**TWELVE MONTHS
WITH THE BIRDS
AND POETS**

SAMUEL A. HARPER

JRENE DWEN ANDREWS

Dear folks:
I'm not sending
out any Xmas cards this year -
but I'm thinking of good friends
like you, whom I cherish so
highly - I hope you are
having a most happy holiday
season -
My love & best wishes -
Jan

BRADLEY, HARPER & KIGGINS
33 SOUTH CLARK STREET
CHICAGO

Mr Edmund Anderson
561 Arny St,
Chicago
Ile.

*"Cuckoo calling from the hill,
Swallow skimming by the mill,
Swallows trooping in the sedge,
Starlings swirling from the hedge,
Mark the seasons, map our year,
As they show and disappear."*

—Matthew Arnold.

You're Wrong, Sir, Sparrows Aren't Vandals

BY BOB BECKER.

At last the lowly English sparrow has a real champion. This sassy little gamin has been the target of many verbal attacks lately. We have heard from dozens of bird fans who are down on the sparrow.

But now comes Samuel A. Harper, author of "Twelve Months with the Birds and the Poets," to champion the cause of the little Britisher. His arguments in behalf of the sparrow are as follows:

"At the outset I agree with Meltje Blanchan, who says 'Indeed a great deal of nonsense is talked about the sparrows driving away other birds. . . . The sparrows are prepared to live while others would starve. They kill no other birds.'

"I feel," continues Mr. Harper, "that there are at least two very substantial reasons why extermination of the English sparrow should not be advocated. First, the grave danger that uninformed persons would kill a large number of other useful species of sparrows by mistake, and second, because the English sparrow is extremely useful in certain sections of the country by reason of its feeding habits.

"As to their destructiveness, they certainly are no worse than some of our favorite home birds. Robins often destroy cherry, olive and other fruit crops, and the bluejays and the blackbirds are quite as destructive as the English sparrow.

"Much more good would be accomplished if we directed our fight against the arch enemy of all birds, the house cats, which many people allow to roam at will, each killing at least fifty birds in the course of every year."

To
My Son Sam
The Companion of

TWELVE MONTHS WITH THE BIRDS AND POETS

SAMUEL A. HARPER

WITH ILLUSTRATIONS

RALPH FLETCHER SEYMOUR

Copyrighted, 1917
Ralph Fletcher Seymour

Inscribed for his
mother, by the "son of a bitch"
David A. Hayer

This edition of "Twelve
Months With the Birds and
Poets," by Samuel A. Har-
per, is limited to two hun-
dred copies, of which this is
Number Ralph Fletcher
Seymour, Publisher.
CHICAGO. MCMXVII.

FOREWORD

This study of birds and poets is divided into twelve chapters, one for each month of the year, beginning with April, the opening of the birds' year. The birds are discussed in the month most appropriate to them by reason of habits of nesting, migration or other distinguishing characteristics. This plan enables the reader to live through the year with the birds, and to learn when to look for them.

The observations were made in Illinois, Indiana and Michigan, and the book may be used as a safe guide for the study of the more common birds of this latitude from the Rocky Mountains east to the Atlantic seaboard.

If out of the joy of writing it there has grown an unconscious purpose in this little book it is that busy men might pause and see the beauties of the world all about them and "read nature like the manuscript of heaven," for as surely as they do so and life

"Hath yet one spring unpoisoned, it will be
Like a beguiling music to its flow."

SAMUEL A. HARPER.

Chicago, December 1, 1917.

INTRODUCTION

Surely the year begins in April, when the world has her face freshly washed, a new dress of flower draped green satin, and lifts up her voice in the piping of a million spontaneous feathered songsters singing out their little hearts in the ecstasy of the mating fever.

The birds and flowers are Nature's most exquisite gifts to man. Much as I love flower form, colour and fragrance, and appreciate the medicinal value of many lovely herbs, with me the palm always is awarded to the birds; because they have flower colour, the grace of flight, the gift of song, the instinct of home making and keeping, and are wonderful insect and weed exterminators.

Every soul alive to beauty and music and even slightly appreciative of benefits received must love the birds, while from the beginning of time they have been one of the greatest sources of inspiration to poets and painters. The oldest painting preserved in the world is a picture of birds; while the poets of all time have piped their lays concerning, not only the nightingale, lark and bobolink, but the owl, heron and buzzard, as well. Sweetly as the birds have sung, the best of them never have

equalled the songs which they have called forth from the hearts of the poets.

Some of the most inspired of these songs are here quoted, and to them there has been added much sane and careful observation of bird life and habits. This is a book to love, to own and to give to your discerning friend.

Gene S. Patton - Porter.

*Limberlost Cabin,
October 21, 1917.*

the old earth takes on her new livery of green.

At this season one feels the impulse of the little mediaeval page, in Alexander William Percy's "A Page's Road Song:"

"If Thou wilt make Thy peach trees bloom for me
And fringe my bridle path both sides
With tulips red and free,
If Thou wilt make Thy skies as blue
As ours in Sicily
And wake the little leaves that sleep
On every bending tree—

I promise not to vexen Thee
That Thou shouldst make eternally
Heaven my home;
But right contentedly
A singing page I'll be
Here in Thy Springtime."

It is commonly supposed that the origin of the word "April" is the Latin *aperio*, meaning "I open." To me this is a happier and more appropriate explanation of the genesis of the name than the other tradition that April was Aprilis, founded on the Greek name of Venus (Aphrodite). True, April might justly be called the Queen of months, and as it is also the month of love making for many animals and birds, it therefore may be said to have some of the characteristics of the Grecian Goddess.

But when March has blown his windy trumpet, and proclaimed the tyrant winter dead, and timid April comes, with smiles and tears, it is as if the trump of Gabriel had sounded, and all the earth had "opened" unto heaven! It is the month of the first spring buds. The bud says:

"My leaves instinct with glowing life
Are quivering to uncloze;
My happy heart with love is ripe—
I am almost a rose."

It is the month of nest building for our early spring birds. It is the month when the lingering snows on the shadowed hillside melt before the ascending sun, and form the numberless little spring runs in which the first spring green appears. It is the month of the singing frogs, new born in every swamp and meadow pool, whose chorus is: "*It is sprrrrrring! It is sprrrrrring!*" As John Vance Cheney sings, in his "Spring Song," it is the glad time:

"When to pool and log
Come newt and frog,
And the first blade peers at the snowdrift's edge,
And there's dreamy green along the hedge."

It is the month of regeneration of the earth's waiting soil, made ready by melting snows and cleansing showers, for its new increase of all the green things of earth. It is the month of burgeon-

ing, of promise and of joy, as voiced by Louis Untermeyer:

"God, I return to You on April days
When along country roads You walk with me,
And my faith blossoms like the earliest tree
That shames the bleak world with its yellow sprays—
My faith revives, when through a rosy haze
The clover-sprinkled hills smile quietly,
Young winds uplift a bird's clean ecstasy * * *
For this, O God, my joyousness and praise!"

With what alert and expectant ear do we await the first spring robin's call! With what a thrill of ecstasy do we hear his first spring song! I never find it necessary to record in my note book, the date of the arrival of my first spring robin. I know the dates for years back. His cheery call means for me the beginning of a new year, and forgetfulness of winter, as Thos. S. Jones so happily expresses it:

"You hold my winter in forgetfulness;
Without my window lilac branches swing,
Within my gate I hear
a robin sing."

And while the bluebird shares with the robin the glory of being our most common and most beloved April bird,

"When mid the budding elms the
bluebird flits,
As if a bit of sky had taken wings;"

he less often announces his arrival at our back door. He makes an occasional welcome visit to our lawn, or to a neighboring shrub or tree, but for the most part prefers the more open country, yet not too far removed from man and his habitations.

But the robin seems to love the intimate companionship of man. He feeds in our home yards and sings in our trees and shrubs. He often builds his nest on a projecting timber of house or barn. The attitude of the bird toward man is a sweet and singular mixture of friendliness and timidity. The natural instinct and art of all birds is to conceal their nests, both as to position and material, yet the love of the robin for man's society has so far overcome his natural instinctive fear, that he sometimes builds his nest on a window ledge or over the door of our dwelling. Why should we not return this affection, which on the part of the bird represents a conquest over its fear for man?

This year of which I write (1916), on April first a pair of robins began bringing grass and mud to the ledge of a south second-story window of my suburban home, for the purpose of making a nest. It need hardly be said that they were not disturbed.

I considered the house worth an extra \$1000 at least, with this "addition."

Joyce Kilmer suggests the added glory that comes to

"A tree that may in summer wear
A nest of robins in her hair."

The window shade was carefully drawn, so that the birds would not be disconcerted. While robins are usually not easily frightened out of their determination to build a nest in a particular place, and often fight for their right to choose the location of their domicile, we did not intend to run any risks of the birds changing their plans. All day Saturday and Sunday they were busy, with their weaving and their masonry. The female after depositing a circle of mud on the inside of the nest, would nestle into it and softly mold it into a cup by turning her breast round and round against its rim, and churning her wings up and down to smooth its edges. I observed after one such process that she flew into a neighbor's yard and bathed herself in a basin of water on the lawn, washing the mud from her breast. My young son, who was greatly excited during these building operations, and who was with difficulty restrained from frightening and annoying the birds, asked if we could finish the nest if the birds became frightened and deserted it, and I know I answered him truly when I said that "no one but a bird can build a nest!" The birds are the oldest miners, masons, carpenters and builders, weavers and basket makers.

"What nice hand,
With every implement and means of art,
And twenty years' apprenticeship to boot,
Could make us such another?"

By Sunday night the nest was apparently finished and ready for its eggs, and then for four days no robin was seen to come near it. Our household, from young son to grandmother, took on a worried look! Had the nest been abandoned? My explanation to an anxious family was that the robins, being experienced masons, knew that the wet mud of the nest was no fit receptacle for the eggs, and therefore the birds would wait until it dried. A more probable explanation for the four days' desertion of the new-built nest, however, is that the egg of mother robin was not yet ripe, and that the nest was therefore prepared too soon. Nature lovers in their enthusiasm are all too likely to attribute to birds and animals a wisdom and intelligence which they do not possess. Just as the beauty of the bird and its song is largely subjective, born of the spirit of the bird lover, so its acts prompted solely by instinct, sense communications and kindred influences are often, in the subjective imagination of the enthusiastic nature student, mistaken for and mis-called judgment.

If the mother robin really waited for the nest to become dry, it is more reasonable to assume that she waited from mere instinct, resulting from the sum total of the experience of herself and her ancestors in nest building, rather than that she had any conscious knowledge that a wet nest was not a good place for her eggs.

Both the barn swallow and the phoebe, who

employ mud in their nest building, frequently wait a day or two after the nest is finished before laying their eggs, which action might be attributed to instinctive solicitude for the future family, but this practice is not peculiar to birds who use mud in their nests, so that the delay is more likely due in each case to the fact that the egg is not mature.

Mr. Burroughs relates a story of a creeping warbler whose egg became ripe before the nest was finished. After excavating the site for the nest, the bird laid the egg, and then finished the nest over it. So that if instinct sometimes errs upon the one side and fails to prompt the bird to build its nest in time, it may easily err on the other side and urge nest building too soon.

But, to return to our nest on the window ledge,—whatever the reason may have been for her four days' absence, at the expiration of that time the female robin returned to the nest, and then laid one egg a day until four were in the nest, and as I write she is faithfully warming the nest and its eggs, and clamorously protesting when any one appears at the window, or at any window in the vicinity.

This experience of the robin's nest on the window ledge reminds me of Wordsworth's lines on the robin at his casement window:

“Stay, little cheerful Robin! stay,
And at my casement sing,
Though it should prove a farewell lay
And this our parting spring.”

Lowell, in his beautiful lines "To the Dandelion," recalls the robin of his childhood:

"The sight of thee calls back the robin's song,
Who from the dark old tree
Beside the door sang clearly all day long,
And I, secure in childish piety,
Listened as if I heard an angel sing
With news from heaven, which he could bring
Fresh every day to my untainted ears
When birds and flowers and I were happy peers."

Stedman gives high praise to the early spring notes of the robin:

"The sweetest sound our whole year round—
'Tis the first robin of the spring!
The song of the full orchard choir
Is not so fine a thing."

He is loved by Wm. W. Caldwell as the harbinger of spring:

"From the elm-tree's topmost bough,
Hark! the Robin's early song!
Telling one and all that now
Merry spring time hastes along;
Welcome tidings dost thou bring,
Little harbinger of spring,
Robin's come!"

He means renewed faith for Charles G. D. Roberts:

"Have I fainted, have I doubted,
In the days that have gone by?
Have I said 'There is no rising
Unto mortals when they die?'
It is past, that blind self-wounding.
I have heard the robin sing,
I have caught the Easter message,
In the first breath of the spring."

The well known feeding habits of the robin, in running through the grass and pulling earth worms out of the sod, is very vividly, as well as amusingly, told by Katherine Van D. Harkee in the following stanzas:

"Abstracted, contemplative air,
A sudden run and stop,
A glance indifferent round about,
Head poised—another hop.

A plunge well-aimed, a backward tug,
A well-resisted squirm,
Then calm indifference as before,
But oh, alack, the worm!"

Any one who has seen a robin feeding will vouch for the dramatic accuracy of this description.

Almost three weeks after the nest on the window ledge was commenced, another pair of robins began building a nest on a telephone pole about fifty feet from my back porch. The father robin in the window ledge family must be an attractive fellow among the females, and a charming singer.

to have gained so long a lead over the rest of his kind in the neighborhood in the matter of mating. This pair seemed to be the earliest in nesting of any in the whole vicinity. I saw many nests being built, two and three weeks later.

Naturalists are a good deal divided in opinion as to the object of the birds in singing, and as to what relation it bears to the mating of the birds. Certain it is that the bird's voice serves to express various emotions, such as distress, fear, anger, triumph, or mere happiness. It is also true with many species that the female is attracted to the male by his beautiful appearance, and his powers of song, selecting the male that pleases her most in these respects. I do not believe, as contended by some, that the singing of birds is almost exclusively the effect of rivalry and emulation. Birds love beautiful and attractive things, as we do, altho' of course with less conscious intelligence, and the beauty of form, color and song of the male, added to the natural mating instinct of the female, determines her choice. With few exceptions the males, during the mating season, exhibit something very like a definite desire and intention to ensnare the female, by whatever attractions nature may have given them, whether it be of song or plumage. It is altogether probable that the male bird has a mixed purpose in singing, made up of the mere joy of singing, emulation, and, during the mating season, an instinctive desire to excite, attract or fascinate the female bird.

It is not necessary to go far into the fields or deep into the woods to see many of our finest birds. " 'Tis Eden everywhere to hearts that listen." And it is by no means essential to a real enjoyment of our birds that one should be a scientific student of orders, families, and all the rest of the technical lore of the professional ornithologist, nor even to be able to identify all the birds that he may see. If he only *sees* and *hears* them, it is enough. For those whose hearts listen when they are in the fields or woods, no bird will rise to its perch without being seen and enjoyed, and no bird will utter its call or sing its song, however soft or ventriloquous, without its being heard and loved.

Emerson's lines are still true:

"Many haps fall in the field
Seldom seen by wishful eyes
But all her shows did Nature yield,
To please and win this pilgrim wise.
He saw the partridge drum in the woods;
He heard the woodcock's evening hymn;
He found the tawny thrushes' broods;
And the shy hawk did wait for him;
What others did at distance hear,
And guessed within the thicket's gloom,
Was shown to this philosopher,
And at his bidding seemed to come."

One may live and enjoy life without being able to identify many of the more uncommon birds,

but God pity the man who never sees or hears them, when they are all about him!

One must not be content to take only his body with him into the woods and fields, if he would see and hear and enjoy, for their sights and sounds are a part of the natural scene, and he must make his own spirit a part of such scene if he would have full companionship with it.

“Lacking the heart-room the song lies dead;
Half is the song that reaches the ear,
Half is the hearing.”

Bird notes, with some exceptions, are elusive and indefinite, a part of the composite hum and atmosphere of the woods, and to the careless and unsympathetic ear are not naturally or easily detected and detached from the general ensemble of woods sounds. But to him who is “fellow to leaf and flower, brook, bee, and bird,” all the little voices of woods and fields “speak a various language.”

“‘Kneel,’ whispered the breeze;
On wistful knees
In the swaying grass I sank,
While, all around,
A soft choral sound
Swelled from bower and bank.

Two tender blows,
And I arose
Of sordid aims bereft,

By the accolade
Of a green grass-blade
Ennobled and enfeoffed.

Now am I lord
Of weald and sward,
Fellow to leaf and flower!
Brook, bee and bird
Have passed the word
That owns me from this hour!"

By some such "Sylvan Ceremony," Charles Shepard Parke would initiate us into the blessed order of out-of-door spirits.

Thoreau once said that sometimes when he went into the woods he was alarmed to find he had left his spirit behind, and that he was only projecting his body on its way into the forest.

But I am sure that one must not only *be accompanied* by his spirit on his outdoor rambles, but that his spirit must also be "fellow to leaf and flower," and in intimate correspondence with all the soft, elusive and delicate sense communications which are transmitted by all nature to those and to those only who are attuned to hear these quiet messages.

"A child of nature, that is child of God,
I count these lovely kindred mine."

I would not leave the impression that this infinite order of the spirits of nature is an exclusive

society of aristocrats, to which only a chosen few may hope to be admitted. On the contrary, the order is as wide and its appeal to all mankind is as open and urgent and inviting as nature itself. All the joys of fellowship and kinship with nature are to be had for the mere asking.

I know of no plan whereby one may add more to his happiness than by a study of our birds and their habits.

Emerson called them his darlings:

“Darlings of children and of bard,
Perfect kinds by vice unmarred,
All of worth and beauty set
Gems in Nature’s cabinet;
These the fables she esteems
Reality most like to dreams.
Welcome back, you little nations,
Far-travelled in the south plantations;
Bring your music and rhythmic flight,
Your colors for our eyes’ delight.”

The anxious hunt after a new and strange bird, whose song, form or plumage has attracted one’s attention, is a source of never-ending interest and enjoyment. It includes all the coarser joys of the sportsman, and many finer and rarer spiritual pleasures which are unknown to the mere hunter of game. No matter how thoroughly acquainted one may be with the birds, he may run into a surprise in the woods or fields at any moment, and happen upon a bird he has never seen, or which

may be exceedingly rare in the area of his observations. Bird study carries with it the satisfying of an interested curiosity, which is ever on the alert for a new discovery. It easily adapts itself to our accustomed outdoor sports and recreations, such as walking, hunting and fishing. And while, as we have said, for one with eyes and ears for the woods, it is not essential to the enjoyment of bird life that one shall be able to identify all the birds, it is of course true that the more one knows of them, the better he loves them, and he should be familiar with the names and characteristics of our more common birds.

In April the birds appear in such large numbers it is sometimes confusing to the student, who finds all manner of strange and interesting birds flying about him in the woods and fields. Before he can concentrate upon one for a sufficient length of time to observe its markings, song or habits, others of perhaps greater interest divert his attention, until he, like a child who happens upon a profusion of wild flowers in the woods, in his anxiety to reach them all, misses many. It reminds one of these lines from a poem by Katherine Tynan:

“After the lark the swallow,
Blackbird in hill and hollow,
Thrushes and nightingales all roads I trod.”

The best time of day for observing the birds is the morning or the late afternoon, especially

on bright days, for then the birds are out in their favorite haunts, feeding, and may, if carefully approached, be studied at close range.

The eyesight and hearing of the birds is far superior to that of man, so that walking in the birds' haunts should be avoided as much as possible. Upon arrival at the place where one may expect to find the birds, he should quietly stand or sit, and wait for them to appear. A favorite and very effective ruse to attract them is to kiss the back of the hand, held closely against the mouth. The squeaking sound thus produced closely resembles the mating call of many birds, and if practiced cautiously will often bring around the observer a number of his feathered friends. While the eyesight of birds is very keen, they are frightened only by unusual sounds or by movement, and if one stands or sits still he will find abundant opportunities for studying their plumage and habits.

Observing these few simple precautions, I have found that the crow, the most cunning and alert of all our birds, the fox of the feathered tribe, will alight in a tree but a few feet distant, and comport himself with the same unconcern as if he were in the remotest forest, observed by no one.

Do not use a gun. It is unnecessary.

Opera or field glasses, however, are indispensable. The distinguishing marks of many birds are not discernible with the naked eye from the distance at which one is usually compelled to

observe them. With a good small glass, and the sun at one's back, the markings become clear and definite. Notes of the markings, methods of flight, songs and calls should be made *on the spot*, first, because the mere process of reducing them to writing tends to accuracy of observation and description, and second, because the memory is faulty, and if many strange birds are seen the marks and songs of different birds will become confused in the mind of the student, so that he cannot recall them definitely when he consults his key, in an effort to identify them.

One or more simple guides to the classification and identification of birds is essential. This, supplemented by a book listing and describing the birds of the local area in which the student lives, will be sufficient for all his purposes. If, in addition, a good museum is available where the mounted birds may be seen and studied, much that is difficult will be made easy.

If these suggestions are followed, little real difficulty will be experienced by the student in identifying the more common birds, and many that are not so common, and the joy that a new identification will bring will more than compensate for all his pains. Often, after a new bird has been identified, the student will be surprised to find how common it is, and will wonder how he has passed it by, unseen and unheard, for so many years.

In my own modest yard I am visited each April

by a goodly number of birds, and some of these I would not even notice had I not previously met them in the woods and fields and learned to love them.

Judging from some stories which have been written, doubtless there are nature enthusiasts who would even ascribe to some of the birds a knowledge of social proprieties and customs, for certain it is that if you will but call on the birds they will return the call, and you will know and enjoy them when they come. If you continue treating them with indifference, and never care to see or know them, it is quite certain you never will,—more's the pity. They will not first seek you out, but if you will but cultivate their acquaintance, you will see them often, either at your home or at theirs.

In addition to our old friends the robins, I have been visited this April by blue birds, flickers, house wrens, towhees, white-throated sparrows, cedar waxwings, blue jays, wood, Wilson and gray-cheeked thrushes, meadowlarks, bronze grackles, brown thrashers, song sparrows and a Grinnell's water thrush,—and I shall be happy indeed to return the calls of each and every one. Some of them live with me during the summer, and our home life without them would lack something fine which it now has. The song sparrow may be heard almost any spring or summer day.

Henry Van Dyke claims him as an old friend:

"There is a bird I know so well,
 It seems as if he must have sung
 Beside my crib when I was young;
 Before I knew the way to spell
 The name of even the smallest bird,
 His gentle-joyful song I heard.
 Now see if you can tell, my dear,
 What bird it is that every year,
 Sings '*Sweet—sweet—sweet—very merry cheer*'."

A song sparrow sang this refrain a few evenings since from a shrub in a vacant lot adjoining mine, in a sort of mixed chorus with two robins. The robins were singing together their usual hymn-like, warbling song, and the song sparrow broke in at regular intervals with this sweet, musical refrain, in the nature of an obligato, and the chorus they made was far superior to the Metropolitan Opera, and to be had for the mere listening!

The beautiful white-throated sparrows arrive near my back fence about the 18th of April, and flit about quietly in the grass and leaves and underbrush, emitting their characteristic low

whistle: and shyly scratch-

ing with *both* feet together among the old dead leaves. Harrison Smith Morris' "Lonely-Bird" well describes this beautiful sparrow:

"O dappled throat of white! Shy, hidden bird!
 Perched in green dimness of the dewy wood,
 And murmuring, in that lonely, lover mood,
 Thy heart-ache, softly heard,
 Sweetened by distance, over land and lake."

The gray-cheeked thrushes were a mystery to me for one long season. They so closely resemble the Bicknell's thrush and the olive-backed thrush, and the Wilson's thrush or veery, that they can be readily distinguished only by an experienced observer. During my first summer at our suburban home they appeared upon the lawn late in April, in their trim olive-drab gowns, stealthily hopping about in the grass, and quietly and somewhat anxiously watching any one who approached near them. Their coyness was emphasized by the light ring about the eye, which gave them an alert, inquiring expression. Their song resembled, as much as anything that could be suggested, the musical twanging of a guitar. I was unable to identify them with certainty until one day, after a severe storm, I found a dead bird near the walk, bordering a neighbor's premises, and readily identified it as a gray-cheeked thrush. Among the little groups that have visited us each season since that time, during the spring and fall migrations, there has been an occasional olive-backed thrush, but aside from the veery, which is common especially during migration, the gray-cheeked is perhaps the most abundant.

Their modest appearance, their silent, coy manners, and their beautiful and unique song combine to make their semi-annual visits of unusual interest.

The flickers are always numerous with us in April, and indeed all through the summer. Their loud spring calls of "*wick! wick! wick! wick!*"

and the vigorous, nasal "*kee-yer!*" are full of all the joy and optimism of the season, and almost any morning at the first streak of dawn one of them may be heard vigorously hammering with his bill upon any available object which offers a good sounding board. He seems to enjoy the rolling tattoo as much as his call, and it has a certain music of its own. An old, dilapidated wren box in my yard has been visited almost daily by a flicker. After alighting upon it and looking around him with a lordly air, he proceeds to hammer on the top of the empty and unusually sonorous old box, and after each strumming he raises his head erect, and sends forth his ringing clarion of "*wick! wick! wick! wick!*" as if to emphasize his very great importance in the whole scheme of nature,—which program of alternate drumming and calling is carried on usually for fifteen or twenty minutes. He is thus seen to be equally skilled in vocal and instrumental music. Flickers are very obviously attracted by any object which affords them a noisy sounding board for their drumming. I have known them to hammer on loose tin or metal on the roof of houses and barns until it became necessary to remove or cover the attractive metal to avoid the noisy din. As this tattooing sound is heard chiefly during the breeding season, it is considered by some as a love song, or a love call to the bird's mate.

The flicker has many aliases, as many as thirty-six having been compiled, including, among the

more common, high-hole, clape, yellow-hammer and golden-winged woodpecker, and, while he is listed in the family of *picidae*, he has never seemed to me a true woodpecker. With characteristic independence he constantly disregards almost all the accustomed and well-known habits of his tribe. Contrary to the custom of woodpeckers, he is frequently seen disporting himself in the grass, often in the company of robins or meadowlarks. More often than otherwise he alights upon a horizontal limb of a tree, rather than upon an upright stem or trunk, after the manner of his kind. Now and then, just contemptuously to show the world that it is easily done, he flies against the side of a tree, like a common woodpecker, grasps the bark with his claws, and supports himself in an upright position, with the aid of his heavy, stiff tail feathers. Nor does he depend for his food upon grubs pecked out of dead limbs, but, like the robin, he seems to find worms and insects more easily. He is extremely fond of ants, and eats seeds and a great variety of food which the red-head, hairy or downy woodpecker would not touch. For a nest he always appropriates some natural cavity, instead of boring a hole for himself, like his brother woodpeckers. I have wondered that Darwin did not cite the flicker as an instance of variation from type, and speculate upon his ultimate destiny as a member of some other family. He seems dissatisfied with his class, and destined for some other and different order.

Who knows but that, with his joyous optimism and his impudent, self-reliant spirit, he may not some day be in a class by himself?

The flicker is one of the many common birds which, like the perfume of some old-fashioned garden flower, calls up old associations, as in Mr. S. M. McManus' "Flicker on the Fence":

"Between the songs and silences of the flicker on the
fence,
A singing his old fashioned tune, full of meanin' and
of sense,
I fall into a musin' spell sometimes of other days,
When things was mostly different, leastwise in many
ways;

And I feel so kind of lon'some with the new things
round about,
And am like the taller candle, waitin' fer to be snuffed
out,
I look around to find a sign that I hain't lost my sense,
And get my bearin's when I hear the flicker on the
fence."

The cedar waxwings are peculiarly gentle and attractive birds. They usually travel in small troupes of from five to nine birds, flying just high enough to clear the treetops, quietly dropping down into a tree now and then for the purpose of feeding. They have as much individuality as the flicker, but, unlike him, they are proverbially gentle and refined, and their neat brown coats

always have the appearance of being "tailor made." They are trim, neat and genteel, almost to primness. A small flock of five flew into the top of a soft maple in my yard about the 20th of April, and announced their presence by their characteristic subdued call, which Thoreau describes as their "beady note." To one whose ears are attentive to bird calls, this is usually the first sign of the cedar-bird's presence, for the call is unusual and absolutely distinctive, somewhat resembling a subdued "z" sound made by breathing through a comb covered with tissue paper. The conspicuous crest and neat grayish-brown plumage, with this characteristic call, make identification easy.

The saucy blue jay, with all his egg-stealing proclivities and his quarrelsome habits, compels our admiration. He is impudent and disdainful in his conduct toward other birds, and shows his contempt for many of them by mimicking their call notes. He will seldom permit another bird of any kind to perch in the same tree with him. But, after all, his conduct seems more inspired by an excess of hilarious spirits than by any ill humor, and so we pardon him for his noise, and love him for his saucy enthusiasm. While the jay has a number of short notes which he uses occasionally, apparently to mimic other birds, in addition to his customary "jay! jay!" (or "make! make!" as my small boy interprets it), few have ever heard his real song. He has a pretty war-

bling refrain, which I have heard rather happily described as a mixture of the songs of the blue bird and robin, and in many years of observation of the birds I have never been sure of hearing his song but once, on which occasion I was able to observe the bird while singing. It is a pity he doesn't take time to use his song oftener, but apparently he thinks singing is effeminate or an unworthy pastime, and therefore contents himself with his noisy "*make! make! make!*"

The jay is another bird of strong individuality. The blue jay is the only one of the family in this latitude, east of the Rocky Mountains, and it has therefore been the only jay with which I have been familiar, and yet its individual traits are so characteristic and distinctive, and therefore so easily detected and identified in other members of the jay family, that when I saw the mountain jay for the first time in the Rockies a few years ago I knew it instantly, and also when I saw the Canada jay for the first time, in the summer of 1915, in the forests of Ontario, I identified it at once without difficulty. A jay is a jay the world over. His plumage may vary in color, but he always discloses his identity by his characteristic movements, and by what Riley called his "sass":

"Mr. Bluejay, full o' sass,
In them baseball clothes o' his,
Sportin' 'round the orchard jes'
Like he owned the premises!"

Our blue jay has a very erect and conspicuous crest, which has doubtless been gradually acquired through years of sauciness, in accordance with the laws of natural selection and variation!

Among my favorite April visitors is the towhee or chewink. This fine bird has been neglected by ornithologists and poets alike, and his beautiful coat and quiet, graceful habits are "unhonored and unsung." He is as beautiful in vernal plumage as the Blackburnian warbler, or the American redstart, but, compared with the host of admirers of these forest favorites, "there are very few to love and none to praise" the modest towhee. I stood within fifteen feet of a beautiful male towhee in woods bordering the Desplaines River, about the 15th of April, and for several minutes watched him scratch (both feet together) and tumble the dead leaves about, in search of food. His beautiful velvety black head and shoulders, and his bright vest of reddish brown, and his long, graceful body, and his conspicuous white tail feathers, made him as exquisite a wood's picture as one often sees.

The towhee is modest, without stealth; proud, without arrogance; beautiful, without vanity. He seeks "the untrodden ways," and is coy and retiring in his habits. You will always find him browsing among the leaves, or twitching about among the low branches of shrubs or in brush piles. He seldom or never even takes a high perch, so that his beautiful coat may be seen and admired.

He seeks no publicity, and seems not to care for public favor or approval. These traits make him none the less worthy of our love and appreciation;—indeed, how much finer is it for virtue to be found out, than that it should proclaim itself from the treetops. If this towhee would come out of his quiet haunts and perch himself upon a high tree, and, facing the setting sun, sing us a ringing song after the fashion of the robin or the wood thrush, he would be instantly and eternally famous. Isn't it fortunate that we love some birds for their quiet, modest and gentle ways, and that we may also love others for their impudence and noise! Birds thus resemble men in their varying individual traits and characteristics.

The meadowlarks do not often come into my yard, altho' they will now and then alight in a tree for a few moments in passing, but I can hear their clear, ringing call every day in the meadows adjoining the river, two blocks distant. Few bird songs have the penetrating intensity of the meadowlark's. While traveling through the country by rail I have frequently heard its ringing call at intervals above the noise and rattle of the train, recalling the lines of Ina D. Coolbrith:

"Sweet, sweet, sweet! Oh happy that I am!

(Listen to the meadow-larks across the fields
that sing!)

Sweet, sweet, sweet, O subtle breath of balm,
O winds that blow, O buds that grow, O rapture of
the spring!"

The visit of the Grinnell's water thrush to my yard was a noteworthy event. While this bird is perhaps the most common of the water thrushes passing through this area, he is seldom seen away from low, wet thickets, and I was much surprised at his appearance on my lawn. While he is classed as a warbler, he resembles the thrushes in appearance, though he is smaller and less brown, having a drab, white-striped coat, and he moves with a marked tilt of his trim body as he pauses in his course through the grass or among the low bushes.

However brief my visits to the woods in April may be, I am always sure of a warm welcome from the birds when I return their call, and it is remarkable what a vast amount of pleasure one may receive from short trips of this kind, stolen here and there from the busy hours of the ordinary workdays. The birds are busy much earlier than we are, and it is not at all necessary that one's appointments with them be either interrupted or cancelled altogether because of the business cares that "infest the day." We may see them at all times in their homes in the early morning, and still be at office or shop in ample time for the day's work.

A thirty-minute walk which I took on the morning of April 13th might be cited as an example. I crossed a bridge over the Desplaines River, and in the meadow lying to the west heard the songs of both field and song sparrows (among the most beautiful songsters of the sparrow fam-

ily). To the east, across the bridge, is a high wire fence, with a wooden cornice, the whole covered with vines, which at this time were still bare and brown. In one of the angles of the cornice, and partially concealed by the dark vines, I noticed a robin building a nest. A few feet farther I turned into a street bordering the woods and leading into them, and in the front yard of a vacant house saw, among the bare shrubbery, a kinglet (a small king!), pluming his feathers, as if he had just taken his morning's bath and was making his toilet for the day. Watching him carefully as he fluttered and turned about, I caught sight of the tuft of bright red feathers on the crown of his head, which marked him as the ruby-crown, and then, his toilet finished, he poured forth his joy in the finest little soft and yet distinct wren-like song that it has ever been my good fortune to hear. The kinglet's song, while clear and distinct at close range, is not loud, and cannot be heard at any considerable distance. And, again, these little birds are usually so busy hopping about the lower trunks of trees and among the lower branches, feeding, that they apparently have little time for singing. The small, wren-like, olive-green bodies of the ruby-crowned and golden-crowned kinglets are very similar in appearance, and sometimes they are not easily distinguished, except by the bright markings on the crown, which give them their respective names, although the golden-crowned is somewhat smaller. The names

of these little birds are sometimes misleading to the student, because he expects to see a conspicuous red or golden patch on the head, but as a matter of fact the red or golden patch is not easily seen unless the bird tips his head down, so one may see the very top of his head (which he is sure to do if one watches him a few moments, because of his very great activity), but when he does so a very few distinctly marked feathers in the center of the crown will be visible.

In an adjoining meadow, just before reaching the woods, I observed a sparrow hawk flying about and "hanging up" over the field, in search of his morning meal.

Passing into the woods skirting the river, I followed a path which led through heavy brush and second growth, as yet entirely bare, with no signs of spring buds. The first bird note I heard was the whistle of a cardinal in the distance, towards the river, and I recalled Riley's tribute to the "red bird":

"Go, ye bards of classic themes
Pipe your songs of classic streams!
I would twang the redbird's wings
In the thicket while he sings!"

Pausing to listen to this wonderful song, I was startled to hear, among the bare bushes at my right, a chorus of clicking noises which sounded exactly like a shower of fine hail stones falling among the leafless shrubs. The impression was

so realistic that I involuntarily glanced skyward to see if any passing leaden cloud could be responsible for this commotion, when I discovered a large flock of juncos, in their drab coats, flitting about in the brush, showing their white tail feathers with every "*tsip! tsip!*" that they uttered. The familiar call of this little bird is almost icy in its brittle staccato, and suggests the cold wintry days when they are so plentiful, and which they seem to enjoy quite as much as the warm days of spring. But the balmy air and bright sunshine of this April morning seemed also to fill the juncos to the bursting point, for one or two of them perched upon a neighboring tree and poured forth their happiness in their rather rare and unusual song.

