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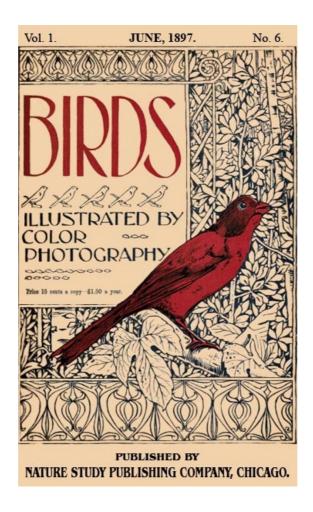
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Transcriber's Notes:

- 1) Cover added.
- 2) A couple of unusual spellings in the "ads" have been left as printed.





January to June, 1897

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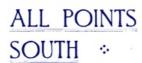
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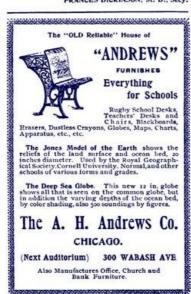
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BIRDS

ILLUSTRATED BY COLOR PHOTOGRAPHY

A MONTHLY SERIAL

KNOWLEDGE OF BIRD-LIFE

"With cheerful hop from perch to spray, They sport along the meads; In social bliss together stray, Where love or fancy leads.

Through spring's gay scenes each happy pair Their fluttering joys pursue; Its various charms and produce share, Forever kind and true."

CHICAGO, U. S. A.

Nature Study Publishing Company, Publishers 1896

PREFACE.

T has become a universal custom to obtain and preserve the likenesses of one's friends. Photographs are the most popular form of these likenesses, as they give the true exterior outlines and appearance, (except coloring) of the subjects. But how much more popular and useful does photography become, when it can be used as a means of securing plates from which to print photographs in a regular printing press, and, what is more astonishing and delightful, to produce the REAL COLORS of nature as shown in the subject, no matter how brilliant or varied.

We quote from the December number of the Ladies' Home Journal:

"An excellent suggestion was recently made by the Department of Agriculture at Washington that the public schools of the country shall have a new holiday, to be known as Bird Day. Three cities have already adopted the suggestion, and it is likely that others will quickly follow. Of course, Bird Day will differ from its successful predecessor, Arbor Day. We can plant trees but not birds. It is suggested that Bird Day take the form of bird exhibitions, of bird exercises, of bird studies—any form of entertainment, in fact, which will bring children closer to their little brethren of the air, and in more intelligent sympathy with their life and ways. There is a wonderful story in bird life, and but few of our children know it. Few of our elders do, for that matter. A whole day of a year can well and profitably be given over to the birds. Than such study, nothing can be more interesting. The cultivation of an intimate acquaintanceship with our feathered friends is a source of genuine pleasure. We are under greater obligations to the birds than we dream of. Without them the world would be more barren than we imagine. Consequently, we have some duties which we owe them. What these duties are only a few of us know or have ever taken the trouble to find out. Our children should not be allowed to grow to maturity without this knowledge. The more they know of the birds the better men and women they will be. We can hardly encourage such studies too much."

Of all animated nature, birds are the most beautiful in coloring, most graceful in form and action, swiftest in motion and most perfect emblems of freedom.

They are withal, very intelligent and have many remarkable traits, so that their habits and characteristics make a delightful study for all lovers of nature. In view of the facts, we feel that we are doing a useful work for the young, and one that will be appreciated by progressive parents, in placing within the easy possession of children in the homes these beautiful photographs of birds.

The text is prepared with the view of giving the children as clear an idea as possible, of haunts, habits, characteristics and such other information as will lead them to love

BIRDS.

ILLUSTRATED BY COLOR PHOTOGRAPHY.

Vol. I. JUNE, 1897. No. 6.

BIRD SONG.

"I cannot love the man who doth not love, As men love light, the song of happy birds."

T is indeed fitting that the great poets have ever been the best interpreters of the songs of birds. In many of the plays of Shakespeare, especially where the scene is laid in the primeval forest, his most delicious bits of fancy are inspired by the flitting throng. Wordsworth and Tennyson, and many of the minor English poets, are pervaded with bird notes, and Shelley's masterpiece, The Skylark, will long survive his greater and more ambitious poems. Our own poet, Cranch, has left one immortal stanza, and Bryant, and Longfellow, and Lowell, and Whittier, and Emerson have written enough of poetic melody, the direct inspiration of the feathered inhabitants of the woods, to fill a good-sized volume. In prose, no one has said finer things than Thoreau, who probed nature with a deeper ken than any of his contemporaries. He is to be read, and read.

But just what meaning should be attached to a bird's notes—some of which are "the least disagreeable of noises"—will probably never be discovered. They do seem to express almost every feeling of which the human heart is capable. We wonder if the Mocking Bird understands what all these notes mean. He is so fine an imitator that it is hard to believe he is not doing more than mimicking the notes of other birds, but rather that he really does mock them with a sort of defiant sarcasm. He banters them less, perhaps, than the Cat Bird, but one would naturally expect all other birds to fly at him with vengeful purpose. But perhaps the birds are not so sensitive as their human brothers, who do not always look upon imitation as the highest flattery.

A gentleman who kept a note-book, describes one of the matinee performances of the Mocker, which he attended by creeping under a tent curtain. He sat at the foot of a tree on the top of which the bird was perched unconscious of his presence. The Mocker gave one of the notes of the Guinea-hen, a fine imitation of the Cardinal, or Red Bird, an exact reproduction of the note of the Phoebe, and some of the difficult notes of the Yellow-breasted Chat. "Now I hear a young chicken peeping. Now the Carolina Wren sings, 'cheerily, cheerily, cheerily.' Now a small bird is shrilling with a fine insect tone. A Flicker, a Wood-pewee, and a Phoebe follow in quick succession. Then a Tufted Titmouse squeals. To display his versatility, he gives a dull performance which couples the 'go-back' of the Guinea fowl with the plaint of the Wood-pewee, two widely diverse vocal sounds. With all the performance there is such perfect self-reliance and consciousness of superior ability that one feels that the singer has but to choose what bird he will imitate next."

