 17—Nest of Kentucky Warbler in Hazel Dell, Built in a Tussock of Sedge With Galium and Other Weeds Entangled

In addition to these, a Blue Grosbeak, *Guiraca caerulea caerulea* (Linn.) reared its brood a short distance east of the Park during the summer of 1918, bringing the total species that nest in the Park and immediate vicinity up to 78.

According to this estimate, there will average about one and one-half male birds to the acre in the Park. Or, supposing that each was mated, there would then be three adult birds to the acre. But since numbers of the birds no doubt escaped notice, we may grant two pairs or four birds to the acre for the Park. Are conditions such that more could be furnished with food and nesting places? What is the limit? What determines the number? These are questions that are difficult to answer. I cannot answer them, but I may venture a few opinions.

The number of birds found in a certain locality is determined by a combination of factors, and the dominant factor may be different in different regions and for different species.

The alfalfa field and meadow of the Rifle Range in Section Number 14, one of the most densely bird-populated regions in the Park, could well furnish food and nesting places for more birds than were found there. There seemed to be no rivalry or conflict among the Dickcissels themselves, for two males would be sitting only a few feet apart on the wire fence singing happily and seemingly oblivious of each other's presence. Certainly there was shortage in the supply of weed seed or grasshoppers for food. The Meadowlarks and the Field Sparrows seemed to have no dispute concerning food or nest. Why, then, will there not be double the number of Dickcissels and other birds next year, or at least an increase until the limit has been reached?

In my opinion, the number of birds in this region of the Park is kept in check by the interference of man; by their

natural enemies, the birds and beasts of prey; and by the weather conditions.

The grass of the meadow is cut at about the time the young Dickcissels are hatching. The mower and the horse's hoofs will crush many of the nests and following the mower comes the rake to scratch up the nests. This is not quite so disastrous to the Meadowlarks, for many of the Meadowlarks have left the nest before the grass is cut.

The Meadowlarks and also the Dickcissels are sometimes seriously disturbed by seasons of wet weather, for both these species nest on the ground. This meadow is low and almost swampy in rainy seasons and since the heaviest rains occur about the time the Meadowlarks are hatching, in wet seasons, no doubt many are drowned or chilled to death.

Add to these menaces the constant dangers and death rate during migration, and it is doubtful if there will ever be any increase in the number of birds in this region from year to year. Should the number increase for a time, according to the rules of balance in nature, their enemies would increase in proportion until the normal number of birds was again reached.

With some other species, and in some other part of the Park the problem might be different. Many Chickadees were found in the horseshoe bend of the Blue River in Section Number 10, yet more could probably find insect food in this moist insect-breeding region than are there. Yet, there is not likely to be any increase in numbers. In this case, the check would probably be in the number of suitable nesting places, for the Chickadee must depend upon natural cavities in the trees, such

at knot holes and deserted woodpecker's burrows for nesting sites. Scarcity of food during times of ice and snow in winter might be another check.

The number and distribution of birds with reference to man is an interesting problem. Certain species, for reasons unknown, shun the presence of man and seem to be unwilling to modify their nesting habits. With the encroachments of civilization these species are driven to more and more restricted areas, and are threatened with extinction. With others it is the reverse, and they are rarely found far from human habitation. This is indicated repeatedly in the report of the census of the several sections in the Park.

On the whole, partial proximity to man seems to be favorable. The bird population is denser in a residence community supplied with many trees and shrubs than it is in the deep forests. More birds will be found along traveled country roads lined with trees and hedgerows than will be found along the same length of forest path.

The ideal conditions that determine the numbers and distribution of the greater number of species of land birds seems to be: First, presence of hiding places in the form of trees, shrubs and other vegetation; second, proximity to man with the protection afforded by his presence; third, provision for nesting sites for those that nest only in cavities; such as the Bluebird, Chickadee, Martin and Tufted Titmouse. A fourth is the presence of food and water, which are usually sufficiently available.

To increase our bird population, therefore, we should plant trees, shrubs and vines about our homes; we should have

hedgerows replace some of the wire fences on the farm, and trees should line the highways. In extreme cases, we should provide water and food. Then, in addition to these measures, wherever possible, or wherever opportunity offers, as is the case in Swope Park, we should leave some rather extensive area undisturbed for the preservation of those species that are too modest or too aristocratic to care to associate with man.

The English Sparrow has purposely been left out of this discussion. It is a well known outlaw bird. There are hundreds of them in the Park, especially about the Shelter House and about the Zoo. They interfere with but few species of other birds, and this interference is chiefly in a struggle for the nesting sites of such birds as the Bluebird, Purple Martin and Wren. This interference, however, is so great that unless we lend a hand and help in the struggle, the English Sparrows will all but exterminate these more desirable birds from our home premises.





*Fig. 18—Nest of Indigo Bird in Low Shrub of Bladdernut (Staphylea trifolia.) Note the Cowbird's Eggs in the Nest.*

## WINTER BIRDS OF THE PARK

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The shelter offered by the thickets and woods of the Park especially along the rocky sheltered ravines, forms quite an attraction for birds in the winter, and every year a few representatives remain of a number of species that regularly go farther south.

These stray winter residents include quite a number of species that nest in the Park, such as the Robin, Bluebird, Towhee, Mockingbird, Meadowlark, Red-headed Woodpecker. It is impossible to tell whether those remaining for the winter are individuals that nested in the Park, or whether they are birds that nested farther north and in their migration southward, got no farther than this latitude.

During the Christmas holidays of 1915-16, a flock of several Bluebirds and Robins was found in the sheltered recesses of Shiloh Hollow. They twittered contentedly in spite of the fact that there were several inches of snow on the ground.

On January 1st, 1916, three Meadowlarks flew across the street at the northwest corner of the Park. They were seen again a week later, but the following week was very cold with a coating of ice over all outdoors, and after this period of ten degrees below zero, no more was seen of the Meadowlarks until time for return migrants. The Robins and Bluebirds also disappeared after this extreme cold.

The Mockingbird is reported here for the winter by Mr.

Smithson, of Warrensburg, Mo., and I have seen it repeatedly myself during the winter, finding it on January 26, 1907, one of the very cold days of the winter.

January 2, 1908, I saw and heard the Towhee in the shrubbery of the northwest part of the Park.

Flickers are to be found in the sheltered hollows of the Park almost any day of the winter and Red-headed Woodpeckers are found occasionally during the winter. During the winter of 1909 the Redheads came regularly to a chestnut oak tree in my yard and gathered acorns, evidently eating more than merely the worms found in the acorns.

The Kinglets are occasionally found with us during the winter. I have found them in January of 1908 and also in 1916.

Harris Sparrows, Song Sparrows and Lincoln Finches are occasionally met with in the Park in the midst of winter. A Harris Sparrow came regularly to a feeding box near my window during the winter of 1916.

During the winter of 1916-17 and also the preceding winter great flocks of Thick-billed Redwings (*Agelaius phoeniceus fortis*) came down from the Northwest and congregated by thousands along the Missouri River at night, and during the day spread out over the woods and fields of the surrounding country, many of them feeding in the Park.

Besides these rather irregular winter birds, the regular winter residents are found. (See paragraph for species recorded). Juncos, Chickadees, Tree Sparrows and Titmice are the most numerous of the species found in the Park during winter.

The following have been reported for the Park at some time during the winter months:

Mallard	Pine Siskin
Blue-winged Teal	Crossbill
Bob White	Goldfinch
Mourning Dove	English Sparrow
Marsh Hawk	Harris Sparrow
Cooper's Hawk	White-crowned Sparrow
Red-tailed Hawk	Tree Sparrow
Bald Eagle	Slate-colored Junco
Sparrow Hawk	Song Sparrow
Barn Owl	Fox Sparrow
Barred Owl	Towhee
Screech Owl	Cardinal
Great Horned Owl	Cedar Waxwing
Kingfisher	Mockingbird
Hairy Woodpecker	Carolina Wren
Downy Woodpecker	Winter Wren
Yellow-bellied Sapsucker	Brown Creeper
Red-headed Woodpecker	White-breasted Nuthatch
Flicker	Tufted Titmouse
Red-winged Blackbird	Chickadee
Thick-billed Red-wing	Golden-crowned Kinglet
Northern Red-wing	Robin
Meadowlark	Bluebird
Purple Finch	



*Fig. 19—Pulpit Rock, Where One May Read “Sermons in Stones”  
While Listening to a Bird Chorus*

THRILLS OF MIGRATION.

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During the spring migration of April and May, there passes through the Park a great pageant of gaily colored, vivacious singers and acrobatic performers. The performances are repeated day after day among the branches of the trees and shrubs.

The stage is wonderfully set for the performance. A soft velvet carpet of green is spread out over the ground; flowers are scattered all about. There is a bright border of blooming shrubs about the stage, really they form a part of the stage itself. Here and there a tall tree forms a part of the setting, and its branches reach up to the blue canopy overhead.

The performers come and go; new ones are continually arriving. There is nothing tiresome, nothing monotonous. All is activity and charm and grace. There is continuous music.

Some morning in early May, walk out among the red haw trees and wild crab thicket in the northwest corner of the Park and watch the visitors that come to the trees. On one such memorable morning I found ten birds of seven different species all in a single, spreading haw tree at one time. The tree itself was very beautiful with its blossoms and green leaves, but the presence of the birds made it all the more in-

teresting. A later inspection showed that it was badly infected with plant lice as well as with canker worms, and the birds were busy ridding it of these pests. Watch them as they dart from one leafy spray to another, or as they stretch their necks to pick a morsel from overhead. Again, they are seen tipping upside down to reach a worm on a leaf below. Now close your eyes and listen; the twittering is incessant. They are singing the freshness of the morning dew and blossoms and green leaves. Some have truly wonderful flute-like voices that may in different keys, yet they harmonize both in tones and with be heard far away, others are soft and sweet and can be heard only when the bird is near at hand. The effect is truly wonderful.

We who live in the suburbs and have a few trees in our yards do not even need to go to the woods to see and hear the Mayday performance. Fortunate, indeed, is one who at this season of migration has a home with windows and a yard with trees and shrubs; but he needs even more than this; he needs the keen appreciation that alone can give charm to the pageant. This appreciation is enhanced by an understanding of the significance of the scene. The interest in the performance grows by an acquaintance with the performers.