In the meantime I had caught sight of the female cardinal, on the opposite side of the path, feeding among some old vines overhanging the low trees, and while watching her some disturbance along the river beyond her flushed her brilliant mate, who came flying directly over me, like a ball of fire, alighting on the opposite side of the path.

Retracing my steps to the entrance of the woods, I observed a pair of yellow-bellied sapsuckers chasing each other about through the trees, and returning after each excursion to a small poplar directly in front of me, where they would rest a moment, clinging to an upright limb, or to the tree trunk, talking confidentially to each other,

and then off they would go on another helter-skelter through the naked branches, and back again to the favorite poplar. While watching the play of the sapsuckers, a myrtle warbler flew into the poplar and exhibited his conspicuous yellow rump, which makes his identification so easy. Just as I was saying a reluctant farewell to my feathered friends, a troupe of five or six trim cedar-birds flew into the tops of the trees bordering the woods, coming from the direction of the village, and, after pausing long enough to bid me "good morning," continued their journey on into the woods.

This was by no means an unusual or exceptional April morning for the bird lover. Indeed, the number and variety of birds seen was insignificant as compared with what might be observed upon a longer trip, or one taken later in the migrating season.

Yet when thirty minutes, by the way, will yield so much of enjoyment and inspiration, why do we not more often make these little saunterings a part of our work-a-day lives, to cheer and brighten them, thenceforth and forever?

I always regret the departure of April,—but she ushers in flowery May, thus reminding us of the beautiful lines of Oliver Wendell Holmes:

"At last young April, ever frail and fair,
Woody by her playmate with the golden hair,
Chased to the margin of receding floods
O'er the soft meadows starred with opening buds,
In tears and blushes sighs herself away,
And hides her cheek beneath the flowers of May."

MAY.

In this May-month by grace
of heaven, things shoot apace.

The waiting multitude
of fair boughs in the wood,—
How few days have arrayed
their beauty in green shade!

The golden willows lift
their boughs the sun to sift:
Their silken streamers screen
the sky with veils of green,
To make a cage of song,
where feathered lovers throng.

Hearing their song, I trace
the secret of their grace.

Ah, could I this fair time
so fashion into rhyme,

The poem that I sing
would be the voice of spring.

—*Robert Bridges.*

HE older poets loved to describe
May as a beautiful maiden,
clothed in sunshine and scattering
flowers on the earth, while she
danced to the music of birds and
brooks.

For example, Spencer wrote:

“Then came fair May, the fayrest mayd on ground,
Deckt all with dainties of her season’s pryde,
And throwing flowers out of her lap around.”

It would be impossible for a poet to employ a prettier or happier figure to express the freshness and youthful beauty of the May time. Of course the futurists and "cubists" of modern poetry never write about anything so old and hackneyed as "spring" or "May." They more often depend upon *genre* pictures for inspiration for their *vers libre*—which probably accounts for their showing so little of it!

But to the real poet it was as natural as expressing his thoughts in rhyme to write of spring as a beautiful maiden in all the fresh radiance of youth.

"When the world that still was April
Was turning into May,"—

the transition was merely the fulfillment of the wonderful promise of April.

The bud of April is the blossom of May. The fresh fulfillment of so glorious a promise as April holds could not well escape, in the order of nature, its manifest destiny of fragrance and beauty.

May holds not the matronly maturity of June, but it holds something sweeter and more lovable.

It is

"As if time brought a new relay
Of shining virgins every May."

Birds, like men, enjoy the beauties and the delicious perfumes of May, and it is therefore not at

all strange that they prefer nesting and rearing their little families among the May flowers. Surely the beauties of nature were designed for all creatures, as justly claimed by Christina Rossetti :

“Innocent eyes not ours
Are made to look on flowers,
Eyes of small birds and insects small;
Morn after summer morn
The sweet rose on her thorn
Opens her bosom to them all.

The last and least of things
That soar on quivering wings,
Or crawl among the grass blades out of sight,
Have just as clear a right
To their appointed portion of delight
As queens or kings.”

Man has always assumed a vast superiority over all other created things, and has attempted to establish it as a fact by making it a part of his religion. To the Roman, all others are barbarians. To the Christian, all others are heathen. To man, all other animals are inferior, and living simply for his use and entertainment. Who knows what the great truths of nature may be? As we live and move upon our own little planet, man appears to our vision to be nature's crowning work, and we are now looking forward to a super-man who shall eventually bridge the span between

earth and heaven. Maeterlinck in his "Life of the Bee" says: "We conclude that we stand on the topmost pinnacle of life on this earth; but this belief, after all, is by no means infallible."

As our little planet is probably the illimitable universe of the ants, is it not quite as reasonable to suppose our universe to be merely the little world of some super-creature that we know not of? The animals in "Alice in Wonderland" seemed to regard Alice as an inferior because of her different physical form.

I am quite sure the ants and many other tiny creatures regard us as very awkward, clumsy, elephantine, foolish folk, following after many strange gods, and wholly missing the real purpose of life, which is not to gain, but to be success,—merely to let life flow through us, in all its fullness, in the same simple manner that the flowers grow and the birds sing.

Emerson expresses this sentiment in "Musketaquid":

"Canst thou, thy pride forgot, like nature pass
Into the winter night's extinguished mood?
Canst thou shine now, then darkle,
And being latent, feel thyself no less?"

And Van Dyke prays for this power to live naturally:

"By the faith that the flowers show when they bloom
unbidden,

By the calm of the river's flow to a goal that is hidden,
By the trust of the tree that clings to its deep
 foundation,
By the courage of wild birds' wings on the long
 migration,
(Wonderful secret of peace that abides in Nature's
 breast!)

Teach me how to confide, and live my life, and rest."

Edwin Markham appropriately compares our civilization with that of the ants, in a poem which he has beautifully named "Little Brothers of the Ground":

"Little ants in leafy wood,
Bound by gentle Brotherhood,
While ye gaily gather spoil,
Men are ground by the wheel of toil;
While ye follow Blessed Fates,
Men are shriveled up with hates;
Yes, they eat the wayside dust,
While their souls are gnawed by rust.

Ye are fraters in your hall,
Gay and chainless, great and small;
All are toilers in the field,
All are sharers in the yield.
But we mortals plot and plan
How to grind the fellow man;
Glad to find him in a pit,
If we get some gain of it.
So with us, the sons of Time,
Labor is a kind of crime,

For the toilers have the least,
While the idlers lord the feast.
Yes, our workers they are bound,
Pallid captives to the ground;
Jeered by traitors, fooled by knaves,
Till they stumble into graves.

How appears to tiny eyes
All this wisdom of the wise?"

At least it becomes us not to magnify unduly our own importance in the universe, and greedily accept all the beautiful things of nature as our rightful due, created expressly for our own particular use or pleasure, without at least showing our appreciation and giving thanks! If we had brought as much joy and beauty and harmony into the world as the birds, we might then be justified in claiming kinship with them, as Lowell did when he recalled his untainted boyhood as the time "when birds and flowers and I were happy peers."

In this latitude the month of May is the very height of the nesting and migration season. Perhaps more birds nest with us in May than in any other month of the year, and practically all of the spring migration takes place between the fifteenth of April and the first of June.

Our regular May birds, it seems, will not come in April, no matter how favorable the weather may be. I have often looked for some of the usual May arrivals in April, because of early

warm weather, but the Baltimore oriole, the scarlet tanager, the bobolink, many of the warblers and other birds will not come until May. They are true to May, no matter how *warm* a welcome April may offer them.

Contrary to the popular impression and the early opinions of students of migration, temperature has but little influence upon the migratory habits of the birds. Food supply is undoubtedly the most controlling consideration. Those birds whose favorite food can readily be obtained in winter, uninterrupted by snow or other weather conditions, are usually permanent residents, and do not migrate southward in autumn. Birds have wonderful breathing capacity, and hence great animal heat, and seldom are seriously affected by cold weather alone. Tiny chickadees, creepers and nuthatches seem less inconvenienced by the cold, sharp air of winter than we do. The food of many birds is quite inaccessible in winter, however, and the ever-present and controlling impulse of self-preservation unfailingly directs them to their food supply. But, given an abundance of its favorite food, a bird's movements no longer seem to be governed by the calendar. Red-headed woodpeckers, for example, were supposed to migrate southward in the fall and pass the winter south of Maryland, until Dr. Merriam, in his interesting account* of the habits of this species, tells that in one county in New York their

* Bull. Nutt. Orn. Club, iii, 1878, pp. 123-128.

abundance in winter was in no way affected by the severity of the weather, but was entirely dependent upon the success of the crop of beech-nuts, which constituted their food.

Many of the nature poets refer to the birds as seeking warmer climes. The subject of migration very naturally appeals to the poet's imagination, and the balmy air and sunshine of the southland is a far more inspiring theme for the poet than mere food, but the latter is the really practical, essential, habit-producing thing, after all.

With all the scientific study and research that has been given to the subject of migration of the birds, especially during the last few years, it still remains a mystery, and doubtless always will, and it is not at all surprising that the poet's imagination has been fired by it. One of the most beautiful early-American poems was inspired by a migrating bird,—Bryant's lines "To a Waterfowl":

"Whither, 'midst falling dew,
While glow the heavens with the last steps of day,
Far, through their rosy depths, dost thou pursue
Thy solitary way?"

* * * * *

There is a power whose care
Teaches thy way along that pathless coast,
The desert and illimitable air—
Lone wandering, but not lost.

All day thy wings have fanned,
At that far height, the cold thin atmosphere,
Yet stoop not, weary, to the welcome land,
Though the dark night is near,

And soon that toil shall end;
Soon shalt thou find a summer home, and rest
And scream among thy fellows; reeds shall bend,
Soon, o'er thy sheltered nest."

Browning expressed the same faith in that
"power whose care" teaches his own path, as He
teaches the paths of the birds:

"I see my way as birds their trackless way.
I shall arrive, what time, what circuit first
I ask not—* * *
In sometime, His good time, I shall arrive:
He guides me and the bird. In His good time!"

No other explanation than that given by these
poets has yet been offered for the unerring instinct
of the birds in seeking their old feeding grounds
and breeding haunts, often thousands of miles
removed from their winter base.

Many interesting facts, however, have been
established with reference to the regular semi-
annual migration of many of the birds, but how
they are able successfully to traverse such great
distances, often oversea for many hundreds of
miles, and return to the same area season after
season, is one of nature's riddles.

Many influences, however, have a more or less important bearing upon the migration of the birds, among which may be mentioned coast lines, river channels, food supply, sex impulses, hunger, love, homing instinct, inherited or acquired memory, temperature, storm conditions, magnetic meridians, etc., all of which are good as far as they go, but none of them, nor all of them together can wholly account for the phenomenon.

The ancients observed that some birds visited them only for short periods and at certain seasons, but they apparently sought or found no explanation for it, and some thought that the birds hibernated, after the manner of certain animals who thus survive the period when the food supply is entirely cut off.

While flying is not the only way in which animals migrate, it is the most effective, and most of the birds are thus structurally well provided with the means of escaping from the disastrous effects of adverse circumstances, and in this way nature has wisely provided against the necessity for hibernation.

The fact that the birds are endowed with the power of flight suggests some things which doubtless have had an influence upon the cause or origin of migration. For example, this power enables the birds to avoid many of their natural enemies, and also to move rapidly from one feeding ground to another. They have therefore naturally traveled away from those things which

were disadvantageous to them, and sought conditions that were more favorable. In the same manner they formed habits of wandering in search of food. In their wanderings, which gradually have been extended over wider and wider areas, they have discovered attractive feeding grounds and suitable nesting places; and when to this are added the other recognized influences, the cause of or reason for migration is about as fully explained as it ever will be.

When about to give birth to a calf, the domesticated cow will sometimes break out of the barn or yard and hide herself in the protecting woods or brush. Although a pet cow, she will defend the retreat against all comers, and allow no one to approach her young. This action represents a reversion to the habits of her wild ancestors, forced to the surface by the great elemental fact of reproduction. Many wild animals act in a similar manner under these circumstances, often travelling considerable distances. I have sometimes wondered if it might not have been a similar elemental impulse in the birds which in the dim past was the real cause or origin of the present fixed habit of long-distance migration. The ease with which the birds might respond to this impulse, with their wonderful powers of flight, would make such movements on their part most natural.

Certain it is that as our northern spring approaches, the sex impulse, the strongest of all animal impulses, upon which reproduction and

the very existence of the species depend, overcomes all other desires, and the bird grows restless and, guided by the hereditary instincts mentioned, it seeks its breeding area.

Wanderings in search of food or in response to the sex impulse might, of course, lead in any direction, and be entirely aimless, as originally they doubtless were, but, following the course most obviously to their advantage, the birds now usually travel south in search of food, and north in search of home, and these journeys have gradually been extended until they now cover hundreds of miles over both land and sea.

Some very interesting facts have been definitely ascertained with reference to the height that birds attain during migration, and the speed and distances traveled. Birds, in migrating, often ascend to great heights, for which two principal reasons have been assigned: first, that it increases the range of vision, and, second, that they thereby reach a zone or stratum of atmosphere in which flight may be more easy. In 1888 Dr. Frank M. Chapman published an account of certain observations made by him, in which he calculated that the birds traveled at heights varying from 600 to 15,000 feet. A number of the birds which he observed were seen flying upwards, crossing the moon therefore diagonally, "these evidently being birds which had arisen in our immediate neighborhood, and were seeking the proper elevation at which to

continue their flight.”* Beginning their flight, birds have been observed flying upwards in an almost perpendicular direction, until they reached heights beyond the range of the natural vision. They usually rise to the greatest heights when starting upon oversea journeys.

Ducks and geese normally travel at about 40 to 50 miles per hour, but Prof. J. Stebbins and Mr. E. A. Fath made careful calculations from observations with a telescope, and found that birds passed at rates varying from 80 to 130 miles per hour.† With favorable winds, even these rates of speed are sometimes greatly increased.

The distances traveled by the birds, some of them so tiny that one would think they would be wholly lost in the wide blue expanse of heaven, are very remarkable. The palm warbler, which is a common migrant with us in May, nests in Canada, 3000 miles from Cuba, its winter home. It is a tiny bird, about five inches long, less than half the size of a robin. Similar long trips are made by many of the other warblers that are so small that the ordinary casual observer never sees them at all as they flit about in our treetops in May and September.

The American golden plover nests along the Arctic coast from Alaska to Hudson Bay, and winters in Argentina, in southern South America, 8000 miles distant, and in the course of its migra-

* Auk, 1888, p. 37.

† Science [New York], xxiv., 1906, p. 49.

tion to its winter home makes the longest single-flight oversea journey of which we have any record. This flight is from the coast of Nova Scotia across the Atlantic southward to South America, a distance of 2500 miles. These birds have magnificent powers of flight, and Mr. G. H. Mackay thinks, with reason, that in making this long oversea journey under favorable conditions they travel at a speed of from 150 to 200 miles per hour.

The Eastern or Pacific golden plover winters in certain islands of the Southern Pacific Ocean, including the Low Archipelago, which is 5000 miles, by direct air route, but about 11,000 miles, by way of its migration route from Alaska, which is also the summer home of this species. These two golden plovers, therefore, which are sub-specifically distinct, nest in Alaska little more than one hundred miles apart, and one travels east through Nova Scotia, and south 8000 miles to South America, and the other travels south-west to Siberia and China, and then south-east to the islands of the southern Pacific, a distance of about 11,000 miles. These two birds, very similar in general appearance, nesting in the same area, never fail to separate into two distinct migrating groups, one travelling south-west 11,000 miles, and the other south-east 8000 miles, to winter homes as remote from each other as they could well be in two widely divergent species.

Our robin makes a leisurely 3000-mile trip twice

a year, taking about seventy-eight days for each trip.

Most of the birds when migrating, travel at night, and feed by day. Many of the most interesting and reliable observations on record have been made at lighthouses, and elsewhere by viewing with a telescope the face of the moon, across which the birds have been seen flying.

Many of our summer residents may be called half-migrating, for while they usually migrate southward in the fall, and return in the spring they sometimes remain in the north during the winter, especially in neighborhoods where the requisite food may be had, thus proving again that food is the most controlling consideration in the migration of the birds. Among the common birds that sometimes spend the winters with us may be mentioned the robin, blue bird, meadowlark, junco, kinglets, cardinal, nuthatch, woodpeckers, chickadee, goldfinch, and certain of the sparrows. The casual observer seldom sees any of them in winter, but to eyes that see and hearts that listen, they frequently bring a message of gladness into the dreary wastes of winter. I have several times seen the robin in midwinter, and the other birds mentioned are not infrequent winter residents or transient visitants. A bird lover friend of mine whose home is adjacent to a dense wood adjoining a river, where the cardinals nest every summer has induced one of these beautiful birds to winter with him, by feeding him all summer and late into the

fall until the bird apparently forgets to migrate to a warmer clime. Many winter and semi-migratory birds may be attracted to one's home in both summer and winter by a regular practice of feeding, and by a permanent basin of water for the birds to use for drinking and bathing.

The birds one may see and enjoy in May are bewilderingly numerous. One of my May favorites is the Baltimore oriole. To my mind he is one of the few birds possessed of all the known bird accomplishments. He has brilliant plumage, a beautiful song, and is a master in the art of nest building. When I hear his first golden whistle in the spring, when the tulips are in full bloom, I am reminded of Fawcett's beautiful lines:

"How falls it, oriole, thou hast come to fly
In tropic splendor through our Northern sky?

At some glad moment was its nature's choice
To dower a scrap of sunset with a voice?

Or did some orange tulip, flaked with black,
In some forgotten garden, ages back,

Yearning toward Heaven until its wish was heard,
Desire unspeakably to be a bird?"

My young son, anxious to supply the robins who had nested on our window ledge, with what he thought was suitable material for their nest, carried some fine threads of flax into the yard and

laid them in the grass where he hoped the robins would find them, although the robin's nest had long been finished, and was built of much coarser material, but a pair of orioles espied it and eagerly appropriated it for the delicately woven, pensile nest which I, by this means, discovered they were building in a neighboring elm.

When I hear the first oriole sing in the spring, I feel an impulse to run out into the sunshine and stretch my hands out to him in glad welcome. The golden buoyancy of his song is an invitation out doors and is as brilliant as his beautiful coat. He seems to say:

“Come out beneath the unmastered sky,
With its emancipating spaces,
And learn to sing as well as I,
Without premeditated graces.”

His song and his nest recall Lowell's beautiful lines:

“* * * from the honeysuckle gray
The oriole with experienced quest
Twitches the fibrous bark away,
The cordage of his hammock-nest,
Cheering his labor with a note
Rich as the orange of his throat.

High o'er the loud and dusty road
The soft gray cup in safety swings,
To brim ere August with its load
Of downy breasts and throbbing wings,

O'er which the friendly elm-tree heaves
An emerald roof with sculptured eaves.

Below, the noisy World drags by
In the old way, because it must,
The bride with heartbreak in her eye,
The mourner following hated dust:
Thy duty, winged flame of Spring,
Is but to love, and fly, and sing."

Another favorite May bird, quaint and Quaker-like in character, which I have loved since my boyhood days when every country bridge offered a shelter for his nest, is the phoebe, of which, also, Lowell sings:

"Ere pales in Heaven the morning star,
A bird, the loneliest of its kind,
Hears Dawn's faint footfall from afar
While all its mates are dumb and blind.

It is a wee sad-colored thing,
As shy and secret as a maid,
That, ere in choir the robins sing,
Pipes its own name like one afraid.

It seems pain-prompted to repeat
The story of some ancient ill,
But *Phoebe! Phoebe!* sadly sweet
Is all it says, and then is still."

The phoebe is homey, domestic and trustful,
and his quiet ways win the affections of us all. His

rather insignificant song "*pewit phoebe*,"—"pewit phoebe,"—is as humble as the bird himself.

Indeed, Witter Bynner, with characteristic naivete, finds his very silence golden:

"Under the eaves, out of the wet,
You nest within my reach;
You never sing for me and yet
You have a golden speech.

You sit and quirk a rapid tail,
Wrinkle a ragged crest,
Then pirouet from tree to rail
And vault from rail to nest.

And when in frequent, witty fright
You grayly slip and fade,
And when at hand you re-alight
Demure and unafraid,

And when you bring your brood its fill
Of iridescent wings
And green legs dewy in your bill,
Your silence is what sings.

Not of a feather that enjoys
To prate or praise or preach,
O Phoebe, with your lack of noise,
What eloquence you teach!"

We are glad to have him return every year, as he frequently does, to the same bridge, barn or porch, and build his nest of moss and mud. The

phoebes seem less numerous of late years, perhaps because the old fashioned wooden bridges have been replaced by steel and concrete, and they are not so often seen near houses and barns, except in the country districts. They arrive in April, and usually begin nesting about the first of May. Their nests are frequently infected with vermin of various sorts, which sometimes kill the young birds, and this may account for their building a new nest when rearing a second family. They are not noted for meticulous housekeeping.

In addition to the phoebe, which is perhaps the most common of our flycatchers, we have the wood pewee, the Acadian, Traill's and least flycatchers, all of which are demure, drab-colored birds with quiet, plaintive notes. The wood pewee also "pipes its own name" even more distinctly than the phoebe, a mournful, delicate whistled "*pee-a-wee*," which may be heard at all hours almost any day in the shady woods in May, or indeed all through the summer, when other birds are silent. Trowbridge has honored him with these verses:

"For so I found my forest bird,—
The pewee of the loneliest woods,
Sole singer of these solitudes,
Which never robin's whistle stirred,
Where never blue bird's plume intrudes.
Quick darting through the dewy morn,
The redstart trilled his twittering horn,
And vanished in thick boughs: at even,

Like liquid pearls fresh showered from heaven,
The high notes of the lone wood-thrush
Fall on the forest's holy hush:

But thou all day complainest here,—
‘Pe-wee! Pe-wee! peer!’ ”

Next to the humming bird, this little flycatcher builds the most exquisite little nest of all the feathered kingdom. It is always flattened out on a single horizontal limb, is only about an inch in height, lined with the finest root fibre, and covered with crustaceous lichens held together with cobwebs and caterpillar's silk with such skill and art that it is almost impossible to distinguish it from a moss-covered knot, nature's-own handiwork.

The soft, pensive, plaintive note of this little bird, in the midday heat of a summer day in the woods, when all other birds are silent, has a peaceful, quieting influence, like the cooling shades of the forest where alone the song may be heard.

When feeding it sits on a dead or projecting branch of a tree from which it darts at intervals in graceful undulations among the shadows of the wood, catching its insect prey, and returning to its perch, where it repeats its feeble song, usually accompanied by a quivering of the wings, and a downward tilt of the tail.

The Acadian flycatcher is also quite common in this latitude, more common than the Traill's or the least flycatcher. Of course the most distinguishing trait of the flycatchers, and the first aid to

identification, is the characteristic habit of darting from the limb of tree or bush into the air and snapping at insects and then fluttering back to the perch to watch for the next quarry. Most other insect-eating birds gather the insects from the surface of trees or leaves. The Traill's is about six inches in length, the Acadian somewhat smaller, and the least flycatcher, the smallest of them all, is little more than five and a half inches in length. All three have olive-green and fuscous or brownish backs, and are somewhat difficult to distinguish, but the least flycatcher may usually be identified by its smaller size and its horn-colored lower mandible, which in the other two species named is white or flesh colored. The Acadian is perhaps the most often seen in the Mississippi Valley.

My first experience with the Traill's flycatcher was an interesting one, and may aid other bird students in distinguishing this little flycatcher from some of its similarly marked congeners. One late afternoon in May I was attracted by a small bird, darting up from a low bush in pursuit of insects, and although there were other shrubs near, I noticed that he always suddenly darted back after capturing his meal to the very twig from which he had flown. On several occasions he darted out in a horizontal direction from his perch, snapped up the insect, and then although there was an equally desirable perch directly beneath him, he would precipitately dart back to the identical bush from which he had flown, all

of which was done so suddenly that the little bird appeared to be tied to a rubber band which violently jerked him back to his perch. Sometimes he would fly straight up into the air three or four feet above the shrub, and then tumble over and dart down again, as if he had been shot in his flight. I remember one of his side-flights was so quick and sudden, I thought he had left the bush and flown away, and my eyes followed the direction of his flight for some distance, until I suddenly lost him. Glancing back at his old perch, I was surprised to find him there coolly waiting for another dainty winged morsel to appear.

I was not then familiar with this peculiarity of the bird, nor with the bird itself, but I felt confident that this marked characteristic would be mentioned by some authority as a distinguishing trait. I hurried to consult a number of the modern authorities, and to my surprise found that none of them mentioned this as the peculiar habit of any of the flycatchers. At last I referred to the authority of all authorities,—Audubon, and there I found it at once: “returning with marked suddenness to the same place to alight.” Audubon, one finds, settles many things that all the rest know not of. He spent all of his long life in the woods and fields observing the birds, and his record of his observations is marvelously free from mistakes, and wonderfully full of just what one wants to know about birds. His wisdom is born of his own experiences, and is not mere knowledge gathered from

books written by others. The habit of returning to the same perch is common to a number of the flycatchers, but the helter-skelter haste of the Traill's in doing so is unique.

Therefore should you ever observe a little flycatcher busily engaged in darting after insects among low trees or shrubs, and invariably returning with *sudden precipitation* to the same perch, you may be quite certain it is Traill's.

The kingbird, the most common of all of our flycatchers, and much larger than those we have been considering usually returns to the spot from which he started in pursuit of an insect, but not so precipitately, and he cannot, of course, be confused with the Traill's flycatcher. The scientific name of the kingbird is tyrant flycatcher, but while he vigorously assails anyone who approaches his nest, as any bird of courage and spirit will do, I think this name is a base slander, because the crow is the only bird against whom he seems to have a grudge, and for this special antipathy he doubtless has a very sufficient reason.

I recall one time finding a nest of this bird in a tree overhanging a small stream in Northern Indiana. While rowing in the stream, I passed directly under the nest, which I could easily reach by standing up in the boat. I stopped the boat by clinging to the overhanging branches, and rising looked directly down upon the mother bird sitting on the nest, from which she refused to move until I actually touched her back. She then merely

hopped over to an adjacent limb, and scolded me, with wings half spread and eyes glistening. The male meanwhile kept violently darting down to within an inch of my head, and making more fuss than his mate. The courage and spirit of the two birds was an inspiring sight. I took some pictures of the nest with the mother bird half reposing upon it, with her wings partially spread as if ready to battle for her young if need be. I never got a camera closer to a mother bird on the nest than on this occasion. I was actually compelled to back away some distance, to get the proper focus for the picture.

While the kingbird is thus aggressive and full of spirit, I have never known him to be tyrannical, in any proper sense, or even quarrelsome.

The great-crested flycatcher is a rare summer resident. I have seen this largest and finest of our flycatchers in the deep woods along our rivers and on the sand dunes at the south end of Lake Michigan. About May 29, this year (1916) I saw a number of them noisily flying about in old dead tree tops as if they were mating. Their calls are loud and clear, and some of their notes resemble the whistle of the cardinal, and others sound very much like the trilling tree-toad notes of the red-headed woodpecker. But they are just enough unlike either to attract attention and arouse one's curiosity, and of course when the bird, (which is larger than the cardinal, and something of the same shape) is once seen, with its crest, and plain

grayish-brown coat, and sulphur-yellow belly, he is easily identified. He always uses snakeskins in his nest, which he builds in a hole in a dead tree, and he usually leaves a piece of it hanging out of the hole for the purpose, as claimed by some authorities, of frightening away his enemies.

The yellow-billed cuckoo is a common summer resident arriving early in May. It is a long, thin, dove-like bird, brownish gray in color, with a slight greenish gloss, the long tail conspicuously dotted with round white spots. He slips noiselessly into a tree, and disappears in its leafy depths in an almost ghostly manner, and if you are able to spy him out you will find him sitting absolutely motionless, apparently in a sort of trance, from which he awakes to hop stealthily about in search of caterpillars. His song is strikingly characteristic, and suited to his spirit-like movements, a monotonous and unmusical "*ków, ków, ków,*" or "*kó kŭk, koo, koo, koo, kŭk,*" which sounds a good deal like two wooden balls being struck together. Although the European Cuckoo's song differs somewhat from ours, Wordsworth's poem "To the Cuckoo" is a beautiful and apt description:

"O blithe New-comer! I have heard,
I hear thee and rejoice.
O cuckoo! shall I call thee Bird,
Or but a wandering Voice?"

Thrice welcome, darling of the Spring!
Even yet thou art to me
No bird, but an invisible thing,
A voice, a mystery;

The same whom in my school-boy days
I listened to; that Cry
Which made me look a thousand ways
In bush, and tree, and sky.

To seek thee did I often rove
Through woods and on the green;
And thou wert still a hope, a love;
Still longed for, never seen.

O blessed Bird! the earth we pace
Again appears to be
An unsubstantial, faëry place,
That is fit home for Thee!"

The notes of the cuckoo are sometimes soft and ventriloquous in quality and one is likely to be misled into thinking that the bird is far away, when he is hidden in the foliage close at hand. Maud Keary expressed the same thought as to his retiring, spirit-like character:

"Primroses and cowslips,
Bluebells and sweet may,
And a cuckoo calling
Far, far away.

Forget-me-nots and cresses,
In the streamlet blue,
Fly a little nearer,
O cuckoo, do!"

Our cuckoos are not often heard "*kooing*" however, except in certain localities where they are very plentiful. One is more likely, if he sees the bird at all, to run into him by accident, as he slips quietly about the deep shadows of the trees. He is quite as active by night as at any other time, which may account for his stealthy, almost bat-like movements by day.

It is said that the cuckoo sometimes deposits its eggs in the nests of other birds, after the fashion of the cowbird, although I have never seen an instance of it. When it does build a nest of its own, it is a poor excuse—a few loose sticks which scarcely serve either to conceal the eggs or hold the young when hatched. A pair of these birds once built a frail nest of this character on a horizontal limb of a maple tree in my front yard, through which one could easily see the blue sky.

The black-billed cuckoo is also quite common, though not so frequently seen as his yellow-billed cousin. The birds are very similar in appearance, the only conspicuous distinguishing mark being the color of the bill.

May always brings an army of silver tongued thrushes, and myriads of tiny tree-haunting warblers. The wood thrush is the finest songster of the thrushes that spend the summer with us. Izaak Walton's tribute to the nightingale is none too fine for the wood thrush:

“Lord, what music hast thou provided for
the saints in Heaven, when thou affordest
bad men such music on earth?”

John Vance Cheney’s “Wood Thrush” is a
classic among nature poems:

“When lilies by the river fill with sun,
And banks with clematis are overrun;
When winds are weighed with fern-sweet from the
hill,
And hawks wheel in the noontide hot and still;
When thistle tops are silvered, every one,
And fly-lamps flicker e’er the day is done,—
Nature bethinks her how to crown these things.
At twilight she decides: the wood-thrush sings.”

He is a common summer resident, and may be
easily distinguished by his uniformly brown back
and tail, and large round black spots all over the
breast.

The hermit thrush is a common migrant, but
unfortunately he never sings on his journey to the
north. He apparently saves his song for his mate
at the time of the home building, in the twilight
northern woods.

As Lowell says:

“Through the dim arbor, himself more dim,
Silently hops the hermit thrush.”

Some day I am going to take a train for the
north woods where he nests, just for the pleasure

of hearing him sing, and then return home again happy. As a songster, he certainly has no superiors, and very few equals. John Burroughs says of his song: "It suggests a serene, religious beatitude, and expresses a deep and solemn joy which only the finest souls may know."

And Cheney:

"Holy, Holy! In the hush
Hearken to the hermit thrush;
All the air
Is in prayer."

Nellie Hart Woodworth, in a similar spirit, calls it the "Angelus":

"Who rings New England's Angelus?
A little bird so plainly dressed
With robe of brown and spotted vest
He rings New England's Angelus."

While this rare spirit bird never favors us with his wonderful song, he may often be seen late in April and early in May, and his distinguishing mark is his tail, which is conspicuously more reddish brown than his back.

Of the myriads of warblers passing through in April and May to their nesting haunts, most of them sing brief, warbling, insect-like notes, easily heard by an alert bird-loving ear, but as easily missed by others.

Among the warblers which may be seen in this

area may be mentioned the yellow, the black and white, the black-throated blue, the black-throated green, the magnolia, the myrtle, the bay-breasted, the Blackburnian, the palm, the Tennessee, the chestnut-sided, the cerulean, the blackpoll, the Cape May, the Wilson's, the Connecticut, the Canadian, water thrushes, redstarts, Maryland yellow-throats, etc. If these little feathered guests are carefully looked for between April fifteenth and June first, they may all be seen and identified without much difficulty. Many of these varieties may be seen in large numbers for the few days they are with us, and most of them prefer woodland, brushy pools, where they feed upon the tiny insects that hover about the surface of the water.

Upon their return in September, they are not so easily seen, because of the heavy foliage. Others, like the prothonotary, blue-winged, golden-winged, mourning and pine warblers may be seen occasionally, but a sight of them is so rare an occurrence that it may be considered an ornithological treat seldom to be enjoyed.

A few of the warblers remain with us during the summer as permanent residents, including the yellow warbler, Maryland yellow-throat, yellow-breasted chat and the American redstart.

The Maryland yellow-throat is a friendly little warbler, with bright yellow breast and head, and a conspicuous black spot on the side of the head, running back from the base of the bill. He is usually quite tame, and will often comport himself

with playful unconcern almost within reach of one's hand, upon the low branches where he loves to feed. I once approached within ten feet of one perched upon an old dead weed stalk, and watched him twitch about in his usual active quest for insects. While perched on the stalk, he "about faced" in exact soldier fashion on his perch, without moving a fraction of an inch to the right or to the left, and so quickly that I almost missed it by winking.

This little warbler nests with us, and may be seen in its favorite haunts until early in September.

When May has gone, with its host of warblers, thrushes and other beautiful feathered visitors, its sweet influence falls upon the spirit like a peaceful benediction, and I think of Browning's exultation over the beauties of May:

"Gone are they, but I have them in my soul."

JUNE.

Far back in earth's gray dawn,
Before God's words
Had crystallized in suns,
Or stars had heard

That clear creative call,
"Let there be light
On all my works below,
For day and night"—

When first earth's wrinkled face
Saw the white moon
Gleam on unfinished work,
There was no June,—

But as the thoughts of God
Showed perfect spheres,
We think He called up June
To gem the years!

—*Irene Elder Morton.*

UR June is the month of the greatest summer beauty, the month when the trees are dressed in their brightest and freshest garments, and the flowers are the richest in hue and profusion. It is the month of birds of brilliant plumage, such as the scarlet tanager, goldfinch, rosebreasted grosbeak, indigo bunting, etc. The warmth of June's bright days seems to bring out the ripe, mature colors of

tree and flower and bird. Never a poet so humble that he has not sung the beauties and glories of June. It has been a favorite theme of poets from Spencer to the modern imagists. Spencer, after extolling the beauties of May, sings:

“After her came jolly June, arrayed
all in green leaves.”

Coleridge calls it “the leafy month of June.”

Leigh Hunt compares the beauties of May with those of June, rather to the advantage of the latter month:

“May’s a word ’tis sweet to hear,
Laughter of the budding year;
Sweet it is to start and say
On May morning, ‘This is May!’
But there also breathes a tune,
Hear it,—in the sound of ‘June.’
June’s a month, and June’s a name,
Never yet hath had its fame,
Summer’s in the sound of June,
Summer and a deepened tune
Of the bees and of the birds,
And of loitering lovers’ words,
And the brooks that, as they go,
Seem to think aloud, yet low;

* * * * *

O come quickly, show thee soon,
Come at once with all thy noon,
Manly, joyous, gypsy June.”

The bees and the clover and the surge of summer are often referred to in the poems celebrating the month,—for example, Mrs. Whitney's lines:

"Now it is June, and the secret is told;
Flashed from the buttercup's glory of gold,
Hung in the bumblebee's gladness, and sung
New from each bough where a bird's nest is swung;
Breathed from the clover beds when the winds pass;
Chirped in small psalms through the isles of the
grass."

After May, Emerson says:

"Then flows amain
The surge of summer's beauty; dell and crag,
Hollow and lake, hill-side and pine arcade,
Are touched with genius."