Nor does the plaintive, melancholy note of the Robin, that "pious" bird, altogether express his character. He has so many lovely traits, according to his biographers, that we accept him unhesitatingly as a truly good bird. Didn't he once upon a time tenderly cover with leaves certain poor little wanderers? Isn't he called "The Bird of the Morning?" And evening as well, for you can hear his sad voice long after the sun has himself retired.

The poet Coleridge claims the credit of first using the Owl's cry in poetry, and his musical note *Tu-whit*, *tu-who!* has made him a favorite with the poets. Tennyson has fancifully played upon it in his little "Songs to the Owl," the last stanza of which runs:

"I would mock thy chant anew; But I cannot mimic it, Not a whit of thy tuhoo, Thee to woo to thy tuwhit, Thee to woo to thy tuwhit.

With a lengthen'd loud halloo, Tuwhoo, tuwhit, tuwhit, tuhoo-o-o."

But Coleridge was not correct in his claim to precedence in the use of the Owl's cry, for Shakespeare preceded him, and Tennyson's "First Song to the Owl" is modeled after that at the end of "Love's Labor Lost:"

"When roasted crabs hiss in the bowl, Then nightly sings the staring Owl, Tu-who; Tu-whit, tu-who, a merry note."

In references to birds, Tennyson is the most felicitous of all poets and the exquisite swallow-song in "The Princess" is especially recommended to the reader's perusal.

Birds undoubtedly sing for the same reasons that inspire to utterance all the animated creatures in the universe. Insects sing and bees, crickets, locusts, and mosquitos. Frogs sing, and mice, monkeys, and woodchucks. We have recently heard even an English Sparrow do something better than chipper; some very pretty notes escaped him, perchance, because his heart was overflowing with love-thoughts, and he was very merry, knowing that his affection was reciprocated. The elevated railway stations, about whose eaves the ugly, hastily built nests protrude everywhere, furnish ample explanation of his reasons for singing.

Birds are more musical at certain times of the day as well as at certain seasons of the year. During the hour between dawn and sunrise occurs the grand concert of the feathered folk. There are no concerts during the day—only individual songs. After sunset there seems to be an effort to renew the chorus, but it cannot be compared to the morning concert when they are practically undisturbed by man.

Birds sing because they are happy. Bradford Torrey has given with much felicity his opinion on the subject, as follows:

"I recall a Cardinal Grosbeak, whom I heard several years ago, on the bank of the Potomac river. An old soldier had taken me to visit the Great Falls, and as we were clambering over the rocks this Grosbeak began to sing; and soon, without any hint from me, and without knowing who the invisible musician was, my companion remarked upon the uncommon beauty of the song. The Cardinal is always a great singer, having a voice which, as European writers say, is almost equal to the Nightingale's; but in this case the more stirring, martial quality of the strain had given place to an exquisite mellowness, as if it were, what I have no doubt it was,

A Song of Love."
—C. C. Marble.

[TO BE CONTINUED.]



YELLOW-THROATED VIREO.

From col. F. M. Woodruff.

THE YELLOW-THROATED VIREO.

HE popular name of this species of an attractive family is Yellow Throated Greenlet, and our young readers will find much pleasure in watching its pretty movements and listening to its really delightful song whenever they visit the places where it loves to spend the happy hours of summer. In some respects it is the most remarkable of all the species of the family found in the United States. "The Birds of Illinois," a book that may be profitably studied by the young naturalist, states that it is decidedly the finest singer, has the loudest notes of admonition and reproof, and is the handsomest in plumage, and hence the more attractive to the student.

A recognized observer says he has found it only in the woods, and mostly in the luxuriant forests of the bottom lands. The writer's experience accords with that of Audubon and Wilson, the best authorities in their day, but the habits of birds vary greatly with locality, and in other parts of the country, notably in New England, it is very familiar, delighting in the companionship of man. It breeds in eastern North America, and winters in Florida, Cuba and Central America.

The Vireo makes a very deep nest, suspended by its upper edge, between the forks of a horizontal branch. The eggs are white, generally with a few reddish brown blotches. All authorities agree as to the great beauty of the nest, though they differ as to its exact location. It is a woodland bird, loving tall trees and running water, "haunting the same places as the Solitary Vireo." During migration the Yellow-throat is seen in orchards and in the trees along side-walks and lawns, mingling his golden colors with the rich green of June leaves.

The Vireos, or Greenlets, are like the Warblers in appearance and habits. We have no birds, says Torrey, that are more unsparing of their music; they sing from morning till night, and—some of them, at least—continue theirs till the very end of the season. The song of the Yellow-throat is rather too monotonous and persistent. It is hard sometimes not to get out of patience with its ceasless and noisy iteration of its simple tune; especially if you are doing your utmost to catch the notes of some rarer and more refined songster. This is true also of some other birds, whose occasional silence would add much to their attractiveness.

THE MOCKING BIRD.

Some bright morning this month, you may hear a Robin's song from a large tree near by. A Red Bird answers him and then the Oriole chimes in. I can see you looking around to find the birds that sing so sweetly. All this time a gay bird sits among the green leaves and laughs at you as you try to find three birds when only one is there.

It is the Mocking Bird or Mocker, and it is he who has been fooling you with his song. Nature has given him lots of music and gifted him with the power of imitating the songs of other birds and sounds of other animals.

He is certainly the sweetest of our song birds. The English Nightingale alone is his rival. I think, however, if our Mocker could hear the Nightingale's song, he could learn it.

The Mocking Bird is another of our Thrushes. By this time you have surely made up your minds that the Thrushes are sweet singers.