After some practice, one may know which birds are on hand merely by hearing their voices. He may be awakened in the morning by a new note and can tell what new member have arrived during the night. How interesting to be on the alert for new arrivals. What a disappointment if some favorite happens to be delayed and arrives a few days late. During this season the bird lover is consulting the time table daily,

comparing dates with previous years, and making records for future comparison and reference. The days are too short. Life's cup is too full. There is so much to live for, and so much to see and do. Yet some people go through life not knowing that anything unusual is happening. They have not learned to play the game. How much they miss!

A trip through the Park during early May is of more than interest to the bird lover. A most interesting diversion is to try to find the greatest possible number of bird species during a single day, or during a single week or month—make a "Day Record," or a "Week Record," or a "Month Record." After one has gained a degree of proficiency in recognizing the birds and knows their haunts, then, by starting at daybreak and exploring one region after another it is possible, in early May, to find seventy-five or more species in the Park during a single day. During midwinter one does well to find as many as twenty species in the Park during a single day's walk.

Certain birds seem to have favorite paths across country for their migration routes. Shiloh Hollow, Hazel Dell and Southeast Hollow of Swope Park are especially favorite paths for a great number of land birds. This may be due to the shelter of the forest, and to the food found in connection with the vegetation along these valleys. However, certain species are more numerous in certain hollows; for instance, Shiloh Hollow is frequented by a large number of Parula and Cerulean Warblers, while Buckeye Hollow is a more favorite migration route for the Kentucky Warbler.

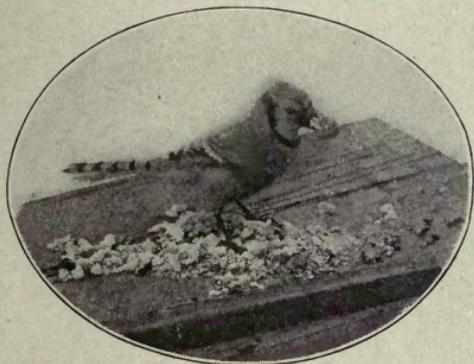
The thicket of wild crab and red haw trees in the northwest corner of the Park furnish resting and feeding places for

great numbers of Tennessee Warblers, Nashville Warblers, Yellow Warblers and others during their migration. The numbers are so great that it seems as though every leaf and twig will have been inspected and cleaned of its insects. During their brief visit they will destroy millions of devastating pests. What a great blessing their semi-annual visit brings! We are twice blest with their presence, blest with the work they do, and blest with their enchanting grace and activity and song.

During autumn, also, but to a less noticeable extent, the Park becomes the feeding place and resting place for innumerable birds. Their more quiet ways at this season, and their more somber colors make them less conspicuous, and only the bird student is aware that anything unusual is taking place.

Swope Park is at no time any great resort for water fowl. During migration, however, a number of Plovers, Sandpipers, ducks and occasionally others, may be found along the Blue River and the Park lakes. (See check list for species that have been recorded.)

It is very evident that during the erratic wanderings of migration, almost every species of bird that passes along the Missouri valley might at some time be found either resting in the Park or at least flying over. Persistent, and careful observations at these seasons will surely add to the list of birds of Swope Park.



*Fig. 20—Bluejay “Greedy”*



*Fig. 21—Chickadee on the Window Ledge*

*Birds as Seen From the Window*

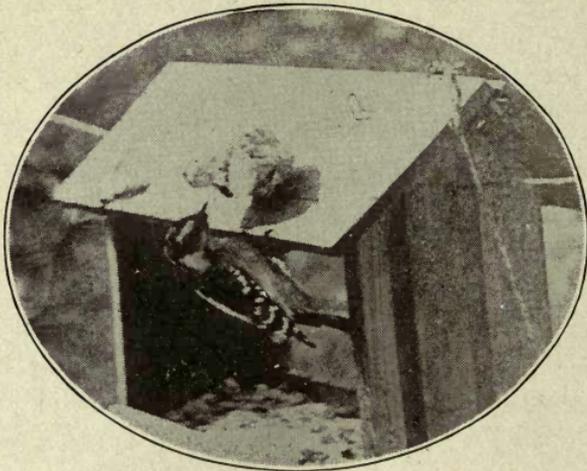


Fig. 22—Red-Bellied Woodpecker, "Filling Up"

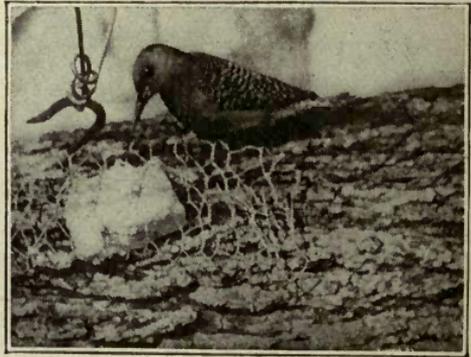


Fig. 23—Downy Woodpecker at the Suet

Birds as Seen From the Window

Errata - Outlines for Figs. 22 and 23

### BIRDS ABOUT OUR HOMES.

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A surprisingly great number of these birds of the Park may be found about our homes and may even be seen from our windows. From my window one morning in early May I counted twenty-seven species of birds within an hour. During the whole season I have seen as many as eighty species from my home, and twenty-one species have nested in my yard within the past five years, though not all in one season. The yard is a city lot 100 by 270 feet. I do not consider this number of birds about the home to be especially remarkable, but mention it merely as an indication of what might be expected under moderately favorable conditions.

The birds whose ecological habits impel them to seek the shelter of shrubs and shade trees of our yards, have already been mentioned in the preceding pages. They are the birds that are found about the Shelter House and the Park Zoo, and in other frequented portions of the Park. It might be well, however, to enumerate them again with some comment on their nesting habits, and on the means for attracting them to our homes.

Birds are free to come and go. They move about at will, and they will go where conditions are favorable and where

the surroundings are in accordance with their instincts. If we want them about our homes we must meet, in a measure at least, their requirements of food and water, nesting sites and protection from enemies.

We are especially anxious to have the birds with us during the summer as nesting birds for it is then that they are of most economic value and of most aesthetic interest. If we provide suitable environment in the way of hiding places, and food and water, we may have a surprisingly great number with us throughout the summer. Hiding places for their nests is of first importance.

For the Catbird, Brown Thrasher, Chipping Sparrow and Mourning Dove we must have a tangle of low bushy shrubs and trees if we would tempt these most valuable birds to be with us throughout the summer. The Cardinal, the Summer Tanager, Bell's Vireo, Mockingbird and Wood Thrush also nest in shrubs and low trees, and occasionally come to our yards to rear their broods.

Other birds prefer larger trees. The Robin prefers either the larger forked branches of trees, or else a cornice of the house or any broad surface for a platform upon which to place his mud-lined nest. The Grackle and the Blue Jay sometimes come to our lawns and select the higher branches of tall trees for their nesting places. The Baltimore Oriole suspends its nest far out on the drooping branches. The Orchard Oriole and the Rose-breasted Grosbeak and Warbling Vireo also prefer trees for their nesting sites. I have had the Robin, Bluebird, Bronze Grackle, Baltimore Oriole all nesting in a single big elm tree in my yard during the same season.

The Bluebird, House Wren and Purple Martin must have nesting boxes supplied for them. The Red-headed Woodpecker, Flicker, Chickadee, Downy Woodpecker and Crested Flycatcher will be pleased to take up their abode near our homes providing they can find a dead stub, or a telephone pole in which to chisel out their home; or, in the case of the Chickadee and the Crested Flycatcher, find a cavity already chiseled out. Again, we may be of some help by providing cavities for these birds, but the cavity must be carefully patterned after the bird's own design.

The Yellow-billed Cuckoo, Screech Owl, Sparrow Hawk, Tufted Titmouse, Indigo Bunting and Phoebe occasionally nest near our homes. In fact there are occasional instances of quite a number of other birds that may nest in our very door yards, but they are unusual, and their presence is due to especially favorable conditions. In this, and other comments, I am referring to the Kansas City region.

During winter the Chickadees, Titmice, Woodpeckers, Nuthatches, Cardinals and Blue Jays come in from the woods. They are hunting for food, and instinctively know that they may find stray crumbs and other delicacies about our houses. If they are not disappointed, and if they find a bunch of suet and a few cracked nuts, they will soon return and become regular pensioners. Still, they pay for their hand-out, for they vary their diet of suet and crumbs with insect eggs and larvae that they find in the trees and shrubs about the place.

With these resident birds will come a number of winter visitors from the north to share in the feast. Juncos and Tree Sparrows are the most numerous, but occasionally

Harris's Sparrows and White Crowned Sparrows and Song Sparrows and Brown Creepers will be seen.

If we succeed in attracting the birds to our homes by feeding them in the winter, we have made a good beginning, and if nesting places are available, some will stay with us throughout the summer.

In addition to the nesting sites, we should add nesting material. Do not forget to have various kinds of strings and fiber left in bunches here and there about the yard. I attribute a Warbling Vireo's nest in my yard to be due largely to a bunch of tow left hanging in a clump of bushes. A handful



*Fig. 24—A Good Way to Attract Birds to the Home in the Summer Is to Provide a Bird Bath*

of bright colored yarn hung up in the bushes was seized upon by the Baltimore Oriole five minutes after it was put out for their use.

The presence of birds about the home depends, in part at least, on the presence of trees and shrubs. The presence of trees and shrubs depends to a considerable extent on the size of the yard and the density of population. Therefore there are fewer birds in the thickly settled residence sections of a city than there are in the thinly settled districts; moreover, there are usually more about the country, or village home than about the city home.

The protection afforded by man will attract a greater bird population about our homes than is found along the roadside, or even in the woods thicket. A census of summer birds taken in Lawrence, Kansas, during the summer of 1916, showed a greater number of species and of individuals in the thinly settled residence section of the town than were found along a country road lined with trees and bushes.