And William Vaughn Moody in his "Gloucester Moors" has left us this exquisite description of the beauties of which June is so prodigal:

"Jill-o'er-the-ground is purple blue,
Blue is the quaker-maid,
The wild geranium holds its dew
Long in the boulder's shade.
Wax-red hangs the cup
From the huckleberry boughs,
In barberry bells the grey moths sup
Or where the choke-cherry lifts high up
Sweet bowls for their carouse.

Over the shelf of the sandy cove
Beach-peas blossom late.

By copse and cliff the swallows rove
Each calling to his mate.
Seaward the sea-gulls go,
And the land-birds all are here;
That green-gold flash was a vireo,
And yonder flame where the marsh-flags grow
Was a scarlet tanager."

Another modern poet, Angela Morgan, expresses the rapture she feels for the beauties of a June Day:

"Green! what a world of green!
My startled soul
Panting for beauty long desired,
Leaps in a passion of high gratitude
To meet the wild embraces of the wood;
Rushes and flings itself upon the whole
Mad miracle of green, with senses wide,
Clings to the glory, hugs and holds it fast,
As one who finds a long-lost love at last.
Billows of green that burst upon the sight
In bounteous crescendos of delight,
Wind-hurried verdure hastening up the hills
To where the sun its highest rapture spills;
Cascades of color tumbling down the height
In golden gushes of delicious light—
God! Can I bear the beauty of this day,
Or shall I be swept utterly away?

* * * * *

Smite me, O Life, and bruise me if thou must;
Mock me and starve me with thy bitter crust,

But keep me thus aquiver and awake,
Enamoured of my life, for living's sake!
This were the tragedy—that I should pass,
Dull and indifferent through the flowing grass.
And this the reason I was born, I say—
That I might know the passion of this day!"

And Riley adds:

"Month a man kin railly love,—
June, you know, I'm talkin' of."

Longfellow has given us a fine prose description:

"That delicious season when the coy and capricious maidenhood of spring is swelling into the warmer, riper and more voluptuous womanhood of summer."

All Nature seems to have a glad part in the preparations of the birds for their summer nesting. Through the sun and showers of April and May, when the birds are coming up from the south and noisily and joyously mating, in anticipation of the domestic life which for them is to be Nature's fulfillment, the flowers, in sweet sympathy, are growing into the greatest beauty and profusion. The trees, shrubs and grass in the same spirit are slowly robing themselves in the full vesture of summer, that they may offer themselves as suitable hiding places for the little bird families that are to be.

At last when June comes, Nature seems gently to whisper that she is ready. The happy, romping,

noisy days of love making and courtship are ended, and there settles down upon woods and fields the peace and quiet of domestic life.

The more serious business of rearing the family is at hand. No longer is every bush and tree vocal with the music of birds, and if one would see them he must now search them out in their favorite nesting haunts, where he will find them often too busy with household cares to give him much attention.

June is the great household month for the birds. More nests may be found during this month than in any other. To find the birds at this season one must adopt the tactics of the fisherman. He must go where they are. They will no longer come to him at every turn in his morning's walk, but he must find their meadow or woodland homes and visit them there.

If the habits of the birds as to nesting are known it is not difficult to find them and with them their nests. At this season if a bird is seen regularly to frequent certain bushes, trees or grass spots, of a kind or in a location which it usually chooses for its nest, a little patient, quiet observation will reveal the bird's secret, especially when the nest is being built or the young are being fed, for the birds then make frequent trips to and from the nest.

Rain fell almost constantly night and day, during the first week of June this year (1916) with the result that all the rivers and streams were over their banks and all the bottom land whether of

marsh, or meadow or timber, was inundated, and every piece of low ground in fields or woods was transformed into a pond. It was a terrible tragedy for thousands of birds whose homes were wiped out by the floods. The meadows and fields were filled with the nests of various sparrows, of bobolinks, meadowlarks, dickcissels, etc., and the low woodland shrubs held many nests of catbirds, thrushes and other birds. The nests of hundreds of shore and marsh birds such as sandpipers, bitterns, bank swallows, kingfishers, rails, etc., must have been swept away. Of course swollen streams are common in the early spring, and at that season little damage is done to the birds because few, if any, are then nesting, but when such a flood comes early in June, at the time when the nesting season is at its height, the ruin which follows in its wake is appalling.

Imagine the little complement of eggs of the spotted sandpiper laid in the grass along the water's edge, and the water rising until it carries them off down stream; or the anxiety and consternation which must come to the bank swallow or kingfisher who watches the tide rising steadily but irresistibly to the opening in the river bank which leads to her nest of eggs or young, while she sits by powerless to prevent it; or what must be the feelings of the usually jocund and hilarious bobolink who has joyously built his snug little nest close among the thick grass or clover, to find the meadow transformed into a pond, in which he cannot even

discern the geography of the field which he had selected as a fit place for his nest? I have often seen field birds, after heavy rains, which inundated the low places in the meadows fluttering over the water, as if puzzling their little brains to locate the nest which was covered with water, or sitting disconsolate on a bush or tuft of grass near by apparently confused and dumb with grief at the inexplicable tragedy which had befallen them.

After the heavy rains, which I have mentioned, had abated I found many broken eggs and dead young birds in the grass and on the sidewalks under the trees. I also found, ten days or two weeks later, new nests which were evidently built to replace those destroyed, because they were later than the normal nesting dates of the birds.

Shortly before the high water came I found the nest of a catbird with four eggs in a wild gooseberry bush in a small grove in the valley of the Desplaines River. When, after the storm, I took my young son to see the nest, we found ourselves unable to get to it on account of the water which entirely surrounded it. Fortunately the nest was high enough to escape the flood which surged beneath, and if the mother bird kept the rain and wind from destroying the nest, the little family doubtless prospered.

The catbird is a really fine singer, whose song resembles that of the brown thrasher, to whose family (*troglodytidae*) he belongs. But as he usually lazily contents himself with his cat-like

"*mew*" from which he derives his name, reserving his song for the depths of the thick shrubs, it is not very often heard, considering that he is one of our most common birds. He can offer no suitable apology for prostituting his fine vocal powers to his monotonous "*mew, mew*" when his song would make proud any bird so fortunate as to possess it.

"You, who would with wanton art
Counterfeit another's part
And with noisy utterance claim
Right to an ignoble name,—
Inharmonious!—why must you,
To a better self untrue,
Gifted with the charm of song,
Do the generous gift such wrong?

Oh! you much mistake your duty,
Mating discord thus with beauty,—
'Mid these heavenly sunset gleams,
Vexing the smooth air with screams,—
Burdening the dainty breeze
With insane discordancies.

I have heard you tell a tale
Tender as the nightingale,
Sweeter than the early thrush
Pipes at day dawn from the bush,
Wake once more the liquid strain
That you poured like music-rain,
When, last night, in the sweet weather,
You and I were out together.

Unto whom two notes are given,
One of earth, and one of heaven,
Were it not a shameful tale
That the earth note should prevail?"*

The catbird is a motherly, generous bird, often playing the part of a foster parent, feeding and caring for the young birds of other species that have been deserted or are neglected by their rightful parents. Unlike his serene, reposeful cousins, the thrushes, he has a restless, active temperament, always hopping and jerking his graceful body about, all the while fluffing his feathers, and indulging himself in droll pranks and sprightly performances.

Mr. William Henry Venable's remarkable poem, in which all the art of this bird's wonderful song, as well as his characteristic movements are so vividly portrayed, must be quoted in full:

"Prime cantante!
Scherzo! Andante!
Piano, pianissimo!
Presto, prestissimo!
Hark! are there nine birds or ninety and nine?
And now a miraculous gurgling gushes
Like nectar from Hebe's Olympian bottle,
The laughter of tune from a rapturous throttle!
Such melody must be a hermit-thrush's!
But that other caroler, nearer,
Out rivalling rivalry with clearer

* Anon.

Sweetness incredibly fine!
Is it oriole, red-bird or blue-bird,
Or some strange un-Auduboned new bird?
All one sir, both this bird and that bird;
The whole flight are all the same catbird!
The whole visible and invisible choir you see
On one lithe twig of yon green tree.
Flitting, feathery Blondel!
Listen to his rondel!
To his lay romantical,
To his sacred canticle.
Hear him lilting!
See him tilting
His saucy head and tail, and fluttering
While uttering
All the difficult operas under the sun
Just for fun;
Or in tipsy revelry,
Or at love devilry,
Or disdaining his divine gift and art,
Like an inimitable poet
Who captivates the world's heart,
And don't know it.
Hear him lilt!
See him tilt!

Then suddenly he stops
Peers about, flirts, hops,
As if looking where he might gather up
The wasted ecstasy just spilt
From the quivering cup
Of his bliss overrun.
Then, as in mockery of all

The tuneful spills that e'er did fall
From vocal pipe or evermore shall rise,
He snarls, and mews, and flies."

Despite his strange preference for mewing, when possessed of so fine a song, he is a very friendly, interesting bird, well worth cultivating and cherishing as one of the most intelligent, and delightful of our common summer residents.

I took a June walk of rather unusual interest along the banks of Bailey Creek, a shallow stream which empties into the Vermilion River near its junction with the Illinois, and my adventures on this occasion might be offered as an example of the pleasures which await the bird student at this season of the year, if he will but seek them. In distance the walk did not exceed a mile,—but when in search of birds or their nests, one should saunter, and, when a bird is seen, stop and watch it long enough to observe the details of its plumage and its habits. Therefore I sauntered this mile up Bailey Creek, taking three hours for the trip, and fifteen minutes for the walk back. Just before the creek joins the Vermilion River, it plunges over a precipitous rocky ledge, to a fall of some thirty or forty feet, called Bailey Falls, below which the water tumbles over huge boulders into the river. My walk began at this point. I sauntered along at the edge of the water, which here was very shallow, running over a wide bed of flat shale rock. Before I had advanced a hundred feet

I observed a female spotted sandpiper just ahead tipping and teetering up and down in vigorous fashion in the shallow water. After watching her a few moments, I approached quietly, but she refused to fly, and instead uttered two or three sharp alarm notes — "*peet-weet! peet-weet!*" — whereupon I naturally surmised that either her nest or a family of young birds was near.

Presently I discovered running about over the rocks, three young birds so small that I had overlooked them; then their mother, uttering two or three more alarm notes, led them hastily up the rather steep bank into the grass. The young birds were scarcely larger than the eggs which lately held them, and were covered with thin gray down. They almost constantly bobbed and teetered even more vehemently than their mother, almost pitching themselves over. They must begin their tail tipping by teetering themselves out of the eggs. They certainly know all about it the moment they are born.

At this time the father sandpiper having doubtless heard the mother bird's alarm notes from afar came sailing down the creek, with a companion bird which alighted on the opposite side of the stream, while the head of the little family dropped down at about the point where its members had lately disappeared into the grass. Pausing a moment, to look at me, he seemed to grasp the situation, and uttering an alarmed "*peet-weet,*" ran up into the grass and joined his anxious loved ones.

Shortly the male and female came out of the grass, leaving the little ones in seclusion, and together ran down to the water's edge, apparently quite oblivious of me. They ran about with utter unconcern, as much as to say "there is nothing of interest to any one here,—you might as well move on," but very soon there began what appeared to be a spirited argument between the two birds. They faced each other, and raising their wings straight above their heads "*peeped*" vigorously at each other. The father bird was doubtless being scolded for not properly looking after his family, and protecting them against threatened dangers. But suddenly the mother bird's anxiety for her young overcame her nonchalant strategy for me, and her anger for her mate, and turning from him, she looked earnestly toward the protecting grass for an instant, and then hurriedly ran into it, evidently concluding, after the argument, that she must take care of the little ones herself.

The spotted sandpiper is the one commonly seen along the shores of our inland streams, and is easily identified. It is ashy gray on the back, with under parts all white, thickly covered with black spots. Its note sounds like the noise made by a frightened chick, and it always utters this note when it takes flight up or down stream. Its flight is an alternating flutter and soar, somewhat after the fashion of the meadowlark, though more easy and swallow-like.

Celia Thaxter's "One Little Sandpiper and I," known to us all, is a classic among bird poems.*

As I passed on up the creek, the current became slower, and the banks higher, and I kept a look-out for bank swallows' nests, for I had already seen a number of these birds darting about over the water and the adjoining meadows. At the next turn in the stream I saw one of them fly into a hole in the bank, about three feet below the sod cornice, and about six feet above the water. I walked along the bank, and as I stepped on the spot directly over the opening of the nest, the female bird fluttered out with the familiar twitter which Bryant called the "gossip of the swallows." I scrambled down to the water's edge, and peered into the hole, which was just two and one-quarter inches in diameter at the opening. Having no mirror or artificial light of any sort, I could not see the nest itself, though some stems of heavy grass protruded to within five or six inches of the opening, and the nest appeared to be only about four inches farther back. If so, it was unusually shallow, as the holes are frequently two or three feet deep. Rather than disturb the nest, or the approach to it, I adopted another course to find out what was in it. Seating myself on a stump near by, which commanded a good view of the little round hole in the bank I waited and within five minutes the female returned and darted around the opening, making several approaches to it without entering, apparently

* Copyright restrictions prevent its quotation.

somewhat alarmed and suspicious because of the marks I had left in the dirt. Finally her courage and confidence returning she quickly darted straight into the nest, as they usually do, without alighting at the opening of the hole. I then waited about ten minutes to see if she would come out again, but she did not, and I therefore concluded, probably correctly, that there were eggs in the nest. A large basswood tree had fallen into the stream at this point, and the branches extended along near the nest. I have noticed that frequently the nests of this little bird are burrowed out adjacent to fallen trees or roots in the bank, which they use as a convenient perch, and which seem to determine, in part at least, the location of the nest.

I discovered another nest a little farther up the stream, on the opposite side in a similar bank, at about the same height above the water. There was a small overhanging bush near by, and some roots running in and out of the bank, which several of the birds were using as resting places between flights up and down the stream. One male bird in the group seemed bent on driving the father bird away, and usurping his place in the affections of the mother bird. The two male birds fought desperately, fluttering up through the air with bills together; and then, tumbling down again until they nearly touched the surface of the water, they darted off in lively, spirited chase. They kept up the fight for several minutes, and the unobtrusive female, the apparent cause of all this discord,

looked on with utter unconcern, offering no aid in the defense of her mate. Mayhap the female bird is impressed with the prowess of the male who is victorious in battles of this sort, for I have observed a number of such altercations where the female took no part, and seemed waiting and quite ready to bestow herself upon the victor, whichever it should happen to be.

Both bank and rough-winged swallows nest every year in the canons in Deer Park near Oglesby, Illinois, making their nests in the natural crevasses of the sandrock strata which forms the walls of the canons. The sand dunes and high cliffs adjacent to the Great Lakes are also favorite nesting resorts for the bank swallow.

This little bird is the smallest of our swallows, and can be readily identified by its nesting habits, and its size, and the conspicuous brownish gray band across its upper breast. When perched on an old root or branch, it appears to have no neck at all, but merely a neat little cap-like head set down upon its trim little shoulders.

The cliff and barn swallows are common summer residents. The purple martin is also common where it is encouraged to build and is not driven from the bird boxes by English sparrows. The tree swallow, although a rare resident, is a common migrant in April and September. The latter is conspicuously beautiful in his glossy green coat and white vest, and the cliff and barn swallows are easily distinguishable by their bright brown mark-

ings. The long forked tail of the latter makes his identification easy.

The swallows, by their darting, skimming, easy flight have inspired a number of our poets to express their longing for the power to fly,—as this, from Anna Boynton Averill:

“Oh, to feel the wild thrill of the swallow,
The wonder of the wing,
On the soft blue billows of air to follow
The summer, and soar to sing.

To drink blue air and to feel it flowing
Through every dainty plume
Uplifting, pillowing, bearing, blowing,
And the earth below in bloom.

Is it far to heaven, O swallow, swallow?
The heavy-hearted sings;
I watch thy flight and I long to follow,
The while I wait for wings.”

and these lines from Charlotte Smith:

“I wish I did his power possess
That I might learn, sweet bird, from thee,
What our vain systems only guess,
And know from what wild wilderness
Thou camest o’er the sea.”

But to return to Bailey Creek. A little farther up stream I noticed a pair of phoebes sitting on the exposed roots of a tree which hung out over the water. Lying down on the bank, which at this

point was perpendicular and about eight feet high, I watched the birds for about twenty minutes, hoping and expecting that they would fly to their nest somewhere among the roots. But the two little fly-catchers only darted about snapping insects and made no effort to approach their nest. I felt so certain, however, that the nest would be found among the roots, that without waiting longer I climbed down the bank where I could examine the roots closely, and looked them all over very carefully, and was considerably surprised and non-plussed to find no nest. Exposed roots of this kind are in high favor with these birds as nesting sites. I went over every inch of the ground several times, and peered into all the corners and grottos, and examined every root individually, but no nest was to be seen. I climbed up the bank again and looked over the lower branches of the trees, but no nest was visible. In desperation I got down again under the roots, and extended my search farther up the bank, when at last I caught sight of the nest hung like a little round basket on a small root running along parallel to the bank, and about three inches from it, the nest being saddled across the root, and supported on one side by the perpendicular wall of the bank. It was almost directly under the point where I had stretched myself on the bank to watch the birds, which accounted for their refusal to go near it. I laid myself down on the sod above, and looked into the nest, which contained four very young birds. The nest of mud

was covered with very fine rootlets and moss, and was one of the prettiest and cleanest phoebe's nests I have ever seen. It was just about the color of the adjacent bank, and was certainly in a very safe, secure place.

Leaving the young family, which I feared might by this time be hungry, I started through a little grove which at this point bordered the creek, when I heard what appeared to be a young bird of some kind teasing for food. I soon located the bird on a low branch of a maple tree. It was fussing and teasing and fluffing its wings and feathers, after the fashion of a young robin following its mother about in the grass. Because of its obscure, immature markings I was unable to determine its identity. It was almost as large as a mature black bird and resembled it somewhat in appearance. While I was watching it a female field sparrow, not more than half its size, flew upon the branch and fed the bird a worm. I then knew that it was a young cowbird, which had been hatched and reared by the generous little field sparrow, and was still imposing upon her kindness, although the young bird was long since large and strong enough to take care of itself. The poor little field sparrow was worked almost to the point of exhaustion in her efforts to satisfy the ravenous appetite of the young cowbird who followed her about wherever she went, teasing incessantly. The yellow warbler and the vireos are also frequently imposed upon in this way by the cowbirds.

The cowbirds are and ought to be outcasts in the bird kingdom. They are outlaws and polygamists. They travel about in groups of four or five and never build a nest of their own. When a female bird desires to deposit an egg, she leaves her companions only long enough to seek out a convenient nest of some other bird, where she lays her egg, and then rejoins her companions, basely shirking her duty and the responsibilities of motherhood, which she shoulders upon some generous and unsuspecting sparrow, towhee or other bird who knows no better than to raise the young orphan with all the care, affection and zeal which she bestows upon her own legitimate offspring. Oftimes the young cowbirds being twice the size of the other birds, crowd them out of the nest, and devour most of the food brought by the parent birds, to the very serious disadvantage of the young birds who are entitled to the exclusive care and attention of their parents. As stated, the young cowbirds partake of the parasitic character of their unfaithful natural parents, and compel their foster mother to feed them long after they are abundantly able to care for themselves and the other young birds have left the nest to shift for themselves. By this circumstance the identity of the big clumsy young bird so vigorously clamoring for food was quickly and definitely established.

I know of no poem dedicated to this ignoble bird and I would not quote it if I did.

It was an interesting adventure, however, and

the pleasing note in it was the generous devotion of the little field sparrow to an unworthy and undeserving fellow.

The cuckoo sometimes lays its eggs in the nest of the sparrow or some other bird, and Shakespeare puts into the mouth of the fool in King Lear, this amusing reference to the same greedy appetite which distinguishes the young cowbird:

“The hedge sparrow fed the cuckoo so long
That it had its head bit off by its young.”

Resuming my walk up the creek, I noticed a kingfisher sitting on an old dead stub above a high bank, in which there were several holes one of which looked promising. Crossing the stream I examined the opening and found it marked with bird tracks, and a few small fish bones, which led me to conclude it was the kingfisher's nest. I made no excavation, however, and the birds were not seen entering or leaving, so that I was unable to determine with certainty what the cavity contained. One of the birds flew up and down the stream, uttering its harsh rattle, resembling “tiny castanets,” such as Tennyson ascribes to the starling.

Henry Van Dyke relates in rhyme how a certain Vain King made a boastful wager with the River God disguised as a peasant fisherman that he could excel the fisherman in his art, and, upon losing the wager was doomed to fish for minnows all his life,

“And still, along the reaches of the stream,
The vain Kingfisher flits, an azure gleam,—
You see his ruby crest, you hear his
jealous scream.”

In my boyhood days I doubt not I would have dug into the hole for the purpose of making sure of its contents, but the scientific exigency must be strong and compelling indeed which would now induce me to disturb a bird's nest, its eggs or young. I confess to a good deal of eager curiosity, however, as to the interior of that hole in the bank.

On the opposite side of the stream was a wide, sandy point jutting into the water, dotted here and there with tufts of grass and clumps of daisies. I was not expecting any signs of birds at this point, and was still somewhat under the spell of the kingfisher, when a sparrow sprang up apparently some ten feet in advance of me, which I thought at first glance was a vesper sparrow, because of its conspicuous white tail feathers. Still I did not suspect there was a nest, because of the unpromising character of the ground, altho' the bird when flushed acted as if she had just left her nest. I stopped and looked at the bird with my field glass, but it got beyond the range of my glass before I had time to examine it carefully. I glanced down at a small tuft of grass at my feet, and there between two daisy stems was the bird's nest containing three white eggs, scrawled with dark spots. I was now convinced that it was not the vesper sparrow,

because the eggs of the latter are marked with clear brown spots. The purple spots on these eggs were so dark as to be almost black, and were scrawled and strung out like the markings on the eggs of the oriole. I was now very eager to see more of the mother bird, so that identification might be made certain. I sat down on a log a few moments hoping she would return, but she did not. I walked over to the phoebe's nest and watched the birds feed their young a few moments and as I started back I heard what sounded like young birds teasing, and I thought it might be the young cowbird again. Upon looking up through the branches I discovered an old dead stub with a small hole in it, which seemed to be the place whence the sound came. I stepped over and gently rapped on the trunk and the teasing stopped instantly. Waiting a moment, a female downy woodpecker flew up and alighted just below the hole, with her beak full of grubs for her young. She paused a moment to look me over with some apparent alarm, and then disappeared into the hole. Very soon the male bird also flew up to the hole with his beak full, playing the part of the dutiful husband and father, in rather marked contrast to the neglect of the male spotted sandpiper which I had observed earlier in the day. I once timed a pair of downy woodpeckers feeding their young, and found that each bird brought a grub to the nest about every eight minutes, making the feedings average one every four minutes.

Returning to the nest between the daisy stems, I found the female on the nest. This time I made a careful examination of her, and found it was a lark sparrow, a very rare resident in this area. With its nest there in the sand and gravel, I thought of Edith Thomas' verse on the vesper sparrow:

“Upon a pasture stone,
Against the fading west,
A small bird sings alone,
Then dives and finds its nest.”

The lark sparrow may be easily distinguished from the vesper sparrow, for though both have the white tail feathers, the former's tail is rounded, and the tips of the outer feathers have more white, and there are conspicuous white lines over the eye and through the crown of the head.

Our camp hostess at Bailey Falls showed us a cardinal's nest which she had discovered a few days before about 100 feet from the camp. The nest was about ten feet from the ground in a small bush. The female bird stayed on the nest until we pulled the branches aside to look at her, and then she quietly slipped out on the opposite side. We drafted an old table into service, and climbing upon it looked into the nest, which contained three pink-white eggs, marked with light brown spots. The nest was made of strips of bark, coarse grass, and rootlets, thrown together in neat yet careless manner with all the art which the country lass displays in doing up her hair.

It is a common misapprehension that our humming bird never alights, probably because it is often confounded with the Sphinx moth, which plays about the flowers in the evening. The mistake is not unnatural, and a correction is sometimes received with incredulity. As a matter of fact, the bird spends but a comparatively small part of its time on the wing. Near our camp at Bailey Falls a male humming bird perched day after day for half an hour at a time upon a telephone wire. Evidently there was a nest near by in which the little outpost was interested, but we were unable to locate the tiny thing in any of the neighboring trees. It was doubtless there regardless of our inability to find it. Because of its size, and the fact that it is always saddled on a horizontal limb, and covered with lichen and moss, it is very difficult indeed to discover, and except by the sharpest eyes will usually be mistaken for a knot on the limb.

Humming birds are curiously fearless, and have been known to feed upon sugar held between the lips, and to probe a flower held in the hand. Not infrequently they fly into houses, manifesting the smallest degree of suspicion. Their white eggs which are about the size of a navy bean, are so fragile that egg collectors do not attempt to blow them, as they do other eggs.

With its metallic ruby-red throat, and its shining green back, it more clearly suggests the tropics than any of our birds. Indeed, it is the only one

of an American genus of more than a hundred species which ventures beyond the limit of tropical climates.

George Murray's poem enquires:

"Com'st thou from forests of Peru,
Or from Brazil's savannahs,
Where flowers of every dazzling hue
Flaunt, gorgeous as Sultanas?"

And this reference to the valiant defense which the female makes of her nest is wholly accurate:

"They say, when hunters track her nest
Where two warm pearls are lying,
She boldly fights, though sore distressed
And sends the brigands flying."

Of the many poems inspired by this beautiful and dainty little bird, I quote the following by John Banister Tabb:

"A flash of harmless lightning,
A mist of rainbow dyes,
The burnished sunbeams brightening,
From flower to flower he flies.

While wakes the nodding blossom,
But just too late to see
What lip hath touched her bosom
And drained her nectary."

And these exquisite lines by John Vance Cheney:

“Voyager on golden air,
Type of all that's fleet and fair,
 Incarnate gem,
 Live diadem!
Stay, forget lost Paradise,
Star-bird fallen from happy skies—

Vanished! Earth is not his home,
Onward, onward must he roam,
 Swift passion-thought,
 In rapture wrought;
Issue of the soul's desire,
Plumed with beauty and with fire.”

As June departs this picture from Lowell's “Sir Launfal” remains in my memory as the type and symbol of this home month of the birds:

“The little bird sits at his door in the sun,
Atilt like a blossom among the leaves,
And lets his illumined being o'errun
With the deluge of summer it receives;
His mate feels the eggs beneath her wings,
And the heart in her dumb breast flutters and sings;
He sings to the wide world, and she to her nest,—
In the nice ear of Nature which song is the best?”

JULY.

How well we loved, in Summer solitude
To stroll on lonely ridges far away,
Where beeches, with their boles of Quaker gray,
Murmured at times a sylvan interlude!
We heard each songster warble near her brood,
And from the lowland where the mowers lay
Came now and then faint fragrance from the hay,
That touched the heart to reminiscent mood.
We peered down wooded steeps, and saw the sun
Shining in front, tip all the grape-vines wild,
And edge with light the bowlders' lichen'd groups;
While, deep within the gorge, the tinkling run
Coiled through the hollows with its silvered loops
Down to the waiting River, thousand-isled.

—*Lloyd Mifflin.*

JULY may properly be called the month of rest among the birds. With the nesting of May and June over, the weary birds are enjoying a well-earned rest, and the woods and fields are almost silent, and fewer bird notes and songs are heard and fewer birds are to be seen in July than in any, except the winter months.

It is the season of

“* * * stare-dumb dullness * * *
When e'en the cocks too listless are to crow.”

By August the southward march of fall migration sets in, and the birds therefore become more plentiful. July marks the weary close of the nesting season, and the heat of summer seems to discourage the few tired birds that favor us with their society. Even the friendly musical robin is seldom heard from the tree top at evening in the cheering song with which he delights us in spring and early summer.

Lowell says:

"The sobered robin, hunger silent now,
Seeks cedar berries blue, his autumn cheer."

I once attempted to raise a small family of blue jays that for some reason had been deserted by their parents, and since that arduous experience I have had more respect for the industry and patience of the birds in rearing their little families. The quantity of food that three or four young birds will consume from birth until they are ready to fly, is really enormous, and the gathering of it certainly leaves little time for rest or recreation for the parents.

The nesting season is not wholly past by July, because many of the birds rear two or three and sometimes four broods of young birds, and these later families are frequently found in July. Also a few of our well known birds, although they have been with us all season, do not settle down to domestic life at all until July. I have often

observed that the second or third nests built late in the season, noticeably of the robin and some of the sparrows, are more carelessly constructed and lack the art and comeliness of the first spring nests. The female seems more anxious to deposit her eggs than when making her first nest, which may account in part for her more slovenly work. Frequently the first brood have not yet started out for themselves when the second nest is begun, so that the attention of the parents is divided between the young birds and the new nest. I have wondered also if it were a part of the birds' instinct to know that the first spring nest must be more carefully and securely built in order safely to withstand the more frequent and violent spring storms, against which the buds and early leaves afford a somewhat inadequate protection as compared with the heavy foliage of the summer months.

Among the more common songsters of July may be mentioned the scarlet tanager, the indigo bunting, the rose-breasted grosbeak, the goldfinch, the ubiquitous house wren and an occasional cardinal.

About the middle of the month a cardinal wandered to my back yard, from her haunts along the Desplaines River, and there "told her dream to the dragon-fly" and to me, but these are rather rare joys for July, for the cardinal is more often seen in May and June, during the mating and nesting season. While now common summer residents in certain localities in Northern Illinois and Indiana, twenty years ago they were rather rare. They pre-

fer the deep woods however and seldom in this latitude wander near the habitations of man.

Cedar-birds nest with us in July, but they have no song, and they no longer go about in small flocks of five to nine birds as they do in the spring, and therefore are not very frequently seen. I have also found the yellow-billed cuckoo nesting as late as the last week of July.

On the first day of July this year (1916) I visited a small lake near Libertyville, Ill., for the purpose of observing a colony of yellow-headed blackbirds which had nested there. These beautiful birds were at one time quite plentiful in the area surrounding Chicago and especially around Lake Calumet, Indiana, but many of the large marshes which these birds so enjoy have been drained, and the birds are now rather uncommon. I was quite happy therefore to travel some forty miles to pay my respects to the colony at Libertyville. Their nesting season was practically if not quite past; at least I found no nests containing either eggs or young birds, but the brightly colored male birds were more tame than they are during the nesting time, and I enjoyed their raucous, unmusical noise, and their graceful antics in the marsh grass. These blackbirds are more often seen in the fall, in small flocks, on the ground sometimes in company with cowbirds, but during the nesting season they locate in colonies, in their favorite marshes.

The yellow-head is a beautiful blackbird, and very appropriately named. The whole head, neck,

throat and breast of the male are bright orange yellow, with the region before the eye black like the rest of his plumage. The white wing bars are lower down than the red shoulder patch of his cousin, the red-winged blackbird.

The red-wing, blithesome inhabitant of the cattail marshes, companion of every boy who goes fishing, is remembered in his "Lyrics of a Lad," by Scharmél Iris:

"Fire bearer of the Gods!—blue black—
With flecks of sunshine on thy back!
Thou herald Mercury, with flame
Upon thy shoulders! Dost proclaim
In sweat and pangs the pregnant Night
Brings forth the wondrous infant Light?

* * * * *

When sunbeams dance in Dawn's ballet
Thou breakest through the blue of day;
A shaft of throbbing crimson flame,
Flown from God's Hand to earth ye came;
Darting bewildered woodlands through,
Unquenched by morning's pools of dew."

While not so musical as the red-wing, as he "flutes his o-ka-lee," as Emerson so well expresses it, the song of the yellow-head is a typical blackbird song. Tennyson refers to the summer notes of the blackbird as contrasted with his "silver tongue" of early spring:

“And in the sultry garden-squares,
Now thy flute notes are changed to coarse,
I hear thee not at all, or hoarse
As when a hawker hawks his wares.”

The usual raucous notes of the yellow-head are not unlike a “hawker hawking his wares,” rather laborious and squeaky, yet with here and there an agreeable whistle thrown in unexpectedly.

Upon the occasion of this visit to the yellow-heads, I alighted from the train at a bridge over a small stream, near which I expected to find the colony of blackbirds. Before I had gotten down the embankment I caught sight of a female blue-bird carrying a grub to a hole in an old elm stub beside the stream while the male bird was

“* * * shifting his light load of song
From post to post along the cheerless fence.”

as Lowell so beautifully and aptly describes the fluttering flight and bubbling song of this “April poem that God has dowered with wings.”

As the date was July first, this must have been at least the third brood of young birds for this pair, because they often begin nesting as early as the first week in April.

A little farther down the stream, as I sat down under an elm to rest and enjoy the cool shade for a moment, I observed a pair of red-headed woodpeckers regularly visiting an old dead sycamore, and, upon inspecting the opposite side of the stub,

found the opening to the nest, some twenty feet from the ground.

As I lay in the grass the hole in the tree was just out of sight, but I could see the tail of the bird protruding at right angles with the upright trunk as it stopped momentarily on its way into the nest, and, watching that particular point of the side of the trunk, the bird's red head soon appeared again. After a moment's survey it would fly out to catch more insects for the young birds. In addition to being a "grubber," the red-head is quite an accomplished flycatcher, and during the half hour that I watched this pair feeding their young, they were almost constantly darting out from the old dead branches of the sycamore, catching insects on the wing. Not once did I see either bird alight, woodpecker fashion, on an upright stem of tree or limb.

This was also a second or third brood, no doubt, as the red-heads begin nesting from the 10th to the 15th of May.

The red-head is the most beautiful of our woodpeckers, and Mr. Burroughs speaks of his flight through the woods as "connecting the trees by a gentle arc of crimson and white."

Resuming my saunter down the bank of the stream, I came to an open grove in which were a large number of thorn apple trees and bushes, which seemed most favorable nesting places for the cedar waxwing, and I resolved to keep a sharp lookout for the little domicile of this July

favorite. I had not walked far when I espied a male cedar-bird perched upon one of the low outer branches of a large elm, near which was a large and very dense thorn apple tree. The male bird uttered his well-known "beady note" several times, and watched me anxiously, raising his crest, as he frequently does when excited, and I concluded there was a nest near at hand, where his mate might be found. After watching him a few moments without receiving any hint as to the whereabouts of the nest, I approached the thorn apple tree, and the male immediately flew over the tree, showing considerable anxiety. After careful search in the dense foliage I discovered the nest out on the fork of a small limb, about fifteen feet from the ground. The mother bird was on the nest, her crest and tail appearing over the edge. I pulled at the lower branches, but she merely peered over at me with evident alarm. I secured a stick and beat the foliage around her, but she still refused to leave the nest.

The foliage of the tree was very dense, and, in addition to its own closely hanging branches, a large grape vine about three inches in diameter at the base climbed up and wound itself among the limbs, making an ideal place in which to secrete a nest. Unable to curb my curiosity, I resolved to climb, and, removing my coat to reduce, so far as I might, the vulnerable surfaces for the waiting thorns, essayed the ascent. I managed, with a good deal of difficulty and after suffering a

number of wounds, to get up among the smaller branches, whereupon the female quietly slipped out of the nest. The nest was far out, upon so small a limb that I was just able to look into it by climbing up near the center of the tree and drawing the branches aside. It contained but one egg, pale bluish-gray in color, spotted with umber. The nest was therefore probably begun about the 25th of June, as the building usually consumes about four days, and then four eggs are laid in as many days, and the young birds are hatched within two weeks of the time the first egg is laid.

The nest was a fine, soft structure, composed of strips of bark, grasses, rootlets and moss, and lined with finer materials of the same nature.

The descent from the thorn apple tree was a good deal like withdrawing an embedded fish-hook. All the thorns in the tree seemed to be headed my way as I backed down between the branches, and, not being able to see and avoid them while making the return trip, the cedar-birds were amply revenged by the good thorn tree for the temporary annoyance to which I had subjected them.

With the exception of the goldfinch, the cedar-bird nests with us later than any of our birds, seldom beginning to build until about the first of July. No doubt the reason for this is that suitable food for the young cannot be found earlier in the season, which is also the probable reason for the similar delay in the case of the goldfinch.

The cedar-bird is one of our earliest arrivals in April, and yet it does not settle down to the serious business of housekeeping until July. Some very good reason, such as suitable food supply, must exist for this very unusual practice.

The waxwing gets its name from the tipping of bright red horny substance, resembling sealing wax in appearance, on the short wing feathers, and sometimes on the feathers of the tail.