The Mocker seems to take delight in fooling people. One gentleman while sitting on his porch heard what he thought to be a young bird in distress. He went in the direction of the sound and soon heard the same cry behind him. He turned and went back toward the porch, when he heard it in another direction. Soon he found out that Mr. Mocking Bird had been fooling him, and was flying about from shrub to shrub making that sound.

His nest is carelessly made of almost anything he can find. The small, bluish-green eggs are much like the Catbird's eggs.

Little Mocking Birds look very much like the young of other Thrushes, and do not become Mockers like their parents, until they are full grown.

Which one of the other Thrushes that you have seen in BIRDS does the Mocking Bird resemble?

He is the only Thrush that sings while on the wing. All of the others sing only while perching.



AMERICAN MOCKING BIRD.

From col. F. M. Woodruff.

Frank-hearted hostess of the field and wood, Gipsy, whose roof is every spreading tree, June is the pearl of our New England year, Still a surprisal, though expected long, Her coming startles. Long she lies in wait, Makes many a feint, peeps forth, draws coyly back, Then, from some southern ambush in the sky, With one great gush of blossoms storms the world. A week ago the Sparrow was divine; The Bluebird, shifting his light load of song From post to post along the cheerless fence, Was as a rhymer ere the poet came; But now, O rapture! sunshine winged and voiced, Pipe blown through by the warm, wild breath of the West, Shepherding his soft droves of fleecy cloud, Gladness of woods, skies, waters, all in one, The Bobolink has come, and, like the soul Of the sweet season vocal in a bird, Gurgles in ecstasy we know not what Save June! Dear June! Now God be praised for June.

—Lowell.



BLACK-CROWNED NIGHT HERON. From col. Chi. Acad. Sciences.

THE BLACK-CROWNED NIGHT HERON.



HAT a beautiful creature this is! A mounted specimen requires, like the Snowy Owl, the greatest care and a dust tight glass case to preserve its beauty. Dr. Coues' account of it should be read by those who are interested in the science of ornithology. It is a common bird in the United States and British Provinces, being migratory and resident in the south. Heronries, sometimes of vast extent, to which

they return year after year, are their breeding places. Each nest contains three or four eggs of a pale, sea-green color. Observe the peculiar plumes, sometimes two, in this case three, which spring from the back of the head. These usually lie close together in one bundle, but are often blown apart by the wind in the form of streamers. This Heron derives its name from its habits, as it is usually seen flying at night, or in the early evening, when it utters a sonorous cry of quaw or quawk. It is often called Quawk or Qua-Bird.

On the return of the Black-Crowned Night Heron in April, he promptly takes possession of his former home, which is likely to be the most solitary and deeply shaded part of a cedar swamp. Groves of swamp oak in retired and water covered places, are also sometimes chosen, and the males often select tall trees on the bank of the river to roost upon during the day. About the beginning of twilight they direct their flight toward the marshes, uttering in a hoarse and hollow tone, the sound *qua*. At this hour all the nurseries in the swamps are emptied of their occupants, who disperse about the marshes along the ditches and river shore in search of food. Some of these nesting places have been occupied every spring and summer for many years by nearly a hundred pair of Herons. In places where the cedars have been cut down and removed the Herons merely move to another part of the swamp, not seeming greatly disturbed thereby; but when attacked and plundered they have been known to remove from an ancient home in a body to some unknown place.

The Heron's nest is plain enough, being built of sticks. On entering the swamp in the neighborhood of one of the heronries the noise of the old and young birds equals that made by a band of Indians in conflict. The instant an intruder is discovered, the entire flock silently rises in the air and removes to the tops of the trees in another part of the woods, while sentries of eight or ten birds make occasional circuits of inspection.

The young Herons climb to the tops of the highest trees, but do not attempt to fly. While it is probable these birds do not see well by day, they possess an exquisite facility of hearing, which renders it almost impossible to approach their nesting places without discovery. Hawks hover over the nests, making an occasional sweep among the young, and the Bald Eagle has been seen to cast a hungry eye upon them.

The male and female can hardly be distinguished. Both have the plumes, but there is a slight difference in size.

The food of the Night Heron, or Qua-Bird, is chiefly fish, and his two interesting traits are tireless watchfulness and great appetite. He digests his food with such rapidity that however much he may eat, he is always ready to eat again; hence he is little benefited by what he does eat, and is ever in appearance in the same half-starved state, whether food is abundant or scarce.

THE RING-BILLED GULL.

HE Ring-billed Gull is a common species throughout eastern North America, breeding throughout the northern tier of the United States, whose northern border is the limit of its summer home. As a rule in winter it is found in Illinois and south to the Gulf of Mexico. It is an exceedingly voracious bird, continually skimming over the surface of the water in search of its finny prey, and often following shoals of fish to great distances. The birds congregate in large numbers at their breeding places, which are rocky islands or headlands in the ocean. Most of the families of Gulls are somewhat migratory, visiting northern regions in summer to rear their young. The following lines give with remarkable fidelity the wing habits and movements of this tireless bird:

"On nimble wing the gull Sweeps booming by, intent to cull Voracious, from the billows' breast, Marked far away, his destined feast. Behold him now, deep plunging, dip His sunny pinion's sable tip In the green wave; now highly skim With wheeling flight the water's brim; Wave in blue sky his silver sail Aloft, and frolic with the gale, Or sink again his breast to lave, And float upon the foaming wave. Oft o'er his form your eyes may roam, Nor know him from the feathery foam, Nor 'mid the rolling waves, your ear On yelling blast his clamor hear."

This Gull lives principally on fish, but also greedily devours insects. He also picks up small animals or animal substances with which he meets, and, like the vulture, devours them even in a putrid condition. He walks well and quickly, swims bouyantly, lying in the water like an air bubble, and dives with facility, but to no great depth.