The census was taken by walking along the street and noting the birds to be seen and heard, keeping careful check on both species and on numbers. Approximately the same distance was traveled in each case. This tends to prove that if other conditions are favorable, birds prefer the companionship and protection offered by man.

### CONSERVATION OF BIRDS.

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Birds are beset by enemies on every hand. Around our homes they are disturbed by man, who picks the roses and lilacs, or prunes the vines and bushes that hide the nests of his feathered friends; frightening the old birds, and often, unwittingly, shaking the eggs or the young out of the nest. Roaming cats sneak up onto the nests in the early twilight, or in the daytime stalk the old birds. The young birds that have just left the nest are the easiest victims, and but few escape.

Out in the woods, the hawks and owls and squirrels and crows are more numerous. They are always hungry and always hunting. It is a case of wit against wit, or, perhaps we should say, instinct against instinct; instinct of self preservation and care of young, pitted against instinct of food securing; maternal love against pangs of hunger. It is a ceaseless round of kill or be killed; eat or die of starvation.

On the whole, it is all for the best. The ceaseless struggle for existence becomes a weeding out process in which the weaker go first, leaving the stronger; the ones with most highly developed instinct; the ones most concealingly colored;

the ones with greatest endurance to survive and become the ancestors of the next generation.

All would go well enough were it not for man's interference. But man in his might, with his weapons and his tools, and his progress in "Civilization" interfere half wittingly, half unwittingly; half carelessly and half unavoidably, and disturbs the balance of nature. As a result, some inferior species of animals, like cats and squirrels and English Sparrows, Grackles, Cowbirds and Jays are permitted to increase in undue proportion, while the hiding places, and the last retreats of the more valuable ground nesting birds, as well as tree dwellers, are destroyed, leaving them without nesting places for reproduction, and without hiding places from their enemies.

Man in his economy, pastures the woods, and the nests of the Ovenbird, Kentucky Warbler, Water Thrush, Indigo Bunting, Bell's Vireo, White-eyed Vireo, Blue-wing Warbler, Towhee and Yellow Throat are destroyed; as a result, there are more canker worms and bark beetles and aphides than formerly. He cuts the meadow and destroys the nests of the Field Sparrow, the Dickcissel, the Meadowlark and the Grasshopper Sparrow, and then remarks that the "Grasshoppers and cutworms are very bad this year."

For a time the old rail fence corners, with their blackberry vines and tall grasses gave shelter to many birds that went foraging for insects in the nearby fields. With a scarcity of timber, the rail fence was replaced by long rows of Osage Orange hedge fences. These were sometimes neglected, and then became the very finest of homes for the Cardinals,

Cuckoos, Vireos, Thrashers and Catbirds, but even here the birds were not without their enemies, for the Shrikes made good use of the hedge thorns for holding young birds, as well as mice, while they picked the delicate morsels to bits. The graceful, gliding Blue-racer Blacksnake hid in the tall weeds and when field mice grew scarce, would climb up among the branches of the shrubs, find the eggs and young birds in the nest, and swallow them whole, quite unconcerned over the frantic cries and paralyzed fear of the parents.

But the hedge rows took up too much of the valuable prairie cornfield, so the hedge was pulled up by the roots; the weeds and bushes were plowed up, and a neat, straight, wire fence has taken the place of the bird-arbor hedge. No place here for the birds to hide!

The results are not quite so tragic, however, as the foregoing would seem to imply. More and more, through the influence of literature and lectures and schools and societies, the economic value of birds is being presented to the public. Slowly, but surely, the lessons are being learned, and just as surely as they are comprehended, will there be results in the way of efforts to attract birds about the home, and in the protection of others that prefer to stay in the fields and woods.

This campaign for bird conservation is but begun, which means that much remains to be done. The lessons have not yet been sufficiently impressed, and we still find yards without shrubs or vines. Cats are still turned out to hunt their food as best they can. There is an almost universal absence of drinking fountains and bathing pools for the birds, and

little effort is made to provide nesting boxes for those most valuable birds that build only in cavities.

We need more trees and shrubs about the home, more hedgerows on the farm, and more bird sanctuaries in all parts of the country.

The English Sparrow has usurped the premises about our homes, and in many respects it is a useful bird. We are loathe to acknowledge its value, but just watch it during canker-worm time. In spite of its usefulness, it deserves our ill will, and merits our attempts at extermination. Its bad habits outweigh its usefulness, for it tends to destroy that nicely adjusted balance of nature.

Although it eats a few insects when insects abound, yet its chief food is either of negligible economic importance to us, being pickings from the street litter and from the garbage can, or else its feeding habits may be seriously destructive as when it visits the garden, not for worms, but for the tender leaves of peas and lettuce just coming out of the ground.

It destroys the balance of life by usurping the nesting places of more valuable birds, such as the Purple Martin, Eve-Swallow, House Wren, Bluebird, Chickadee and the Woodpeckers. The Purple Martin and the Eve-Swallow have become almost extinct in many regions because of the vicious rivalry of the English Sparrow. It destroys the balance of life by driving away insectivorous birds, and thus permitting the insects to multiply beyond their proper bounds.

Yet, we are really to blame. We introduced the English Sparrow into the country, and now that it has proved itself to be a pest, we still permit it to nest about our premises.

It is a comparatively small matter for the home owner to prevent any English Sparrow from raising a brood on his own premises. If all should do this for a few years, the problem would be solved. The few interested families, however, cannot destroy all the sparrow nests for the whole neighborhood, and it thus becomes almost useless to bother with the few nests on his own premises. It should be a finable offense to permit English Sparrows to nest on the premises.

Another way to solve the English Sparrow problem is to poison them during the winter with Strychnia sulphate. Farmer's Bulletin, Number 493, of the Department of Agriculture, gives good directions for doing this.

Next to the English Sparrow, the Robin is the most numerous bird about our homes. The nesting of the Robin is not disturbed by the English Sparrow, and they have thus had opportunity to multiply undisturbed save by the cats.

The Robin is valuable, but of hardly the economic value of the Purple Martin or of the Bluebird. The latter feed upon a greater variety of noxious insects and are not destructive to fruit. The Robin is destructive to fruit and feeds largely on angle worms from the ground. The destruction of the angle worms is of questionable value.

If we would only provide suitable nesting boxes and then eliminate the English Sparrow, there is no reason why Bluebirds and Purple Martins should not be as numerous as are English Sparrows and Robins.

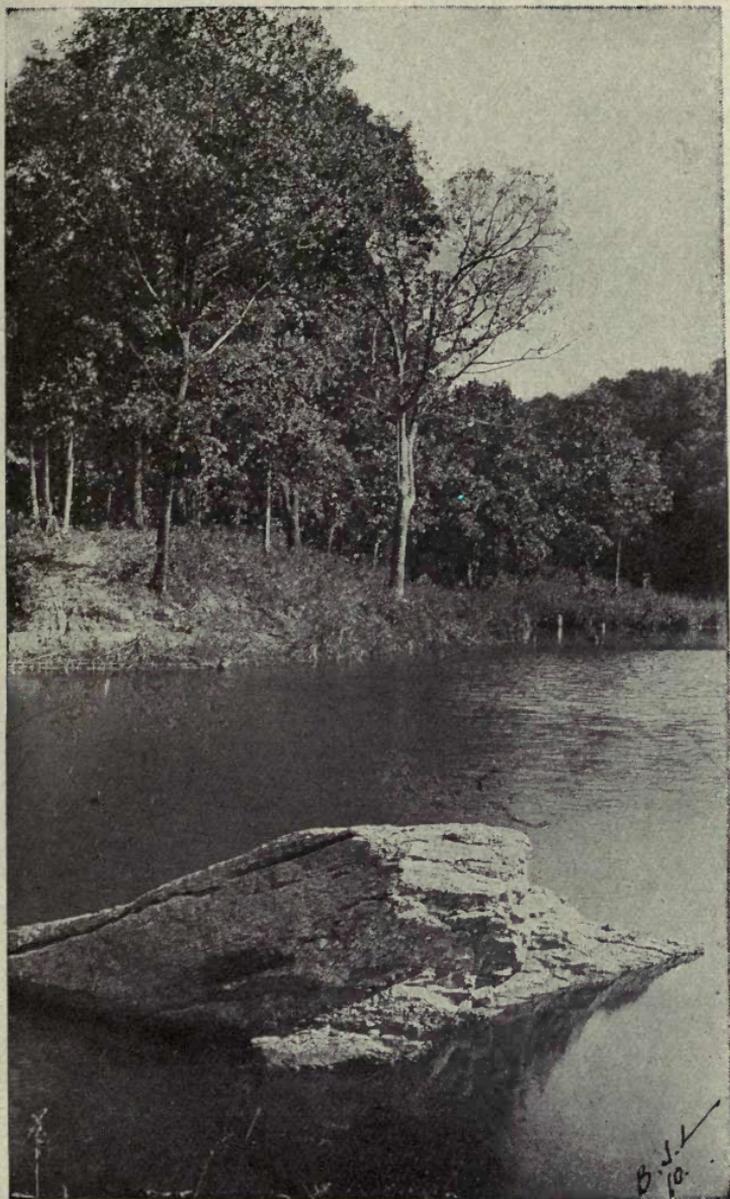


Fig. 25—The Lake of the Woods

## THE MORNING AWAKENING.

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During the month of June, 1919, I kept a number of records of the time of awakening of the birds in the morning about my home. The records were made by listening to the first call notes and songs of the respective birds.

The time of beginning varied slightly according to the temperature, and the cloudiness of the sky. They were about ten minutes later in awakening on a cold cloudy morning than on a clear, warm morning. There was also a slight variation in the order of their singing, but this also was quite uniform if an average of several mornings were taken.

The following record for June 13, a clear, warm morning, is a good indication of the time and the order in which they first indicated their morning activities.

The Mockingbird and the Yellow-billed Cuckoo were heard at various hours of the night. The Mockingbird was singing at 3:00 A. M., Standard time, which at Kansas City is 18 minutes faster than sun time.

At 3:35 the first Robin was heard. It was two blocks away. Another, nearer bird, soon took up the refrain and in three minutes a half dozen could be heard in various directions.

The Kingbird began twittering as he flew high in the air after insects at 3:42.