Like the catbird, the cedar waxwing sometimes shows its good will and brotherly love by feeding the orphaned young of other birds, and on the whole they should be classed among our most gentle, refined and charming birds. Like the blue-birds, flickers and some of the sparrows, they sometimes choose wild, remote places for their nests, and at other times will select a fruit tree close to house or barn.

Some reputable authorities contend that the black tern does not subsist upon fish at all, but upon this walk I observed two of these birds flying over the river and the adjoining bottom land, and one of them twice plunged head foremost into the water, very much after the fashion of the kingfisher, which would seem to be a wholly useless performance if the bird were merely feeding upon aquatic insects, as it is claimed it does.

The black tern is a beautiful, graceful bird, with black head and body and slaty-gray wings. The wings are very long and the body small and the tail short, after the fashion of the swallow. It

is sometimes called the black swallow, although it is about twice the size of a barn swallow. It is a not uncommon summer resident, usually nesting adjacent to marshy lakes.

The western house wren is the species now so common in all our suburbs and country towns, building in boxes erected on the lawns. I once found a nest of this little bird in the side of a straw stack, which presented a striking example of the persistence of instinct. The house wren always builds its nest of coarse sticks, and in building its nest in the straw stack the bird faithfully followed the traditions of her race in this regard and carried coarse dead twigs into the soft straw, although the latter would have made a much more suitable cradle for the eggs and young, but the little wren, guided solely by instinct, was not capable of thinking this out for herself.

This bird sometimes nests in suitable holes and natural cavities in the remote woods, and I observed a pair back in the deep woods on the occasion of my trip to Libertyville. When found in the yards, in artificial boxes, it may be unmistakably set down as a house wren, but when seen in the woods it must needs be distinguished from the Carolina wren and the winter wren. This may be done without much difficulty, because the Carolina has a distinct white line over the eye, and the winter wren is a migrant, to be seen only in the spring and fall, and then always hopping in and out under old stumps and logs in the

woods. It is very short and stubby and noticeably browner than the house wren. The Carolina wren has one of the most beautiful of all bird songs, a clear, liquid whistle—"whēē-dule! whēē-dule! whēē-dule!" — somewhat resembling the whistle of the cardinal.

Early last spring I was delightfully entertained for half an hour by a little winter wren which I met in the woods. He was on his usual perch, an old upturned, decaying stump. As soon as he bobbed under one of the roots I quietly stepped up close to the stump, without being observed, and sat down to watch him, for I knew he would soon bob out again on the other side of one of the upturned roots. As I expected, he immediately hopped out and jerked his little tail about and peered into all the dark holes and shadows of the stump. After ducking under one root and coming up again, he would jerk himself under the next one, as pert and active as a jack-in-the-box, wholly disdainful of my presence. This characteristic habit, and his short, stubby body, with his more brownish plumage and white wing bars, mark him unmistakably as the winter wren.

The only other wren, in addition to those mentioned, which is common in this latitude is the long-billed marsh wren. These saucy little inhabitants of the cattail marshes stay with us all summer. They nest in the marshes at the south end of Lake Michigan, in the Calumet region, and similar localities. They build a globular nest of coarse

grasses and reed stalks, which is strapped with the same material to reeds or cattails, about eight to twelve inches above the water, with the entrance at the side. They are said to resort to the clever strategy of building a number of nests, for the sole purpose of misleading their enemies and attracting them away from the real domicile. I am constrained to concede them this wisdom, for I have always found it necessary to look through a number of equally promising nests before I found one containing eggs.

The long-billed marsh wren is one of the most active, nervous, excitable bits of feathered life one ever sees. His song is louder and more musical than the house wren's, but it is a typical rollicking wren song, and after hearing the song I have often watched the rushes whence the sound came, unable to catch sight of the little reed-colored bird, when suddenly he would virtually tumble up into the air over the rushes, and as suddenly tumble down again, out of sight, accompanying this aerial performance with his rippling, bubbling, gurgling song. At other times he will perch on a reed or rush stem and, throwing his head back and his tail straight up, sing until his little body is vibrant with ecstasy. His tail is always brought straight up in the air when he sings, unlike the house wren, who brings his tail down while singing. I once visited a colony of these birds near Millers, Indiana, and while my companion and I were watching one of them sing, he threw his little

tail up and his little head back until they came together over his back and played a little tattoo accompaniment to his rippling song.

Any account of the July birds would be incomplete without mention of the American goldfinch, the indigo bunting and the scarlet tanager, three of the most conspicuous and beautiful summer birds which sing more or less regularly all summer.

The goldfinch, commonly called the wild canary or yellow bird, is well known to all, and is easily identified by its bright golden yellow body and black cap, wings and tail. Its song is also characteristic, closely resembling the notes of many cage canaries. Its manner of flight is also unusual, and will serve to identify the bird at a height where its plumage is indistinguishable. Dr. Frank M. Chapman gives a striking drawing in his "Birds of Eastern North America," which shows the characteristic combination of undulating flight and song of this little bird. It is worth reproducing here:

With each undulating movement of its flight the little bird seems to shake out a "*per-chic-o-ree*," which in turn seems to propel its little body ahead for another undulation. This note made in flight is not its real song, which is a fine, canary-like

varied melody, one of the most exquisite and dainty of bird songs. England's poet laureate, Robert Bridges, describes the song and flight of the "yellow bird" in these delicately beautiful lines:

"What have I seen or heard?
It was the yellow-bird
Sang in the tree: he flew
A flame against the blue;
Upward he flashed. Again,
Hark! 'Tis his heavenly strain.

Another! Hush! Behold
Many like boats of gold,
From waving branch to branch
Their airy bodies launch.
What music is this,
Where each note is a kiss?

How the delicious notes
Come bubbling from their throats!
Full and sweet, how they are shed
Like round pearls from a thread!
The motions of their flight
Are wishes of delight."

Seed-bearing plants and thistles furnish them with their favorite food of tiny seeds, and the abundance of this food supply in July and August probably accounts for their delay in nesting until late summer. I once found a nest of the goldfinch, with young, as late as the third of September.

The goldfinch's nest is composed of tender grass and fine, slender strips of bark, and it is literally filled with thistle down and silky materials for a lining, upon which are nestled the dainty pale blue eggs, like bits of blue sky peeping through fleecy white clouds.

John Keats did not write many nature poems, so called, but he chose a worthy subject when he selected the goldfinch:

"Sometimes goldfinches one by one will drop
From low hung branches; little space they stop,
But sip, and twitter and their feathers sleek,
Then off at once, as in a wanton freak;
Or perhaps, to show their black and golden wings,
Pausing upon their yellow flutterings."

Except when nesting, the goldfinches usually travel about in flocks, but in July and August they will be seen singly or in pairs, and almost every despised thistle stalk by the roadside will be found gloriously crowned with a goldfinch, either eating the seeds or gathering down for its nest.

The indigo bunting is a trifle larger than the goldfinch, with plumage of deep rich blue, tinged with green, terminating in black on the wings and tail. It may be seen almost any day in midsummer on the margin of the woods, in the sun, which position it seems greatly to prefer over the deep shadows of the forest. Its beautiful warbling song may be heard all through the summer at all hours of the day, when most other birds seem

dumb and exhausted with the heat. Some of its notes resemble the wiry, tenuous notes of the goldfinch, but in general its song is much louder and more open and warbler-like, and may be suggested by "*ch-ree! ch-ree! ch-ree! ch-ree! ch-rah! rap-rep!*" often ending with a jumble of confused notes wholly untranslatable.

It feeds largely upon seeds, after the manner of the goldfinch, and is readily reared in a cage on the diet of the canary.

When nesting the male bird may be seen for hours at a time perched upon a telephone wire or low tree or shrub, singing joyously to its mate on the nest near by.

It would not be summer without this blithesome little blue bunting, brilliant both in song and plumage.

His blue plumage and glad song are celebrated in the following stanzas by Ethelwyn Wetherald:

"When I see,
High on the tip-top twig of a tree,
Something blue by the breezes stirred,
But so far up that the blue is blurred,
So far up no green leaf flies
'Twixt its blue and the blue of the skies,
Then I know, ere a note be heard,
That is naught but the Indigo bird.

Blue on the branch and blue in the sky,
And naught between but the breezes high,
And naught so blue by the breezes stirred
As the deep, deep blue of the Indigo bird.

When I hear
A song like a bird laugh, blithe and clear,
As though of some airy jest he has heard
The last and most delightful word;
A laugh as fresh in the August haze
As it was in the full-voiced April days;
Then I know that my heart is stirred
By the laugh-like song of the Indigo bird.

Joy on the branch and joy in the sky,
And naught between but the breezes high,
And naught so glad on the breezes heard
As the gay, gay note of the Indigo bird."

The last of this trio of bright little midsummer birds is by common consent one of the most beautiful of all our birds—the scarlet tanager. It is the common "redbird" of our boyhood, almost as well known as the robin, altho' far less common. Except for black wings and tail, its body is almost wholly a brilliant scarlet, and no aids to his identification beyond this are at all necessary.

Many poems have been written in praise of him, from which I select the following, by Joel Benton:

"A ball of fire shoots through the tamarack
In scarlet splendor, on voluptuous wings;
Delirious joy the pyrotechnist brings,
Who makes for us high summer's almanac.
How instantly the red coat hurtles back!
No fiercer flame has flashed beneath the sky,

Note how the rapture in his cautious eye,
The conflagration lit along his track.
Winged soul of beauty, tropic in desire,
Thy love seems alien in our northern zone;
Thou giv'st to our green lands a burst of fire
And callest back the fables we disown.
The hot equator thou might'st well inspire,
Or stand above some eastern Monarch's throne."

and the following beautiful lines by Mary Augusta Mason:

"A flame went flitting through the wood;
The neighboring birds all understood
 Here was a marvel of their kind;
And silent was each feathered throat
To catch the brilliant stranger's note,
And folded every songster's wing
To hide its sober coloring.
 Against the tender green outlined,
He bore himself with splendid ease
As though alone among the trees.
The glory passed from bough to bough—
The maple was in blossom now,
And then the oak remembering
The crimson hint it gave in spring,
And every tree its branches swayed
And offered its inviting shade;
Where'er a bough detained him long,
A slender, silver thread of song
Was lightly, merrily unspun.
From early morn till day was done
 The vision flitted to and fro."

Unlike the indigo bird, the tanager, during the nesting season in July, prefers the depths of the green woods. His mate is singularly unlike him in appearance, the upper parts of her plumage being light olive green, wings and tail dark gray, and under parts greenish yellow. Florence A. Merriam speaks of the male scarlet tanager as a "bird of glowing coal, whose brilliancy passes wonder." His song is a loud, cheery, rhythmical carol, suggesting the song of the robin.

No day should be counted lost in which one has seen a scarlet tanager! The oak and the sumac refuse to deck themselves in their autumn colors until the tanager has gone, lest they should suffer by comparison!

One of the most common midsummer songs about my home is that of the rose-breasted grosbeak. This bird begins nesting the latter part of May or early June, but continues to sing through July. The song is generally compared to that of the robin. If the robin sang its song with the oriole's vocal equipment, I think the result would be pretty close to the song of the rosebreast. In short, the similarity to the robin's song is great as to form, but the rosebreast's notes are much more liquid and warbler-like, with the whistling, fluting quality of the oriole. It is an exquisitely pure carol and a perfect conductor of the bird's happiness to one who is fortunate enough to hear it. I once heard a robin answering the rosebreast's call, evidently mistaking it for the song of its mate.

In the elm trees about our village this fine bird may be seen all through the summer, hopping about well up in the branches. He is so friendly and unafraid that he will often continue his carol in the trees above while one passes on the sidewalk beneath.

Nuttall says that, with the solitary exception of the mocking bird, he is not acquainted with any of our birds superior in song to the rose-breasted grosbeak.

The male rose-breasted grosbeak is easily identified by his bright rose-red breast. He resembles a large sparrow in form and has a sparrow bill, although it is heavier and stouter, with bristles at its base. His head, throat, back and wings are black, and his white rump and white tail feathers are conspicuous. The female is more modestly attired with colors less distinct, and a white line over the eye.

The little olive green red-eyed vireo, with his slaty gray cap and conspicuous white eye line, is also a common summer resident, and in the localities where he nests his song is incessant, even during the heat of long summer days. Wilson Flagg's description reflects accurately the character of this little bird's song: "We might suppose him to be repeating moderately, with a pause between each sentence, 'You see it—you know it—do you hear me?—do you believe it?' All these strains are delivered with a rising inflection at the close, and with a pause, as if waiting for

an answer." The warbling and the yellow-breasted vireos are also more or less common. The former's song resembles the robin's, though it is more pure and liquid in quality, and the latter is distinguishable by its larger size and bright yellow under parts.

With these few choice summer songsters to delight the long sultry days, we almost forget the myriads of birds lost to us back in the new spring-time, for, after all, July has a summer charm all its own:

"A pleasing land of drowsy head it was,
Of dreams that wave before the half-shut eye;
And of gay castles in the clouds that pass,
Forever flushing round a summer sky."

AUGUST.

All the long August afternoon,
The little drowsy stream
Whispers a melancholy tune,
As if it dreamed of June,
And whispered in its dream.

The thistles show beyond the brook
Dust on their down and bloom,
And out of many a weed-grown nook
The aster flowers look
With eyes of tender gloom.

The silent orchard aisles are sweet
With smell of ripening fruit.
Through the sere grass, in shy retreat
Flutter, at coming feet,
The robins strange and mute.

There is no wind to stir the leaves,
The harsh leaves overhead;
Only the querulous cricket grieves,
And shrilling locust weaves
A song of summer dead.

—*William Dean Howells.*

WITH many of Nature's children, life comes to its close with the successful accomplishment of its sole purpose for them, viz., reproduction, or the bearing of fruit or seed. This done, they leave their "outgrown shell by life's unresting sea," willingly sur-

rendering up their temporal, earthly forms, that the divine purpose in them may be fulfilled. Verily, everywhere in the midst of life there is death.

As we observe the course of Nature through the spring and summer months, with the regular and immutable order of birth, growth and consummation, we are impressed with the indomitable persistence of this all-pervading and all-powerful supreme purpose in all living things. Truly, "through the ages one increasing purpose runs." While, therefore, the harvest and the increase mean decay and death, they also mean hope's glorious fulfillment and life's great purposes realized.

In August the birds and, indeed, all things in Nature seem weary and spent with the toil and travail of life. The birds drop their feathers or change their brilliant vernal plumage for a more sombre dress, the flowers fade, the foliage withers, and ripened fruits and dry seeds replace the bright blooms of summer.

There is something very beautiful about the devotion of the birds to the yearly task which Nature has set for them. For them, indeed, procreation does not mean death and extinction, as it does for some of the insects and lower forms of animal life, but it means arduous toil each summer through, which no one but the bird student or naturalist really understands. With few exceptions, the mating begins immediately upon the birds' arrival from the south in the spring-

time, and, the courtship over, the serious domestic life begins, and in most cases this family life, with all its cares, ends only with the ripened fruit and the golden leaves of autumn. The careless observer is accustomed to think of birds as wild, care-free creatures of the air, with little to do but soar and sing,—but he who has looked carefully into their habits and followed them through the seasons knows full well that when the frosts come, the little feathered creatures have earned their winter rest in the feeding grounds of the south. Many birds rear two, three and sometimes four broods of little ones in a season. When the United States Bureau of Biological Survey estimates that one brood of young chipping sparrows will consume 238 insects every day,* and it requires on an average of three weeks for young altrices to reach the self-supporting state, one may get some idea of the amount of actual labor involved for the parents during our comparatively brief summer. Is it any wonder that by the first of August many of them lay aside their feathers and forget their songs?

The birds in this latitude come north for a home, and go south for food. August marks the beginning of the movement southward, and by this time the young of most migrants are ready for the long journey.

As early as the first days of July a number of the common varieties of our birds gather in flocks

* Biol. Survey, Bul. 15, pp. 76-78.

and wander about the woods and fields, feeding. This early flocking habit of some of our birds has no connection with migration. After the young are grown and able to help themselves, the young and old travel about together in search of food, which is doubtless made necessary by the increased number of birds, and the comparative scarcity of food in particular localities. This flocking habit is also due in some cases to the fact that many birds, such as crows, grackles, swallows, gulls, etc., roost every night in large numbers at some favorite place at which they regularly congregate.

I wonder if Marjorie Pickthall noticed this flocking of the birds to a common roost when she wrote:

“Oh little hearts, beat home, beat home,
Here is no place to rest.
Night darkens on the falling foam
And on the fading west.
Oh little wings, beat home, beat home,
Love may no longer roam.”

This tendency to gregariousness is especially noticeable in our common blackbirds,—the bronze grackles and the red-wings. Early in July a flock of perhaps fifty grackles remained about the neighborhood of my home for three or four days, flying about in the trees and walking through the grass in stately, dignified fashion, feeding upon insects.

The bronze grackle, or common crow blackbird, is a handsome creature. He never runs or hops, but walks about as grave and dignified as a judge. He greatly resembles his cousin, the purple grackle, in appearance. Mr. Ridgway describes the latter as "brassy olive or bronze," his neck as "steel blue, violet, purple or brassy green," and his wings and tail as "purplish or violet purplish." Florence Merriam calls him the "black opal." Seen in the shadow, he appears no more beautiful than the crow, but when the sun's rays fall directly upon his glossy back he reveals a beauty of plumage almost tropical in the height of its coloring and the brilliance of its sheen. "Tyrian purple is not like unto the splendor of his dress."

Mr. Burroughs says of his song: "The air is filled with cracking, splintering, spurting, semi-musical sounds, which are like pepper and salt to the ear,"—which is an apt description of the late season notes of either the grackle or the red-wing.

Lowell offers a similar description:

"* * * the blackbirds clattering in tall trees,
And settlin' things in windy congresses."

Early this month I observed a large flock of red-wings gathering in a grove of maples in the streets of a small village, and when the birds had taken possession of the trees a saucy blue jay who had preëmpted one of the trees was greatly displeased. Invoking his well-known powers of

mimicry, he proceeded to make the "cracking, splintering, spurting, semi-musical sounds" which the blackbirds were emitting all about him, as much as to say: "Those discordant notes are so common and easy that any one can imitate them!"

Robins, swallows, jays, swifts and sparrows also gather in flocks in late summer or early autumn, sometimes in large numbers. Mr. William Brewster records that he has seen as many as 25,000 robins sleeping together in one roost. Often as early as June, flocks of robins, consisting of the young of the first brood and the adult males, may be seen roosting together, the females being occupied with the care of the second family.

Mary Howitt, in "Birds in Summer," notices this summer flocking habit of the birds:

"They have left their nests on the forest bough;
Those homes of delight they need not now;
And the young and the old they wander out,
And traverse their green world round about;
And hark! at the top of this leafy hall,
How one to the other in love they call!
'Come up! Come up!' they seem to say,
Where the topmost twigs in the breezes sway."

Like the hoarse call of the blackbird to which Tennyson refers, most of the notes of our common summer residents going about in flocks late in the season are coarse and broken, with little of the buoyant beauty and rollicking happiness of the spring mating songs. Among the robins, for

example, one will hear the broken attempts of the young birds learning to sing, mingled with the listless, spiritless half-measured refrains of the old birds. At this season the full evening hymn of the robin, so familiar in spring and early summer, is never heard. Their songs are now at a low ebb:

"The pulse that flutters faint and low
When summer's seething breezes blow."

Even the beloved bobolinks quit singing in July, or limit themselves to a few unfamiliar notes. These delightful birds come to us about the 15th of May, and leave again for the rice fields of the south, on their way to Brazil, about August 10. It is not at all remarkable that opinion seems to be well-nigh unanimous that the bobolink is one of our most charming birds. Any comprehensive anthology of bobolink poetry would in itself make a volume of considerable proportions. Their brilliant black plumage, with white or cream buff patches, the gurgling laughter of their song, and their rollicking, topsy-turvy flight make up a group of accomplishments and charms of which few of our birds may boast. The fluttering flight over the clover blossoms is always accompanied by the bubbling song, as it "runs down, a brook o' laughter through the air," as Lowell happily expresses it. And after witnessing this joyous performance

we feel prompted to enquire with Helen Hunt Jackson:

"I wonder what the clover thinks
Intimate friend of bobolinks?"

Thoreau gives us this characteristic description of his song: "He is just touching the strings of his theorbo, his glasschord, his water organ, and one or two notes globe themselves and fall in liquid bubbles from his tuning throat. It is as if he touched his harp within a vase of liquid melody, and when he lifted it out the notes fell like bubbles from the trembling strings. Methinks they are the most liquidly sweet and melodious sounds I ever heard."

And Thomas Hill gives us these apt lines:

"A single note, so sweet and low,
Like a full heart's overflow,
Forms the prelude; but the strain
Gives us no such tone again;
For the wild and saucy song
Leaps and skips the notes among
With such quick and sportive play,
Ne'er was madder, merrier lay."

Any one familiar with the rapturous song of the bobolink, as he flutters about among the clover blossoms and teeters himself upon the meadow grass and swings in the summer wind, will confess to the accuracy of these descriptions of his

flight and song. During the mating and nesting season he is one of the most hilariously joyful of our summer residents. His bubbling song is so overflowing with rapture that his trembling flight over the clover tops seems the natural result of his intense emotions. When no longer able to contain himself, he drops down upon a clover stem or tuft of grass and finishes his song on a more stable footing than the thin air, which seems to be an insufficient support for a bird possessed of such delirious ecstasy.

It is very unfortunate that so fine a bird with so infectious a song should unwisely select rice as a favorite article of food, when there are so many weed seeds which ought to be quite as attractive a diet. By the first of September most of the bobolinks have gone to the southern rice fields. It is estimated by the Department of Agriculture that they annually destroy ten per cent of the rice crop, and hence they are unfortunately and with some reason considered the natural enemies of the farmers, and large numbers of "rice birds" are destroyed every autumn by hunters.

In the case of the bobolink, however, Nature again takes care of her own, for with all the slaughter of the birds on their southward journey, they are such successful home builders that there seems to be no appreciable diminution in their numbers from year to year, although they are now less plentiful in some sections of New England.

The bobolinks are also real pioneers, and while now less numerous along the Atlantic coast, they have traveled westward in greater numbers, even so far as Nevada and Utah.

The bobolink's nest is perhaps more securely hidden than the nests of any of our common birds. It is always placed near the roots of deep grass of luxuriant midsummer growth, usually well away from the margin of the field, with nothing to mark or trace it by but the nodding clover blossoms or timothy tops, which are legion, and which all look alike to one in quest of the nest. It seems that in many cases those birds whose struggle for existence is most sharp are the most prolific, or possess in the highest degree the art of concealing their nests. Such birds as woodpeckers, orioles and birds of prey, whose life struggle is less keen by reason of their habits, seldom rear more than one brood, while the sparrows, robins, phoebes and thrushes frequently have two or three families of young birds during the summer. Although the bobolinks seldom if ever rear more than one family of young in a season, and although large numbers are shot by hunters, they persist and continue to be numerous, because of their unusual skill in concealing their nests.

I remember an experience several summers ago which illustrates the difficulties which confront one in endeavoring to locate a bobolink's nest. I was spending the month of June on a farm in Southern Michigan. Every morning my walk

took me past a clover field which ran up to the roadside, with no intervening fence. I had observed a pair of bobolinks flying out of the grass at almost the same spot every morning as I passed along the road, and on one or two occasions looked about in the clover, in a superficial way, but found no signs of the nest. Continuing to see the birds at the same point, however, and feeling certain that the nest was there, I resolved to find it if possible. One morning after a heavy rain, when the grass was beaten down by the storm, I marked off an area about forty feet square in the clover, around the spot where I had so often seen the birds, and in which I felt certain the nest would be found. I then got down on my hands and knees and crept through the patch of clover, back and forth over the area I had set apart for the search, looking into every clump of grass, and covering as wide a strip as I could reach while on all fours. On previous occasions, when flushing the birds from the grass as I passed, although I would hurry to the spot, they never seemed to fly up from the exact location of the nest, which had therefore remained a mystery. After going over most of this area on my knees, feeling almost every blade of grass with my hands, I at last found the nest tucked in quite among the roots of the clover. It contained five dead young birds, which had evidently been drowned by the storm of the previous night.

In speaking of the bobolink's art of concealing

his nest, Mr. Burroughs says: "If I were a bird, in building my nest I should follow the example of the bobolink, placing it in the midst of a broad meadow where there was no spear of grass or flower or growth unlike another to mark its site."

His thoughtless, light-hearted, devil-may-care spirit, from which you would scarcely suspect the strategy he displays in secreting his nest, is invariably the subject of the poems dedicated to him.

For example, Alexander McLachlan:

"How you tumble 'mong the hay,
Romp'g all the summer's day;
Now upon the wing all over
In and out among the clover—
Far too happy e'er to think—
Bobolink! Bobolink!"

And Lowell:

"Meanwhile that devil-may-care, the bobolink,
Remembering duty, in mid-quaver stops
Just ere he sweeps o'er rapture's tremulous brink,
And 'twixt the winrows most demurely drops,
A decorous bird of business, who provides
For his brown mate and fledgings six besides,
And looks from right to left, a farmer mid his crops."

By August the bobolinks have either given up their songs, or their few notes are so broken and scattering as to be scarcely recognizable, and before September comes they have all departed for the

south, to be seen no more in our meadows until May.

Before leaving, the male puts on the sombre, sparrow-like coat of the female, and the young, following the usual order of nature, assume a garb similar to that of the mother bird. When starting south, therefore, the bobolinks are all dressed very much alike.

The bobolink has many names given him at different points along his long migration route. In the Delaware, Maryland and Virginia rice fields he is called ricebird and reedbird. When he stops off for a while in Jamaica in October, on his way down to the head waters of the Paraguay River, he is called the butterbird, because of his fatness, and in Florida, where he arrives in April, on his way north, he is called the Maybird. One of our common names for him is skunk blackbird.

The bobolink's chief companions in the fields during our summer, aside from the sparrows, are the meadowlarks, the dickcissels and the bobwhites. While the bobwhites may be heard whistling in the wheat fields in August, the meadow larks and dickcissels are mostly silent.

The dickcissel, sometimes called the little meadowlark, is quite common in our meadows, and may often be seen perched upon telephone wires, fences, shrubs and trees bordering country roads and lanes. It is not a characteristic August bird, for few, if any, birds could be called characteristic of this late summer month.

They are the most numerous and the most musical about the first of June. They resemble in appearance a small-sized meadowlark, as they have a black patch on the throat and a yellow breast, and back streaked with black and pale grayish-brown. Their manner of flying, however, is wholly different, resembling more nearly the irregular flight of the bobolink than the regular alternate flutter and soar of the meadowlark. They have the thick bill of the sparrow, and in immature plumage may easily be mistaken for a female bobolink or a large sparrow. There is one sure guide to its identity, however, and that is its song. It may be described as "*Tsip! Tsip! Tsee tsee tsee tsee!*" the first note higher than the rest, and the last four notes running off almost into a trill.

During the mating and nesting season this song is repeated incessantly. The notes have a distinct nasal quality and are earnestly and enthusiastically rendered, time and again, the bird throwing its head back and putting its whole soul into the performance.

While the first nest of bobwhite is built in May, I always associate him with the wheat fields of July and August. Indeed, he whistles quite as much then as earlier in the summer, calling to his mate and to the large family of chicks they have raised during the summer.

The poets have shown almost as much fondness for bobwhite as they have for the bobolink, and

many of them associate him with the harvest, as Hamlin Garland in his poem, "Wheat":

"When the quail whistles loud in the wheat fields,
That are yellow with ripening grain."

He is called the "siren of the fields" by Marion Franklin Ham:

"Shrill and clear from coppice near,
A song within the woodland ringing,
A treble note from a silver throat
The siren of the fields is singing—
 Bob-bob-white!
And from the height the answer sweet
Floats faintly o'er the rippling wheat—
 Bob-white!"

I once came upon a male bobwhite in a field of wheat stubble, with a family of about a dozen little ones, and before I could look twice the young birds had squatted and scurried to cover, so that not a single one of them was to be seen.

Trowbridge truly says:

"Quickly before me runs the quail,
Her chickens skulk behind the rail."

This wonderful faculty for sudden skulking out of sight is also possessed by the grouse. The parent bird, after giving the danger signal to the young, usually flutters along the ground, with one or both wings dragging, feigning injury, until one is drawn

away far enough to give the brood time to skulk, which they proceed rapidly to do, with marvelous success.

Quails usually raise two broods of twelve or more birds, and often the father bird conducts the first little family of chicks about the fields, helping them feed, while the mother lays and hatches the second set of eggs. When the large family, consisting of father, mother and two broods of young, go about in August, and later in the hunting season, they are numerous enough to comprise the covey so eagerly sought by the sportsman. At night the family squats on the ground, the younger and weaker birds in the center and the older and stronger ones around the outside, with tails to the center and heads pointed outward.

Bobwhite has at least two calls in addition to his well-known whistle, "*Bob-bob-white!*" One "bob" is frequently omitted, and sometimes he contents himself with a clearly whistled "white." When a flock of quail is flushed and becomes scattered about in the grass, if one quietly waits a few moments he will hear them calling to each other with three soft, cooing notes repeated several times, about as follows:

with a little liquid gurgles connecting the first two notes. By this means they learn the where-

abouts of the scattered company, and if undisturbed will soon get together again. Riley refers to this call of bobwhite:

“Watch * * *
the bobwhites raise and whiz
Where some other’s whistle is.”

The same poet, with a native accuracy all his own, describes the peculiar flight of the bird:

“And the sudden whir and whistle
Of the quail that, like a missile,
Whizzes over thorn and thistle,
And, a missile, drops again.”

The whippoorwill, another favorite of the poets, is heard sometimes as late as September, although he is more vocal in June and July. He reserves his musical performances for the quiet of the night, and spends his days in bat-like seclusion, perched, unlike other birds, *along*, and not *across*, a limb or fence rail. It cannot be properly said that he perches at all, because he merely squats down flat upon his daylight rest, sleepily awaiting the soft rays of the moon to awake him to vocal ecstasies. If aroused from his nap during the day he awkwardly flops about through the trees and brush, and suddenly drops down among the leaves or dead logs, where the similarity of his dull plumage affords him ample protection from his enemies.

Awakened one summer night, I heard the whistle of a whippoorwill, and after I began counting it repeated the call 327 times. It then paused a moment, evidently for breath, and presently resumed with as much apparent zest as before. Mr. Burroughs relates a similar experience, where even a much larger number of calls were given in rapid succession, without intermission.

“* * * Weirdly sounds the whippoorwill’s wild
rhyme,
These nights of summer time.”

A Canadian poet, Edward Burrough Brownlow, has written one of the prettiest poems to this quaint bird:

“When early shades of evening’s close
The air with solemn darkness fill,
Before the moonlight softly throws
Its fairy mantle o’er the hill,
A sad sound goes
In plaintive trill;
Who hears it knows
The Whip-poor-will.

* * * * *

Repeated oft, it never grows
Familiar, but is sadder still,
As though a spirit sought repose
From some pursuing, endless ill.

The sad sound goes
In plaintive trill;
Who hears it knows
The Whip-poor-will."

The latter days of August bring renewed joy and enthusiasm for the bird lover, for before the first of September some of his many friends who went to their northern homes in the spring are back again on their return journey to the south, and, except for the joyous springtime, no season holds more of happiness for him.

SEPTEMBER.

Sweet is the voice that calls
From babbling waterfalls
In meadows where the downy seeds are flying;
And soft the breezes blow,
And eddying come and go,
In faded gardens where the rose is dying.

Among the stubbled corn
The blithe quail pipes at morn,
The merry partridge drums in hidden places;
And glittering insects gleam
Above the reedy stream,
Where busy spiders spin their filmy laces.

Ah, soon on field and hill
The wind shall whistle chill,
And patriarch swallows call their flocks together,
To fly from frost and snow,
And seek for lands where blow
The fairer blossoms of a balmier weather.

—*George Arnold.*

HILE a few of our birds depart for the south as early as July, September may properly be called the favorite month for southward bird travel. Under the harvest moon, millions of warblers, vireos, flycatchers, sparrows and thrushes, seeking the protection of the night shadows, come out of the north

and pass on to their winter homes in south temperate and tropic latitudes. Also during the day many of the more hardy species, including the birds of prey, may be seen passing overhead upon their long journey.

Mr. P. McArthur has dedicated a poem to the autumn migration of the birds, from which I quote these lines:

“From streams no oar hath rippled
And lakes that waft no sail,
From reaches vast and lonely
That know no hunter's trail,
The clamor of their calling
And the whistling of their flight,
Fill all the day with marvel,
And with mystery the night.”

September, with its returning hosts from the north, while it brings joy to the heart of the bird lover, also brings its touch of sadness, for when its days are gone many of the summer residents have gone also, to return no more until spring.

But as they go we recall these reassuring lines from Mrs. Sangster:

“They'll come again to the apple tree,—
Robin and all the rest,—
When the orchard branches are fair to see
In the snow of blossoms dressed,
And the prettiest thing in the world will be
The building of the nest.”

As we have elsewhere observed, by far the larger number of birds migrate at night. These include the shore birds, thrushes, woodcock, warblers, vireos, sparrows, tanagers and flycatchers, and those birds of timid and retiring habits that are less able to protect themselves against the hazards of long flights by day, when they would be exposed to the attacks of hawks and other enemies. In their nesting haunts during the summer these birds find little difficulty in protecting themselves, among the thick summer foliage, against most of their natural enemies, but in migrating the birds, of course, ascend far above the protecting trees and shrubs, and it seems to be their fear of attack which has led them to await the cover of darkness for their journey. Longfellow refers to these night travels in his "Birds of Passage":

"But the night is fair,
And everywhere
A warm, soft vapor fills the air,
And distant sounds seem near:

And above, in the light
Of the starlit night,
Swift birds of passage wing their flight
Through the dewy atmosphere.

I hear the beat
Of their pinions fleet,
As from the land of snow and sleet
They seek a southern lea.

I hear the cry
Of their voices high
Falling dreamily through the sky,
But their forms I cannot see."

And Cale Young Rice, in his epigram, "Lost":

"The wild duck finds her way
Even at night:
Yet I cannot by day."

During the early part of this month, when the harvest moon was at its full, I one evening visited the top of a high building in Chicago, and from twelve o'clock midnight until two o'clock A. M. observed myriads of birds like tiny specks crossing the face of the moon, and many passed so near that their twitter and the noise of their wings was distinctly audible. At the height of the migration season, either in the spring or fall, when the moon is full and the weather favorable, one may easily see, with the aid of a small telescope, many birds cross the face of the moon. Dr. Frank M. Chapman relates some interesting experiments of this kind in which he timed the birds passing the moon, that he might estimate the height at which they were traveling. Some consumed three minutes in passing, indicating that they were flying at a very great height.

Among the day flyers are many of the birds that roost at night in flocks, such as crows, swallows, chimney swifts, grackles, robins and jays.

Bluebirds, snow buntings and humming birds also migrate by day. Ducks, gulls, geese, plover and snipe travel by night or by day, as the fancy moves them, depending largely upon weather conditions and the opportunities for feeding.

The tiny humming bird, traveling by day, all the way from northern United States to Central America, is one of the many wonders of migration. This little flash of tropic color is so small that he often shelters his tiny lichen-covered nest under a single leaf, and yet when autumn comes he boldly darts away to his winter home, thousands of miles distant, through

“The desert and illimitable air—
Lone wandering but not lost.”

Buffon in his “Natural History” gives the following exquisite description of the humming bird:

“Of all animated beings this is the most elegant in form and the most brilliant in colors. The stones and metals polished by our arts are not comparable to this jewel of Nature. She has placed it least in size of the order of birds, *maxime miranda in minimis*. Her master piece is the little humming-bird, and upon it she has heaped all the gifts which the other birds may only share. Lightness, rapidity, nimbleness, grace, and rich apparel all belong to this little favorite. The emerald, the ruby and the topaz gleam upon its dress. It never soils them with the dust of earth, and in its

aerial life scarcely touches the turf an instant. Always in the air, flying from flower to flower, it has their freshness as well as their brightness. It lives upon their nectar, and dwells only in the climates where they perennially bloom."