As the breeding time approaches the Gulls begin to assemble in flocks, uniting to form a numerous host. Even upon our own shores their nesting places are often occupied by many hundred pairs, whilst further north they congregate in countless multitudes. They literally cover the rocks on which their nests are placed, the brooding parents pressing against each other.

Wilson says that the Gull, when riding bouyantly upon the waves and weaving a

sportive dance, is employed by the poets as an emblem of purity, or as an accessory to the horrors of a storm, by his shrieks and wild piercing cries. In his habits he is the vulture of the ocean, while in grace of motion and beauty of plumage he is one of the most attractive of the splendid denizens of the ocean and lakes.

The Ring-billed Gull's nest varies with localities. Where there is grass and sea weed, these are carefully heaped together, but where these fail the nest is of scanty material. Two to four large oval eggs of brownish green or greenish brown, spotted with grey and brown, are hatched in three or four weeks, the young appearing in a thick covering of speckled down. If born on the ledge of a high rock, the chicks remain there until their wings enable them to leave it, but if they come from the shell on the sand of the beach they trot about like little chickens. During the first few days they are fed with half-digested food from the parents' crops, and then with freshly caught fish.

The Gull rarely flies alone, though occasionally one is seen far away from the water soaring in majestic solitude above the tall buildings of the city.



RING-BILLED GULL.

From col. Chi. Acad. Sciences.

THE MOCKING BIRD.

HE Mocking Bird is regarded as the chief of songsters, for in addition to his remarkable powers of imitation, he is without a rival in variety of notes. The Brown Thrasher is thought by many to have a sweeter song, and one equally vigorous, but there is a bold brilliancy in the performance of the Mocker that is peculiarly his own, and which has made him *par excellence* the forest extemporizer of vocal melody. About this of course there will always be a difference of opinion, as in the case of the human melodists.

So well known are the habits and characteristics of the Mocking Bird that nearly all that could be written about him would be but a repetition of what has been previously said. In Illinois, as in many other states, its distribution is very irregular, its absence from some localities which seem in every way suited being very difficult to account for. Thus, according to "Birds of Illinois," while one or two pairs breed in the outskirts of Mount Carmel nearly every season, it is nowhere in that vicinity a common bird. A few miles further north, however, it has been found almost abundant. On one occasion, during a three mile drive from town, six males were seen and heard singing along the roadside. Mr. H. K. Coale says that he saw a mocking bird in Stark county, Indiana, sixty miles southeast of Chicago, January 1, 1884; that Mr. Green Smith had met with it at Kensington Station, Illinois, and that several have been observed in the parks and door-yards of Chicago. In the extreme southern portion of the state the species is abundant, and is resident through the year.

The Mocking Bird does not properly belong among the birds of the middle or eastern states, but as there are many records of its nesting in these latitudes it is thought to

be safe to include it. Mrs. Osgood Wright states that individuals have often been seen in the city parks of the east, one having lived in Central Park, New York city, late into the winter, throughout a cold and extreme season. They have reared their young as far north as Arlington, near Boston, where they are noted, however, as rare summer residents. Dr. J. A. Allen, editor of *The Auk*, notes that they occasionally nest in the Connecticut Valley.

The Mocking Bird has a habit of singing and fluttering in the middle of the night, and in different individuals the song varies, as is noted of many birds, particularly canaries. The song is a natural love song, a rich dreamy melody. The mocking song is imitative of the notes of all the birds of field, forest, and garden, broken into fragments.

The Mocker's nest is loosely made of leaves and grass, rags, feathers, etc., plain and comfortable. It is never far from the ground. The eggs are four to six, bluish green, spattered with shades of brown.

Wilson's description of the Mocking Bird's song will probably never be surpassed: "With expanded wings and tail glistening with white, and the bouyant gayety of his action arresting the eye, as his song does most irresistably the ear, he sweeps around with enthusiastic ecstasy, and mounts and descends as his song swells or dies away. And he often deceives the sportsman, and sends him in search of birds that are not perhaps within miles of him, but whose notes he exactly imitates."

Very useful is he, eating large spiders and grasshoppers, and the destructive cottonworm.

THE LOGGERHEAD SHRIKE.



RAMBLER in the fields and woodlands during early spring or the latter part of autumn is often surprised at finding insects, grasshoppers, dragon flies, beetles of all kinds, and even larger game, mice, and small birds, impaled on twigs and thorns. This is apparently cruel sport, he observes, if he is unacquainted with the Butcher Bird and his habits, and he at once attributes it to the wanton sport of idle children who

have not been led to say,

With hearts to love, with eyes to see, With ears to hear their minstrelsy; Through us no harm, by deed or word, Shall ever come to any bird.

If he will look about him, however, the real author of this mischief will soon be detected as he appears with other unfortunate little creatures, which he requires to sustain his own life and that of his nestlings. The offender he finds to be the Shrike of the northern United States, most properly named the Butcher Bird. Like all tyrants he is fierce and brave only in the presence of creatures weaker than himself, and cowers and screams with terror if he sees a falcon. And yet, despite this cruel proceeding, which is an implanted instinct like that of the dog which buries bones he never seeks again, there are few more useful birds than the Shrike. In the summer he lives on insects, ninety-eight per cent. of his food for July and August consisting of insects, mainly grasshoppers; and in winter, when insects are scarce, mice form a very large proportion of his food.

The Butcher Bird has a very agreeable song, which is soft and musical, and he often shows cleverness as a mocker of other birds. He has been taught to whistle parts of tunes, and is as readily tamed as any of our domestic songsters.

The nest is usually found on the outer limbs of trees, often from fifteen to thirty feet from the ground. It is made of long strips of the inner bark of bass-wood, strengthened on the sides with a few dry twigs, stems, and roots, and lined with fine grasses. The eggs are often six in number, of a yellowish or clayey-white, blotched and marbled with dashes of purple, light brown, and purplish gray. Pretty eggs to study.