The Catbird began scolding before he began singing. The first scolding note was heard at 3:55. The song began a few minutes later. The Catbird was followed at 4:00 by the Wood Thrush.

At 4:01 the Brown Thrasher uttered a few faint notes, but it was off season for the Thrasher. During April he is an early riser and may even be heard singing at any hour of the night.

The Mourning Dove was next, at 4:05. In one of the records, the dove was the second bird to be heard. It always came early in the list.

The Baltimore Oriole sang at 4:07 and the House Wren began at 4:15. There was no stopping the House Wren, once he had begun. He sang so loudly and so persistently and so near at hand that I had some difficulty in hearing the other birds.

The Flicker uttered a few notes at 4:22, but the Flicker and also the Red-headed Woodpecker were rather quiet at this season of the year, for both were quite busy with their young. In fact I saw the Red-head fly past before I heard him utter a single call note.

At 4:23 the Crested Flycatcher began his harsh shrieking. The Towhee followed at 4:26; the Chickadee at 4:28, and the Redheaded Woodpecker gave his first sound at 4:30. A single Crow began cawing at 4:30.

A Warbling Vireo that has a nest in one of my elm trees began its very beautiful song at 4:30½. The Vireo's song seemed to waken the other birds that nest in the same tree,

and at 4:38 the Orchard Oriole sang, followed at 4:39½ by the Bronze Grackle.

At 4:40 the first Meadowlark was heard over in the Park. Had I been closer to the Meadowlarks I might have heard them earlier.

By this time the Robins and Catbirds and Orioles had quieted down and there was a decided lull in the great morning chorus. Later in the morning the various choristers started their songs again, but never with the persistence nor volume that characterized the first awakening chorus.

The first English Sparrow was heard at 4:44; the Chirping Sparrow at 4:44; the Blue Jay at 4:44½. Chimney Swifts were first heard at 4:55

The last bird to begin singing about the home this morning was the Bell's Vireo, which did not begin until 5:05, an hour and a half after the first Robin was heard.

The morning chorus of birds about our homes is superior to that in the deeper woods. There may be a greater variety of notes and calls and of birds in the woods, but the relative number of musical bird voices is greater about the home than it is in the secluded portions of the forest.

The night of June 22d, 1919, was spent on the Rifle Range of the Park. I wanted to hear the sequence of morning bird calls out in the woods and compare with those about home.

Mr. Walter Cunningham, a good bird student, kept me company during the night, and rendered valuable assistance in the morning in helping to check up on certain birds in the open meadow, while I gave my attention to the bordering dense woods.

There was no difficulty in keeping awake. The mosquitoes and the chiggers were in hand in such force that I came very nearly giving up, and was just ready to return home when we found relief by going into an old abandoned ammunition house. The windows and doors were all smashed in, but the walls and roof and concrete floor were there.

We built a fire on the concrete floor and smothered it with green grass. The smoke rolled up and chased the mosquitoes away, and we stretched out on the floor below the smoke and in comparative comfort.

Whippoorwills sang intermitently all night long, but they were especially demonstrative in the early morning from 3:00 to 4:00.

The morning chorus was opened at 3:34 (Standard time) by a scolding Blue Jay, which made a rather discordant beginning. The Yellow-breasted Chat was second at 3:25. His sudden, broken outbursts could scarcely be called musical, nor could the caw of the Crow at 3:26.

The following other birds were heard from our station:

Purple Martin .....3:23  
 Indigo Bunting .....3:25  
 Tufted Titmouse .....3:48  
 Wood Peewee .....4:03  
 Crested Flycatcher .....4:12  
 Phoebe . . . . .4:17  
 Wood Thrush . . . . .4:18  
 Cardinal . . . . .4:19  
 Scarlet Tanager .....4:20  
 Kentucky Warbler .....4:20  
 Downy Woodpecker .....4:30  
 (Drumming, but no chirp)  
 Chickadee . . . . .4:35

Redstart . . . . .4:35½  
 House Wren .....4:43  
 Red-eyed Vireo .....4:43½  
 Louisiana Water Thrush...4:43½  
 Bluebird . . . . .4:48  
 Yellow-throated Vireo ....4:54  
 Carolina Wren .....4:58  
 Cowbird . . . . .5:03  
 White-breasted Nuthatch...5:04  
 Maryland Yellowthroat ....5:06  
 Hairy Woodpecker .....5:14  
 (Was seen at 4:46, but was quiet and inactive at that time.)

The last Whippoorwill note was heard at 4:20, and a Great-horned Owl uttered a note at 4:31.

The sun rose at 5:53, sun time, which for Kansas City, is 18 minutes slower than Standard time.

Both of the above records were made after the mating season, when the birds are less inclined to sing. Practically all of them would now have young in the nest, at which time the birds are most likely to sing only at the time of their first morning activities. Most of them soon quiet down, however, and for the rest of the day they sing only occasionally.

Just previous to mating, the birds may be heard singing at all hours, though even then they are more musical in morning and early forenoon. During this early part of the season, there would not be the striking contrast in bird songs between the regions about home and the unfrequented woodland, that there is later in the season, for in the migrating season, the birds that nest about our homes are common also in the woods and many of those that nest in the woods might also be found about our homes.

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### BIRDS DEFINITELY REPORTED FOR SWOPE PARK.

In the list that follows I shall include only those birds for which positive data is obtainable. In most cases the birds included in the list have been personally observed in the Park. In cases in which the bird has not been observed by myself, but is reported by other observers, credit is given the one furnishing the information.

## Note :

"*r*," resident bird during the entire year.

"*sr*," resident during the summer only, or rarely otherwise.

"*wr*," resident during the winter only, or rarely otherwise.

"*tr*," transient, found only during migration.

Pied-billed Grebe, *Podilymbus podiceps* (Linn) *tr*. This is an unusual bird to be found in the Park. Mr. Harry Harris reports having seen one on the Lake of the Woods.

Franklin's Gull, *Larus franklini* Richardson *tr*. Although more common along the Missouri River bottom, Franklin's Gull sometimes wander over to the Lagoon and Lake of the Woods. Mr. Walter Cunningham furnishes me with a record for the Lagoon, Sept. 1916.

Common Tern, *Sterna hirundo* Linn *tr*. A flock of fifteen Common Terns was reported by Harry Harris who saw them in the Park during migration.

Black Tern, *Hydrochelidon nigra surinamensis* (Gmelin) *tr*. and occasionally *sr*. Three of these birds were reported on the Lagoon June, 1917, by Walter Cunningham.

Mallard, *Anas platyrhynchos* Linn *tr*. It is not uncommon to find a number of these ducks resting on the Lagoon and on the Lake of the Woods during the migration season.

Baldpate, *Mareca americana* (Gmelin) *tr*. The Baldpate is rather uncommon at any season, but several were seen on the Lagoon Feb. 22, 1917.

Green-winged Teal, *Nettion carolinense* (Gmelin) *tr*. Although a common migrant, the Green-winged Teal is not common in the Park. The record was furnished by Mr. Harris.

Blue-winged Teal, *Querquedula discors* (Linn) *tr*. It is not unusual to find these duck in the Park during migration.

Shoveller, *Spatula clypeata* (Linn) *tr.* These birds are occasionally seen on the Lagoon in the migration season at times when the weather is unfavorable for the visiting crowds of people.

Pintail, *Dafila actua tzitzihoa* Vieillot *tr.* This is one of the more common visiting ducks of the Park. It is not uncommon to find them feeding in the Lagoon in early morning before they are disturbed.

Lesser Scaup Duck, *Marila affinis* (Eyton) *tr.* Uncommon for the Park. One was seen in the Park April 25, 1914, by Ralph Hoffman.

Bittern, *Botaurus lentiginosus* (Montagu) *tr.* The only available record for the Park is dated April 19, 1916, when one was seen in the marshy tract bordering the Park north of the Lagoon.

Great Blue Heron, *Ardea herodias herodias* Linn *tr.* This Heron does not breed in the Park and is an unusual visitor. One was seen fishing in the Blue River in 1910.

Green Heron, *Butorides virescens virescens* (Linn) *sr.* The Green Heron very probably nests in the Park as it is found quite regularly along the Blue River during the summer months.

Coot, *Fulca americana* Gmelin *tr.*, occasional *sr.*, but not in the Park. Though abundant elsewhere during migration, Coots are not often seen in the Park.

Woodcock, *Philohela minor* (Gmelin) *tr.* Woodcock are now very rare in this region. One was seen in Shiloh Hollow by Walter Cunningham who found it probing for food in the soft earth by the stream.

Wilson's Snipe, *Gallinago delicata* (Ord) *tr.* There are only a few records of this bird for the Park. It is now uncommon.

Yellow-legs, *Totanus flavipes* (Gmelin) *tr.* Yellow-legs may occasionally be found wading along the edge of the Lagoon during migration. Mr. Harris furnishes me with definite records for the Park.

Solitary Sandpiper, *Helodromas solitarius solitarius* (Wilson) *tr.* This wader is much less common than the next; one was seen on the Lagoon May 7, 1916.

Upland Plover, *Bartramia longicauda* Bechstein *tr.* Mr. Harris flushed an Upland Plover from the open place near the Shelter Pavillion April, 1920, and also saw five specimens on the Rifle Range April, 1920.

Spotted Sandpiper, *Actitis macularius* Linn *tr.* These birds are quite frequently found along the water ways in the Park during the spring and autumn. They add an interesting touch of wildness to the woody banks of the Blue River.

Killdeer, *Oxyechus vociferus* (Linn) *tr.* and *sr.* The Killdeer does not nest in the Park, but it is not uncommon to hear its clear, ringing notes as it flies over the Park during migration.

Bob-white, *Colinus virginianus virginianus* (Linn) *r.* Even the restrictions of the Park do not enable the Bob-white to multiply. The gunners will slip in regardless of guards, and the inspiring call of "Bob-white," is very rarely heard. A pair raised their brood in a vacant lot bordering the Park in 1916, but the gunners and their dogs located the covey, and none survived to add to the joys of life for the next season.