As we have elsewhere observed, this little bird is singularly unafraid of man, and when feeding seems entirely to ignore his presence. One cool day in late August I had gone out on the lawn and seated myself in the sun, to read. At my feet some vines climbed over a pergola, among them a scarlet runner, whose blossoms hung around my book, not more than six inches from my knees. Suddenly a ruby-throat flashed out of the blue and hung in the air before one of the scarlet blossoms, thrust his slender bill far into the calyx and daintily sipped its nectar. He then darted to other flowers in rapid succession, as tho' he were fearful some one would rob him of his treasure. He was so near me I could have reached him with my hand, but he appeared no more concerned about me than if I had been a part of the natural scene about him. While draining the honey from one of the tiny flowers he suddenly discovered that he was suspended immediately above a small twig of the vine, and as suddenly dropped his little feet upon it and perched there until he had robbed the little cup of its sweets, when he darted away and was lost to view, leaving me wondering whether this was the visit of a real bird or some

brilliant fairy sporting in the summer sunshine. The humming bird is a solitary, spirit-like, songless bird, and little is known about its migratory habits.

"Thine is the nested silence, and the hush
That needs no song."

The orchard oriole and the American redstart are the first of our birds to leave for the south.

The orchard oriole, while formerly common, is now a rather uncommon summer resident, and unfortunately it makes probably the shortest stay at its nesting site of any of our birds. It arrives early in May and leaves about the middle of July, thus spending but two and one-half of the twelve months of the year with us.

The orchard oriole, as his name implies, is fond of fruit trees and orchards. He has not the brilliant feathers of his cousin, the Baltimore, but he is a bird of the greatest refinement, both in song and plumage. His coat is black and chestnut,—black head, neck, throat and upper back, and chestnut under parts and lower back. He is a distinguished songster, with an unusually rich and flexible voice which he uses with rare skill and expression. It is impossible to describe his song in words, but once heard by any lover of bird music, the bird will be sought out, and once seen he will not soon be forgotten.

The redstart also leaves all too early. He

departs as soon as his little family have learned the art of flying, usually the latter part of July. Many of them nesting to the north of us, however, may be seen in the woods during their migration as late as the first of October.

This brilliantly colored little inhabitant of the woodlands is well named the "redstart" for he is one of the most animated and active of all the warblers. As he flits about among the leaves at the edge of the woods, or in small patches of brush, he seems to stop merely that he may *start* again,—a salmon flash among the green. In Cuba the redstart's bright plumage has won for him the name "Candelita,"—the little candle that flutters in the depths of the tropical forest. The entire upper parts, and the throat and breast of the male are shining black, the wings and tail are margined with salmon, and the sides of the breast and flanks are deep reddish salmon. Even in juvenal plumage the redstart is easily identified, for although the salmon is then frequently replaced by yellow or creamy white, the little bird has a very characteristic habit of almost constantly fluffing and half spreading his wings and tail, making his colors very conspicuous. Dr. Chapman gives him a very comprehensive description in a few words:

"Ching, Ching, Chee; ser-wee, swee, swee-e-e he sings, and with wings and tail outspread whirls about, dancing from limb to limb, darting upward, floating downward, blown hither and thither like a leaf in the breeze. But the gnats dancing in the

sunlight and the caterpillars feeding in the shade of the leaves know to their sorrow that his erratic course is guided by a purpose." *

Inasmuch as both the orchard oriole and the redstart are summer residents in this latitude, they are not to be considered among our true migrants, although they migrate southward every summer and northward again to their breeding sites in the spring.

Among the most abundant of the true migrants, nesting north of this latitude, and observed going south in September, may be mentioned the thrushes, warblers, white-throated, white-crowned, and fox sparrows, juncos, kinglets and nuthatches. This is by no means an inclusive list of our common September migrants, but during this month one will seldom walk into the woods and fields without seeing many of the birds mentioned. One morning during the last week of September I observed on my back lawn and within fifty feet of my back porch a large number of white-throated sparrows scratching about in the dead weeds and grass, a flock of slate-colored juncos, also very busy among the fallen leaves, a brown creeper, a red-breasted nuthatch, a gray-cheeked thrush, a black-throated green warbler, and a golden-crowned kinglet, all of which are September migrants. My yard is perhaps not above the average in attractiveness to the birds traveling southward, and similar observations may be made almost any morning in

* *Birds of Eastern North America*, p. 375.

September or early October, about any country or suburban home. In the early morning these little birds will be found very busily engaged in feeding, for many of them have been journeying far by night, and their tiny engines are much in need of fuel to carry them over the next lap of the long journey. The birds mentioned make but little noise as they flit about in the trees or grass, save for an occasional "*chip!*" or call note. Because of their preoccupation in the arduous business of feeding, the opportunities for observing them are usually very favorable. Knowing they must be here at this season the bird student will almost invariably be rewarded for his pains, if he will but go to their usual feeding places and seek them out.

. I have seen literally thousands of slate-colored juncos this month scattered about everywhere, in trees, shrubs and grass, and this year (1916) is no exception to the rule as to the number of these hardy little migrants. These birds are always seen in flocks, except when breeding in the north, and may be easily identified by their slate-colored backs, dark heads and white outer tail feathers so conspicuous in flight, and the flesh colored bill. When disturbed they quickly make known their displeasure by a sharp "*check! check!*" almost staccato in quality, but when unmolested one more often hears a rapidly uttered "*chew-chew-chew,*" indicating a very evident satisfaction with the wonderful feeding grounds which they find here on their way south. This little bird has little individ-

uality, and no striking characteristics which mark it as peculiar in any way from the rest of the feathered kingdom, either as to song, plumage or habits. Arriving in late September, they stay with us until the extreme cold weather comes, and inasmuch as they return again as early as February, cheering us with their company through several long weeks when "woods are bare and birds are flown," it is only natural that they should occupy a large place in our affections, though their dress is plain, and their song is seldom heard. A few of these juncos remain with us during the more open winters and will usually be found in company with snow birds and winter sparrows.

Mr. Edward Clark relates an experience with juncos in Lincoln Park, some years ago, which demonstrates the unfortunate ignorance of children with reference to our common birds. One day in November he observed a large flock of juncos scattered about in the grass in one of the open spaces in the Park used as a play ground. About a hundred students from the grammar schools had congregated to witness a foot ball game, and although the juncos were all about them, none of the children seemed to notice them. Upon calling their attention to the birds, he enquired of one child after another what the birds were, and most of them did not pretend to know, and those who did hazard a guess, called them sparrows, although the only possible resemblance between a junco and a sparrow is that of size.

Happily the schools of late years are doing much to increase the knowledge and interest of the students in our common birds, which also means a large reduction in the number of birds wantonly slaughtered by boys with sling shot and air gun.

The beautiful white-throated and white-crowned sparrows, the aristocrats of the sparrow family, have elsewhere received our homage and praise. A friend once came to me with a description of the white-throated sparrow which he called the "wheelbarrow bird," because, he said, its whistle resembled the squeak of a wheelbarrow long unfamiliar with axle grease or other squeak eliminating lubricant. The low whistle of this handsome sparrow is not wholly unlike the squeak of a dry wheel, but when heard at close range it is clear, beautiful and flute-like, although usually more timid and hesitating than its mating song in the north woods. Mr. A. West in his poem to this bird calls him the "Northern Nightingale":

"Hark! 'tis our Northern Nightingale that sings
In far-off, leafy cloisters, dark and cool,
Flinging his flute-notes bounding from the skies!

Thou wild musician of the mountain-streams,
Most tuneful minstrel of the forest-choirs,
Bird of all grace and harmony of soul,
Unseen, we hail thee for thy blissful voice!"

The fox sparrow, one of the most beautiful of his large family, is also an abundant migrant. He

is readily distinguishable by his large size and bright rufous tail and brown back. He is often found with small parties of juncos, and prefers the hedgerows and meadow thickets. His song is not surpassed by that of any of our sparrows. Although it is said that he seldom sings in this latitude, I have not infrequently heard his beautiful song during the spring migration. Mr. Eugene P. Bicknell describes it as "an emotional outburst rising full-toned and clear, and passing all too quickly to a closing cadence, which seems to linger in the silent air."

The kinglets are appropriately named, because both the golden and ruby-crowned are little kings in their own right, with brilliant crowns upon their tiny heads. The golden-crowned kinglet may be distinguished from his cousin by his uniformly lighter plumage, and the white line over the eye, and his smaller size. Both are extremely small, however, the golden-crown measuring about four inches from the tip of his bill to the end of his tail, and the ruby-crown being less than one-half inch longer. The kinglets are the smallest of our birds, with the single exception of the humming bird, which measures about three and one-half inches. The kinglets look considerably larger than the ruby-throat, because their bodies are thick and chubby. Except for the unusually long bill of the humming bird, it would not measure over three inches, whereas the bill of both the kinglets is short and stubby. The kinglets' plumage is olive green

on the back, and the ruby-crown has two whitish wing bars, with a partly concealed bright red crest in the middle of the crown. This red crest is scarcely discernible, except when the little bird tips his head toward the observer and the color is caught in the rays of the sun, when it flashes out with great brilliance and beauty. This crown patch is absent with the female and immature birds. In the center of the crown of the golden-crown is a bright reddish orange patch bordered by yellow and black, which in the male is quite conspicuous. These delightful little birds are very friendly and unafraid, as they hop around the tree trunks and lower branches feeding upon microscopic insects. These tiny balls of feathers are occasionally seen in this latitude throughout the winter, which is living evidence that, given an abundance of food, temperature is a secondary factor in a bird's existence. The golden-crown may often be heard singing during the spring migration.

Among the nuthatches, the white-breasted and the red-breasted are both common migrants, and according to my own observations the latter is the more abundant. The former is also a not uncommon summer resident, in the latitude of Northern Illinois or Southern Michigan. Few birds are easier to identify than the nuthatches. Running up and down the tree trunks they assume attitudes no other bird would attempt and they accompany these acrobatic feats with a loud nasal "*yank*."

yank," which usually tells us of their presence before we see them. No other bird makes the same noise, and once it is heard the bird may be easily located and observed indefinitely for he is usually too much interested in his own business of feeding on small insects to pay any particular attention to any observer. The nuthatch character seems wholly devoid of all sentiment, and yet with all his matter-of-fact ways, the white-breast cannot withstand the surging influences of spring, and at this season he raises his voice in a peculiar monotone which Dr. Chapman describes as "a tenor *hah-hah-hah-hah-hah*, sounding like mirthless laughter."

As for the thrushes, if one will but go to the quiet woods in early September and sit for a few moments among the underbrush which they so greatly love, he is more than likely to see two or three varieties stealthily hopping about and shyly peeping out from the protecting foliage. Among the more or less common migrants may be mentioned the willow, the gray-cheeked, the olive-backed, the Wilson's or veery and the hermit. The first three named are quite similar in general appearance, the colors of their plumage running more into the grays, drabs, and olive, but the hermit is easily distinguished by his bright brown tail, and the veery is more uniformly cinnamon brown. Accurate identification of the other varieties is not always easy, even with the aid of the most helpful bird books, unless the bird is shot,—and as for me I would rather be possessed of doubts than possess

a dead thrush! The aim of all real bird lovers should be to realize the ideal of Emerson, which prompted him to enquire: "Hast thou named all the birds without a gun?"

As to the vast army of warblers which come back to us in September, they are the same little wood sprites which rejoiced our days in May and June, and the more common ones which may be seen in this latitude have already been mentioned. It should be noted, however, that some migrants have a different route in the fall from that travelled in the spring, and this is true with reference to one, at least, of the warblers, viz., the Connecticut warbler. This little bird migrates northward in the spring, up the Mississippi Valley, and southward in the fall along the Atlantic coast except that a few have been observed in autumn in the area surrounding Chicago. This species is a not uncommon spring migrant, but like the retiring mourning warbler, it is not generally known as a frequent visitor because it is a shy little bird and is seldom found except in the bushy swamps and heavy underbrush, where it is easily overlooked.

The warblers, at all times more or less puzzling to the bird student because of their diminutive size and their habit of hiding in the dense foliage of the trees, are still more difficult to identify accurately during the autumn migration because of the many birds in juvenal plumage, and because of the molting of the old birds, resulting in marked changes in appearance.

The molting process of the birds after the nesting season is most interesting. Of course if the bird suddenly lost all its feathers, and then was required to await the slow growth of new plumage, it would not only suffer great inconvenience and hardship on account of weather conditions, but its power of flight would be entirely lost, and it would fall an easy prey to its enemies. Among the flyers, therefore, nature has wisely provided that the molting shall proceed slowly and with regularity. One feather in each wing is dropped at about the same time, so that the bird's equilibrium may not be disturbed, and when these two feathers are partially replaced by new ones another feather in each wing, in exactly the same relative position, is dropped, and these again replaced, and so on until the whole process is completed, with the result that at no time is the bird lacking more than two full wing feathers, and there is no impairment in flying ability. The most remarkable transformation wrought in the plumage of any of our common birds by molting is in the case of the male scarlet tanager, who, after rearing his young, changes his beautiful scarlet coat for one of olive green, with only his black wings and tail to distinguish him from his mate.

Among the shore birds, the golden plover has a different migration route for fall and spring, travelling up the Mississippi Valley in the Spring, and in the fall going south from Labrador and Nova Scotia, across the Atlantic to South America.

Like the woodchuck that lives upon its own fat in winter, water and shore birds, making long over-sea trips, live largely upon the fat with which their bodies are stored in the rich feeding grounds of the north. The American golden plover travels slowly across the continent from Alaska to Labrador, feeding all the way, and by the time it is ready for its 2500 mile journey over sea to the south, it is stocked with fuel fat, sufficient for its long journey.

A friend who has hunted the Pacific golden plover in the Hawaiian Islands in the late fall, tells me that when they arrive there they are poor and thin, but that within a few days after their arrival they have regained their normal amount of fat. The American golden plover is sometimes seen in Illinois and Indiana in the fall, but its course of travel at this season is eastward and not south, for they migrate southward only from the northeastern coast of the United States.

There are various methods employed by the different birds in travelling to their winter homes in the south. Some travel very rapidly, and cover immense distances in a very short period of time. Others travel slowly, and interrupt their trip with more or less frequent stops of a day or sometimes several days for feeding. Some travel singly, or in pairs, some in company with birds of other species, and still others travel in large flocks all of the same species.

Some fly in close formation, like the ducks and geese, and others move southward in loose flocks, like the hawks.

One September morning as I was starting out for a walk in the woods, I observed a red-tailed hawk flying low over the village very much in the manner described by Lowell:

“Silently overhead the hen-hawk sails,
With watchful measuring eye, and for his quarry
waits.”

I had not expected a “flight” of hawks, and at first noticed this one alone soaring low, evidently in search of food. Presently, however, I saw two or three more high in the heavens to the north and after these had floated southward until they were nearly over head, others were seen soaring into view, circling about apparently in leisurely fashion, and yet moving with a good deal of speed in a general southerly direction. For at least an hour I watched them as they continued to come out of the sky to the north, three or four at a time, until I had counted over a hundred, all soaring and circling about in a graceful manner, and yet with the ultimate southward movement, until one by one they disappeared in the sky beyond.

Had the poet Wordsworth seen this flight of hawks, the description which he gives in the following lines could not have been more graceful or appropriate:

“* * * Ever, while intent
On tracing and retracing that large round,
Their jubilant activity evolves
Hundreds of curves and circlets, to and fro,
Upward and downward, progress intricate
Yet unperplexed, as if one spirit swayed
Their indefatigable flight. 'Tis done—
Ten times, or more, I fancied it had ceased;
But lo! the vanished company again
Ascending. * * *

This flight or migrating in loose flock formation continued for nearly half a day, long after I had continued to watch the birds. Most of them were flying perhaps 500 or 600 feet high, but occasionally one was seen flying low “with watchful measuring eye.”

These large hawks are much too dignified to migrate in compact and hurried fashion, after the manner of the ducks. It is quite in keeping with their stately dignity gracefully to soar about, independently of the movements of their fellows, and yet, with a seeming reluctance born of a proud spirit, accepting each other's society, because they all were moved, and therefore more or less attracted to each other by the common impulse to migrate. Because of this loose flock method of migration of the hawks, it is easy to overlook the flight and to see one or two hawks only, but at this season of the year these flights of hawks southward may often be seen, and they have been known to continue for ten or twelve hours.

Among the common birds that leave us in September are the swallows. They are usually all gone by the middle of the month, and have never been known to vary more than a few days in the date of their annual departure. Swallows feed upon insects captured while flying, so there is really no apparent reason for their migrating so early, as there are plenty of insects to be found long after they have left us.

The chimney swift, one of the most interesting subjects for the student of birds, is popularly confused with the swallows, and is often mis-called chimney swallow, but the resemblance is only superficial, while the structural differences between the two are numerous and important. Structurally the swift is related to the humming birds and not to the swallows. It feeds entirely on the wing, and has never been seen perching anywhere except on the inside of a chimney or hollow tree. Except when nesting or roosting therefore, it is constantly on the wing, even drinking, and gathering dead twigs for its nest while flying. They skim over the surface of the water and dip their bills into it while on the wing. Tennyson speaks of the "skimming swallows," and Virgil wrote:

"The twittering swallow skims the dimpled lake."*

They have been observed dashing swiftly past old dead trees, catching at the ends of dead twigs,

* "*Aut arguta lacus circumvolitavit hirundo.*"

and carrying them off in their bills. Indeed their feet are so slender and frail they are unable to perch across a limb in the usual way, and they use them to cling to the side of the wall of the chimney after the manner of the woodpeckers, using the tail as a support. Because of this habit, doubtless long continued, the shafts of the tail feathers extend beyond the vanes.

The swifts are very rapid flyers, and as they dart about in the late afternoon, their rolling twitter may be easily heard high overhead. Riley doubtless referred to the "chimney swallows" when he wrote:

"Sweet as swallows swimming through
Eddings of dusk and dew."

When flying they are similar in appearance to the swallows, but they are less graceful, and sometimes sail with their wings held aloft over their heads, which is the attitude they always assume when dropping into a chimney. Formerly they nested in hollow trees and caves, but now they nest and roost exclusively in disused chimneys. Their nests are made of dead twigs glued to the chimney wall by a mucilaginous saliva excreted from the bird's mouth. They are generally found associated in scattered companies, and when roosting and nesting are eminently gregarious. It is an interesting sight to watch a colony of swifts going to roost in an old chimney which they have selected

for the purpose. When the roosting time comes they rapidly approach the top of the chimney, and the whole company darts back and forth over it, time and again, showing every indication of dropping into it but still continuing their flight. After a number of preliminary approaches of this character, a small number drop into the chimney top and disappear, while the rest continue their rapid, reeling flight, and circling and sailing about over the chimney again, another select few drop into it, and thus they continue until at last all have disappeared in the sooty depths of the chimney.

The swifts also leave about the middle of September, and the remarkable thing about it is that no one knows where they go. Their winter base is one of the unsolved mysteries of bird migration.

The late Mr. Wells W. Cooke, of the United States Biological Survey, perhaps the foremost American student of migration, could tell us no more about this riddle than the merest novice.

He says:

"Much has been learned about bird migration in these latter days, but much yet remains to be learned, and the following is one of the most curious and interesting of the unsolved problems. The chimney swift is one of the most abundant and best-known birds of eastern United States. With troops of fledglings catching their winged prey as they go and lodging by night in tall chimneys, the flocks drift slowly south, joining with other bands, until on the northern coast of the Gulf of Mexico they become an innumerable host.

Then they disappear. Did they drop into the water or hibernate in the mud, as was believed of old, their obliteration could not be more complete. In the last week in March a joyful twittering far overhead announces their return to the Gulf coast, but their hiding place during the intervening five months is still the swift's secret." *

However baffling the mystery of their winter home, the happy fact remains that they do return to us each spring, and we have the abiding confidence of Adelaide Anne Procter that they always will:

"Where are the swallows fled?

Frozen and dead,

Perchance, upon some bleak and stormy shore.

O doubting heart!

Far over purple seas

They wait, in sunny ease,

The balmy southern breeze,

To bring them to their northern homes once more."

* Bull. No. 185, U. S. Dept. Agri., p. 47.

OCTOBER.

There is something in the autumn that is native to my
blood—

Touch of manner, hint of mood,—

And my heart is like a rhyme,

With the yellow and the purple and the crimson keep-
ing time.

The scarlet of the maples can shake me like a cry
Of bugles going by.

And my lonely spirit thrills

To see the frosty asters like a smoke upon the hills.

There is something in October sets the gypsy blood
astir,

We must rise and follow her,

When from every hill of flame

She calls and calls each vagabond by name.

—*Bliss Carman.*

OW that the Tanager has laid aside
his brilliant scarlet coat and gone
to his winter home and left the
landscape bare, gentle Autumn,
with colors gay, creeps quietly over
the wooded hills and down into
the sleeping valleys, slowly touching the green
and gray with crimson and gold, until in mid-
October, finding none to dispute her royal right to
beautify the world, she boldly flings abroad her

blazing banners until the wide, illumined landscape becomes aflame with her gorgeous colors.

The old earth has grown tired a little, and mute of song. Though the brilliant coats of birds and their happy voices are now largely a pleasant memory of summer days that are gone, prodigal nature hath other pleasures in store, and

“All the woods and mountains seem to shine
As if He turned their water into wine.”

Although there is none of the noisy, joyous exuberance of spring, October brings a sweet autumnal calm, as if the weary earth were resting a little ere winter comes. The spirit of October days breathes in these lines of Ellen P. Allerton:

“No loud, high notes for tender days like these!
No trumpet tones, no swelling words of pride
Beneath these skies, so like dim summer seas,
Where hazy ships of cloud at anchor ride.

At peace are earth and sky, while softly fall
The brown leaves at my feet; a holy palm
Rests in a benediction over all,
O silent peace! O days of silent calm.”

This “silent calm” of October has its influence upon the birds as upon other things in nature, and at this season they are to be seen and not heard.

They come not to sing, but to give us a “backward look,” as Emily Dickinson expresses it.

Contrary to the popular notion, however, there are more kinds of birds to be seen in this latitude in October than in midsummer, if one will but seek them out, for the southward march of the army of autumn migrants, which reaches its flood in September, continues with gradually diminishing numbers well through the month of October.

A few of our birds which are commonly known as permanent residents might be properly called non-migratory. Some of them may move a bit southward in winter, but the distance travelled is comparatively short, while others of the species nesting a few miles north of us, within the breeding range, come down to us in winter and take the place of those that have gone. Among these birds may be mentioned the ruffed grouse, the quail, cardinal, robin and meadowlark. The grouse and quail are strictly non-migratory, for many of these birds spend the sum of their days within the radius of a few miles of the nest where they were hatched.

George Cooper furnishes the following autumn picture of Bobwhite:

"I see you on the zigzag rails,
 You cheery little fellow!
While purple leaves are whirling down,
 And scarlet, brown and yellow,
I hear you when the air is full
 Of snow-down of the thistle;
All in your speckled jacket trim,
 'Bobwhite! Bobwhite!' you whistle."

Birds like the cardinal, robin or meadowlark, migrate short distances, but oftimes the movement is scarcely noticeable. Meadowlarks are frequently found throughout the year in about this latitude, notably on the Atlantic Coast, but doubtless the individuals of the species nesting in this region move a few hundred miles south for the winter, and their places are taken by other migrants that have nested farther north. The geographical range of this bird covers the whole of the United States from the Gulf of Mexico to Canada, and while those that nest in this latitude may pass on to the southern states, many of the birds breeding near the Canadian border, winter as far north as Illinois and Massachusetts.

The robin offers a similar illustration of migrating within the geographical range. Its breeding range is from the Arctic regions to near the southern boundary of the United States, but it occurs irregularly in winter from the Canadian border south. Those that breed in Canada may often be found in winter in southern Illinois and Indiana, while none will be found along the Gulf coast until winter when those nesting in the middle or southern portions of the range have moved southward.

In other words, the migration of birds like the meadowlark, robin and cardinal is almost if not entirely within the area which is occupied by some individual representatives of the species the year round, the migration simply being a shifting of the population within such area.

The true migrants, however, that pass this way in September and October, have deserted the entire region occupied by them as a summer home, and are moving on to some distant district which has been adopted by them solely as a winter home.

Among our most common long-distance migrants may be mentioned the bobolinks, that nest in this latitude and northward, and winter in southern Brazil; the scarlet tanager, which migrates from Canada to Peru; purple martins, swallows, and thrushes, which breed from this latitude northward, and migrate to Central South America, and the nighthawks, which nest as far north as Yukon, and spend their winters in Argentina, 7000 miles distant. Many species of shore birds breeding north of the Arctic Circle, visit South America over a migration route of about 8000 miles.

The Arctic tern is called by the late Mr. Wells W. Cooke, "the world's migration champion." These little birds nest as far north as land has been discovered, arriving there about June 15, where they remain until about August 25, when they leave for the south, and several months later they are found in large numbers skirting the edge of the Antarctic continent, 11,000 miles from the nesting site. This bird thus covers a round trip migration route of 22,000 miles every year with scarcely twenty weeks for the round trip. This means one hundred and fifty miles a day in a straight line, but this distance is no doubt actually

doubled or trebled by these birds every day, by reason of their darting, irregular flight in search of food. Mr. Cooke calls attention to an interesting fact which results from the wonderful migration habits of this bird :

“The Arctic tern has more hours of daylight and sunlight than any other animal on the globe. At the most northern nesting site the midnight sun has already appeared before the birds’ arrival, and it never sets during their entire stay at the breeding grounds. During two months of their sojourn in the Antarctic the birds do not see a sunset, and for the rest of the time the sun dips only a little way below the horizon, and broad daylight is continuous. The birds therefore have twenty-four hours of daylight for at least eight months in the year, and during the other four months have considerably more daylight than darkness.”*

Very few observations have been made as to the migration route of this bird and its exact route is unknown, but it has been recorded as an irregular visitant along the Atlantic Coast.

The only tern that is a common resident in the Central States is the black tern. It is a summer resident in this latitude, while the Caspian, common and Forster’s terns are more or less common migrants. The terns are beautiful, graceful birds, the smaller varieties like the Arctic and black resembling swallows in length of wing and general appearance, while the larger ones, like the Cas-

* Bull. No. 185, U. S. Dept. Agri., p. 11.

pian, and Forster's are by careless observers sometimes confused with the gulls on the Great Lakes because of their size and their similar white and gray plumage. Terns may be easily distinguished from gulls by the position of their bills, which are always pointed downward, while flying, like a huge mosquito, whereas the bill of the gull is always pointed straight ahead in the plane of its body.

Another very common little migrant among the shore birds, which may be seen in small flocks of four to ten running along the sandy beach of Lake Michigan or any of the Great Lakes in September and October is the sanderling, familiarly called "sand-snipe," by the natives along shore. It is a small, snipe-shaped bird, measuring about an inch longer than the common spotted sandpiper, with rather long straight black bill which it pokes into the soft wet sand in search of aquatic insects. Its feet and legs are black and its plumage generally dull black and white. These little birds, which are quite tame, run rapidly along the water's edge ahead of anyone walking on the sand, until they have moved up the beach at a safe distance of thirty or forty feet, when they stop and feed until one again approaches to within fifteen or twenty feet of them, when they run on again. Repeating this practice many times, they seem loath to give up their feeding for flight. Their long slender legs are stiff and set wide apart, and when the birds are running and the stiff little legs

are moving rapidly under their straight little bodies, they have a singular mechanical appearance, like a toy automaton. When they do reluctantly prepare for flight when too nearly approached, they quickly face the water, and seem suddenly to run into flight as they skim out from the edge of the water over the breaking waves. Their colors and movements seem a veritable part of the surf and sand, for their plumage is the color of sand-encrusted foam, and their rolling running movements in and out along the water's edge, and across the sand, are beautifully like the alternate rolling and receding of the spent waves up and down the long beach.

"Thy flitting form comes ghostly dim and pale,
As driven by a beating storm at sea."

Circling out over the water a short distance, they fly along the beach two or three hundred feet and again alight on the sand at the water's edge and continue their alternate feeding and running until again flushed.

Another little shore bird frequently seen migrating at this season is the semipalmated sandpiper, which is similar in appearance and habits to the sanderling, but it is nearly two inches smaller in size. The sanderling is always distinguishable by the singular fact that it has only three toes.

One of the most interesting of our summer residents that migrates south this month is the night-

hawk, sometimes called Bull-bat, because of his bat-like, erratic movements in flight, and his nocturnal habits.

The nighthawk passes the day in perching lengthwise on a limb of a tree, after the manner of the whippoorwill, and after sunset he rises high in the air in search of insects. As he darts about, his metallic "*peet! peet!*" may be distinctly heard, sometimes long after the light of the closing day has faded, for he is truly a nocturnal bird.

Nests of this bird are sometimes found on the roofs of buildings. I once discovered a set of two eggs in a little pocket in the stone cornice of a thirteen story building in Chicago, opposite my office window, which I caught sight of one morning while feeding pigeons. With the consent of the manager I engaged one of the window washers of the building to scale the cornice for me and secure the eggs, which were easily identified as the night-hawk's. The eggs were returned to their niche but evidently they had been deserted, for no birds appeared near them, and after a few days one of the eggs disappeared, and later the other one was missing.

The subject of bird migration is one of never failing interest. Much has been and could still be written about it, and yet the wonderful faculty of these little animals to find their way about through the air for such tremendous distances, is still very largely a mystery. The birds seem to have an exaggerated or highly developed sense of direction.

Most animals, especially those whose natural instincts have not been dulled by domestication, have this sense in more or less marked degree, but in the exercise of this faculty the birds unquestionably excel. While man cannot navigate the seas without the aid of chart and compass, birds released from a ship many miles at sea will invariably and unhesitatingly head their flight directly toward the nearest land. It is interesting, in this connection to recall what an important part migrating birds had in the discovery of this continent by Columbus. When the great navigator and his men were almost upon the point of abandoning the attempt to reach land and about a week before they landed at San Salvador, great encouragement came to them from observing large numbers of birds migrating to the southwest, as they do now, near the Atlantic coast. When after a few days they became very abundant Columbus changed his course and followed them, ultimately reaching the Bahamas. It follows that migratory birds were responsible for the fact that the great navigator first landed in the Bahama Islands, rather than on the mainland of North America.

The homing instinct or sense of direction of birds has been clearly demonstrated by some very remarkable experiments conducted by Prof. Watson, of Johns Hopkins University. Many thousands of sooty and noddy terns nest on Bird Key, a small island in the Dry Tortugas. Prof. Watson took three or four of these birds first twenty, then

sixty, then one hundred and eight and lastly over a thousand miles up the Atlantic coast, and again eight hundred and fifty miles directly across the Gulf of Mexico where there could be no possible landmark to guide the birds' return, and in every instance, after a reasonable length of time, depending upon the distance travelled, the birds were found again occupying their nests at Bird Key.

Doubtless this sense of direction in the aboriginal man was strong and perhaps as unerring as it is now with the birds, but in the course of many generations of culture man came to rely so much upon various mechanical devices and guides invented and designed for his aid, and so little upon instinct, that the latter ultimately became, as it were, atrophied from disuse, leaving him almost wholly dependent upon artificial guides to enable him safely to find his way about the world. No such change, of course, has taken place with the birds. With them this sixth sense is at least as strong as it ever was.

Therefore it unfortunately happens that thousands of birds during their migration are actually lured to their death by one of the very devices designed by man to assist him in avoiding the dangers incident to his travels. Lighthouses for some unknown reason seem to hold an almost irresistible attraction for birds migrating at night, and the brighter the light, the greater the attraction. Especially upon dark or stormy nights, during the migration season, the birds seem drawn to these

lights as moths are attracted by a flame. After flying within the radius of the rays of such a light they appear to be blinded by it and, becoming confused, dash themselves to death against the structure which sustains it. Many interesting observations of this kind have been made by ornithologists at lighthouses, and such experiences are familiar to all keepers of such coast lights.

Thousands of birds have met death in this way at the Statue of Liberty Light, in New York harbor, and Dr. Chapman in referring to accidents of this kind to birds at Fire Island Light, Long Island, records the killing during one night of three hundred and fifty-six black poll warblers alone. Successful efforts have been made at some of these stations to install lights of a kind which will answer all the purposes of navigation, without being so deadly to the migrating birds, and perches have also been erected around some of the lights in an effort to lure the birds away from the light to a place of rest and safety.

Migration itself, like the homing instinct or sense of direction, while not altogether peculiar to the birds, is more highly developed with them than with any other animals. Winter visitors to the Pacific Coast may see sporting about in the warmer California coast waters, seals which have migrated thence from the Bering Sea. Doubtless moved by the same primal surge which is felt by the birds in the spring, salmon, eels and shad during the same season travel up the streams to lay their eggs, and

some deer in the extreme north migrate southward in winter. As with the birds, the two most compelling influences in inducing these migrations are the instinct for reproduction and the desire for food.

By the end of October, all of the true migrants save a few stragglers have gone to their winter homes in the south, and the lonesome bird lover begins to feel with Lowell that

"Autumn's here, and Winter soon will be,
Who snows his soft, white sleep and silence over all.'

NOVEMBER.

The mellow year is hastening to its close;
The little birds have almost sung their last,—
Their small notes twitter in the dreary blast,—
That shrill-piped harbinger of early snows.
The patient beauty of the scentless rose,
Oft with the morn's hoar crystal quaintly glassed
Hangs, a pale mourner for the summer past,
And makes a little summer where it grows,
In the chill sunbeam of the faint, brief day,
The dusky waters shudder as they shine;
The russet leaves obstruct the straggling way
Of oozy brooks, which no deep banks confine,
And the gaunt woods, in ragged, scant array,
Wrap their old limbs with sombre ivy twine.
—*Hartley Coleridge.*

ANY of the poets who should have known better have seemed to think that the month of November was an appropriate subject only for a dirge or an ode to despondency! They have sung of both the negative and positive qualities of the month, but seldom in a happy vein. They have rather made November the melancholy subject for the expression of their sad and serious thought,—because perchance they have exhausted themselves over the beauties and glories of spring and summer, or because of necessity they must be sad and serious at some unfortunate season.

The negative qualities of the month are humorously depicted by Thomas Hood in the following lines:

“No sun—no moon!
No morn—no noon!
No dawn—no dusk—no proper time of day—
No sky—no earthly view—
No distance looking blue—

* * * * *

No warmth, no cheerfulness, no healthful ease,
No comfortable feel in any member—
No shade, no shine, no butterflies, no bees,
No fruits, no flowers, no leaves, no birds,
November!”

Most of the poets, however, have not been content with picturing merely the negative qualities of the month, but have expressed a sense of profound desolation in the whole November landscape.

Walter Malone gives us this dismal picture:

“No voice is heard in field or forest nigh
To break the desolation of the spell,
Save one sad mocking-bird in boughs near by,
Who sings like Tasso in his madman’s cell.”

S. Frances Harrison, poet though she be, confesses to a lack of vision on dull November days:

"These are the days that try us; these the hours
That find, or leave us, cowards—doubters of Heaven,
Skeptics of self, and riddled through with vain
Blind questionings as to Deity. Mute, we scan
The sky, the barren, wan, the drab, dull sky,
And mark it utterly blank.

When sodden leaves are merged in melting mire,
And garden plots lie pilfered, and the vines
Are strings of tangled rigging reft of green,
Crude harps whereon the winter wind shall play
His bitter music—on a day like this,
We, harboring no Hellenic images, stand
In apathy mute before our window pane,
And muse upon the blankness."

C. L. Cleaveland makes a valiant effort to be
cheerful about it, but confesses his failure:

"In the high wind creaks the leafless tree
And nods the fading fern;
The knolls are dun as snow-clouds be,
And cold the sun does burn.
Then ho, hello! though calling so,
I cannot keep it down;
The tears arise into my eyes,
And thoughts are chill and brown."

Burns' famous line:

"November's chill blows loud wi' angry sugh,"
makes one almost shiver!

Henry Abbey writes in the same vein:

"An icy hand is on the land;
The cloudy sky is sad and gray;"—

The predominant note with most of the poets has been that the month at best was gray and dead. Bird lovers and nature students know better. November has as much color and as many birds as July.

Some of the poets, like Edna Dean Proctor, take a more hopeful view:

"This is the summer's burial-time;
She died when dropped the earliest leaves;
And cold upon her rosy prime,
Fell down the autumn's frosty rime;
Yet I am not as one that grieves,

For well I know o'er sunny seas
The blue bird waits for April skies;
And at the roots of forest trees
The May-flowers sleep in fragrant ease,
And violets hide their azure eyes."