Readers of BIRDS who are interested in eggs do not need to disturb the mothers on their nests in order to see and study them. In all the great museums specimens of the eggs of nearly all birds are displayed in cases, and accurately colored plates have been made and published by the Smithsonian Institution and others. The Chicago Academy of Sciences has a fine collection of eggs. Many persons imagine that these institutions engage in cruel slaughter of birds in order to collect eggs and nests. This, of course, is not true, only the fewest number being taken, and with the exclusive object of placing before the people, not for their amusement but rather for their instruction, specimens of birds and animals which shall serve for their identification in forest and field.

The Loggerhead Shrike and nest shown in this number were taken under the direction of Mr. F. M. Woodruff, at Worth, Ill., about fourteen miles from Chicago. The nest was in a corner of an old hedge of Osage Orange, and about eight feet from the ground. He says in the *Osprey* that it took considerable time and patience to build up a platform of fence boards and old boxes to enable the photographer to do his work. The half-eaten body of a young garter snake was found about midway between the upper surface of the nest and the limb above, where it had been hung up for future use.



LOGGERHEAD SHRIKE.

From col. Chi. Acad. Sciences.

THE BALTIMORE ORIOLE.



ALTIMORE Orioles are inhabitants of the whole of North America, from Canada to Mexico. They enter Louisiana as soon as spring commences there. The name of Baltimore Oriole has been given it, because its colors of black and orange are those of the family arms of Lord Baltimore, to whom Maryland formerly belonged. Tradition has it that George Calvert, the first Baron Baltimore, worn out and discouraged by the various trials

and rigours of temperature experienced in his Newfoundland colony in 1628, visited the Virginia settlement. He explored the waters of the Chesapeake, and found the woods and shores teeming with birds, among them great flocks of Orioles, which so cheered him by their beauty of song and splendor of plumage, that he took them as good omens and adopted their colors for his own.

When the Orioles first arrive the males are in the majority; they sit in the spruces calling by the hour, with lonely querulous notes. In a few days however, the females appear, and then the martial music begins, the birds' golden trumpeting often turning to a desperate clashing of cymbals when two males engage in combat, for "the Oriole has a temper to match his flaming plumage and fights with a will."

This Oriole is remarkably familiar, and fearless of man, hanging its beautiful nest upon the garden trees, and even venturing into the street wherever a green tree nourishes. The materials of which its nest is made are flax, various kinds of vegetable fibers, wool, and hair, matted together so as to resemble felt in consistency. A number of long horse-hairs are passed completely through the fibers, sewing it firmly together with large and irregular, but strong and judiciously placed stitching. In one of these nests an observer found that several of the hairs used for this purpose measured two feet in length. The nest is in the form of a long purse, six or seven inches in depth, three or four inches in diameter; at the bottom is arranged a heap of soft material in which the eggs find a warm resting place. The female seems to be the chief architect, receiving a constant supply of materials from her mate, occasionally rejecting the fibers or hairs which he may bring, and sending him off for another load more to her taste.

Like human builders, the bird improves in nest building by practice, the best

specimens of architecture being the work of the oldest birds, though some observers deny this.

The eggs are five in number, and their general color is whitish-pink, dotted at the larger end with purplish spots, and covered at the smaller end with a great number of fine intersecting lines of the same hue.

In spring the Oriole's food seems to be almost entirely of an animal nature, consisting of caterpillars, beetles, and other insects, which it seldom pursues on the wing, but seeks with great activity among the leaves and branches. It also eats ripe fruit. The males of this elegant species of Oriole acquire the full beauty of their plumage the first winter after birth.

The Baltimore Oriole is one of the most interesting features of country landscape, his movements, as he runs among the branches of trees, differing from those of almost all other birds. Watch him clinging by the feet to reach an insect so far away as to require the full extension of the neck, body, and legs without letting go his hold. He glides, as it were, along a small twig, and at other times moves sidewise for a few steps. His motions are elegant and stately.

THE BALTIMORE ORIOLE.

About the middle of May, when the leaves are all coming out to see the bright sunshine, you may sometimes see, among the boughs, a bird of beautiful black and orange plumage.

He looks like the Orchard Oriole, whose picture you saw in May "Birds." It is the Baltimore Oriole. He has other names, such as "Golden Robin," "Fire Bird," "Hangnest." I could tell you how he came to be called Baltimore Oriole, but would rather you'd ask your teacher about it. She can tell you all about it, and an interesting story it is, I assure you.

You see from the picture why he is called "Hang-nest." Maybe you can tell why he builds his nest that way.

The Orioles usually select for their nest the longest and slenderest twigs, way out on the highest branches of a large tree. They like the elm best. From this they hang their bag-like nest.

It must be interesting to watch them build the nest, and it requires lots of patience, too, for it usually takes a week or ten days to build it.

They fasten both ends of a string to the twigs between which the nest is to hang. After fastening many strings like this, so as to cross one another, they weave in other strings crosswise, and this makes a sort of bag or pouch. Then they put in the lining.

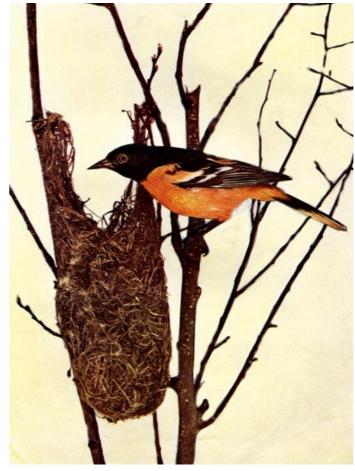
Of course, it swings and rocks when the wind blows, and what a nice cradle it must be for the baby Orioles?

Orioles like to visit orchards and eat the bugs, beetles and caterpillars that injure the trees and fruit.

There are few birds who do more good in this way than Orioles.

Sometimes they eat grapes from the vines and peck at fruit on the trees. It is usually because they want a drink that they do this.