Mourning Dove, *Zenaidura macroura calolinensis* (Linn) *sr.* Mourning Doves are quite common in the Park, especially among the scattered red haw trees along the driveways.

Turkey Vulture, *Cathartes aura septentrionalis* Wied *sr.* These big birds may be seen any day during summer, soaring about over the south part of the Park. Quite a number nest in the crevices of the rock ledges.

Marsh Hawk, *Circus Hudsonicus* (Linn) *tr.* and *wr.* Marsh Hawks probably do not nest in the Park, but occasionally use it as a hunting ground. Some time ago I watched two of these fine hawks give a beautiful demonstration of their hunting tactics in the region of the Lagoon. They were evidently hunting for meadow mice in the grass of the meadow.

Sharp-shinned Hawk, *Accipiter velox* (Wilson) *tr* and *sr.* These hawks are fortunately uncommon in the Park. In the early spring of 1909 I watched one trying to prey upon a covey of quail among the bushes of the nursery.

Cooper's Hawk, *Accipiter cooperi* (Bonaparte) *sr.* and *wr.* This is the more common hawk found in the Park during the summer months. It nests in the tree tops of the more secluded portions of the Park.

Red-tailed Hawk, *Buteo borealis borealis* (Gmelin) *r.* It is quite common to see these beautiful big hawks sailing gracefully about high in the air over the Park during migration. Sometimes their clear, ringing notes are heard. I have one winter record.

Red-shouldered Hawk, *Buteo lineatus lineatus* (Gmelin) *r.* This fine hawk no doubt comes to the Park during some of its wanderings after food, but the records that I have are

always followed by a question mark, indicating that the identification was unsatisfactory.

Broad-winged Hawk, *Buteo platypterus*, (Viellot) *sr.* A Broad-winged Hawk nests near the Blue River west of the Rifle Range. Occasionally others are seen flying about over the Park. It is not altogether easy to distinguish it from Cooper's Hawk, which also nests in the Park.

Rough-legged Hawk, *Archibuteo lagopus sancti-johannis* (Gmelin) *wr.* This fine hawk is not so frequent in the Park as it is in the prairie sections of the country. A record for the Park was furnished by Mr. Harris.

Bald Eagle, *Haliaeetus leucocephalus leucocephalus* (Linn) *tr.* It is very unusual, in these days, to see a Bald Eagle in this part of the country. Mr. Ralph Hoffman saw one of these magnificent birds by the Lake of the Woods, and during the winter of 1919-20, one was repeatedly seen in the Missouri bottoms near the mouth of the Big Blue River.

Pigeon Hawk, *Falco columbarius columbarius* Linn *tr.* This is another one of the uncommon birds for this region. One was found in the Park in the spring of 1918 by Mr. Harry Harris.

Sparrow Hawk, *Falco sparverius sparverius* Linn *sr.* This beautiful falcon is the most common "Hawk" of the Park. It nests in the Park and also in the adjacent territory. During the summer of 1914 one nested in a bird box in my yard.

Osprey, Pandion, *halaetus carolinensis* (Gmelin) *tr.* The Fish Hawk occasionally is seen flying about over the lakes in the Park. I have two authentic records.

Barn Owl, *Aluco pratincola* (Bonaparte) *r.* So quiet is this night hunter that it is possibly more common than we think. Walter Cunningham reports one as a summer bird for the Park, finding it in Section Number 10.

Barred Owl, *Strix varia varia* Barton *r.* No doubt this bird breeds in the Park, but my records are all for spring and winter. It is not uncommon to hear their demoniacal "song," during the warm evenings of early spring.

Screech Owl, *Otus asio asio* (Linn) *r.* Screech Owls are rather common all about the Park as is indicated by their calls during spring time. One regularly spends its winter days in a bird box in my yard.

Great Horned Owl, *Bubo virginianus virginianus* (Gmelin) *r.* A few of these big fellows keep company with the Barred Owls in the deeper woods of the Park.

Yellow-billed Cuckoo, *Coccyzus americanus americanus* (Linn) *sr.* Yellow-billed Cuckoos are quite common in all portions of the Park, though not very noticeable because of their quiet ways.

Black-billed Cuckoo, *Coccyzus erythrophthalmus* (Wilson) *tr.* This bird is quite uncommon in this region. It has been reported near the Park and no doubt occurs in the Park during migration; perhaps more common than we think because of the difficulty of distinguishing it from the Yellow-billed Cuckoo.

Belted Kingfisher, *Ceryle alcyon* (Linn) *sr.* During summer a few Kingfishers plunge for fish along the Blue River and occasionally one may find their burrow in the bank. I have two records of the bird as a winter resident of the Park.

One nested in Section Number 10, during the summer of 1919.

Hairy Woodpecker, *Dryobates villosus villosus* (Linn) *r.* The Hairy Woodpecker is common in the wilder parts of the Park and may also be found in the more frequented portions, especially during winter when it comes to our door yards.

Downy Woodpecker, *Dryobates pubescens medianus* (Swainson) *r.* This delightful bird is common everywhere in the Park, but especially so in the woods of the hill slopes.

Yellow-bellied Sapsucker, *Sphyrapicus varius varius* (Linn) *tr.* Comparatively few people ever see this beautifully marked woodpecker. Even the regular bird student jots down a memorandum upon finding it. It is reported for the Park in April and also in December.

Northern Pileated Woodpecker, *Phloeotomus pileatus albeticola* (Bangs). Some years ago these large, beautiful woodpeckers were no doubt quite common in the Park. I have one record by Mr. John Scott in 1910. Unfortunately it is no longer found here.

Red-headed Woodpecker, *Melanerpes erythrocephalus* (Linn) *sr.* Red-heads are very common in the frequented parts of the Park during summer, and nearly every year a few may be found spending the winter in the shelter of the woods.

Red-bellied Woodpecker, *Centurus carolinus* (Linn) *r.* The Red-bellied or Guinea Woodpecker is fairly common in the deeper woods of the Park during summer. In winter it frequently leaves the woods and takes its turn at the suet and scraps in our dooryards.

Northern Flicker, *Colaptes auratus luteus* Bangs *r.* The Flicker is very common during migration and quite a few

are found in the Park throughout the summer. It is more common in the open groves about the picnic grounds than in the denser woods. A few are usually to be found during the winter.

Chuck-will's widow, *Antrostomus carolinensis* (Gmelin) *tr.* A very unusual record for this bird was obtained May 3, 1918, when one came to my yard at dusk and repeatedly sang his name. I had a fairly good view of the bird as it flew. This is the only record for this bird in this region.

Whippoorwill, *Antrostomus vociferus* (Wilson) *sr.* Beginning in the middle of April and continuing throughout May, the Whippoorwill is very noticeable around the Lake of the Woods and the country to the east because of its loud ringing notes. They may be heard intermittently throughout the night, continuing till daybreak.

Nighthawk, *Chordeiles virginianus virginianus* (Gmelin) *sr.* Great droves of Nighthawks may be seen sweeping the air over the golf links during the migration period of early May and again in late September. During the summer months they are rarely seen in the Park, though a few nest along the rocky bluffs.

The sub-species of Western Nighthawk and Sennet's Nighthawk have also been observed in the migrating crowds.

Chimney Swift, *Chaetura pelagica* (Linn) *sr.* Chimney Swifts are common about the Pavillion and wherever there are unused chimneys. They arrive early in April and remain until early October.

Ruby-throated Hummingbird, *Archilochus colubris* (Linn) *sr.* About the time the Buckeye trees come into bloom

in the latter part of April, one may find Hummingbirds in the Park; some are here to stay and build their lichen covered cup-shaped nests where few people ever find them.

Kingbird, *Tyrannus tyrannus* (Linn) sr. The first Kingbird's notes are heard in the Park about the last week in April. It is more common about dwellings and in the places frequented by man than in secluded regions.

Crested Flycatcher, *Myiarchus crinitus* (Linn) sr. The Crested Flycatchers arrive with the Kingbirds and add their harsh shrieks to the discordant cries of the latter. They are more common in the frequented parts of the Park.

Phoebe, *Sayornis phoebe* (Latham) sr. There are a few places in the Park, along the rocky ledges and culverts, where the Phoebes return year after year to nest. They come early in March and stay until middle October.

Wood Pewee, *Myiochanes virens* (Linn) sr. Not until about May 10th are the first plaintive notes of "Pee-ah-wee" heard in the Park. From that time on the bird may be heard in all of the woods portions of the Park.

Acadian Flycatcher, *Empidonax virescens* (Vieillot) sr. This interesting flycatcher is known by comparatively few of the people who visit the Park, for it takes up its abode in the deeper woods, and its quiet ways and modest plumage makes it inconspicuous.

Least Flycatcher, *Empidonax minimus* (W. H. and S. F. Baird) tr. Chebecs are quite common throughout the Park during the early part of May but doubtless none remain during the summer.

Prairie Horned Lark, *Otocoris alpestris praticola* Hen-

shaw *r.* Horned Larks are found sparingly in the Park, though common enough in the prairie country near by. Occasionally one nests on the golf courses.

Blue Jay, *Cyanocitta cristata cristata* (Linn) *r.* Blue Jays are to be found in all parts of the Park at all times of the year, though they are more numerous in the parts frequented by human beings.

Crow, *Corvus brachyrhynchos brachyrhynchos* Brehm *r.* There is never a day during which crows may not be seen flying about over the Park, but they nest only in the more secluded portions.

Bobolink, *Dolichonyx oryzivorus* (Linn) *tr.* These birds are all too uncommon with us, even during migration. We would be glad to see more of them and be delighted with their songs. My Park record includes only two male birds that I saw and heard sing in a red haw tree in the northwest corner of the Park, May 11, 1919.

Cowbird, *Molothrus ater ater* (Boddaert) *sr.* Cowbirds are all too common throughout the Park. Scarcely a nest of vireo or warbler or bunting can be found that does not have one or two Cowbird eggs in it.

Red-winged Blackbird, *Agelaius phoenicius phoenicius* (Linn) *sr* and occasional *r.* These birds are very numerous during migration and sometimes great flocks are seen during winter. Few, if any, nest in the Park.