Amos Bryant Russell writes these fine lines of the late warm days of November:

"A wave of summer's overflow,
A fugitive which went astray,
That on its passage lost its way;
A prelude to an autumn dirge,
An interlude on winter's verge,

A narrow space twixt flower and snow,
An afterthought, an afterglow,
A smile upon the waning year,
A ray to shine through nature's tear."

Frances Laughton Mace refers to the season as one of peace and prayer, after the joy and songs of summer:

"Is it that Nature calls us
Her services of peace to share?
After the song the silence—
After the praise the prayer."

Riley contributes this refreshing note of optimism:

"While birds in scattered flight are blown
Aloft and lost in dusky mist,
And truant boys scud home alone
'Neath skies of gold and amethyst;
While twilight falls, and Echo calls
Across the haunted atmosphere,
With low, sweet laughs at intervals,—
So reigns the rapture of the year.

Then ho! and hey! and whoop-hooray!
Though winter clouds be looming,
Remember a November day
Is merrier than mildest May
With all her blossoms blooming."

No month can be gray and dead that brings us the hermit thrush. This finest of songsters may be

seen in the woods almost any day in November. Unfortunately he does not favor us with his song as he pauses on his migration southward,—and I never see him in the woods that I do not long for the power of a Svengali that I might make him sing to me.

Indeed, so far as the birds are concerned, November might be called the border-line month between summer and winter, “an interlude on winter’s verge.” During this month the last of the migratory birds come to us and pass on to the south, and the first of the northern residents pay us their annual winter visits. Some of our summer residents also remain with us until November, including the vesper, field, chipping and swamp sparrows, the red-winged and crow blackbirds, the kingfisher and the mourning dove.

The latter bird is the only dove left to us since the extermination of the beautiful passenger pigeon. He is an old favorite whose cooing, mournful, ventriloquous notes are familiar to us all.

He was loved by Nathaniel P. Willis:

“ ’Tis a bird I love, with its brooding note
And the trembling throb in its mottled throat;
There’s a human look in its swelling breast,
And the gentle curve of its lowly crest.”

Mourning doves are rapid flyers, and often may be seen in pairs, as late as November, scurrying

over the fields as if hurrying to some distant rendezvous.

Among the late migrants, in addition to the hermit thrush, may be mentioned the juncos, the ruby-crowned and golden-crowned kinglets, and some of the shore birds. With one of the migrating shore birds I had a rather unusual experience in November.

One bright day early in the month, feeling the irresistible call of the fields, and being unable to answer it, I stole an hour from my office and ran away to Lincoln Park. I found many old nests among the bushes that had bared their slender limbs to the November wind, but finding few birds I walked over to the lake where I hoped to see some shore or water birds. A large flock of herring and Bonaparte gulls were floating on the water, while others circled about, "searching the blue dome with keening cry." The beach at the point where I approached the lake is in reality a concrete breakwater, running down to the water's edge, an ugly cement imitation of a sandy shore. Along such a beach I had no hopes of seeing any shore birds feeding at the water's edge. With my attention fixed upon the gulls scattered about over the lake I almost stepped upon a pair of red-backed sandpipers running about at the edge of the water, apparently as well satisfied as if the cement were white sand. They seemed very tame, as unmolested migrating birds usually are, uttering no cry of alarm, and making no effort to run or fly away.

I knew them at once by the slight downward curve of their bills. In winter these little sandpipers are called "leadbacks," having rather inconspicuous dull brownish-gray plumage, but the downward curve of their bills is a sure mark of identification, as it is peculiar to this species. In summer plumage the upper parts are broadly margined with rufous, or reddish brown, whence its name, and the middle of the belly is marked with a large black patch. The bird is about an inch and a half longer than the semipalmated, and about a half inch longer than the spotted sandpiper. Its unsuspicious character makes it appear rather stupid, and it is also less active than most members of its family. It is quite a common bird in this latitude during the spring and fall migrations. Generally speaking the red-backs are shore or beach birds, but they are sometimes to be found in grassy marshes.

Another interesting member of the same family (*scolopacidae*) which is always found in grassy marshes and fresh water swamps is the Wilson's or jack snipe. This little bird is a late migrant, often remaining with us until the last of November. It is a favorite with sportsmen because of the delicacy of its flesh and because it taxes the skill of the hunter to the utmost. When I was a boy and had yet acquired no scruples against shooting anything called game, I once in the course of a day's hunt came upon six of these little snipe in a meadow swamp. The swamp was a small patch

of wet ground, grown up to thick grass and brush, surrounded by dry pasture. My two companions and I flushed the birds one after another, and upon taking flight they rapidly darted off close over the ground, in zigzag fashion, until they were some distance away when they rose high in the air, circled rapidly about in the leaden sky directly over our heads, and then suddenly dropped down with great velocity into the little swamp, as if they had been thrown from a catapult. I remember full well that several times we flushed the birds and watched them go through the same gyrations, for our youthful skill in marksmanship was not equal to the birds' skill in flight. At each precipitous descent a whistling, tremulous sound was heard, produced by the rushing of the air through the birds' feathers. They returned to the swamp after each flight, however, apparently unwilling to trust themselves elsewhere than in the dense thicket or the high sky above.

While these birds have no song, the whistling, bleating sound made when descending rapidly to the earth, gives them a place among the instrumentalists, with the peacocks, grouse, woodpeckers and some foreign species. The particular method of the snipe in producing this instrumental music, however, distinguishes it from all other instrumentalists.

Darwin, after discussing several species of birds that practice certain forms of instrumental music,

refers to the peculiarity of the snipe's efforts in this line:

"In the foregoing cases sounds are made by the aid of structures already present and otherwise necessary; but in the following cases certain feathers have been specially modified for the express purpose of producing sounds. The drumming, bleating, neighing or thundering noise (as expressed by different observers) made by the common snipe (*scolopax gallinago*) must have surprised every one who has ever heard it. This bird, during the pairing season, flies to 'perhaps a thousand feet in height' and after zigzagging about for a time descends to the earth in a curved line with outspread tail and quivering pinions and surprising velocity. The sound is emitted only during this rapid descent. No one was able to explain the cause until M. Meves observed that on each side of the tail the outer feathers are peculiarly formed, having a stiff saber-shaped shaft with the oblique barbs of unusual length, the outer webs being strongly bound together. He found that by blowing on these feathers, or by fastening them to a long, thin stick and waving them rapidly through the air, he could reproduce the drumming noise made by the living bird."*

As early as 1773, Gilbert White, with characteristic keenness and accuracy of observation suspected that the snipe possessed this faculty for instrumental music. In "Selborne" he writes: "Whether the bleating or humming is ventriloquous, or proceeds from the motion of their wings,

* The Descent of Man, p. 427.

I cannot say; but this I know, that, when this noise happens, the bird is always descending, and his wings are violently agitated."

Wilson's snipe are small birds less than twelve inches in length, including three inches of bill, and their plumage is dark brown or black mottled with cream buff, and as they skim rapidly over the brown fields they can scarcely be seen.

Another peculiarity which fortunately makes their slaughter difficult is that, like the woodcock, they usually feed and migrate at night or on heavy, dark days.

In the latitude of Northern Illinois the herring gull and the ring-billed gull are winter residents arriving from the north in November. Bonaparte's gull is a transient that may be looked for in April and again in the fall, sometimes as late as the middle of November. These beautiful little gulls frequently visit the lagoons in the Chicago parks, adjacent to Lake Michigan, where they feed upon minnows, diving after them tern-like. They may also be seen frequently on all our large lakes. They are easily distinguished from the common herring gull by their small size and the black tips of the wings, so conspicuous as they fly overhead. The herring gull measures two feet in length, while the Bonaparte is only about fourteen inches long. The plumage of these two species is similar, being gray above and white beneath, although the head and neck of the Bonaparte is much darker, sometimes almost black.

The herring gull is very common in winter on all the Great Lakes, and in spring may also be seen on many of our inland rivers and lakes and overflowed meadows, feeding upon dead fish.

It must have been one of these spring excursions inland that inspired the following from Stevenson:

"Far from the loud sea beaches,
Where he goes fishing and crying,
Here in the inland garden,
Why is the sea gull flying."

Or the poet may have observed the Franklin's gull, an inland species, inhabiting the prairies of Minnesota and the Dakotas.

Considering how common these fine water birds now are, it is interesting to note the following observation made by Mr. E. W. Nelson in his "Birds of Northeastern Illinois": "A single specimen, an adult female, was obtained in Chicago harbor March 27, 1876." Very rare at that time, the American herring gull was considered a variety (*Larus argentatus smithsonianus*) of the European species, known to this country only as a very casual visitor to the Atlantic seacoast.

It is interesting to watch the gulls in winter hovering near the outlets of the sewers along the lake and river fronts in Chicago, where they feed upon floating refuse. As the birds are never molested they are very tame, and may be approached and observed without difficulty. In these flocks I have only succeeded in finding the three species named:

herring, Bonaparte and ring-billed. The latter is similar in appearance to the herring gull, but slightly smaller, and its light greenish bill is crossed by a dark band near the tip.

The gulls are very welcome visitors to city-bound folk in winter. They are wholly unmindful of cold or winter storms, and remain with us until spring when they go north to breed. Cale Young Rice shows his appreciation for them in his "Gulls at Land's End":

"Hungry gulls, hungry gulls, hunters of the foam,
Leave not the shore for the ship that sets to sea!
Harsh the night is falling and the hoarse waves roam,
Rest you in the cloven cliff's lea!"

Thousands of these gulls nest every spring on rocky cliffs and small, barren islands near the northern end of Lake Michigan, and on Lake Superior, notably in Green Bay, Lake Michigan, and on Gull Island in Lake Superior. A recent study of the herring gull and its nesting habits at these points was made by Mr. R. M. Strong, who visited Gull Island in Lake Superior near Marquette, Michigan, and Strawberry Islands, Sister Islands and Hat Island, in Green Bay, Lake Michigan, in the summer of 1911.*

It has been reported that herring gulls have nested on the eastern shore of Lake Michigan nearly as far south as South Haven, Michigan, but

* Smithsonian Rep. 1914, pp. 479-509.

I have walked the beach north of this point for several miles, and carefully examined the shore and adjacent clay cliffs without finding any signs of nests. There are thousands of herring gulls along this shore in late summer, and the presence of these large flocks is doubtless responsible for the report that the birds breed in this area. I know of no breeding colonies south of Hat Island in Green Bay. The herring gull is the species commonly called "sea gull."

Among other visitants from the north that often come to us in November, may be mentioned the crossbills, redpolls, and pine and evening grosbeaks. The American and the white-winged crossbills are rare and irregular winter visitants, the redpoll (*acanthis linaria*) is a common winter resident, and the pine and evening grosbeaks are irregular winter visitants, the latter being the more common.

Some years ago I obtained several specimens of the American crossbill in northern Indiana, where I found a large flock of them feeding in the woods. They are not infrequently found north of Chicago in the woods bordering Lake Michigan. These little birds are slightly smaller than the English sparrow. Their upper and lower mandibles are crossed at the tip,—whence the name. The plumage is dull red, brighter on the rump, with dark gray wings and tail. They always go about in flocks, and against a back ground of snow a group of these little red birds makes as delightful a winter

picture as one ever sees. They are very erratic little wanderers coming upon us oftentimes unexpectedly and unannounced from the coniferous forests of the north. They seem to have no regard for the laws of migration, and aimlessly wander about in small groups, pausing only at those places which afford them favorable opportunities for feeding. They climb about in trees like parrots, and their crossed bills are well adapted to aid them in opening the scaled cones of coniferous trees to obtain the seeds within.

The well known legend of this little bird, which relates how it tried to pull the nails out of the Cross with its bill, is told in a translation by Longfellow from the German of Julius Mosen:

“On the cross the dying Saviour
 Heavenward lifts His eyelids calm,
Feels, but scarcely feels, a trembling
 In His pierced and bleeding palm.

And by all the world forsaken,
 Sees He how with zealous care
At the ruthless nail of iron
 A little bird is striving there.

Stained with blood and never tiring,
 With its beak it doth not cease,
From the cross 'twould free the Saviour,
 Its Creator's Son release.

And the Saviour speaks in mildness;
 ‘Blessed be thou of all the good!

Bear, as token of this moment,
Marks of blood and holy rood!

And that bird is called the crossbill;
Covered all with blood so clear,
In the groves of pine it singeth
Songs, like legends, strange to hear."

The redpoll, sometimes called snowbird, is much more common, and may be seen almost any winter after the first of November. This bird has a red crown cap sometimes rather inconspicuous, and the breast and rump are tinged with pink and the rest of the plumage is grayish brown. He is about the size of the goldfinch, which he resembles somewhat in general habits. These birds are often seen feeding upon dry weeds and grasses that protrude through the snow. Indeed, it is the burying of these weeds and grasses by the heavy snows in the north that drives them south for food. They are lovable little birds, with a trustful and confiding disposition.

How unexpectedly one may happen upon one of the irregular visitants from the northern pine forests most any day in winter is illustrated by a pleasant little adventure I had one bleak morning in November. Hurrying through the village streets on my way to a suburban train, an unusual and unexpected bird call "ravished my delighted ear." I stopped in my tracks,—and forgot my train!

Bird calls in November are sufficiently infre-

quent to attract attention. Birds are numerous enough, but at this season they are irregular and their movements erratic, and few bird songs are heard. The call of this bird resembled the clear familiar chirp of the robin, and I immediately concluded it was some bird with the robin's call, rather than the robin itself, although the latter bird sometimes surprises us with a transient visit in winter.

Hearing the note again, I traced the bird to the top of a tree across the block in an adjoining street. I walked around the block, and into my neighbor's yard, where I found the bird eating the seeds from the dry keys of a large maple. As he moved about feeding I caught sight of his black wings and tail and his yellow rump, scapulars and belly, and my hopes were realized,—it was an evening grosbeak! I felt the inspiration of Cale Young Rice, upon hearing the unexpected song of a bird:

“There is no mountain, here, or sea,
Yet do I feel infinity,
For there in the top of a tulip-tree
A wild wild bird is singing to me!

And full is his throat, at every note,
Of God—until my heart's afloat
In joy—like every leaf unfurled
By May, the sweetheart of the world.”

This beautiful bird, tho' not often seen, is easily identified. It is a trifle larger than the oriole,

and has the thick heavy bill of the finch and sparrow family. Its beautiful yellow and black plumage make its identification simple, for at this season of the year it cannot be confused with any other bird.

In addition to the robin-like call, it also has a tree-toad note, similar to the spring cry of the red-headed woodpecker.

Its real song is "a wandering, jerky warble, beginning low, suddenly increasing in power, and as suddenly ceasing, as though the singer were out of breath." *

It will always be found feeding on the buds or seeds of trees—maple, elder and box elder, of which there is an abundance in winter. During the winters of 1886 and 1887 there were rather phenomenal incursions of evening grosbeaks into the Central States—Illinois, Indiana and Michigan,—and many observations of them were recorded, but of late they have been very irregular and erratic winter visitants. The coniferous trees in Graceland Cemetery, Chicago, have on numerous occasions in winter attracted these and other transients from the north.

November is the month to begin preparations for feeding our bird friends through the cold and stormy days of winter. Plenty of food will be available until snow falls, but when the heavy snows come much of the material that the birds depend upon for food will be covered up. Plans

* Birds of Eastern North America, p. 280.

should therefore be made not later than November by all who claim to be real lovers of the birds, to assist them in obtaining food through the winter.

We would not think of allowing any person whom we love to go hungry if we could help them to food. We all love the birds, and without doubt they bring us a great deal of happiness, but unfortunately the opinion is too general that in winter there are no birds, and we resolutely shut ourselves in doors and hugging the fireside forget that there are hundreds of tiny feathered creatures battling with the cold and struggling for a bare existence outside.

Burns remembered and felt compassion for the little winter bird:

“Ilk happing bird, wee, helpless thing!
That in the merry months o’ spring
Delighted me to hear thee sing,
What comes o’ thee?
Whare wilt thou cow’r thy clittering win’
An’ close thy ee?”

When we recall how the birds have delighted us in the “merry months of spring,” it should require no argument to convince us that as a matter of simple justice we should take some thought of their welfare at this season.

Mable Osgood Wright in “Bird-Lore” for January, 1909, makes an appeal for our winter birds which should be heeded by all their friends:

"As birds do not push trembling hands in our faces and clamor for charity, we forget their needs, and they too often disappear, deprived of natural food and shelter by the very march of the civilization of which we are proud.

If they cannot speak for themselves, their friends should never cease to do it for them in the same old words, winter after winter. 'Do not clear away the wild hedges; leave some shocks of corn in your field, scatter grain sweepings in likely places, fasten suet to your orchard tree, and spread a lunch-counter under your window, out of the reach of *cats!*' Do not use that irresponsible argument, 'There are never any birds in winter where I live,' for if there are none the responsibility is yours for not aiding them to be there. For we are all keepers of our brother, in one sense or another, and the larger brotherhood includes all forms of sensate life. When we deliberately shirk responsibility we have ceased to live in the best sense."

Many different plans have been suggested and adopted for feeding the birds in winter. In some places large organizations have been formed among people interested in birds and extensive plans worked out for feeding them and encouraging them to remain in the neighborhood during the winter. In addition to feeding devices erected about the homes, general feeding places have been established in adjacent fields and woods, and in almost all such cases the number of winter birds observed in the particular locality has been very largely increased. Where these community plans

have been adopted the interest of the school children has often been enlisted, and the larger boys engaged to assist in maintaining the feeding grounds. The usual plan is to clear away the snow from a patch of ground fifteen or twenty feet square, and then scatter seeds, nuts, suet and scraps and crumbs from the table. The ground should, of course, be kept clear of snow, and the supply of food should be replenished daily. A number of such feeding places should be maintained at reasonable distances apart, adjacent to the town or village, and when this general community plan is supplemented by the maintenance of individual feeding stands at the homes in the neighborhood, the increase in the number of winter birds will be gratifying.

In this way many good people living in this latitude, believing that there are no birds in winter except the English sparrows, have come to know that while the birds are mostly silent and in seclusion, there are a number of varieties which are common residents.

Although this general community plan of feeding the birds may not always be feasible, there is no reasonable excuse to be offered for any real lover of the birds who wholly forgets them in winter and does not provide a feeding box or tray near his home. A rough box, open at one side, set above the ground, out of the reach of cats, at a short distance from the house, is all that is necessary. After the birds find the food and

become accustomed to the surroundings, a tray may be built at the window sill, and the birds will surely find it and will ultimately become quite tame. A roof to keep off the snow is desirable, and a very attractive one for the birds may be made out of heavy branches of coniferous trees. I have also found that the nuthatches and woodpeckers prefer to peck nuts out of upright limbs or posts, and I have accommodated them by boring small holes in the supports of my bird tray, and tucking pieces of the nuts into them. This plan has the added advantage of protecting the food from the ubiquitous English sparrow, who is wholly unable to walk up and down a perpendicular surface, howsoever hungry he may be.

Suet hung by a string from the lower branches of a tree, or tied around the limbs, is always an attractive food. Grain and nuts, especially peanuts, will be eaten by most any of the winter birds. In cold weather, meat scraps are acceptable, and in line with modern ideas of conservation and prevention of waste it would seem more reasonable to place scraps of toast and crumbs from the table just outside one's window for the birds, rather than in the garbage can. I have found that the occasional cardinal that comes my way in winter is very fond of cantaloup seeds, and I therefore save them every summer, and I dare say my summer appetite for cantaloup is sharpened by the thought that the seeds may attract a cardinal to my window when the snows come.

It is an excellent plan to have a box or two near the birds' lunch counter, with openings large enough to admit the hairy woodpecker, because in the extremely cold weather the winter birds spend most of the time under cover, if they can find any, and if they find both board and lodging at the same place they appreciate it, and make use of the advantages offered them.

Chickadees, nuthatches, hairy and downy woodpeckers, tree sparrows, juncos and cardinals are frequently attracted to these feeding stations, and the English sparrow may be counted on as a regular daily visitor. The latter bird, though usually considered a pest, is just as welcome to my feed box as any of the rest, and my own experience is that instead of driving other birds away, his boldness in feeding off the window ledge often attracts other birds to it. I am proud of my little winter colony of fat English sparrows! Although this little emigrant has few friends even among the ornithologists, he is not wholly friendless among the poets. With all his faults, Mary Isabella Forsyth loves him still:

"From dawn until daylight grows dim,
Perpetual chatter and scold.
No winter migration for him,
Not even afraid of the cold!

Yet, from tip of his tail to his beak,
I like him, the sociable elf.
The reason is needless to seek, —
Because I'm a gossip myself."

Walter Von der Vogelweide, the greatest lyric poet of Germany until Goethe, is said to have acquired his art from the birds, and Longfellow has perpetuated the pretty legend concerning the poet's grave. It is said to have been provided in his will that the birds should be fed daily at noon upon the slab which covers his resting place:

“Thus the bard of love departed:
And, fulfilling his desire,
On his tomb the birds were feasted
By the children of the choir.”

DECEMBER.

In a drear-nighted December,
Too happy, happy Tree,
Thy branches ne'er remember
Their green felicity;
The north cannot undo them
With a sleety whistle through them,
Nor frozen thawings glue them
From budding at the prime.

In a drear-nighted December,
Too happy, happy Brook,
Thy bubblings ne'er remember
Apollo's summer look;
But with a sweet forgetting,
They stay their crystal fretting,
Never, never petting
About the frozen time.

—*John Keats.*

LIVER WENDELL HOLMES once said: "Those who are really awake to the sights and sounds which the procession of the months offers them, find endless entertainment and instruction. Yet there are great multitudes who are present at as many as threescore and ten performances, without ever really looking at the scenery, or listening to the music, or observing the chief actors."

This observation seems especially true with

reference to the birds, their songs and nests. If one should attempt to name a half dozen among his friends who possess even an amateur's knowledge of our common birds and their habits, he would find the task difficult, if not impossible. When we consider that the study of birds offers such "endless entertainment and instruction," and that it takes the student out into the woods and fields, through the grass and flowers in summer, and through the white snow in winter, when

"* * the poorest twig on the elm tree
Is ridged inch deep with pearl,"—

one wonders at the lack of interest in this wholesome subject. Of course we are all much too busy nowadays collecting dollars to turn aside and collect anything else, even so much as ideas about other things! But, after all, the truly wise man is he who always finds time for those broadening and deepening influences which one never seeks in vain in the woods and fields.

"In the urgent solitudes
Lies the spur to larger moods."

In some respects the winter months are more favorable for bird study than summer, because when trees are bare and many of the birds have flown, the work of the student is naturally more simple.

In the dense luxuriant foliage of midsummer the casual observer seldom sees a bird's nest in tree or bush, tho' there may be hundreds of them near at hand. When December comes a large number of nests are exposed which have been securely hidden all summer, and the art of the birds in concealing their little domiciles is revealed.

I never walk in the woods in early winter that I am not attracted by these old exposed nests. Snow-crowned, against the gray winter sky, they glow like white lights in a fog. Rose Terry Cook sings of the snow-filled nest:

"All, all are gone! I know not where;
And still upon the cold gray tree,
Lonely, and tossed by every air
That snow-filled nest I see."

Aside from the birds themselves, there is no subject of greater interest to the student than the birds' homes.

Lowell's heart is touched to reminiscent mood by the old nest, which he loves for what it has been:

"Like some lorn abbey now, the wood
Stands roofless in the bitter air;
In ruins on its floor is strewed
The carven foliage quaint and rare,
And homeless winds complain along
The columned choir once thrilled with song.

And thou, dear nest, whence joy and praise
The thankful oriole used to pour,
Swing'st empty while the north winds chase
Their snowy swarms from Labrador:
But, loyal to the happy past,
I love thee still for what thou wast."

In the same spirit Joseph Howe writes of the old deserted nest, as attractive to the poet's eye:

"Deserted nest, that on the leafless tree
Waves to and fro with every dreary blast,
With none to shelter, none to care for thee,
Thy day of pride and cheerfulness is past.

Thy tiny walls are falling to decay,
Thy cell is tenantless and tuneless now,
The winter winds have rent the leaves away,
And left thee hanging on the naked bough.

But yet, deserted nest, there is a spell,
E'en in thy loneliness, to touch the heart,
For holy things within thee once did dwell,
The type of joys departed now thou art.

Then though thy walls be rent, and cold thy cell,
And thoughtless crowds may hourly pass thee by,
Where love and truth and tenderness did dwell,
There's still attraction for the poet's eye."

In addition to this appeal to the imagination which the abandoned nest always brings, with speculations as to the home life which has glori-

fied it, the mere examination of the structure of the different varieties of nests within easy reach in the winter thickets seldom fails to reveal something of interest. One December day I found an old thrush's nest in the woods, and upon pulling it apart discovered embedded in the bottom a small piece of faded newspaper. The printing was scarcely discernible, but I was able to decipher a few lines about a modern design of shotgun, which was stated to be very much superior to the older models,—and on the reverse side of the scrap the only words that were distinct were "Would you run?" And this advertisement of a modern death-dealing weapon found its way into the little home of the thrush! One might in his fancy trace those printed lines from the little nest in the forest back to the news-stand, and to the printing office, then perchance to the desk of the man who penned the words, little thinking they ultimately would be woven into the texture of a bird's home.

Scraps of paper and cloth are frequently found interwoven into the texture of nests of various birds. One day in May, while seated on my summer porch, a sharp storm came up, and a robin's nest in an elm tree near by was blown down upon the cement walk, and four young featherless, helpless birds tumbled to their death. As I could do nothing to restore the little robin household, I contented myself with examining the nest, and at the base of it, under the mud, I found a piece of white cloth as large as a handkerchief. How the

robin ever managed to carry it into the tree is a mystery.

Almost every catbird's nest by the roadside has scraps of paper interlaid with the sticks and other building material, perhaps for the same reason that the building contractor inserts paper between the supporting walls of man's habitation.

I once found a small mummified hyla in an old thrush's nest. It was impossible to tell by what means he had come to his untimely end. These little tree frogs frequently make an hibernaculum under the leaf mold in winter, and as it was only late autumn, perhaps he had hopped into the abandoned nest as a temporary abode until winter should come, and through some mishap it had become his tomb.

In old shrikes' nests I have sometimes found the small bones of little birds which have been carried to the shambles by these feathered cannibals, and slaughtered without mercy.

Many deserted nests in winter are found full of the hulls of grain, nuts and acorns, where mice and squirrels have dined. Other nests have nuts and acorns tucked away among the twigs, where they have been stored for the future use of some thrifty inhabitant of the woodlands. Both field mice and squirrels sometimes appropriate old birds' nests and roof them over with grass and leaves, and after building an addition or two along the lines of mouse or squirrel architecture, pro-

ceed to occupy the warm but incongruous structure through the winter.

It is interesting to note that while man's immediate ancestors originally occupied the trees, and in the process of evolution became terrestrial animals, the bird's immediate ancestors were originally terrestrial, and in the process of evolution many of them became tree dwellers. Man's conquest over the forces of nature has enabled him to live in comparative safety on the earth's surface, whereas many of the birds still seek refuge from their natural enemies in the protective tree tops.

Even among the fishes and reptiles from which it is said the birds have descended, the habit of nest building is not unknown. Among the fishes, both sexes of the bright-colored *Crenilabrus massa* and *melops* work together in building their nests with seaweed, shells, etc. The stickleback (*G. leiurus*) also builds a nest, and the male of the species performs the duties of a nurse with exemplary care and vigilance during a long time, and is continually employed in gently leading the young back to the nest when they stray too far.*

Many of the reptiles deposit their eggs in the sand near the edge of the water, taking quite as much care in depositing and protecting them as some of our shore and water birds. Many of our shore birds exhibit striking structural resemblances to their reptile ancestors, in their long legs and

* Darwin, Descent of Man, 2nd Ed., p. 391.

bills, and their nesting habits also seem to indicate their reptilian origin. Few of these birds build elaborate nests. Many merely lay their eggs in the sand or gravel, after the manner of a snake or turtle, but they have made some advance over their ancient progenitors in the matter of incubation, as they sit upon their eggs, and do not depend upon the sun to hatch them.

The higher we go in the order of nature, the greater is the attachment to home and family, and the more highly developed the species of birds, the more attention do we find given to the nest and eggs.

In most cases perhaps the nest should be called the nursery rather than the home, because, with few exceptions, there is little real abiding affection for nest, young or mate. Among our birds only the eagle and the osprey mate for life. While the higher order of our song birds mate for the season, if one of a pair disappears during the nesting time, its place is usually filled by another within a few hours, and among the lower orders of birds, polygamy is common.

The greatest devotion to home and family is found in those species whose young are helpless when hatched. They are called *altrices* or altricials, as distinguished from *praecoses* or precocials, who run or swim as soon as they are born. *Altrices* is derived from the Latin *altrix*, meaning "to nurse." The precocials therefore may be called chicks, and the altricials, nestlings. Among the

former may be mentioned quail, grouse, sandpipers, snipe and plover, and among the latter, bluebirds, robins, sparrows and all our song birds. The precocial chicks are born covered with feathers or down, and actively toddle about as soon as they break through the shell. I once found a nest of the spotted sandpiper with four eggs in it, and upon returning only one week later discovered that all the young birds had hatched and run away.

The altricials, on the other hand, are born naked and helpless, blind and dumb, and require the most careful and protracted nursing to bring them to the self-supporting stage. In this nurturing process, of course, the family tie is strengthened, and the nest of an altricial is at least a nursery, and not a mere precocial birthplace. In some instances the birds show considerable affection for the nest itself long after the young are gone and the nesting season is over, roosting upon or near it until migration.

Some birds use their nest homes for rearing two or three little broods during the summer, and some return to the old home the following season. The eagle, if not molested, returns to the old nest year after year, adding a few sticks each season until it often becomes of enormous size and thickness.

It requires about five weeks for a pair of robins to build a nest and nurse the first little family to the point where they can fly, and if the parent birds rear two or three broods from the same nest,

as sometimes happens, they acquire some love of home and family.

Among the precocial grouse and quail the old birds look after their active little chicks and teach them the ways of the wicked world and how to feed and protect themselves, with a truly parental solicitude. The altricials of necessity build more safe and secure nests, because of the helpless condition of their young families, whereas some of the precocials build none at all. But even among the former the cuckoos, doves and herons build a rude nest of a few scattered sticks, through which one may often see the eggs. The altricial cowbird, the degenerate, builds no nest at all, but foists her eggs and her helpless young nestlings upon some unsuspecting sparrow, warbler or vireo.

Each species builds a characteristic nest, and all nests of a particular species are very similar, so that one may often identify a bird solely by the kind of nest he finds.

Almost all the trades are represented among the birds, in the nests they build for rearing their young. An anonymous poet has left these lines referring to some of the many different bird crafts:

“The swallow is a mason,
And underneath the eaves
He builds a nest and plasters it
With mud and hay and leaves.

The woodpecker is hard at work,
A carpenter is he;
And you may find him hammering
His house high up a tree.

The bullfinch knows and practices
The basketmaker's trade;
See what a cradle for his young
The little thing has made.

Of all the weavers that I know,
The oriole's the best;
High on the apple tree he weaves
A cozy little nest.

The goldfinch is a fuller;
A skillful workman he!
Of wool and threads he makes a nest
That you would like to see.

Some little birds are miners,
Some build upon the ground;
And busy little tailors, too,
Among the birds are found.

The cuckoo laughs to see them work;
'Not so,' he says, 'we do;
My wife and I take other nests
And live at ease—cuckoo!' "

Our cuckoos usually build nests, however,
though it is said their eggs are sometimes found
in the nests of other species.

Three of the most remarkable of the bird architects are natives of India, the land of the Taj Mahal!—the tailor bird (*Sylvia sutoria*), the hornbill (*Buceros*) and the sociable grosbeak (*Ploceus socius* Cuvier).

Every one has heard of the tailor bird, that sews the edges of leaves together with stitches as regular as those of an experienced seamstress, and then fills the receptacle with its nest.

The female hornbill fashions her nest with especial care for her protection during incubation. She plasters up with her own excrement the orifice of the cavity in which she sits on her eggs, leaving only a small opening through which the male feeds her, being thus kept a close prisoner during the whole period of incubation.

The sociable grosbeak perhaps exhibits the most remarkable instinct for real bird architecture of any living species. As many as eight hundred or one thousand of the nests of this bird have been found in one tree, "covered with one general roof, resembling that of a thatched house, and projecting over the entrance of the nest.

Beneath this roof there are many entrances, each of which forms, as it were, a regular street, with nests on either side, about two inches distant from each other." *

One of the most ingenious and interesting nests of the birds of our latitude is that of the orchard oriole. It is pensile, or suspended, like that of

* Nuttall, Birds of U. S. and Can., p. xxx.

its cousin, the Baltimore, but, with the exception of hair, it is always constructed of tough grass, woven and platted like a straw hat, and the work is so excellently done that some of the nests look like they were made by a knitting machine. Indeed, the ornithologist, Wilson, relates how a woman of his acquaintance, when shown a nest of this bird, enquired "if he thought it could be taught to darn stockings."

The hanging, gourd-shaped nest of the Baltimore oriole is a familiar sight in winter as it hangs tenaciously to the tip of some drooping limb through winter winds and snows.

The nest of the oven-bird is unique and unusual. It is placed on the ground, made of coarse grass, weed stalks, leaves, etc., and roofed over, with the opening at the side.

"Daintily the leaves he tiptoes;
Underneath them builds his oven,
Arched and framed with last year's oak leaves,
Roofed and walled against the rain drops."

The nests of the wood pewee and the humming bird are among the daintiest of all bird homes, as well as the most difficult to find. Both resemble lichen-covered knots, and are lined with the finest down, "fine as the mother's softest plumes allow." The ruby-throat sometimes weaves into the lichen cover of its nest a bit of colored feather, thus exhibiting, as claimed by some, a love for the beautiful. The nests of the warblers,

"Whose habitations in the tree tops even
Are half-way houses on the road to heaven,"

are all dainty creations and usually difficult to find, because they are often placed high in the treetops.

The instinct for nest building persists in caged birds, who sometimes in spring make pitiful attempts to collect material about the cage for making a nest. Sarah Orne Jewett writes of her caged canary:

"She gathers piteous bits and shreds,
This solitary, mateless thing,
To patient build again the nest
So rudely scattered spring by spring."

Any one who has observed this phenomenon, I dare say, would thenceforth find it difficult if not impossible to deprive a bird of its liberty. Riley, in humorous dialect, says it is ridiculous to do so when the woods and fields are full of birds:

"Jes' the idy, now, o'layin'
Out your money, and a-payin'
Fer a willer-cage and bird,
When the medder-larks is wingin'
Round you, and the woods is ringin'
With the beautifullest singin'
That a mortal ever heard."

The locations chosen by different species for their nests are about as various as the styles in

nest building. The bank swallows and kingfishers and burrowing owls make excavations underground; many of the song birds, including sparrows, meadowlarks, bobolinks, etc., nest in the grass; the warblers usually nest in the branches of bushes or trees; some of the shore birds deposit their eggs upon the bare sand; some of the ducks construct nests that float upon the water; the woodpeckers bore holes in the trees for their homes; the swift always glues its nest to the wall of a chimney; the nighthawk lays its eggs on the bare ground or a flat rock, or sometimes on the roof of a building.

Wherever it is built, and of whatever materials, the nest of a bird is always an object of interest and inspiration. One needs but quote these lines from Wordsworth:

“The imperial Consort of the Fairy-King
Owns not a sylvan bower, or gorgeous cell
With emerald floored, and with purpureal shell
Ceilinged and roofed, that is so fair a thing
As this low structure, for the tasks of spring
Prepared. * * *”

When the secret of the bird's nest is disclosed, and the eggs or young revealed, one approaching it feels that he may be violating the sanctity of the little unprotected home, like the poet who

“* * * looked at it and seemed to fear it;
Dreading, though wishing, to be near it.”

There is woven into the texture of the nest much that is not mere sticks or grass,—just as there is in a home much that is not mere walls and ceilings. Would that we might always look upon the building of a nest with the eyes and the spirit of the poet John Vance Cheney:

“Weave, bird in the green, green leaves!
 Wind in with every thread
The shine of the earth and sky;
 Twine heaven’s blue and the rose’s red,
And the wind-sweet singing by.