One good man who had a large orchard and vineyard placed pans of water in different places. Not only the Orioles, but other birds, would go to the pan for a drink, instead of pecking at the fruit. Let us think of this, and when we have a chance, give the birds a drink of water. They will repay us with their sweetest songs.



BALTIMORE ORIOLE.

From col. F. M. Woodruff.

THE SNOWY OWL.



EW of all the groups of birds have such decided markings, such characteristic distinctions, as the Owl. There is a singular resemblance between the face of an Owl and that of a cat, which is the more notable, as both of these creatures have much the same habits, live on the same prey, and are evidently representatives of the same idea in their different classes. The Owl, in fact, is a winged cat, just as the cat is a

furred owl.

The Snowy Owl is one of the handsomest of this group, not so much on account of its size, which is considerable, as by reason of the beautiful white mantle which it wears, and the large orange eyeballs that shine with the lustre of a topaz set among the snowy plumage.

It is a native of the north of Europe and America, but is also found in the more northern parts of England, being seen, though rather a scarce bird, in the Shetland and Orkney Islands, where it builds its nest and rears its young. One will be more likely to find this owl near the shore, along the line of salt marshes and woody stubble, than further inland. The marshes do not freeze so easily or deep as the iron bound uplands, and field-mice are more plentiful in them. It is so fleet of wing that if its appetite is whetted, it can follow and capture a Snow Bunting or a Junco in its most rapid flight.

Like the Hawk Owl, it is a day-flying bird, and is a terrible foe to the smaller mammalia, and to various birds. Mr. Yarrell in his "History of the British Birds," states that one wounded on the Isle of Balta disgorged a young rabbit whole, and that a young Sandpiper, with its plumage entire, was found in the stomach of another.

In proportion to its size the Snowy Owl is a mighty hunter, having been detected chasing the American hare, and carrying off wounded Grouse before the sportsman could secure his prey. It is also a good fisherman, posting itself on some convenient spot overhanging the water, and securing its finny prey with a lightning-like grasp of the claw as it passes beneath the white clad fisher. Sometimes it will sail over the surface of a stream, and snatch the fish as they rise for food. It is also a great lover of lemmings, and in the destruction of these quadruped pests does infinite service to the agriculturist.

The large round eyes of this owl are very beautiful. Even by daylight they are

remarkable for their gem-like sheen, but in the evening they are even more attractive, glowing like balls of living fire.

From sheer fatigue these birds often seek a temporary resting place on passing ships. A solitary owl, after a long journey, settled on the rigging of a ship one night. A sailor who was ordered aloft, terrified by the two glowing eyes that suddenly opened upon his own, descended hurriedly to the deck, declaring to the crew that he had seen "Davy Jones a-sitting up there on the main yard."

THE SNOWY OWL.

What do you think of this bird with his round, puffy head? You of course know it is an Owl. I want you to know him as the Snowy Owl.

Don't you think his face is some like that of your cat? This fellow is not full grown, but only a child. If he were full grown he would be pure white. The dark color you see is only the tips of the feathers. You can't see his beak very well for the soft feathers almost cover it.

His large soft eyes look very pretty out of the white feathers. What color would you call them? Most owls are quiet during the day and very busy all night. The Snowy Owl is not so quiet day times. He flies about considerably and gets most of his food in daylight.

A hunter who was resting under a tree, on the bank of a river, tells this of him:

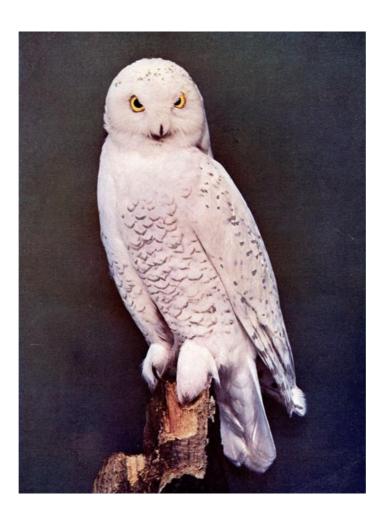
"A Snowy Owl was perched on the branch of a dead tree that had fallen into the river. He sat there looking into the water and blinking his large eyes.

Suddenly he reached out and before I could see how he did it, a fish was in his claws."

This certainly shows that he can see well in the day time. He can see best, however, in the twilight, in cloudy weather or moonlight. That is the way with your cat.

The wing feathers of the owl are different from those of most birds. They are as soft as down. This is why you cannot hear him when he flies. Owls while perching are almost always found in quiet places where they will not be disturbed.

Did you ever hear the voice of an owl in the night? If you never have, you cannot imagine how dreary it sounds. He surely is "The Bird of the Night."



BIRDS AND FARMERS.

From the Forest and Stream.

HE advocates of protection for our small birds present two sets of reasons for preventing their killing; the one sentimental, and the other economic.

The sentimental reasons are the ones most often urged; they are also of a kind to appeal with especial force to those whose responsibility for the destruction of the birds is greatest. The women and girls, for whose adornment birds' plumage is chiefly used, think little and know less about the services which birds perform for agriculture, and indeed it may be doubted whether the sight of a bunch of feathers or a stuffed bird's skin suggests to them any thought of the life that those feathers once represented. But when the wearers are reminded that there was such a life; that it was cheery and beautiful, and that it was cut short merely that their apparel might be adorned, they are quick to recognize that bird destruction involves a wrong, and are ready to do their part toward ending it by refusing to wear plumage.

The small boy who pursues little birds from the standpoint of the hunter in quest of his game, feels only the ardor of pursuit. His whole mind is concentrated on that and the hunter's selfishness, the desire of possession, fills his heart. Ignorance and thoughtlessness destroy the birds.