Thick-billed Red-wing, *Agelaius phoenicius fortis*, Ridgway *wr.* During the winter of 1917 thousands of these northwestern Red-wings spent part of the winter months in the Park. This was unusual.

Northern Red-wing, *Agelaius phoeniceus arctolegus* Oberholser *tr* and *wr*. This sub-species also occurs sometimes in great numbers during migration.

Meadowlark, *Sturnella magna magna* (Linn) *sr*. A very common bird in the open places in the Park. It is not unusual to find a few spending the winter with us. By the middle of March their songs are heard in all directions.

Western Meadowlark, *Sturnella neglecta* Audobon *tr*. The Western Meadowlark is occasionally heard singing during the migration season, and is easily identified by its melodious note with its unique ending.

Orchard Oriole, *Icterus spurius* (Linn) *sr*. The Orchard Oriole is rare for Swope Park, but quite common in the residence district bordering the Park. They prefer the trees and orchards about our homes.

Baltimore Oriole, *Icterus galbula* (Linn) *sr*. Baltimore Orioles are also more common in residence districts than elsewhere. Only a few were found in the Park, and these occurred in the more frequented portions.

Rusty Blackbird, *Euphagus carolinus* (Muller) *tr*. A few birds of this species are usually found associated with the flocks of the next during migration. They evidently occur in the Park.

Bronzed Grackle, *Quiscalus quiscula aenue* Ridgway *sr*. Great numbers of these Grackles occur during migration, and they are also rather numerous during summer in those regions of the Park that are used for picnic parties.

Purple Finch, *Carpodacus purpureus purpureus* (Gmelin) *tr*. Occasionally flocks of these beautiful birds are found in

the Park during winter, but they are more abundant during the very early spring. They are often found feeding on the fruit of the buckbush (*Symphoricarpos*).

Crossbill, *Loxia curvirostra minor* (Brehm) *wr.* Crossbills are not infrequently found in the Park during winter, where they feed not on their favorite food of pine seeds, but on seeds of wild sunflower. They are most easily identified at a distance by their darting flight and by their wild, clear notes.

Goldfinch, *Astragalinus tristis tristis* (Linn) *r.* Goldfinches are found throughout the Park, though not at all numerous during the summer. They are most abundant about the time the elm seeds begin to ripen when their twittering chorus from the tops of the trees gives a most pleasing effect.

Pine Siskin, *Spinus pinus* (Wilson) *tr.* Siskins are rather uncommon here, though flocks of a dozen or more may be found in early spring feeding on the elm seeds in company with the Goldfinches.

English Sparrow, *Passer domesticus* (Linn) These troublesome birds are quite a nuisance about the Pavillions and the Zoo, but fortunately do not interfere with the majority of the Park birds.

Lapland Longspur, *Calcarius lapponicus lapponicus* (Linn) *wr.* Although the Lapland Longspur is not recorded as yet within the absolute boundaries of the Park, they are found at times in considerable numbers in the open country to the west, and no doubt also come to the Park.

Vesper Sparrow, *Pooectes gramineus gramineus* (Gmelin) *tr.* This bird is probably fairly common in the Park during

migration, though rarely seen because of its habits of hiding in the grass. I have seen it in the Park but once, and Mr. Smithson gives me another record, May 5th, 1916.

Savannah Sparrow, *Passerculus sandwichiensis savanna* (Wilson) *tr.* This is another species that is hard to find and may be more common than the records would indicate. It loves wet meadows and I have found a number of the sparrows in the meadow near the Lagoon.

Grasshopper Sparrow, *Ammodramus savannarum australis* (Maynard) *sr.* I failed to find this bird nesting in the Park at the time the census was taken, but since then I have found it nesting on the Rifle Range. They are abundant here during migration. Their queer insect-like notes may be heard in all directions as late as the middle of May.

Henslow's Sparrow, *Passerherbulus henslowi henslowi* (Audobon) *tr* and sometimes *sr.* Mr. Harris furnishes me with records for this sparrow, found on the Rifle Range meadow. I have not identified it as a nesting bird, though it probably does nest in the meadow.

Leconte's Sparrow, *Passerherbulus leconti* (Audobon) *tr.* This inconspicuous sparrow easily escapes notice. I have seen it but few times in the Park. It should be looked for in the grassland.

Lark Sparrow, *Chondestes grammacus grammacus* (Say) *sr.* Since the census was taken I have found the Lark Sparrows as a nesting bird in the Old Nursery near the Blue River. It is an uncommon bird for the Park.

Harris' Sparrow, *Uonotrichia querula*, Nuttall *tr.* and occasional *wr.* Common everywhere during migration, these

fine singers add to the spring chorus of bird voices in the Park. They have at times come to my yard for food during the winter.

White-crowned Sparrow, *Zonotrichia leucophrys leucophrys* (J. R. Forster) *tr* and *wr*. These sparrows are not uncommon during migration. They may be found in the Park during October and April, and occasionally during winter.

White-throated Sparrow, *Zonotrichia albicollis* Gmelin *tr*. The White-throats are quite common in the Park during migration, being more conspicuous in April when they may be heard calling "Old-man-peabody."

Tree Sparrow, *Spizella monticola monticola* (Gmelin) *wr*. This is one of the most common birds of the Park during the winter. It is a delight to hear their twitterings from the weed patches along the Blue River.

Chipping sparrow, *Spizella passerina passerina* (Bechstein) *sr*. Chipping Sparrows are too much attached to human habitations to be at all numerous in the Park, though they are occasionally found in several different sections.

Clay-colored Sparrow, *Spizella pallida* (Swainson) *tr*. These Sparrows are quite numerous among the red haw bushes in the northwest part of the Park during the latter part of April and in early May, where they feed on canker worms.

Field Sparrow, *Spizella pusilla pusilla* (Wilson) *sr*. We are always glad to hear the tinkling song of this sparrow that arrives in the Park in early March. They nest throughout the more open sections.

Slate-colored Junco, *Junco hyemalis hyemalis* (Linn) *wr*. This is by far the most numerous bird in the Park during

winter, being found in all portions. They begin to arrive in early October and some remain until past the middle of April. It is in late March that the greatest numbers are to be found, at which season their musical twitterings and gurgling songs are very delightful.

Song Sparrow, *Melospiza melodia melodia* (Wilson) *tr* and *wr*. Early in March the songs of the Song Sparrow begin to be heard along the streams throughout the Park. Unfortunately for us they do not long remain and we rarely find them after the first of May.

Lincoln's Sparrow, *Melospiza lincolni lincolni* (Audobon) *tr* and occasional *wr*. This species is not quite so common as the preceding, and they arrive a week or so later.

Swamp Sparrow, *Melospiza georgiana* (Latham) *tr*. Swamp Sparrows are not common in Swope Park. A few may be found during migration in such regions as the Rifle Range and along the weedy banks of the Blue River.

Fox Sparrow, *Basserella iliaca iliaca* (Merrem) *tr* and *wr*. Fox Sparrows are sometimes found in the Park during winter, but the time to meet them in greater numbers is during March and October. In March they are very musical.

Towhee, *Pipilia erythrophthalmus erythrophthalmus* (Linn) *sr*. Towhees are most common near the borders of the frequented portions of the Park, becoming almost rare in the more secluded portions, regardless of the character of the vegetation. Spring migrants begin to arrive about the middle of March.

Cardinal, *Cardinalis cardinalis cardinalis* (Linnaeus) *r*. Cardinals are quite common, and uniformly distributed

throughout the Park during summer, but during winter they congregate about the tall horseweeds along the Blue River.

Rose-breasted Grosbeak, *Zamelodia ludoviciana* (Linn) sr. Rose-breasts are quite rare in Swope Park, though not uncommon in the neighboring residence districts. They seem to prefer to nest near our homes.

Blue Grosbeak, *Guiraca caerulea caerulea* Linn sr. Although I have no record of this bird within the boundaries of the Park, I have seen a pair and their nest with young near a cottage a short distance east of the Park. This was in 1918; the next year the birds nested in the same region.

Indigo Bunting, *Passerina cyanea* (Linn) sr. Indigo birds are abundant in all but the most frequented portions of the Park, being the most numerous of the summer birds. They love the dry sunny borders of the groves and hill slopes. Spring arrivals are rather late, only a few arriving before the first of May.

Dickcissel, *Spiza americana* (Gmelin) sr. Dickcissels are abundant only in the unkempt meadows of the Park. None are found in the woods covering the hill slopes. The Rifle Range is a favorite resort for them during the nesting season.

Scarlet Tanager, *Piranga erythromelas* Viellot sr. Scarlet Tanagers are more common in Swope Park than in other neighboring regions, since they love the dry wooded hill slopes to the east and south. It arrives about the last of April and remains until the last of September.

Summer Tanager, *Piranga rubra rubra* (Linn) sr. This bird while not quite as common in the Park as is the Scarlet

Tanager, is not uncommon in the hilltop woods to the east. It comes and goes with the Scarlet Tanager.

Purple Martin, *Progne subis subis* (Linn) *sr.* A scattered few Martins are found flying about over the Park. It may be that some nest in hollow trees in the Park, but it is more probable that they are merely searching for food. We need more bird houses for them.

Barn Swallow, *Hirundo erythrogaster* Boddaert *tr* and *sr.* Occasionally a Barn Swallow is seen flying about over the Lake of the Woods and Lagoon, or dipping about over the golf course in summer. It is comon over the Park lakes during May and June, but I have no record to indicate that the bird nests in the Park.

Tree Swallow, *Iridoprocne bicolor* (Vieillot) *tr.* Large flocks of these swallows are sometimes seen resting on the telephone wires on the borders of the Park, during September and October. They are also commonly seen flying about over the Park lakes during migration.

Bank Swallow, *Riparia riparia* (Linn) *sr.* These Swallows nest in great colonies in the loess bluffs along the Missouri River, none are found nesting in the Park. During migration, however, they are not uncommon about the lakes in company with the preceeding.

Rough-winged Swallow, *Stelgidopteryx serripennis* (Audobon) *sr.* These Swallows also are found wheeling about over the lakes, even during the summer months, and may nest in the Park. Their nesting sites are not as easily located as are those of the Bank Swallow.