Weave, bird in the green, green leaves!
 The lustre from east to west,
The melody line by line,
 Braid it, shade it, into the nest,
The home in the heart of the vine.

Weave, bird in the green, green leaves!
 All happy color and sound,
By love’s own cunning curled,
 Wind it, bind it, round and round;
Build in the bliss of the world.”

JANUARY.

Endlessly stretches the snow
The sun stays low
The pinched airs flow
Through shivering tree-heads bare,
Scant windy birds are in air
And the lead-blue film is everywhere;
The deeps of the woods lie near
The footless ways are clear
Sconced in the sleep of the year.

Glisten and freeze on field and pond
The lines are unbound!—
And the gamut is stript to the ends and beyond.

It is now that the four winds meet
'Tis now that the world's in my feet,—
Call of my heart, be fleet, be fleet!

Io
The snow!

—*L. H. Bailey.*

SOME years ago an eminent naturalist said that January was a favorable time to begin the study of birds. Since then the same opinion and the same reasons supporting it have been urged by a number of writers of bird literature.

I can neither agree with the opinion nor the reasons assigned in support of it. It is true that

birds are few in January, as compared with the bewildering hordes that come up from the south in the springtime, and it may therefore be less difficult to identify them. It is also true, of course, that the woods are bare, and the birds cannot hide away in dense foliage, as they do in summer; but these facts by no means prove that January is a good time to begin the study of birds.

Though the woods are bare, the winter birds are not always easy to find, for they are generally quiet and retiring. They often occupy holes in trees, abandoned nests and other places of protection during extremely cold or stormy weather, venturing forth only for the purpose of feeding. They usually wander aimlessly about in flocks. Their habits are irregular, and their movements erratic and uncertain. Here today, they may be gone tomorrow. Again, the January coats of some of our birds are dull and quite unlike their well-marked summer plumage, and the spring change to another dress would confuse the student.

The greatest objection, however, to commencing bird study in January is that it is a winter month, and the spirit has not yet awakened to the inspiration which comes with the birds and flowers of spring. Enthusiasm is even more important in nature study than in other pursuits, and to the beginner the winter landscape is sometimes dispiriting. But when

"The year's at the spring
* * * * *
God's in his heaven—
All's right with the world!"

It is then that we long for the woods and fields and we begin the study of birds with a warmth of zeal that sharpens our powers of observation and perception. Though there be hosts of birds at this season, and many that it may be difficult to identify, a full year of study will make one familiar with a goodly number of the common birds, and the following spring the identification of new acquaintances will be comparatively easy.

By all means, spring is the season in which to begin the study of birds.

Many of the erroneous opinions about birds have gained currency by being hastily accepted and quoted without personal investigation of the subject. Nothing should be stated as a fact unless it has been actually observed, and the opinions of others should not be adopted, and thus given added authority, except they be verified by personal experience.

In this connection I regret to say that the ornithologists themselves are largely responsible for some unfounded prejudices which exist as to our most abundant winter bird, the English sparrow. That this hardy little foreigner is nothing but an unmitigated nuisance at all times and at all places seems now to be the settled opinion. It

is said that he drives away other birds, that he is filthy in his habits, that he destroys immense quantities of grain, beans, fruit, etc., and that he is an all-around pest!

As to the charge of driving away other birds, my own observation has been that, considering their numbers, they are no more quarrelsome than other birds. I have many times seen them worsted in fights with little house wrens, and have often observed one robin scare away a half dozen sparrows with one fluff of his wing or tail. Bluebirds are not quarrelsome, but if the right sort of a box is erected in a suitable place they will rout the sparrows and occupy the box.

A recent writer goes to the ridiculous extreme of giving statistics as to the number of attacks made by sparrows on other birds. Such figures prove nothing. A startling table of this kind might be made as to a great many of our common and much beloved birds.

The statement that the sparrows drive away the other birds comes with ill grace from those who never offer an invitation to the "other birds" to nest near their homes, and never give them any sort of encouragement or protection, winter or summer.

I rejoice to find one ornithologist who is not blinded by the popular prejudices. Mrs. Nellie B. Doubleday (Neltje Blanchan, *pseud.*), in her delightful book, "How to Attract the Birds," writes:

"Indeed, a great deal of nonsense is talked about sparrows driving away other birds. Like the down-trodden Italian and other peasants from the Old World, the sparrows are prepared to live here where others would starve. They kill no birds. We are too wont to attribute the results of our own misdeeds or shortcomings—the barbarities of millinery fashions, wanton slaughter masquerading as sport, the lack of good bird laws and the enforcing of them, where such exist—upon these troublesome, noisy, quarrelsome little feathered gamins * * *. In spite of the sparrows, there is already noticeable a large increase in the number of song birds wherever protective laws, reinforced by Audubon Societies and public sentiment have operated for even a few years. Sparrows drive no birds from England."

I know full well that the English sparrow's record is not all white. He is an untidy little buster, and he has been the subject of inquiry by the United States Government, and the statistics show him to be a heavy destroyer of grain, beans, fruit, etc., in certain localities. But what shall we say of the bobolinks that annually eat thousands of pounds of rice, and of the robins that often devastate cherry, olive and other fruit crops, to say nothing of the blue jays, blackbirds, crows *et al.*, all of whom enjoy fairly respectable reputations? It has sometimes only been possible to save the California olive crop from the hungry robins by the most prompt and vigorous action.*

* Farmers' Bul. 513, p. 7, U. S. Dept. of Agr.

These birds are not universally condemned, however, because of the local damage done to the olive crop. Neither are the bobolinks universally condemned because of the serious damage done every year in the rice fields of the south. On the contrary, the robin and the bobolink are two of our most beloved birds.

In some sections of the country, and at certain seasons, from fifty to sixty-five per cent of the English sparrow's diet consists of grain,* and in some states growing wheat and oat crops have been heavily damaged by these birds, but in most sections where grain constitutes a considerable portion of their food, it is waste grain, of no value to any one. No reason is perceived for universal condemnation of the English sparrow because of occasional local depredations.

A recent investigation made by the Bureau of Biological Survey, however, shows that in the west these birds are effective enemies of the alfalfa weevil, and that during the month of May, in the Salt Lake Valley, Utah, thirty-six per cent of their food consisted of alfalfa weevils, and about nineteen per cent caterpillars, and that later in the season, from July 1 to 15, thirty-five per cent consisted of grasshoppers. Furthermore, these sparrows have practically exterminated the measuring caterpillars from our cities, and they have been of more help than all other birds combined in gathering up the seeds of noxious weeds about yards and

* Bull. 107, U. S. Dept. Agr., p. 2.

lawns. Mr. E. R. Kalmbach, who contributes a Bulletin from the Biological Survey on the investigation referred to, sums up on the English sparrow as follows:

"Considering the various phases of the economic relation of the English Sparrow to the alfalfa weevil, it may safely be asserted that this bird is a most effective enemy of the pest. This is particularly true of nestling birds in May and June. In view, however, of *the ability of this bird to do serious damage* (not its *doing it*, be it observed!) *to standing grain*, and to take heavy toll from the farmers' chicken feed, *legal protection for the species cannot be advocated.*"*

We are making some progress! While legal protection is not advocated, the bird is no longer regarded as a useless "pest," as he was only two years before by Mr. Ned Dearborn, expert biologist of the Biological Survey:

"They are noisy, filthy and destructive. They drive native birds from villages and homesteads. Though they are occasionally valuable as destroyers of noxious insects, all things considered they do far more harm than good." †

As a matter of common sense and common justice to the bird, the English sparrow should be considered as purely a local question. Undoubt-

* Bull. 107, U. S. Dept. Agr., p. 56.

† Farmers' Bull. 493, U. S. Dept. Agr., p. 24.

edly in some country districts, on account of their numbers, they are very injurious to grain, and should be killed. The record made up by avowed enemies of the bird, however, shows that in most urban communities it does more good than harm.

The English sparrows are also *very common*,—which is always a misfortune for anything or anybody! Doubtless many people are prejudiced against them on that account. The beautiful dandelions are despised for the same reason, but Lowell has honored this “dear common flower” with one of the finest of nature poems.

English sparrow verses are as rare as the birds are common, and for that reason, and also because of its merit, I quote the whole of James J. Daly’s poem:

“The sparrow has no holiday gear,
Nor whistles a jolly stave;
But in romance no buccaneer
Has ever been so brave.

He scorns your threats and stays to scoff,
He challenges and usurps.
Does blustering Winter scare him off?
He tilts his head and chirps.

He meets the North’s artilleries
As cool as Bonaparte;
No hungry siege of frost can freeze
The courage in his heart.

While refugees take gentle cheer
 In lands of palm and spice,
He drudges in the trenches here
 With wings incased in ice.

Then when Spring starts her northern drive
 And Winter's long line reels,
The foppish refugees arrive
 Fresh from the far Antilles.

The oriole, that gay young spark,
 The thrush, swift, robin, wren,
The martin, and the meadowlark
 Come back to us again.

And fawning honors we must do
 Unto this dandy rout.
This debonair, soft-fluting crew
 Must drive the sparrow out!

The gable-angle, come what will,
 Must serve the martin's rest.
The elm-crutch near the window-sill
 Must hold the robin's nest.

The drooping maple-bough must sway
 For the oriole's silken ease.
Woe to the sparrow that says nay
 To our sublime decrees!

I do not like the sparrow's dress,
 It is as dull as dirt;
I do not like his quarrelsomeness;
 He's impudent and pert.

But as for me, he's free to hold
What's his by gallant fight.
No silver song or coat of gold
Shall blind me to his right."

Most of us are blinded to his rights by unthinking prejudice. He is entitled to a square deal, but he has not received it.

The English sparrows are our only constant daily household birds in winter, and we would sorely miss them if they were gone. While they sometimes appear quarrelsome among themselves, they are really friendly, sympathetic little gossips. One January day I found one in the snow beside the walk, with one of its wings injured. I stooped to pick it up, and as I was just closing my hand over it, it fluttered off. It tumbled down in the snow a few feet away, and I stopped to see what would happen. In a moment another sparrow flew down beside it in the snow, and hopped about with sympathetic concern, and soon several more joined them, all making as much fuss as a flock of crows. One of them flew into the road near by and picked up something in his bill, and then flew back to the wounded bird, and apparently dropped the material in the snow beside it.

The question of the usefulness of any bird depends upon whether we consider its general aesthetic and economic utility in nature, or merely its tendency under certain circumstances to destroy

what man in his vanity considers his exclusive property.

I have heard of a Massachusetts gentleman who preserves his cherry trees for the exclusive benefit of the robins. If they do not eat all the cherries, he takes what is left. He considers the fruit more valuable as food for the robins than for any other purpose. It all depends upon the point of view!

Mischievous birds that steal grain or fruit always incur the enmity of that class of conscientious people who cut down their fruit trees that the boys may not be tempted to break the eighth commandment! *

January is the month of typical winter birds. Some fall stragglers remain with us until December, and a few spring birds arrive as early as February, but January is the month of the real winter bird.

Some winters the birds seem quite abundant, but they are never so numerous that they may be considered commonplace. At this season

“* * * no plumèd throng
Charms the woods with song.”

Winter birds are always rare enough that a sight of one makes the pulse beat quicker.

Birds in winter frequently go about in flocks, in which will be found representatives of two or

* Wilson Flagg, *Birds & Seasons*, p. 375.

three species. Tree sparrows and juncos are often seen together, goldfinches and redpolls frequently associate with one another, and woodpeckers, nuthatches and chickadees sometimes feed in company. Sufficient food supply is the common anxiety of the birds in winter, and the flocking of the birds seems to indicate that all are taking advantage of the common search for food. A few of our summer residents, like the robins, bluebirds and cardinals, remain with us during the winter in neighborhoods where suitable food is to be found. If attractive feeding places are maintained, the first heavy snow will often bring one of our hidden summer favorites "out of the everywhere into the here," as if he had suddenly fallen from the clouds.

One very cold morning in December, following a heavy snow, a male robin was observed eating the suet tied to a limb of my cherry tree. As the temperature was below zero, he fluffed his feathers and squatted down over his feet, and seemed very cheerless and dispirited. I felt the sentiment expressed by Mr. Burroughs in his stanza to the winter bird:

"O cheery bird of winter cold,
I bless thy every feather;
Thy voice brings back dear boyhood days,
When we were gay together."

Thereafter during the winter the robin visited my feeding box many times, and we were sure

to see him after every snowstorm, when most of the available food in the neighborhood was covered up.

The winter was exceptionally cold, and there were several periods of high northwest winds, with sub-zero temperatures, but the robin was a fairly regular boarder at my pantry window ledge, proving again that food, and not temperature, is the controlling factor in fall migration.

The bird did not seem at all inconvenienced by ordinary winter weather, and usually appeared well fed and happy. He was quiet most of the time, but one morning, while perched in the cherry tree, I heard his familiar spring "*Chirp, Chirp!*" but in a rather disconsolate key. I answered him with a mimicking whistle, and he immediately became greatly excited, chirping loudly, and as I continued to return his call he jumped and twitched about among the branches, all aquiver with eager expectancy, uttering the alarm note frequently heard during the nesting season. This solitary straggler was doubtless very lonesome for his fellows in the south, and he was overjoyed for the moment, thinking he had found one of them. He shortly discovered the fraud and stopped chirping, in apparent disgust. I have often mimicked a robin's call in the summer, but have seldom been successful in getting any response from the bird, probably because the genuine robin calls were all around me, but this winter robin's response was so sudden as to startle me. The lordly

manner in which he walked up and down the feeding tray and pushed the sparrows aside, without so much as deigning to glance at them, showed pretty clearly that there was no very grave danger of the sparrows driving him away, as they are often accused of doing. The sparrows showed no signs of fright, and appeared to acknowledge the robin's superior rights, which he calmly accepted with becoming dignity, and even friendliness. One day during a cold winter rainstorm the robin and a number of sparrows perched side by side in friendly fashion on a telephone wire, under the protecting gable of the roof.

Long periods of severe weather and the resulting scarcity of food sometimes prove too much for those robins that winter in the northern portions of their range. Large numbers were killed off by the severe winter of 1895-6 in Tennessee and Kentucky, and for several years thereafter the robins were not so abundant in summer in the Central and Northern States.

Upon almost any country walk in January one may see a few crows, one or all of the three resident woodpeckers—hairy, downy and the red-head,—chickadees, nuthatches, juncos, tree sparrows and blue jays, and usually a goldfinch or two in sombre winter garb of gray, feeding upon the seeds of mullen or other weeds protruding through the snow. Song sparrows, snowflakes, Lapland longspurs and redpolls are less frequently seen.

Emerson describes a weed as a plant whose

virtues have not been discovered,—but one virtue of the dry winter weeds which almost justifies their existence is the supply of seeds they furnish to hundreds of these little winter birds.

The woodpeckers roost at night and during bad weather in holes in trees, and they may sometimes be observed in winter cleaning out old cavities for roosting purposes. The hairy and downy woodpeckers are the more common. They are similar in appearance, but the downy is at least two inches shorter, and his feathers have a fluffy, ruffled, downy appearance, from which he derives his name.

Downy is also more often seen outside the woods, and he is not so noisy and active as hairy.

Referring to the wide white mark along downy's black back, Thoreau remarked: "His cassock is open behind, showing his white robe."

Joel Benton puts two winter birds, the crow and chickadee, into his winter picture:

"When the crow has new concern,
And early sounds his raucous note;
And—where the late witch-hazels burn—
The squirrel from a chuckling throat

Tells that one larder's space is filled,
And tilts upon a towering tree;
And, valiant, quick, and keenly thrilled,
Up starts the tiny chickadee."

Because of the size, color, voice and abundance of the crow, he is perhaps the best known of all our birds. While he has many acquaintances, he has few friends. He has incurred the displeasure of the farmers by his fondness for corn, but in justice to the outlaw be it said that he seldom eats any corn except when it is sprouting in the fields. On the other hand, he is an efficient scavenger, and he consumes a large quantity of harmful weevils, cutworms, May beetles and grasshoppers, so that he is not so black inside as out! He is a merry madcap withal, who seems to enjoy his rakish reputation, and talks noisily about it to his fellows.

He is the American representative of the European rook. The rooks are protected in England on account of their service to agriculture, notwithstanding the mischief they do. Mr. Wilson Flagg calls attention to the difference in the attitude of America and some of the older countries with reference to the birds:

"The farmers of Europe, having learned by experience that without the aid of mischievous birds their crops would be sacrificed to the more destructive insect race, forgive them their trespasses as we forgive the trespasses of cats and dogs, who in the aggregate are vastly more destructive than birds. The respect shown to birds by any people seems to bear a certain ratio to the antiquity of the nation. Hence the sacredness with which they are regarded in Japan, where the population is so dense that the inhabitants would not consent

to divide the products of their fields with the feathered race unless their usefulness had been demonstrated.”*

During many years of persecution the crow has developed a cunning and sagacity that is remarkable. He seems to be able accurately to judge, upon the approach of any person, whether his intentions are hostile or friendly. He pays no particular attention to children or others aimlessly wandering about the woods, but he immediately becomes as wild as a hare when a hunter attempts to approach him. This wariness and cunning should be considered more of a virtue than a vice, however, because, surrounded by all sorts of perils, it has been necessary to his very existence.

While the crow has never been regarded as a handsome fellow, at close range he makes a very pleasing appearance in his glossy black plumage with its purple reflections. The poise of the head and the stately, graceful gait give him a grave and dignified appearance as he stalks about the fields.

Robert Burns Wilson makes him the subject of a graceful and befitting sonnet:

“Bold, amiable, ebon outlaw, grave and wise!
For many a good green year hast thou withstood—
By dangerous, planted field and haunted wood—
All the devices of thine enemies.
Gleaning thy grudged bread with watchful eyes
And self-relying soul. Come ill or good,

* *Birds & Seasons*, p. 379.

Blithe days, thou see'st, thou feathered Robin Hood!
Thou mak'st a jest of farm-land boundaries.
Take all thou may'st, and never count it crime
To rob the greatest robber of the earth;
Weak-visioned, dull, self-lauding man, whose worth
Is in his own esteem. Bide thou thy time;
Thou knowest far more of Nature's lore than he,
And her wise lap shall still provide for thee."

Our common nuthatches, both of which are permanent residents, are the white-breasted and the red-breasted. Both have characteristic notes, consisting of a nasal "*Yank! Yank!*" in an alto key, but the notes of the white-breast are decidedly the more vigorous, and he is a third larger than his cousin, the red-breast. Because of his wonderful acrobatic feats in running about under limbs and branches, and along tree trunks, head downward, the nuthatch has sometimes been called "Devil-down-head."

Maurice Thompson describes him thus:

"The busy nuthatch climbs his tree,
Around the great bole spirally,

Peeping into wrinkles gray,
Under ruffled lichens gay,

Lazily piping one sharp note
From his silver mailed throat."

When in his downward course he arrives near the base of a tree, he flies high into a neighboring

tree, and again heading earthward, proceeds in spirals round and round, ever moving downward, searching every crevice in the bark for the microscopic eggs and larvae of tree insects, upon which he feeds. Both species have long, sharp bills well suited for the careful search of the crannies in the rough bark which contain their food.

Edith M. Thomas has written an amusing description of the acrobatic powers of the nuthatch:

"Shrewd little haunter of woods all gray,
Whom I met on my walk of a winter day—
You're busy inspecting each cranny and hole
In the ragged bark of yon hickory bole;
You intent on your task and I on the law
Of your wonderful head and gymnastic claw!

The woodpecker well may despair of this feat—
Only the fly with you can compete!
So much is clear; but I fain would know
How you can so reckless and fearless go,
Head upward, head downward, all one to you,
Zenith and nadir the same in your view."

The black-capped chickadee, or titmouse, is a universal favorite. His tameness, quaint notes and sprightly ways make him very popular.

He is almost as skillful an acrobat as his winter friend, the nuthatch, as he

"Shows feats of his gymnastic play,
Head downward, clinging to the spray."

In temperament he is a curious mixture of friendliness and audacity. He seems utterly disdainful at times of any one who stops to observe him, showing him not the slightest attention. At other times he appears purposely friendly, hopping up close to the observer apparently from pure love of human companionship. He is so anxious every one should know him that he industriously repeats his own name, "*Chick-a-dee! Chick-a-dee-dee-dee!*"

This is usually the first sign of his presence in the neighborhood. He is so tiny that he would be easily overlooked if it were not for his cheery notes, which seldom fail to attract the most inattentive ear, although they are soft and ventriloquous in quality.

"Far distant sounds the hidden chickadee
Close at my side,"

is Lowell's accurate description.

In addition to these notes from which he derives his name, the chickadee sometimes utters two very plaintive notes somewhat resembling those of the pewee, though they are more cheerful and more distinctly marked. He is not a singing bird, but his notes are cheering and pleasant, and he utters them at all times of the year. I have watched these little birds many hours, both in summer and winter, and they have never appeared in the least timorous or irritated at my presence. Many times I have stood within easy reach of them as they

tripped about over and under leaves and branches, feeding, but have never yet had the good fortune to have one of them alight on my hand. Dr. Chapman tells of the delight which has come to him from such experiences:

"On two occasions chickadees have flown down and perched upon my hand. During the few seconds they remained there I became rigid with the emotion of this novel experience. It was a mark of confidence which seemed to initiate me into the ranks of woodland dwellers."*

They nest in old woodpecker holes, which they fill with the finest down. The tiny eggs are white, marked with beautiful cinnamon brown spots, and there are often as many as eight in a nest.

It is also said that chickadees sometimes make their own excavations, but I have never observed them doing this, and am of the opinion that it is rarely, if ever, done. Their tiny slender bills are adapted to picking out microscopic objects from crevices in the bark of trees, and not to boring holes.

I have seen these little birds on winter days, cheerily hopping about in zero temperature with the utmost unconcern, when almost all visible things in nature seemed paralyzed with the cold. The minute seeds and insects upon which they feed must constitute a fierce fuel for their little

* *Birds of Eastern North America*, p. 390.

engines to enable them to brave the rigors of our northern winters, apparently with no suffering or real inconvenience.

Emerson does homage to the brave little mite in these lines:

“Chic-chic-a-dee dee! saucy note
Out of sound heart and merry throat,
As if it said, ‘Good day, good sir!
Fine afternoon, old passenger!
Happy to meet you in these places,
Where January brings few faces.’

Here was this atom in full breath,
Hurling defiance at vast death;
This scrap of valor just for play
Fronts the north-wind in waist coat gray.

‘You pet! what dost here? and what for?
In these woods, thy small Labrador,
At this pinch, wee San Salvador!
What fire burns in that little chest
So frolic, stout and self-possesst?’ ”

And Trowbridge remembers him as a cheerful winter bird:

“But cheerily the chickadee
Singeth to me on fence and tree;
The snow sails round him as he sings,
White as the down of angels’ wings.”

The chickadee roosts at night in the soft lining of old nests, after the manner of the woodpeckers,

where he is safe and secure from the winter blasts. Other birds in winter resort to old nests for warmth and protection from the rigors of the weather. Goldfinches sometimes roost in old orioles' nests. Mr. Frank M. Woodruff, Curator of the Academy of Sciences, in Lincoln Park, Chicago, has an old oriole's nest, from which a dead goldfinch is suspended. After roosting in the nest he apparently hanged himself by flying out through a noose at the top of the nest.

Many holes about barns and outbuildings are used by all sorts of birds in winter for roosting purposes, but the birds are early risers, and their sleeping quarters are not often discovered.

I have even observed sparrows clustering about arc lights in the street at roosting time, evidently for the twofold purpose of securing protection from the winter winds, and warmth from the lights.

The northern shrike, or butcher-bird, sometimes spends the winter in this latitude. I knew of one that lived through a cold winter at Highland Park, Illinois, and waxed fat upon English sparrows, slain with deliberate cruelty and eaten with the evident appreciation of an epicure. This comely bird is a cannibal, who is no respecter of persons, and while some people excuse and even praise him for murdering the English sparrows, he also eats a good many fine song birds, for which all must condemn him. It is said that if the hunting is good and he has no difficulty in

killing plenty of birds, he eats only the brains, but if hunger presses he will eat the whole bird. By impaling the slaughtered birds upon thorns or barbs, he keeps a larder well stocked with dainties for his epicurean taste, to which he may resort in any emergency. Despite his bloody habits, the shrike is not properly a bird of prey. He has passerine feet, like all our small birds, and is unable to hold his prey in his claws while eating it, which is his real reason for impaling it upon thorns and barbs.

This bird is easily identified by his colors. The upper parts are gray, wings and tail black, marked with white. He is also easily known by the consternation caused by his appearance among a flock of sparrows. His flight is also characteristic, being steady and somewhat labored, with much flapping. He flies close to the ground until he nears his intended perch, when he turns suddenly upward and alights somewhat like a flicker.

Among other birds occasionally seen in winter are the kinglets, the brown creeper and the cedar waxwing, which we have elsewhere discussed.

With the exception of the birds and a few small animals, Nature closes up and goes indoors in January, and no signs of her outdoor life remain. Frogs bury themselves in mud and under leaf mold, and millions of insects, grubs and other small animals, stilled by the winter cold, are buried in trees and logs and under the ground, to be awakened in spring by the warm rays of

the ascending sun. Eggs and larvae of many species of insects are deposited in late summer and early fall, and lie dormant until the spring opening.

The terminal buds of the thornapple, poplar and other trees start to swell during the warm Indian Summer days of November, and then, before their protecting covering breaks, they are stopped by the frosts, where they remain through the winter, "patient, and awaiting the soft breath of Spring."

In January Nature's great family still lives, but its members are withdrawn from our view, and few venture forth before February or March, when the spring sun renews their motive power.

Although, as we have seen, January has its own birds, like the other months of the year, we are glad that, like Janus, it faces both ways, and while looking back upon the old, it also looks forward to the new, and opens the door to the new bird year. We cannot much regret its departure when we know it means the approach of the first spring birds. It must have been January when Riley wrote:

"Go Winter! Go thy ways! We want again
The twitter of the blue bird and the wren."

About the first of February one begins to long for the feathered refugees "fresh from the far Antilles," and to hear again their spring songs.

Alice Brown breathes the very soul of the bird lover at this season in these lines:

“My birds, come back! the hollow sky
Is weary for your note.
(Sweetthroat, come back! O liquid, mellow throat!)
Ere May's soft minions hereward fly,
Shame on ye, laggards, to deny
The brooding breast, the sun-bright eye,
The tawny, shining coat.”

FEBRUARY.

When first the pussy-willow shows
Her fairy muffs of gray,
While still amid the poplar tree
The blithe, familiar chickadee
His morning suet gratis gets,—
When first the consternating crows
Break on the winter-keen repose
Of February day
Their strident cawings,
Startling with Stygian silhouettes
The virgin snows
To wake, and with faint thawings,
Like speech half audible,
Murmur of spring, until we houslings feel—
Or dream we feel—the breath
Of blowing violets—* * *

—*Percy Mackaye.*

THE early days of winter bring with them a sense of rest and calm after the tumultuous joys and voluptuous beauties of summer. For the nature-lover, summer is packed with exhilaration, and after its emotional excesses the peace and quiet of early winter is a soothing influence to his tired nerves.

As autumn fades, and the frosts come, Nature's beautiful and interesting forms quietly retire for their season of rest, "awaiting the requiem of winter's snows."

"What says the world?
Winter's my rest;
After a revel—
Slumber is best."

But by the time February has come we begin to look forward to another debauch. Winter has outworn its welcome, and we have rested enough. We long for the life and stimulating joys of spring and summer.

Nature's army of reanimated things is gathering to drive grim fighting February from the field, and although He marshals all the scattering forces of Winter, they are never able to do more than cover His inevitable retreat. While He blusters and storms in His valiant efforts to save the frozen fortresses and crystal palaces of Winter from the advancing hosts of Spring, the high-ascending sun looks into His face, and, blinded by its new light, He slowly backs across the fields and woods into the receding north, leaving the ruins of Winter about Him.

Ethelwyn Wetherald pictures His overthrow in her lines "To February":

"Build high your white and dazzling palaces,
Strengthen your bridges, fortify your towers.
Storm with a loud and portentous lip.
And April with a fragmentary breeze,
And half a score of gentle golden hours,
Shall leave no trace of your stern workmanship!"

February having been driven into the north, the winds of March bring upon their tide the advance guard of our feathered friends from the south. February's chief claim to interest in the bird calendar is that it makes way for the season that

“* * * bears upon its wing
The swallows and the songs of spring.”

And yet, like all the months of the year, it has its own interesting birds. No bird seems more typical of the cold, gray, fitful days of February than the cold, gray, fitful owl! He blusters and he mopes, he storms and he sleeps, by turns. At times he is viciously and noisily aggressive,—and again he is characterized by a feline silence and softness of movement that is uncanny. How appropriate that he should choose February for mating and establishing his home!

With us the great horned owl and the barred owl nest in February. Once very plentiful, both species are now comparatively rare. The clearing away of the heavy timber in which they always prefer to nest has scattered them, and they are now to be found only in the more remote patches of deep woods, usually along the rivers or larger streams.

The great horned owl is called by Nuttall the “eagle of the night, the king of the nocturnal tribe of American birds.” He is the largest of all the owls, measuring sometimes twenty-five inches in

length, with a wing spread of three feet. He has large and conspicuous ear tufts, from which he derives his name. Like many of the owls, his plumage is variable. It is mottled black, and various shades of brown, buff and tawny. He has a white band around his throat, like a collar, and usually a white stripe down the breast. He has the yellow eyes common to his race.

Some years ago, in Northern Indiana, during the last week of February, I discovered the nest of a great horned owl in an abandoned red-tailed hawk's nest, some ninety feet from the ground. I had observed the hawks at this nest during the previous spring, and as I was walking through the woods on a dull February day, the nest loomed large before me in the naked trees, and I looked at it with my glass, to see if there were any signs of the hawks returning and repairing the old nest. I immediately noticed something which very much resembled the ear tufts of a large owl protruding over the bulky nest. I approached the tree and hammered on the trunk, but there was no movement about the nest. Looking around under the nest, among the dead leaves, I found fragments of *aegagropila*, or balls of fine hair and bones.

The regurgitation of the hair and bones of mice, rabbits and other animals eaten by owls often furnishes a helpful clew to one searching for their nests. Usually quantities of this material may be found on the ground about any tree inhabited by owls, and as the birds are very retir-

ing by day, and difficult to see, and often nest, as well as roost, in hollow trees, this regurgitated material is one of the safest and surest guides to the bird's retreat.

I therefore concluded the old hawk's nest was occupied by owls. It was a difficult climb, and the nest was well out on a long upper limb, but after half an hour's work I pulled up alongside. Not until I raised up beside the nest and looked into it did the female leave the nest. She looked immense as she softly floated off, soaring down to a lower perch in an adjoining tree. There was one round white egg in the nest. The eggs of the great horned owl are nearly spherical, and thin shelled. When seen in a dark cavity in a hollow tree, in shape and color they remind one of large turtle eggs. While pulling myself up to a more comfortable position beside the nest, the owl noiselessly flew back into the nest tree, about twenty-five feet from the nest, and back and a little above my head. I did not for the moment realize that this was her first strategic move in a plan of attack she was blinking out as best she could under the handicap of daylight. The day, however, was dull and dark, which may in part account for her subsequent villainous activity. Fortunately I had thrown my main climbing strap around two small branches which supported one side of the large nest, and was partly resting against a limb and partly against the strap. I looked over my shoulder to see what the owl was doing, and noticed

the male owl perched beside her. As it was difficult for me to turn about far enough to watch them, I decided to move around the nest a short distance, where I might observe them without effort. Almost the very instant that I turned back to the nest to carry out this plan the unexpected assault was made. I was struck a violent blow across my right shoulder and neck, and my cap was torn from my head. Had I not been strapped to the tree I would have fallen ninety feet to the ground. I was so astonished at this sudden onslaught that for a moment I could not realize what had happened. Neither owl was to be seen. I almost immediately started for the safe and friendly sod, and strange to say saw nothing more of the owls that day. I found my cap on the ground with an ugly tear on the right side where I had been struck. I was very fortunate not to have had my face badly lacerated. I have since read of similar attacks by great horned owls upon persons molesting nests where severe injuries have been inflicted by the bird's talons.

They fly so noiselessly and so rapidly, that they usually strike before they are seen, and an angry bird of this size and speed with talons extended crashing into a person is no insignificant assailant. Indeed, this owl has been not inappropriately called the "tiger among birds."

I frequently saw the owls about this nest during that spring but needless to say I did not again attempt to molest them! They raised their brood

of young owlets and fed them huge quantities of mice, rats, rabbits, birds, etc. The following season they were gone somewhere into the dense forest.

Ever since that early experience I have entertained a very wholesome respect for the great horned owl. Truly he is the Eagle of the night and the King of nocturnal birds. One of the acknowledged classics among bird poems, is "The Owl," by Bryan Waller Procter (Barry Cornwall, *pseud.*):

"In the hollow tree, in the old gray tower,
The spectral Owl doth dwell;
Dull, hated, despised in the sunshine hour,
But at dusk he's abroad and well!
Not a bird of the forest e'er mates with him;
All mock him outright, by day;
But at night, when the woods grow still and dim,
The boldest will shrink away.
O, when the night falls, and roosts the fowl,
Then, then, is the reign of the Horned Owl!

* * * * *

So, when the night falls, and dogs do howl,
Sing, Hol for the reign of the Horned Owl!
We know not alway
Who are Kings by day;
But the King of the night is the bold brown Owl."

He is the "Hoot Owl" of our childhood days. His usual call is a loud, deep-toned "*whōō, hōō-*

hōō-hōō, whōōō, whōōō!" all the syllables being on the same note.

The barred owl is usually a little later in nesting, but he often begins to mate in February. This species is four or five inches shorter than the great horned owl, and is also distinguished by absence of "horns" or ear-tufts and by its black eyes. I once found a nest of this owl in a shallow cavity in the fork of an elm only about ten feet from the ground. An unusual experience led to the discovery of the nest. I found an unbroken barred owl's egg at the foot of the tree, among some chips on the ground. The eggs of this species are dirty white, and the shells are unusually thick and heavy, indeed they are so hard that it is difficult to drill holes in them for the insertion of a blow pipe. How this egg could have fallen ten feet to the ground, however, without breaking, is a mystery. After discovering it, I noticed some regurgitated hair massed together with small bones in tell-tale fashion at the foot of the tree, and soon located the nest above in the decayed crotch.

The barred owl is also called "Hoot Owl." His call is similar to that of the great horned owl, but it is more sonorous and more varied in tone.

Among the other owls more or less common in this latitude may be mentioned the American long-eared owl, the short-eared owl, the saw-whet owl and the little screech owl. None of these is now common, except in certain localities.

The screech owl is probably the most abundant. This little owl is one of the smallest of the owl family, measuring about an inch shorter than the robin. It often makes its home near dwellings. Old apple orchards are favorite retreats, where numerous cavities in the trees offer a secure refuge from the hosts of small birds which constantly attack them if they show themselves by day. They are strictly nocturnal like the two species already discussed, and when darkness falls their tremulous, wailing whistle may often be heard, especially upon moonlight nights. Stupid by day, they appear very differently when the western sky fades and night falls. Dr. Chapman inquires: "Is any bird more thoroughly awake than a hungry screech owl? With ear-tufts erected and his great, round eyes opened to the utmost, he is the picture of alertness." *

I have often heard them whistle in the trees beside my village home; and a friend recently told me of one that came into his sleeping porch and perching on the post of a bed, uttered its tremulous cry in the semi-darkness, frightening his daughter almost into hysterics. In plumage they have two phases, one reddish brown and one gray. These color phases are not dependent upon age, sex or season, and both phases are often found in the young of a single brood.

John Vance Cheney's "Little Warm Owl" must have been a February screech owl:

* *Birds of Eastern North America*, p. 219.

“Darkness, grow and blacker fold,
Rattle, hail, and blast be bold.
 Old trees, blow together
 In the cold, roaring weather;
Louder you howl
 The jollier he,
 In his nest in the breast of the hollow tree,
The warm little owl, the little warm owl.
Play up, wild pipes i’ the forest bare,
Gallop, goblins, down the air.
 Ride, hug to the back
 Of the scudding rack;
Fiercer it scowl
 The jollier he,
 In his nest in the breast of the hollow tree,
The warm little owl, the little warm owl.”