Every one knows in a general way that birds render most valuable service to the farmer, but although these services have long been recognized in the laws standing on the statute books of the various states, it is only within a few years that any systematic investigations have been undertaken to determine just what such services are, to measure them with some approach to accuracy, to weigh in the case of each species the good and the evil done, and so to strike a balance in favor of the bird or against it. The inquiries carried on by the Agricultural Department on a large scale and those made by various local experiment stations and by individual observers have given results which are very striking and which can no longer be ignored.

It is a difficult matter for any one to balance the good things that he reads and believes about any animal against the bad things that he actually sees. The man who witnesses the theft of his cherries by robin or catbird, or the killing of a quail by a marsh hawk, feels that here he has ocular proof of harm done by the birds, while as to the insects or the field mice destroyed, and the crops saved, he has only the testimony of some unknown and distant witness. It is only natural that the observer should trust the evidence of his senses, and yet his eyes tell him only a small part of the truth, and that small part a misleading one.

It is certain that without the services of these feathered laborers, whose work is unseen, though it lasts from daylight till dark through every day in the year, agriculture in this country would come to an immediate standstill, and if in the brief season of fruit each one of these workers levies on the farmer the tribute of a few berries, the price is surely a small one to pay for the great good done. Superficial persons imagine that the birds are here only during the summer, but this is a great mistake. It is true that in warm weather, when insect life is most abundant, birds are also most abundant. They wage an effective and unceasing war against the adult insects and their larvae, and check their active depredations; but in winter the birds carry on a campaign which is hardly less important in its results.

THE SCARLET TANAGER.



NE of the most brilliant and striking of all American birds is the Scarlet Tanager. From its black wings resembling pockets, it is frequently called the "Pocket Bird." The French call it the "Cardinal." The female is plain olive-green, and when seen together the pair present a curious example of the prodigality with which mother nature pours out her favors of beauty in the adornment of some of her creatures and seems niggardly in her

treatment of others. Still it is only by contrast that we are enabled to appreciate the quality of beauty, which in this case is of the rarest sort. In the January number of Birds we presented the Red Rumped Tanager, a Costa Rica bird, which, however, is inferior in brilliancy to the Scarlet, whose range extends from eastern United States, north to southern Canada, west to the great plains, and south in winter to northern

South America. It inhabits woodlands and swampy places. The nesting season begins in the latter part of May, the nest being built in low thick woods or on the skirting of tangled thickets; very often also, in an orchard, on the horizontal limb of a low tree or sapling. It is very flat and loosely made of twigs and fine bark strips and lined with rootlets and fibers of inner bark.

The eggs are from three to five in number, and of a greenish blue, speckled and blotted with brown, chiefly at the larger end.

The disposition of the Scarlet Tanager is retiring, in which respect he differs greatly from the Summer Tanager, which frequents open groves, and often visits towns and cities. A few may be seen in our parks, and now and then children have picked up the bright dead form from the green grass, and wondered what might be its name. Compare it with the Redbird, with which it is often confounded, and the contrast will be striking.

His call is a warble, broken by a pensive call note, sounding like the syllables *chip-churr*, and he is regarded as a superior musician.

"Passing through an orchard, and seeing one of these young birds that had but lately left the nest, I carried it with me for about half a mile to show it to a friend, and having procured a cage," says Wilson, "hung it upon one of the large pine trees in the Botanic Garden, within a few feet of the nest of an Orchard Oriole, which also contained young, hoping that the charity and kindness of the Orioles would induce them to supply the cravings of the stranger. But charity with them as with too many of the human race, began and ended at home. The poor orphan was altogether neglected, and as it refused to be fed by me, I was about to return it to the place where I had found it, when, toward the afternoon, a Scarlet Tanager, no doubt its own parent, was seen fluttering around the cage, endeavoring to get in. Finding he could not, he flew off, and soon returned with food in his bill, and continued to feed it until after sunset, taking up his lodgings on the higher branches of the same tree. In the morning, as soon as day broke, he was again seen most actively engaged in the same manner, and, notwithstanding the insolence of the Orioles, he continued his benevolent offices the whole day, roosting at night as before. On the third or fourth day he seemed extremely solicitous for the liberation of his charge, using every expression of distressful anxiety, and every call and invitation that nature had put in his power, for him to come out. This was too much for the feelings of my friend. He procured a ladder, and mounting to the spot where the bird was suspended, opened the cage, took out his prisoner, and restored him to liberty and to his parent, who, with notes of great exultation, accompanied his flight to the woods.



SCARLET TANAGER.

From col. F. M. Woodruff.

THE SCARLET TANAGER.

What could be more beautiful to see than this bird among the green leaves of a tree? It almost seems as though he would kindle the dry limb upon which he perches. This

is his holiday dress. He wears it during the nesting season. After the young are reared and the summer months gone, he changes his coat. We then find him dressed in a dull yellowish green—the color of his mate the whole year.

Do you remember another bird family in which the father bird changes his dress each spring and autumn?

The Scarlet Tanager is a solitary bird. He likes the deep woods, and seeks the topmost branches. He likes, too, the thick evergreens. Here he sings through the summer days. We often pass him by for he is hidden by the green leaves above us.

He is sometimes called our "Bird of Paradise."

Tanagers feed upon winged insects, caterpillars, seeds, and berries. To get these they do not need to be on the ground. For this reason it is seldom we see them there.

Both birds work in building the nest, and both share in caring for the little ones. The nest is not a very pretty one—not pretty enough for so beautiful a bird, I think. It is woven so loosely that if you were standing under it, you could see light through it.

Notice his strong, short beak. Now turn to the picture of the Rose-Breasted Grosbeaks in April Birds. Do you see how much alike they are? They are near relatives.

I hope that you may all have a chance to see a Scarlet Tanager dressed in his richest scarlet and most jetty black.

THE RUFFED GROUSE.



HE Ruffed Grouse, which is called Partridge in New England and Pheasant in the Middle and Southern States, is the true Grouse, while Bob White is the real Partridge. It is unfortunate that they continue to be confounded. The fine picture of his grouseship, however, which we here present should go far to make clear the difference between them.