Bohemian Waxwing, *Bombycilla garrula* Linn *wr.* Mr.

Harris repeatedly saw a lone Bohemian Waxwing in company with a flock of Cedar Waxwings during the month of April, 1920. The bird is uncommon in this region.

Cedar Waxwing, *Bombycilla cedrorum* Vieillot *tr* and *wr*. One hardly knows when to look for Cedar Waxwings. They may be found most any time during winter, and again they may be quite rare. In recent years flocks of forty or more birds have spent several weeks in the Park and vicinity during the spring months. I have no records later than the first week of June.

Migrant Shrike, *Lanus ludovicianus bigrans* W. Palmer *sr* and occasional *wr*. Only a very few Shrikes nest among the red haw bushes bordering the golf courses; a rare bird for Swope Park.

Red-eyed Vireo, *Vireosylva olivacea* (Linn) *sr*. This is one of the more numerous summer birds for the Park, being found in all of the wooded portions. It arrives during the last week in April and remains until late September.

Warbling Vireo, *Vireosylva gilva gilva* (Vieillot) *sr*. These fine singers are quite common during migration, but seem to prefer the orchards and groves about our homes for their nesting environment. I have but two records for nesting birds near the margin of the Park, one of these being in my yard. They arrive and leave a little earlier than the Red-eyed Vireo.

Yellow-throated Vireo, *Laniviero flavifrons* (Vieillot) *sr*. Only a few nesting birds of this species are found in the Park. They are also less common during migration than the the preceding. It is a good sense perception test to distinguish its

note from that of the Red-eye. They come and go with the Warbling Vireo.

Blue-headed Vireo, *Lanivireo solitarius solitarius* (Wilson) *tr.* I have found this Vireo but a few times in the Park. May 3d, 1912, I watched one as it sang from the haw trees in the northwest part of the Park; again in 1918 and in 1919 I have found this spectacled bird in this region.

White-eyed Vireo, *Vireo griseus griseus* (Boddaert) *sr.* These interesting Vireos are rather common among the scraggling bushes of the more secluded portions of the Park. They arrive about the first of May.

Bell's Vireo, *Vireo belli belli* Audobon *sr.* Bell's Vireo is rare within the Park, though common enough along brushy fence rows bordering the Park. They nest about my home every summer. They are here from the first of May until the latter half of September. (Sept. 24, 1916.)

Black and White Warbler, *Mniotilta varia* (Linn) *sr.* These Warblers are rather uncommon in the Park during summer though frequently seen in the latter half of April. They nest in the less frequented woods. Because of its interesting feeding habits, its distinctive markings, and the ease with which it may be approached, it is better known than other far more numerous Warblers.

Prothonotary Warbler, *Prothonotaria citrea* (Boddaert) *sr.* This Warbler is common along the Missouri River bottom, but is rare in the Park even during migration. I have but two records of its nesting in the Park. These were near the Blue River, for it loves to stay near waterways.

Worm-eating Warbler, *Helmitheros vermivorus* (Gmelin)

*sr.* If you are in some secluded part of the Park and think you hear a Chipping Sparrow, better take a good look to see if it is not a Worm-eating Warbler. The Worm-eating Warbler is a fairly common bird along the lower part of Shiloh Hollow and also along the shores of the Lake of the Woods. It does not arrive until early May and leaves early in September. This is one of the interesting and valuable birds that we may have in this region only as long as we leave sections of the Park in its undisturbed natural wildness.

Blue-winged Warbler, *Vermivora pinus* (Linn) *sr.* This is another bird that will be driven from the country if we are too zealous in clearing up all of the brushy hillsides. It is now rather common in the dry, wooded regions of the Park. It is a very beautiful bird, that is all the more interesting because of its peculiar, insect-like song. It arrives during the latter part of April.

Nashville Warbler, *Vermivora rubricapilla rubracapilla* (Wilson) *tr.* Nashville Warblers are found in considerable numbers throughout the Park during migration, being especially noticeable during the first week in May. They are most common among the red haw trees in the northwest corner of the Park.

Orange-crowned Warbler, *Vermivora celata celata* Say *tr.* Orange-crowned Warblers are rather common migrants in company with the Nashville Warbler and Tennessee Warbler. It is not easily distinguished in the field from the Nashville Warbler.

Tennessee Warbler, *Vermivora peregrina* (Wilson) *tr.* At about the first of May the red haw bushes in the northwest

corner of the Park are swarming with twittering, nervous little birds that flit from bud to bud as they peer about the leaves and blossoms for insects. The great majority of these busybodies are Tennessee Warblers. At this time of year there are thousands of them in the Park.

Northern Parula Warbler, *Compsothlypis americana usneae* Brewster sr. Parula Warblers are common in the Park during migration, and several nest in the woods along the Blue River and also in the thick woods shelter of Hazel Dell. Here, again, is a bird that may be saved for the community only by saving their retreats from despoilation. The bird is easily identified by its song.

Yellow Warbler, *Dendroica aestiva aestiva* (Gmelin) tr and sr. Yellow Warblers are common everywhere during migration, and not uncommon as nesting birds in neighboring regions, but thus far I have failed to find it as a summer bird for the Park. They are quite numerous during the first two weeks of May.

Myrtle Warbler, *Dendroica coronate* (Linn) tr. These are the first of the migrating Warblers to arrive in the spring, a few may be found during the latter part of March. During middle April, they are present in thousands, though not quite so numerous in the Park as in the orchards and scattered groves elsewhere in the neighborhood.

Magnolia Warbler, *Dendroica magnolia* (Wilson) tr. A few of these beautiful Warblers can usually be found in the Park during the second week of May.

Cerulean Warbler, *Dendroica cerulea* (Wilson) tr and sr. The Cerulean Warbler is found as a summer bird in the

Park in the same localities as the Parula Warbler. A little practice will enable one to distinguish it by its song which bears some resemblance to that of the Parula. It would be a misfortune to have them driven from the Park by too much of an encroachment on the wild woods they inhabit. Both Cerulean and Parula Warblers arrive during the latter half of April, but the Cerulean is usually a week later than the Parula.

Chestnut-sided Warbler, *Dendroica pennsylvanica* (Linn) *tr.* This is one of the more unusual migrants to visit the Park. I have but two records. It arrives later than the other warblers.

Bay-breasted Warbler, *Dendroica castanea* Wilson *tr.* Mr. Cunningham is responsible for the addition of this rare warbler to the Swope Park list. It was seen near the Lake of the Woods May 16, 1920.

Black-poll Warbler, *Dendroica striata* (J. R. Forster) *tr.* This Warbler is also a late arrival. It may be looked for in the Park the second and third week in May, and again passes through in September.

Blackburnian Warbler, *Dendroica fusca* (Muller) *tr.* This, also, is one of the rarer visitors to the Park, but one well worth meeting because of its great beauty. I have seen it but once in the vicinity of the Park. (Shiloh Hollow, May 13, 1916.)

Sycamore Warbler, *Dendroica dominica albilora* (Ridgeway) *tr.* The Sycamore Warbler is an uncommon migrant, but probably more common along Shiloh Hollow and the Blue River in the Park than the records would indicate, for

it stays high up in the tree tops and thus escapes notice. It arrives earlier than most of the Warblers, and may be looked for during the first half of April. Mr. Hoffmann gives me records for May 15 and for May 13, 1916.

Black-throated Green Warbler, *Dendroica virens* (Gmelin) *tr.* This Warbler is also an uncommon migrant. I have seen it but once in Swope Park.

Palm Warbler, *Dendroica palmarum* Gmelin *tr.* This Warbler is quite uncommon in this part of the country. Mr. Cunningham furnishes me with a record for Swope Park May 15, 1920.

Oven-bird, *Seiurus aurocapillus* (Linn) *sr.* Swope Park is one of the few localities in this part of the country in which the Oven-bird nests. It is to be hoped that parts of the Park frequented by this and other retiring species will be left undisturbed so that we may continue to have the pleasure of its presence. It nests in Hazel Dell. Quite a few migrants may be found in various parts of the Park during the first week of May.

Grinnell's Water-Thrush, *Seiurus noveboracensis notabilis* Ridgeway *tr.* This Water-Thrush is much less common than the next. I have seen and heard it in the Park but few times.

Louisiana Water-Thrush, *Seiurus motacilla* (Vieillot) *sr.* The Louisiana Water-Thrush nests in the Park in Hazel Dell and in the lower portion of Shiloh Hollow. It is found in company with the Grinnell's Water-Thrush in the early half of May. The two may be distinguished most readily by their song.

Kentucky Warbler, *Oporornis formosus* (Wilson) *sr.*

These interesting Warblers are fairly numerous in the secluded portions of the Park; quite a number nest in the same localities in which the Oven-bird, Parula Warbler and Cerulean Warbler inhabit. They are here from the first of May until the latter part of September.

Connecticut Warbler, *Oporornis agilis* (Wilson) *tr.* This is a rare migrant for this region. I have found it but once in the Park, May 16, 1908.

Mourning Warbler, *Oporornis philadelphia* (Wilson) *tr.* These Warblers are not so common but that the bird student usually makes special note of those seen. I usually find one or two among the red haw trees in the northwest part of the Park in middle May.

Maryland Yellow-throat, *Geothlypis tricas* (Linn) *sr.* Maryland Yellow-throats arrive from the south during the latter half of April, and from then until the first week in September they may be found in their favorite haunts along thicket-bordered streams. Several pairs nest in the Park.

Yellow-breasted Chat, *Icteria virens virens* (Linn. *sr.* Quite a number of Chats nest along the brushy hillsides in Swope Park. They are prone to make their presence known by their peculiar cries and antics. They arrive about the last of April.

Wilson's Warbler, *Wilsonia pusila pusila* (Wilson) *tr.* This is one of the more uncommon warblers that passes through the Park during migration.

Canada Warbler, *Wilsonia canadensis* (Linn) *tr.* It is quite unusual to find this Warbler in the region of Kansas

City, though occasionally a few stray this way. One was seen in the Park May 14, 1919.

Redstart, *Setophaga ruticilla* (Linn) *sr.* This beautiful orange and black warbler is commonly distributed throughout the densely wooded parts of the Park, arriving during the latter part of April and remaining until September.