All the owls named are nocturnal in their habits, except the short-eared owl, which feeds and moves about by day. It is between the barred owl and the screech owl in size, and frequents the grassy marshes, instead of the deep woods. The plumage is brown and buff, and the ear-tufts are very short, and the eyes the usual yellow.

The long-eared owl is a little smaller, has very conspicuous ear-tufts, an inch or more in length, and the brown and buff plumage is mottled with white. Unlike its short-eared cousin, this little owl is rarely found in open places. Thick willow swamps or heavy coniferous trees furnish favorite daytime roosts. The bird is tame and will not fly until closely approached. When conscious of

being observed it draws itself up in rigid fashion until it more nearly resembles a dead limb than a live bird.

The saw-whet or Acadian is the smallest of our owls, being two inches shorter than a robin. Its small size and absence of ears at once distinguish it from our other owls. It is now very rare in this latitude. The notes of this species are harsh and rasping, somewhat resembling the noise made by filing a saw,—hence its name.

The owls are among the most interesting of our birds. Their resemblance to the feline race has been frequently noted. Like the cat they see best by twilight or moonlight, feed at night and spend most of the day in sleep. Their ear-tufts resemble the ears of a cat. Watchfulness and stealth are characteristics of both, and both feed upon mice, rats and birds.

The disk of flat feathers about the eyes, the hooked, nose-shaped bill, the big blinking eyes and the upright position produce a grave and dignified appearance which is almost human. It was doubtless because of this that the owl was chosen by the ancients as the emblem of wisdom and consecrated to Minerva.

Another peculiarity that marks his stiff and stately bearing is his inability to turn his eyes in their sockets. The eyes are fixed, and to look from one point to another he is obliged to turn his head, which he does in a slow, mechanical manner that is as interesting as it is unusual.

The sense of hearing is very acute in all birds, but the owls excel all other birds in this faculty, and being practically noiseless in flight, they are usually able to pounce upon any prey which their very acute hearing reveals to them in the darkness.

The fluffy wings of the owls, with their rounded, downy edges, furnish one of the many interesting examples of adaptation to be found among the birds. Obligated to hunt their food at night by stealth, they have acquired a flying apparatus that is practically noiseless, no matter how rapid the flight. The woodcock, also a night feeder, has no such peculiar structure of the wing feathers, because it obtains its food by probing into the ground with its long bill, and takes none of it on the wing. "Nature makes no useless provisions for her creatures."

When to all these unusual characteristics of the owl there is added the weird, almost human voice it is small wonder that the ancients regarded the bird with awe and superstitious dread.

Another interesting February bird which furnishes a remarkable instance of early breeding, is the prairie horned lark, sometimes called shore lark, because in winter it frequently resorts to the shores of lakes and rivers for feeding. The horned larks (of which there are two species) are the only American representatives of the large and famous lark family. The prairie horned lark resembles the vesper sparrow somewhat in appearance. Its distinguishing marks are black ear-tufts extending

back from either side of the head, and black patches at the front of the crown, from the base of the bill to the eye, and extending down to the side of the throat, and a black band across the upper breast. One of the surest means of identification is the persistent habit of remaining on the ground. They are strictly terrestrial birds and never perch in a tree. Also, they always run and never hop. They are frequently seen running along country roads. High roads between unfenced fields are almost certain to yield a few horned larks. I know a number of country roads where I usually may be sure of finding some of these birds almost any day in the year. When flushed they often utter a rather inconspicuous whistle, as they dart off in their irregular flight over the adjoining fields. The chief song of the bird, a mincing warble, is sometimes poured forth as it tumbles about in its irregular flight and sometimes while perched on some clod in the fields. This habit of singing in flight is characteristic of the European Skylark, of which George Sylvester Viereck writes:

"Sweet is the high road
When the skylarks call"

as though he might be speaking of one of our shore larks on a country road.

Some years ago I found a nest of this bird the last week in February. It was placed in a tuft of grass, along a railroad right of way. The ground

was frozen hard, and the grass filled with light snow. The nest contained three eggs. How the bird can keep the eggs warm and bring them to incubation under such circumstances is a mystery,—and the little larks must be a hardy lot to withstand the rough weather of late February and early March.

These birds generally may be seen the year round, but in February when birds are scarce, they begin mating, and may then be found in considerable numbers in their accustomed haunts.

Being the first of all our small perching birds to nest, they have an unusual claim upon our interest and affections.

Among the first spring birds that sometimes return to us as early as February is the bluebird. Sarah Piatt, after hearing one of the European larks sing, compares its song with the velvety, chuckling gurgle of our bluebird, very much to the advantage of the latter:

“If this be all, for which I’ve listened long,
Oh, spirit of the dew!
You did not sing to Shelley such a song
As Shelley sung to you.

* * * * *

Oh, Lark of Europe, downward fluttering near,
Like some spent leaf at best,
You’d never sing again if you could hear
My Blue-Bird of the West!”

February begins the mating and nesting season which is to last with some of our birds through to September. It also brings the first of our birds back from the South, so that the claim upon our affections of the old gray, fitful month is large and urgent. It stimulates our first interest in the returning season of birds and flowers, which will reach its flood tide of happiness by April.

Let us dismiss old Winter, and usher in bluff March, with these lines by William Gilmore Simms:

"Now are the winds about us in their glee,
Tossing the slender tree;
Whirling the sands about his furious car,
March cometh from afar;
Breaks the sealed magic of old winter's dreams,
And rends his glassy streams;
Chafing with potent airs, he fiercely takes
Their fetters from the lakes,
And with a power by queenly Spring supplied
Wakens the slumbering tide.

With a wild love he seeks young Summer's charms
And clasps her in his arms;
Lifting his shield between, he drives away
Old Winter from his prey;
The ancient tyrant whom he boldly braves
Goes howling to his caves;
And, to his northern realm compelled to fly,
Yields up the victory;
Melted are all his bands, o'erthrown his towers,
And March comes, bringing flowers."

MARCH.

Why chidest thou the tardy spring?
The hardy bunting does not chide;
The blackbirds make the maples ring
With social cheer and jubilee;
The red-wing flutes his *o-ka-lee*,
The robins know the melting snow;
The sparrow meek, prophetic-eyed,
Her nest beside the snow-drift weaves,
Secure the osier yet will hide
Her callow brood in mantling leaves,—
And thou, by science all undone,
Why only must thy reason fail
To see the southing of the sun?

The world rolls round,—mistrust it not,—
Befalls again what once befell;
All things return, both sphere and mote,
And I shall hear my blue bird's note,
And dream the dream of Auburn dell."

—Emerson.

ARCH brings the first hesitating hints of spring. Weary winter has retreated into the north, but Spring has not yet come, though now and then she peeps out between the alternating warm thunder showers and wintry snow storms of this capricious season. Riley sums it up as:

"Jest rain and snow! and rain again!
And dribble! drip! and blow!
Then snow! and thaw! and slush! and then—
Some more rain and snow!"

Percy Mackaye says March

“* * * bows before the beauty of the year,
And spurns presumptuous Winter with his heel.”

Indeed the chief charm of bluff March is that he comes to announce the beauties of the awakening year, which we are so eager to glimpse behind him that we sometimes grow impatient and wish he would cease his blustering ceremony and move on. We are interested in what is, largely because of our eagerness for what is to be. No other days in the round year so touch the imagination and fill the soul with longing.

The season is one of suggestion. March is dotted with delightful intimations of the joyous days of which April brings definite promise. A new cycle of life is about to begin, and we feel the first stirring of the primal impulses felt by all of Nature's children.

“For now the Heavenly Power
Makes all things new,
And thaws the cold and fills
The flower with dew.”

It is the time when new life begins to flow in our veins and through the arteries of the trees, and we feel that life is good!

Bryant welcomes March as the first spring month:

"Oh, passing few are they who speak,
Wild stormy month! in praise of thee;
Yet, though thy winds are loud and bleak,
Thou art a welcome month to me.

For thou, to northern lands again,
The glad and glorious sun dost bring,
And thou hast joined the gentle train
And wear'st the gentle name of spring."

John Vance Cheney hails the month with enthusiasm:

"The pussy-willow and the hazel know,
The blue bird and the robin, what rings true;
I trust to such, and let the whiners go.
Bravo! bluff March; I swing my hat to you!"

The bluebirds and the robins come back to us with the pussy-willows. The few that we see in winter are doubtless summer residents of Canada, and those that come back to us in February and March, our summer residents, have wintered farther south.

The robin that was an almost daily visitor at my feeding box during the winter has not been seen for nearly a month. He has doubtless been journeying by easy stages, according to the robin method of migration, to his northern nesting site. The new robins which have arrived from the south have not yet come down out of the sky and the tree tops, and sought our intimate companionship.

They are still few in numbers, and give the impression of straggling transients on the way, or new arrivals that are yet without a permanent abiding place. Through force of habit in migrating, they alight in the tree tops, and in early March are seldom seen elsewhere. By April our own robins will come down out of the sky, into the green grass, and run about with us in that intimate association which lasts through the summer, and makes them dear to our hearts.

March is also the month for erecting suitable nesting homes as invitations to the returning bluebirds to stop and make their summer homes with us. If the ubiquitous sparrows are driven away and not permitted to preempt the house before the bluebirds find it the latter will establish themselves, and thereafter defend their domicile against all comers.

Maurice Thompson has inscribed these lines to "An Early Bluebird":

"Leap to the highest height of spring,
And trill thy sweetest note,
Bird of the heavenly plumes and twinkling wing
And silver-toned throat!

Sing, while the maple's deepest root
Thrills with a pulse of fire
That lights its buds. Blow, blow thy tender flute,
Thy reed of rich desire!

* * * * *

Thou first sky-dipped spring-bud of song,
Whose heavenly ecstasy
Foretells the May while yet March winds are strong,
Fresh faith appears with thee!"

The red-winged black birds come back in March and sing from the bare willows along the swollen streams, and the fox sparrow passes as early as March on his way back to the north woods. He seldom sings on the way his song of exceptional sweetness, but he permits us to admire his bright spring coat, and there is no more beautiful brown in the world than his back. The song, swamp and field sparrows, of our own summer colony, also begin returning this month. The mourning dove which did not leave us until November returns before the first of April. Among other March arrivals may be mentioned the meadowlark, whose early spring call from the bare fields is dynamic, and the cowbird, the phoebe and a few snipe and plovers. Of the latter, the killdeer is one of the most typical of March birds. His vigorous, darting flight over the dun, windy fields, with his clarion call "*kill-deer! kill-deer! kill-deer!*" seem part and parcel of the early spring landscape. This bird always speaks his own name, like the chickadee, and he is easily identified by his familiar call. He is most frequently found in meadows and pastures in the vicinity of water. At all times noisy and querulous, in the breeding season nothing can exceed the killdeer's exuberance. The chorus

of their incessant cries "*kill-deer! kill-deer! kill-deer!*" as they fly about overhead, is more inspiring than the music of a fife corps.

Their eggs, laid on the ground with little or no nest, are of peculiar shape. They are pointed at the smaller end, and very wide across the larger end, giving them the appearance of a toy top. It is said that eggs of this shape, which are peculiar to ground-nesting and shore birds, are examples of protective adaptation, and that they have gradually taken on this top shape, as an advantageous conformation to their environment, and therefore as a means of protection. Eggs of this shape laid on the sand or rocks will not roll off the scant nest into the water, or be easily blown away by the wind, but will roll and pivot about in a circle, around the small end of the egg.

Many similar examples of protective adaptation are to be found in the eggs, plumage and physical characteristics of birds. The eggs of woodpeckers and owls laid in dark holes in trees are white, while the eggs of ground nesting birds are almost without exception so marked with protective coloring as to make it difficult to see them in the grass or leaves. Birds like whippoorwills, grouse, quail and woodcock, as well as their eggs and young are so marked that it is next to impossible to distinguish them from their natural surroundings.

I once flushed a whippoorwill from her nest, and looked for several seconds directly at her eggs laid on the ground among some dead leaves and old

bark before I was really able to visualize them and detach them from their sombre protective background.

The ptarmigans, the grouse of Labrador and the Arctics, wear gray and brown plumage in summer to conform to the colors of the ground, and in winter they put on a coat as white as the snow which drifts about them.

In winter the toes of the ruffed grouse are provided with a curious fringe of strong, horny points which operate as tiny snowshoes, which always fall away as soon as spring comes. Birds like the sparrows and grosbeaks have acquired heavy stout bills which enable them to break the seeds which constitute their chief diet. The flycatchers have hair bristles at the base of the bill, and the upper mandible closes over the lower, scissors fashion, so that snapping flying insects is made comparatively simple. The tail shafts of such birds as swifts and woodpeckers that brace themselves with their tails while perching are very stiff and strong and sometimes extend beyond the vanes.

The long slender bill of the humming bird is admirably adapted to probing the perfumed depths of the tiniest calyx. The nuthatches and chickadees have long slender bills with which to search the tiny crevices of the bark where the minute tree insects and larvae upon which they feed are to be found. The woodpeckers have veritable little trip-hammers with which to bore for grubs and make excavations for their nests.

All of these and countless other instances of adaptation have doubtless been acquired through many years of struggle for existence.

March and April always bring to mind my youthful days of collecting, when the hawks of a small area in Northeastern Indiana must have found it extremely discouraging to attempt to raise their brood of small *accipiters* and *buteos*. I do not recall these youthful days when my ardor for collecting was at its height with feelings altogether pleasurable, because I remember all too well that I plundered a good many nests, and collected a good many sets of hawk eggs of various kinds. The Cooper, red-shouldered and red-tailed hawks were the most abundant as they are still in this latitude, and of these species I collected many sets during March and April, in 1888 and 1889.

But let me say a word or two in defense of collecting. It is of course true that one of the worst of the birds' enemies is that type of professional egg collector, who, disgracing the respected title of oologist, concentrates his purpose upon getting as many sets of eggs together as possible, even to securing several sets of the same species, for the mere vulgar satisfaction of possessing more birds' eggs than any other man on earth. He has a lust for ownership, and collects eggs like some other men collect dollars, just for the selfish pleasure of gathering as many as possible, and parting with as few as possible.

Elbert Hubbard once said that one of the inci-

dents of collecting any one thing, was that in pursuit of such pastime one casually collected other things. The man who concentrates exclusively on dollars collects also vanity, envy, dissatisfaction, a distorted vision, a distempered spirit and ennui! The professional collector of eggs for profit fares but little better, to say nothing of the cruelty and desecration of which he is guilty.

But all men are, by nature, collectors, whether it be of postage stamps or old armor, or just dollars. The important thing is that the collecting be wisely diverse and that it be done naturally and with an unselfish, open spirit, born of the wholesome longing to collect and an innocent joy in the collection, rather than of the selfish wish merely to out-rival some other collector. There is no vanity, jealousy or guile in the heart of the true collector of say, old books, clocks, prints, or of birds' eggs, because his collecting keeps sweet his spirit, renews his youth, stirs his imagination, and prevents his soul from becoming sordid. His mind remains child-like and ingenuous. All the poets have been collectors,—(and all true collectors are poets,)—and all of them have loved the birds, and sung about them.

But to return to the hawks. Although quite a young lad, during this time I climbed many a tall tree, usually sycamore or elm, sometimes to the height of seventy or eighty feet, to secure the eggs of the red-shouldered or red-tailed hawk. The red-shouldered were the most numerous, the red-

tailed next, and occasional nests of the Cooper, sharp-shinned and marsh hawks were found. These are still the common resident hawks in this latitude. The beautiful little sparrow hawk, was also abundant, as it is now, nesting in natural cavities in old trees in the woods. The eggs of this little hawk are as beautifully mottled with various shades of brown as the birds themselves. Usually the red-tailed and red-shouldered hawks nest high up in the largest trees in the woods, building a large nest of coarse sticks. I distinctly remember one nest of the red-shouldered hawk ninety feet from the ground, in a giant sycamore hanging almost over a railroad track which cut through the woods.

The red-shouldered and red-tailed hawks, the "chicken hawks" of the farmers, are much abused and greatly misunderstood birds. The ordinary farmer usually has very erroneous ideas as to the damage done by some of the more common birds with which he is familiar. Several years ago I knew of a farmer living near Chicago who succeeded in driving away a colony of black-crowned night herons nesting in a small swamp oak grove on his farm. He killed a hundred or more birds, under the mistaken belief that they were damaging his crops. Had he taken the trouble to inquire, he would have found that the birds were really a great benefit and advantage to him, because they do no harm to crops but on the contrary they eat many grasshoppers and coleopterous insects and beetles,

all of which are very damaging to growing crops. It is only after these birds have been long teased and plundered that they finally abandon the old station where the colony has made its home, but this farmer was devilishly persistent, and the birds finally left for parts unknown, to return no more. The colony has not been heard of in this area since.

The crow as we have elsewhere observed is another bird which is misjudged by the farmer. The popular idea among farmers is that he eats up much of the newly planted seed corn, and he therefore gets blamed for all the empty hills in the corn-field. As a matter of fact, the crow will seldom eat the dry kernels of seed corn, unless it is broken up, either by his own beak or by other means, and he seldom takes the trouble to break it up himself if other food is available. The fact is that being a very omnivorous bird, he by no means depends upon corn or other grain to gratify his appetite, but eats carrion, fish, birds' eggs, and many injurious insects and worms. He is unquestionably more beneficial than harmful.

The *buteos*, including the red-shouldered and red-tailed hawks, commonly called "chicken hawks," destroy very few chicks. They feed chiefly upon crop-destroying rodents. There are about seventy-three species and sub-species of hawks in America, and only six of these are injurious, yet in the popular mind every hawk that appears in the sky is a "chicken hawk" deserving death. Only two of these six are at all common

throughout this latitude, the Cooper hawk (*accipiter Cooperii*), and the sharp-shinned hawk (*accipiter velox*). The *accipiters* who do all the damage, are treacherous and stealthy, like most villains, whereas the *buteos*, who are blamed for all their rascalities, innocently soar above in the open blue of heaven, wholly unconscious of all the popular prejudice against them.

A Cooper hawk, whose flight is as swift and unerring as any arrow, will suddenly swoop down out of nowhere and harry a poultry yard and kill three or four chicks in a flash and get away without being seen, and in the meantime a red-tailed or red-shouldered hawk, entirely innocent of any wrong doing or evil intentions, will soar into view, and down comes the vindictive shot gun, and down comes the innocent bird, murdered in cold blood for the crimes of another.

The *buteos* on the western plains are fond of prairie dogs, and some years ago the farmers and ranchmen, possessed of the common prejudice against these birds, killed large numbers of them, and the prairie dogs soon became so numerous as to be a very serious pest, and at the request of these same farmers and ranchmen, United States Biological Survey officials endeavored to find some means to abate the plague, and one of the first recommendations made was that the hawks be protected. This is another striking illustration of the unwisdom of interfering with nature's laws.

The hawks, as a family, are admirable birds, and

with a very few exceptions deserve protection. Even as to the injurious *accipiters*, the bird lover finds it difficult to withhold a sneaking admiration for the race, for cannibals and murderers though they be, their lives are typical of the freedom of the fields, and the wildness of the woodlands.

Upon the occasion of one of my youthful hawk trips, to which I have referred, I observed a turkey vulture perched upon the top of a broken and decayed trunk of a very large tree, which had been broken off squarely some twenty feet from the ground. I had noticed two buzzards in the neighborhood several times, and though I never had before seen or heard of their nesting farther north than the latitude of Central Indiana or Illinois, I suspected there might be a nest in the cavity at the top of the tall trunk, if there were such a cavity, of which I was yet uncertain. I planned to visit the spot again soon for the purpose of definitely ascertaining if there were a nest in the old tree, or elsewhere in the vicinity. Within a few days I returned, properly equipped with climbers, harness and hand axe, and quietly approached the old tree, but no buzzard was in sight. I pounded noisily on the trunk with my axe, and to my great joy the female turkey vulture flew out of the cavity at the top. It was a straight stem, easily climbed, and, greatly excited, I immediately began the ascent. I soon reached the top where I found that the trunk of the old tree at that point was a mere shell, the cavity being over two feet in diameter. I

reached down into the dark hole the full length of my arm, and touched—nothing. I had no means with me of making an artificial light, and I was therefore unable to discern anything in the deep shadows of the cavity, or determine how far down below the top of the stub the nest was located. I therefore descended some three or four feet hammering on the outside as I went to locate by the deadened sound the bottom of the cavity where I might expect to find the nest. Having settled upon the spot with as much certainty as possible under the circumstances I chopped a hole through the hard, dead trunk, a laborious task, only to find that I was immediately below the nest. I was therefore compelled to move up about twelve inches, and cut another hole, but I was finally rewarded by securing a set of two fine eggs, beautifully mottled with heavy dark brown and purple markings. This set of eggs was taken in 1889 in Northeastern Indiana, at about the latitude of Chicago, and I know of no recent record of this bird nesting in this latitude.

The buzzards are larger than the largest hawks, having a wing spread of at least four feet. They are not beautiful in plumage, and their bloody scavenger habits sometimes makes them appear repulsive. In bearing and flight, however, they are noble birds, and when on outstretched, immovable wings they soar far overhead in graceful circles, they are inspiring pictures of grace and majesty.

Mary A. Townsend dedicates these lines to the graceful flight of the turkey buzzard:

"Aloft on horizontal wing,
We saw the buzzard rock and swing;
That sturdy sailor of the air
Whose agile pinions have a grace
That prouder plumes might proudly wear,
And claim it for a Kinglier race."

The spirit of the bird lover glows with ecstasy

"When March just ready to depart, begins
To soften into April",—

for 'tis then the birds' year really begins. At this happy time the birds seem to ride in on every southern breeze, and to fall from the heavens with every spring shower, and the world once again is a riot of color and song.

Let March pass therefore, with these lines by Robert Burns Wilson:

"The braggart March stood in the season's door
With his broad shoulders blocking up the way,
Shaking the snow-flakes from the cloak he wore,
And from the fringes of his kirtle gray.

Near by him April stood with tearful face,

With violets in her hands, and in her hair
Pale, wild anemones; the fragrant lace

Half-parted from her breast, which seemed like fair
Down-tinted mountain snow, smooth-drifted there.

She on the blusterer's arm laid one white hand,
But he would none of her soft blandishment,
Yet did she plead with tears none might withstand,
For even the fiercest hearts at last relent.
And he, at last, in ruffian tenderness,
With one swift, crushing kiss her lips did greet,
Ah, poor starved heart!—for that one rude caress,
She cast her violets underneath his feet."

COPYRIGHT ACKNOWLEDGMENT

The author and publisher are indebted to the Houghton Mifflin Company for special permission to use selections from the works of John Vance Cheney, Lowell, Stedman, Charles G. D. Roberts, Emerson, Holmes, Browning, Edgar Fawcett, John Burroughs, William Vaughn Moody, Longfellow, Anna Boynton Averill, Edith M. Thomas, William Dean Howells, Thoreau, Lloyd Mifflin, Trowbridge, A. West, Maurice Thompson, Joseph Howe and Percy Mackaye; and to D. Appleton & Company for selections from Bryant's poems, "March" and "To a Waterfowl" and for selections from Dr. Frank M. Chapman's "Birds of Eastern North America"; to the Macmillan Company for selections from the poems of Maud Keary and Percy Mackaye; to Little, Brown & Company for a poem by Christina Rossetti; to J. B. Lippincott Company for a selection from "The Lonely-Bird," by Harrison Smith Morris; for a number of selections from poems by Riley, from the Biographical Edition of the complete works of James Whitcomb Riley, copyright 1913, and by special permission of the publishers, The Bobbs-Merrill Company; to Charles Scribner's Sons for selections from "The Builders and Other Poems" and "Music and Other Poems" and "God of the Open Air," by Henry Van Dyke, and for the poem "January," by L. H. Bailey; to Small, Maynard & Company for selections from the poems of Bliss Carman and John B. Tabb; to Doubleday, Page & Company for the poem "Little Brothers of the Ground," from "The Man With the Hoe," by Edwin Markham, and for selections from "Far Quests," by Cale Young Rice; to Stewart & Kidd Company for the poem "My Catbird," by William H. Veale; to the Yale University Press for a selection from "A Page's Road Song," by Alex. William Percy; to Mitchell Kennerley for the poem "Phœbe," by Witter Bynner; to The Baker & Taylor Company for a selection from "June Rapture," by Angela Morgan; and to Dr. Frank M. Chapman for a quotation from "Bird Lore."

Thanks are also due to the authors already named and to the following authors for the use of selections from their poems: Ethelwyn Wetherald, Irene Elder Morton, Joyce Kilmer, Louis Untermeyer, Thos. S. Jones, Jr., Wm. W. Caldwell, Catherine Van D. Harkee, Charles Shepard Parke, Katherine Tynan, Ina D. Coolbrith, Nellie Hart Woodworth, Charlotte Smith, George Murray, Robert Bridges, Joel Benton, Mary Augusta Mason, Marjorie Pickthall, Mary Howitt, Thomas Hill, Hamlin Garland, Marion Franklin Ham, P. McArthur, Adelaide Proctor, Ellen P. Allerton, S. Frances Harrison, C. P. Cleveland, Henry Abbey, Edna Dean Proctor, Amos Bryant Russell, Frances Mace, Mary Isabella Forsythe, Sarah Orne Jewett, James J. Daly, Alice Brown, George S. Vireck, Sarah Piatt, Wm. Gilmore Simms, Rose Terry Cook, Mary A. Townsend; and to Angela Morgan for quotation from the poem "June Rapture" in "The Hour Has Struck and Other Poems."

INDEX

A

Acadian flycatcher	65
Adaptation, as protection	270
Altricials	214
American crossbill	196
American goldfinch	105, 117
American redstart	151
April	9
August	125

B

Bird architecture	218
Bird feeding	200
Birds, origin of	213
Bird study	24, 208, 223
Blackbird, crow	129
Blackbird, red-winged	107, 129, 269
Blackbird, yellow-headed	106
Black-crowned night heron	274
Bluebird	108, 234, 262
Bluebird, early spring	12
Blue jay	33, 129, 236
Bobolink	131
Bobolink's nests	135
Bobwhite	138
Bonaparte's gull	193

Brown creeper	246
Bronze grackle	129
Bunting, indigo	105, 118
Butcher bird	245
Buzzard	277

C

Cardinal	99, 105, 204
Carolina wren	113
Catbird	82
Cedar-bird	32, 106, 109, 246
Cedar waxwing	32, 106, 109, 246
Chewink	35
Chickadee	236, 237, 241
Collecting eggs	272
Cooper hawk	276
Cowbird	94, 269
Creeper, brown	246
Crossbill	196
Crow	236, 237, 238, 275
Cuckoo, black-billed	70
Cuckoo, yellow-billed	68, 96, 106

D

December	207
Dickcissel	137

E

Eggs, adaptation of	270
English sparrow	205, 225
Evening grosbeak	196, 198

F

February	249
Feeding birds	200
Flicker, calls of	30
Flocking, in winter	233
Flocking of birds	127, 130
Flycatchers	62
Flycatcher, great-crested	67
Food for birds	204
Franklin's gull	194

G

Goldfinch	105, 116, 236
Goldfinch, in winter	236
Goldfinch, roosting	245
Grackle	129
Great-crested flycatcher	67
Grinnell's water thrush	37
Grosbeak, cardinal	99, 105, 204
Grosbeak, evening	196, 198
Grosbeak, pine	196
Grosbeak, rose-breasted	105, 122
Grosbeak, sociable	218
Grouse, ruffed	271
Gull, Bonaparte's	193
Gull, Franklin's	194
Gull, herring	193
Gull, ring-billed	193

H

Hawks	272
Hawks, migrating	163

Hawks, prejudices against	275
Heron, black-crowned night	274
Herring gull	193
Homing instinct	178
Hornbill	218
Horned lark	260
House wren	113
Humming bird	100, 149, 150

I

Indigo bunting	105, 118
--------------------------	----------

J

January	223
Jay, blue	33
July	103
Junco	40, 154, 236
June	75

K

Killdeer	269
Kingbird	66
Kingfisher	96
Kinglets	38, 157, 246

L

Lapland longspur	236
Lark, horned	260
Lighthouses, as attractions to birds	179
Long-billed marsh wren	114

M

Man, place and purpose in nature	45
March	265
Marsh wren, long-billed	114
Martin, purple	91
Mating, for life or season	215
May	43
Meadowlark	36, 269
Migrants	153, 189
Migration	49, 145, 171, 177
Migration, by day	148
Migration, by night	147
Migration, long distance	173
Migration, methods of	162
Migration, of animals	180
Molting process	161
Mourning dove	188, 269

N

Nest building, robin	15
Nest, of chickadee	243
Nesting	105
Nests, exposed in winter	209
Nests, structure of	210
Nests, of bobolinks	135
Nests, of humming bird	219
Nests, of wood pewee	219
Nighthawk	177
November	183
Nuthatches, in winter	236, 240
Nuthatch, red-breasted	158, 240
Nuthatch, white-breasted	158, 240

O

October	169
Oriole, Baltimore	58
Oriole, orchard	151
Oriole, orchard, nest of	218
Oven-bird, nest of	219
Owl, barred	251, 256
Owl characteristics	259, 260
Owl, great horned	251
Owl, long-eared	256, 258
Owl, saw-whet	256, 259
Owl, screech	256
Owl, short-eared	256, 258

P

Pewee	62
Phoebe	60, 92, 269
Pine grosbeak	196
Plover, golden	161
Poems (see poets)	
Poets:	

Abbey, Henry	186
Allerton, Ellen P.	170
Arnold, George	145
Arnold, Matthew	1
Averill, Anna Boynton	92
Bailey, L. H.	223
Benton, Joel	120, 237
Bridges, Robert	43, 117
Brown, Alice	248
Browning, Robert	51, 74

Brownlow, Edward Burrough	142
Bryant, William Cullen	50, 266
Burns, Robert	185, 201
Burroughs, John	234
Caldwell, Wm. W.	17
Carman, Bliss	9, 169
Cheney, John Vance	11, 71, 72, 102, 222, 258, 267
Cleaveland, C. L.	185
Coleridge, Hartley	183
Cook, Rose Terry	209
Coolbrith, Ina D.	36
Cooper, George	171
Daly, James J.	230
Fawcett, Edgar	58
Forsyth, Mary Isabella	205
Garland, Hamlin	139
Ham, Marion Franklin	139
Harkee, Katherine Van D.	18
Harrison, S. Frances	184
Hill, Thomas	132
Holmes, Oliver Wendell	41
Hood, Thomas	184
Howe, Joseph	210
Howells, Wm. Dean	125
Howitt, Mary	130
Hunt, Leigh	76
Iris, Scharmél	107
Jackson, Helen Hunt	132
Jewett, Sarah Orne	220
Jones, Thos. S.	12
Keats, John	118, 207
Kilmer, Joyce	13
Longfellow, Henry W.	79, 147, 197, 206

Lowell, Jas. Russell	17
59, 60, 71, 102, 104, 108, 129, 136, 163, 181, 209, 242	
McArthur, P.	146
McManus, S. M.	32
McLachlan, Alexander	136
Mackaye, Percy	249, 266
Mace, Frances Laughton	187
Malone, Walter	184
Markham, Edwin	47
Mason, Mary Augusta	121
Mifflin, Lloyd	103
Moody, Wm. Vaughn	77
Morgan, Angela	78
Morris, Harrison Smith	28
Morton, Irene Elder	75
Murray, George	101
Parke, Charles Shepard	21
Percy, Alex. Wm.	10
Piatt, Sarah	262
Pickthall, Marjorie	128
Proctor, Edna Dean	186
Rice, Cale Young	148, 195, 199
Riley, Jas. Whitcomb	34, 39, 79, 141, 166, 187, 247, 265
Roberts, Charles G. D.	18
Rossetti, Christina	45
Russell, Amos Bryant	186
Sangster, Margaret	146
Shakespeare, Wm.	96
Smith, Charlotte	92
Spencer, Edmund	43, 76
Stedman, Edmund C.	17
Stevenson, Robt. L.	194
Tabb, John Banister	101

Tennyson, Alfred	107
Thomas, Edith.	99, 241
Thompson, Maurice	240, 268
Townsend, Mary A.	279
Trowbridge, John T.	62, 139, 244
Tynan, Katherine	24
Untermeyer, Louis	12
Van Dyke, Henry	28, 46, 97
Venable, Wm. Henry	84
Viereck, Geo. Sylvester	261
Virgil	165
Wetherald, Ethelwyn	119, 250
Whitney, Adeline D. T.	77
Willis, Nathaniel P.	188
Wilson, Robert Burns	239, 262, 279
Woodworth, Nellie Hart	72
Wordsworth, Wm.	16, 68, 164, 220
Prairie horned lark	260
Precocials	214
Protective coloring	270
Ptarmigans	271

Q

Quail	138
-----------------	-----

R

Redpoll	196, 198, 236
Redstart, American	151
Red-shouldered hawk	273
Red-tailed hawk	273
Red-winged black bird	107, 269
Ring-billed gull	193

Robin, early spring	12, 267
Robin, feeding	18
Robin, in winter	234
Robin, nesting on window-ledge	13
Rooks	238
Roosting of birds in winter	245

S

Sanderling	175
Sandpiper, red-backed	189
Sandpiper, semipalmated	176
Sandpiper, spotted	87
Sand-snipe	175
Scarlet tanager	105, 120, 161
September	145
Sharp-shinned hawk	276
Shore lark	260
Shrike, Northern	245
Snipe, Wilson's (jack)	190
Snowflake	236
Sociable grosbeak	218
Songs of birds, purpose of	19
Sparrow hawk	274
Sparrow, English	205, 225
Sparrow, field	269
Sparrow, fox	156, 269
Sparrow, lark	99
Sparrow, song	27, 236, 269
Sparrow, swamp	269
Sparrow, vesper	99
Sparrow, white-throated	28, 156
Sparrow, white-throated, song of	28
Swallow, bank	89, 91

Swallow, barn	91
Swallow, cliff	91
Swallow, rough-winged	91
Swallow, tree	91, 236
Swallows, migrating	165
Swift, chimney	165
Swifts, migrating	167

T

Tailor bird	218
Tanager, scarlet	105, 120, 161
Tern, Arctic, migration of	174
Tern, black	112
Tern, Caspian	174
Tern, common	174
Tern, Forster's	174
Thrush, gray-cheeked	29
Thrush, hermit	71, 187
Thrush, olive-backed	29
Thrush, Wilson's	29
Thrush, wood	70
Thrushes, migrating	29, 159
Towhee	35
Traill's flycatcher	66
Turkey buzzard (vulture)	277

V

Veery	29
Vireo, red-eyed	123
Vireo, warbling	124
Vireo, yellow-breasted	124
Vulture	277

W

Warblers:

Bay-breasted	73
Black and white	73
Blackburnian	73
Blackpoll	73
Black-throated blue	73
Black-throated green	73
Blue-winged	73
Canadian	73
Cape May	73
Cerulean	73
Chat, yellow-breasted	73
Chestnut-sided	73
Connecticut	73
Golden-winged	73
Grinnell's water thrush	37
Magnolia	73
Maryland yellow-throat	73
Mourning	73
Myrtle	73
Oven-bird	219
Palm	73
Pine	73
Prothonotary	73
Redstart	73, 151
Tennessee	73
Water thrush	73
Wilson's	73
Yellow	73
Warblers, migrants	73, 160
Water thrush	37

Waxwings, cedar	32, 246
White-winged crossbill	196
Whippoorwill	141, 142
Wild canary	116
Winter, animals retire in	246
Winter birds	196, 205, 234, 236
Winter feeding	200
Winter houses	205
Winter wren	113
Woodpecker, downy	98, 237
Woodpecker, hairy	237
Woodpecker, red-headed	108
Woodpeckers, in winter	236, 237
Wood pewee	62
Wood thrush	70
Wren, Carolina	113
Wren, house	113
Wren, long-billed marsh	114
Wren, winter	113

MAN'S HIGH ADVENTURE

SAMUEL A. HARPER

¶ To become aware of the infinite cosmos, of the relation of his small planet thereto, of his common origin and kinship with everything that shines and lives, of his participation in the creative processes of evolution;

¶ And to direct the great forces of nature, of himself and of his society to the ultimate, supreme good of the human race, — this is

MAN'S HIGH ADVENTURE

Samuel A. Harper
Copyright, 1931

By Samuel A. Harper