The range of the Ruffed Grouse is eastern United States, south to North Carolina, Georgia, Mississippi, and Arkansas. They hatch in April, the young immediately leaving the nest with the mother. When they hear the mother's warning note the little ones dive under leaves and bushes, while she leads the pursuer off in an opposite direction. Building the nest and sitting upon the eggs constitute the duties of the female, the males during this interesting season keeping separate, not rejoining their mates until the young are hatched, when they begin to roam as a family.

Like the Turkey, the Ruffed Grouse has a habit of pluming and strutting, and also makes the drumming noise which has caused so much discussion. This noise "is a hollow vibrating sound, beginning softly and increasing as if a small rubber ball were dropped slowly and then rapidly bounced on a drum." While drumming the bird contrives to make himself invisible, and if seen it is difficult to get the slightest clue to the manner in which the sound is produced. And observers say that it beats with its wings on a log, that it raises its wings and strikes their edges above its back, that it claps them against its sides like a crowing rooster, and that it beats the air. The writer has seen a grouse drum, appearing to strike its wings together over its back. But there is much difference of opinion on the subject, and young observers may settle the question for themselves. When preparing to drum he seems fidgety and nervous and his sides are inflated. Letting his wings droop, he flaps them so fast that they make one continuous humming sound. In this peculiar way he calls his mate, and while he is still drumming, the hen bird may appear, coming slyly from the leaves.

The nest is on the ground, made by the female of dry leaves and a few feathers plucked from her own breast. In this slight structure she lays ten or twelve cream-colored eggs, specked with brown.

The eyes of the Grouse are of great depth and softness, with deep expanding pupils and golden brown iris.

Coming suddenly upon a young brood squatted with their mother near a roadside in the woods, an observer first knew of their presence by the old bird flying directly in his face, and then tumbling about at his feet with frantic signs of distress and lameness. In the meantime the little ones scattered in every direction and were not to be found. As soon as the parent was satisfied of their safety, she flew a short distance and he soon heard her clucking call to them to come to her again. It was surprising how guickly they reached her side, seeming to pop up as from holes in the ground.



RUFFED GROUSE.

From col. F. M. Woodruff.

THE RUFFED GROUSE.

At first sight most of you will think this is a turkey. Well, it does look very much like one. He spreads his tail feathers, puffs himself up, and struts about like a turkey. You know by this time what his name is and I think you can easily see why he is called Ruffed.

This proud bird and his mate live with us during the whole year. They are found usually in grassy lands and in woods.

Here they build their rude nest of dried grass, weeds and the like. You will generally find it at the foot of a tree, or along side of an old stump in or near swampy lands.

The Ruffed Grouse has a queer way of calling his mate. He stands on a log or stump, puffed up like a turkey—just as you see him in the picture. Then he struts about for a time just as you have seen a turkey gobbler do. Soon he begins to work his wings—slowly at first, but faster and faster, until it sounds like the beating of a drum.

His mate usually answers his call by coming. They set up housekeeping and build their rude nest which holds from eight to fourteen eggs. As soon as the young are hatched they can run about and find their own food. So you see they are not much bother to their parents. When they are a week old they can fly. The young usually stay with their parents until next Spring. Then they start out and find mates for themselves.

I said at the first that the Ruffed Grouse stay with us all the year. In the winter, when it is very cold, they burrow into a snowdrift to pass the night. During the summer they always roost all night.

THE BLACK AND WHITE CREEPING WARBLER.



HIS sprightly little bird is met with in various sections of the country. It occurs in all parts of New England and New York, and has been found in the interior as far north as Fort Simpson. It is common in the Bahamas and most of the West India Islands, generally as a migrant; in Texas, in the Indian Territory, in Mexico, and throughout eastern America.

Dr. Coues states that this warbler is a very common summer resident near Washington, the greater number going farther north to breed. They arrive there during the first week in April and are exceedingly numerous until May.

In its habits this bird seems to be more of a creeper than a Warbler. It is an expert and nimble climber, and rarely, if ever, perches on the branch of a tree or shrub. In the manner of the smaller Woodpecker, the Creepers, Nuthatches, and Titmice, it moves rapidly around the trunks and larger limbs of the trees of the forest in search of small insects and their larvae. It is graceful and rapid in movement, and is often so intent upon its hunt as to be unmindful of the near presence of man.

It is found chiefly in thickets, where its food is most easily obtained, and has been known to breed in the immediate vicinity of a dwelling.

The song of this Warbler is sweet and pleasing. It begins to sing from its first appearance in May and continues to repeat its brief refrain at intervals almost until its departure in August and September. At first it is a monotonous ditty, says Nuttall, uttered in a strong but shrill and filing tone. These notes, as the season advances, become more mellow and warbling.

The Warbler's movements in search of food are very interesting to the observer. Keeping the feet together they move in a succession of short, rapid hops up the trunks of trees and along the limbs, passing again to the bottom by longer flights than in the ascent. They make but short flight from tree to tree, but are capable of flying far when they choose.

They build on the ground. One nest containing young about a week old was found on the surface of shelving rock. It was made of coarse strips of bark, soft decayed leaves, and dry grasses, and lined with a thin layer of black hair. The parents fed their young in the presence of the observer with affectionate attention, and showed no uneasiness, creeping head downward about the trunks of the neighboring trees, and carrying large smooth caterpillars to their young.

They search the crevices in the bark of the tree trunks and branches, look among the undergrowth, and hunt along the fences for bunches of eggs, the buried larvae of the insects, which when undisturbed, hatch out millions of creeping, crawling, and flying things that devastate garden and orchard and every crop of the field.



BLACK AND WHITE CREEPING WARBLER.
From col. Chi. Acad. Sciences. Chicago
Colortype Co.

VOLUME 1. JANUARY TO JUNE, 1897.

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