Pipit, *Anthus rubescent* (Tunstall) *tr.* Mr. Ralph Hoffmann furnishes me with the only record I have for this bird in the Park (March 30, 1914).

Mockingbird, *Mimus polyglottos polyglottos* (Linn) *sr* and occasional *wr.* Mockingbirds are found in the Park, but they prefer the groves and orchards in the vicinity of dwellings. Two pair nest regularly across the street from the northwest corner of the Park.

Catbird, *Dumatella carolinensis* (Linn) *sr.* Catbirds are common only in the shrubbery of the more frequented portions of the Park. The Horticultural plantings about the Shelter House and about the Zoological Gardens are favorable places. They arrive at their nesting places during the latter part of April.

Brown Thrasher, *Toxostoma rufum* (Linn) *sr.* Brown Thrashers are common in the same environment with the Catbirds. They are somewhat more numerous than the latter.

Carolina Wren, *Thryothorus ludovicianus ludovicianus* (Latham) *r.* Carolina Wrens are quite generally distributed along the rocky ravines in the Park. Their loud, ringing notes readily betray their presence in early spring.

Western House Wren, *Troglodytes aedon parkmani* Audobon *sr.* House Wrens begin to arrive usually about the

middle of April and from then on through the first part of May they are numerous throughout the Park, But few remain in the Park to nest, as they prefer to be near to human residences.

Winter Wren, *Nannus hiemalis hiemalis* (Vieillot) *wr.* Winter Wrens are irregular winter residents in the Park. Mr. Harris reports several for Shiloh Hollow during the winter of 1917, and I have found it near the Blue River, March, 1914.

Brown Creeper, *Certhia familiaris americana* Bonaparte *wr.* These interesting little birds are more common in early spring and in October than during winter, though a few are usually to be found in the Park throughout the winter months.

White-breasted Nuthatch, *Sitta carolinensis* Latham *r.* The White-breasted Nuthatch can scarcely be called common at any time, but they are more noticeable during winter. They are easily identified by their queer notes. A few nest in the Park woods.

Red-breasted Nuthatch, *Sitta canadensis* Linn *tr.* This pretty little Nuthatch may be looked for in the haunts of the preceding, but only during late autumn and early spring. I have one unusually late record on May 13, 1917, with perfectly satisfactory views for identification.

Tufted Titmouse, *Baeolophus bicolor* (Linn) *r.* Many of these birds are found in all parts of the Park wherever there are trees for its nests. It is easily recognized by its habits and by its song, yet many people who wander about through the Park are not acquainted with it.

Chickadee, *Penthestes atricapillus atricapillis* (Linn) *r.* Chickadees are found throughout the Park in company with

the Titmice. This bird seems to be more popular than the former, and is better known by the casual observer.

Golden-crowned Kinglet, *Regulus satrepa satrepa* Lichtenstein *tr* and *wr*. There are many Kinglets in the Park during the early part of April and again in October. He who fails to hear their soft, gurgling song, or to see them flitting about among the low trees and bushes, misses one of the most fascinating experiences of the woodland.

Ruby-crowned Kinglet, *Regulus calendula calendula* (Linn) *tr*. These dainty little birds are found in company with the Golden-crowned Kinglets, which they closely resemble in appearance, in song and in habits. They remain a week or so later than does the Golden-crown.

Blue-gray Gnatcatcher, *Poliophtilla caerulea caerulea* (Linn) *sr*. These graceful little birds are very common in the dry woods of the hill tops. In spite of this, they are known and recognized by but very few of the many people who visit the Park. They arrive about the middle of April and by the latter part of the month have begun building their nests of spider webs and lichens and fine fiber.

Wood Thrush, *Hylocichla mustelina* (Gmelin) *sr*. There are many Wood Thrushes in the parts of the Park frequented by the throngs of people, but most of these people are so unfortunate as to be all but unaware of the fact that the greatest of bird singers is singing to them as they eat their picnic lunch. It is a case of lack of appreciation through neglected education. The first song of the Wood Thrush is heard during the last week in April. They sing for a much longer period

than does the Brown Thrasher, in fact they may be heard late in the evening for the greater part of the summer.

Willow Thrush, *Hylocichla fuscescens salicicola* Ridgeway *tr.* This Thrush is occasionally found in the woods during early May and again in the autumn from the middle of September to mid October.

Gray-cheeked Thrush, *Hylocichla aliciae aliciae* (Baird) *tr.* Quite a few of these Thrushes pass quietly through our woods during migration.

Olive-backed Thrush, *Hylocichla ustulata swainsoni* (Tschudi) *tr.* Occasionally bird lovers have an opportunity of hearing this fine singer as it passes through and stops to feast on the fruits and insects of our woods. Some of them loiter along until the mating impulse stirs the males to begin singing. They are still to be found here as late as June. (June 7th, a late record.)

Hermit Thrush, *Hylocichla guttata pallasi* (Cabanis) *tr.* Hermit Thrushes are quiet and undemonstrative as they pass through the Park during their migrations. A few may be found in the woods during the first half of April and again in October.

Robin, *Planesticus migratorius migratorius* (Linn) *sr* and *wr.* Robins are numerous about the frequented portions of the Park, such as the Shelter House, Refectory and the picnic grounds. During migration, great flocks may be found in any part of the Park. This bird is known and loved by everybody, yet it can hardly compare with numbers of others to be found in the Park, either in usefulness, beauty or song.

Bluebird, *Sialis sialis sialis* (Linn) *sr.* and *wr.* Bluebirds

are at no time as plentiful as are Robins. There are comparatively few that nest in the Park. They are not as particular about being near human habitations as are the Robins, and their nests may be found far out in the Park. A few may be found in the Park nearly every winter. During late February and again in September and October, it is not uncommon to find flocks of twenty or more.

Total number of species reported in Swope Park and immediate vicinity 173. No doubt others occur, and continued observations will add to the list. It is hoped that none of those now found in the Park will be driven out.

For a complete list of birds to be found in the region about Kansas City the reader is referred to the very complete and carefully prepared work by Harry Harris on "BIRDS OF THE KANSAS CITY REGION," St. Louis Academy of Science, St. Louis, Mo. This book gives much interesting and valuable data concerning the birds of this region.

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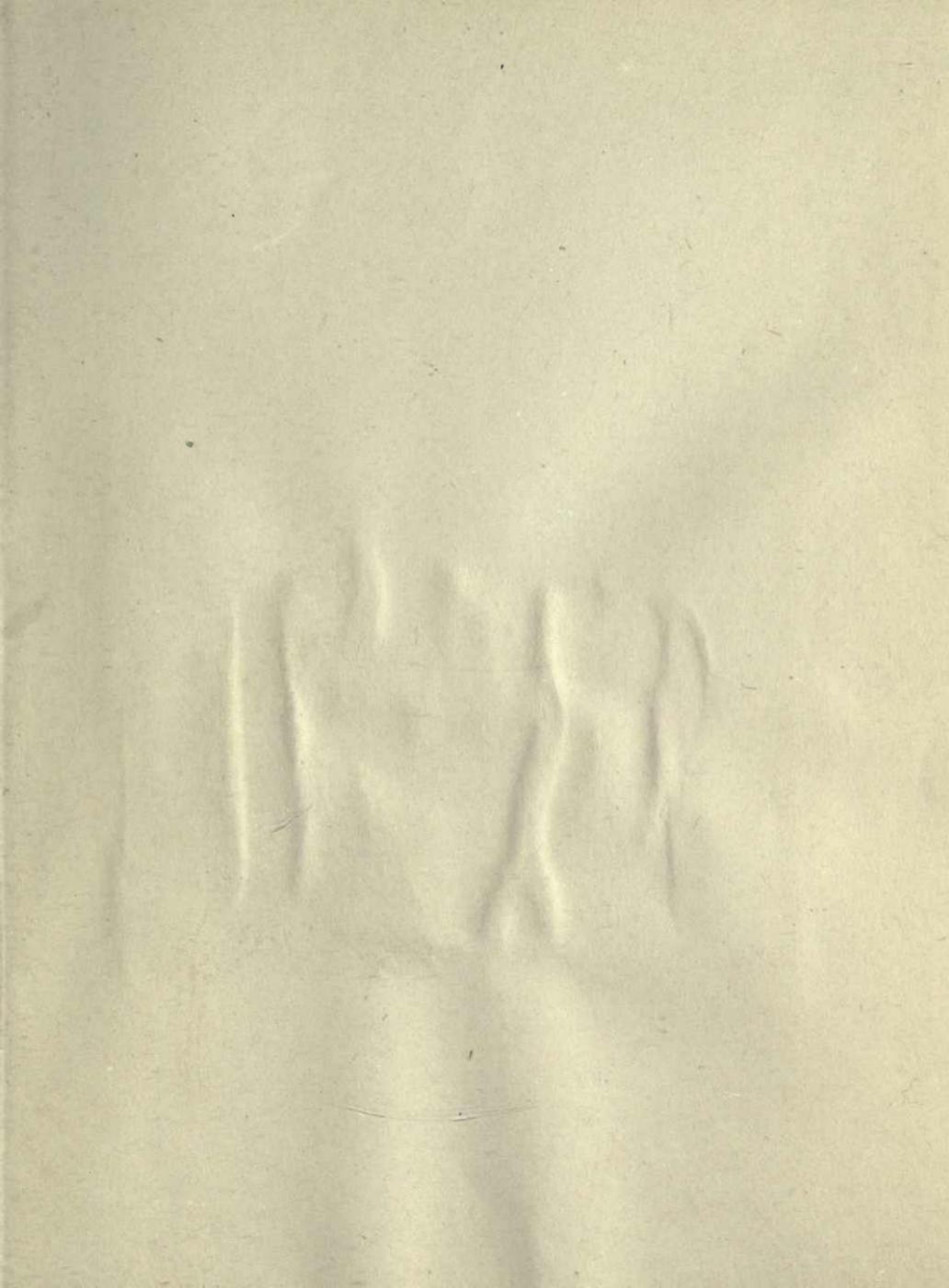
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