BIRD LIFE STORIES

BOOK ONE

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BIRD LIFE STORIES

BIRD LIFE STORIES

Compiled from the writings of
AUDUBON, BENDIRE, NUTTALL, and WILSON

By

CLARENCE MOORES WEED

Professor of Zoölogy and Entomology in New Hampshire
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of "The Nature Calendar Series"

BOOK I

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THE PREFACE

THE four writers from whom the chapters in these Bird Life Stories have been drawn are especially notable for the absorbing interest with which they pursued the study of birds. They were all original investigators, exploring the trackless wilderness in their search for knowledge. Especially was this true of Audubon and Wilson, who laid the foundations of the science of ornithology in America, but it was also true to a less extent of Nuttall and Bendire.

This interest which our authors brought to their work has of course been communicated to their writings, so that their accounts of our birds are on the whole the most interesting that have ever been published. In the books of this series I have tried to select for each of the chosen birds that account which seemed the best. I have modified the language and punctuation only so far as was necessary to shorten some sentences, and to render clear the meaning of others. Occasionally I have omitted parts which had no special modern interest or which our later knowledge has shown to be incorrect. In this work of revision, as well as in the preparation of the additional notes, I have had the assistance of Mr. Ralph Hoffmann, lecturer on ornithology for the *Massachusetts Audubon Society*, and Dr. Ned Dearborn of the *Field Columbian Museum*, Chicago, both expert ornithologists who are thoroughly conversant with the most recent developments of the science. The specimens shown in the colored plates were collected and mounted by Doctor Dearborn expressly for this work, and the colored plates themselves have been made under his supervision. To both of these gentlemen I am glad to express my hearty thanks, as well as to the officers of the Smithsonian Institution, for permission to use such of the writings of the late Major Bendire as I desired.

C. M. W.

DURHAM, NEW HAMPSHIRE, *September, 1903.*

 

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BLUEBIRD
Sialia sialis

BIRD LIFE STORIES

THE BLUEBIRD

ALEXANDER WILSON

THE pleasing manners and the sociable disposition of this little bird entitle him to particular notice. As one of the first messengers of spring, bringing the charming tidings to our very doors, he bears his own recommendation always along with him, and meets with a hearty welcome from everybody.

Though generally accounted a bird of passage, yet in Pennsylvania so early as the middle of February, if the weather be open, he usually makes his appearance about his own haunts,—the barn, orchard and fenceposts. Storms and deep snows sometimes succeeding, he disappears for a time, but about the middle of March is again seen accompanied by his mate, visiting the box in the garden or the hole in the old apple-tree, the cradle of some generations of his ancestors.

The preliminaries being settled and the spot fixed upon, the Bluebirds begin to clean out from the old nest the rubbish of the former year, and to prepare for the reception of their future offspring.

The female lays five, and sometimes six, eggs of a pale blue color, and raises two and sometimes three broods in a season, the male taking the youngest under his particular care while the female is again sitting. Their principal food consists of insects, particularly large beetles and others that lurk among old dead and decaying trees, as well as upon the ground. Spiders are also a favorite repast with them. In the fall they occasionally regale themselves on the berries of the sour gum and, as winter approaches, on those of the red cedar, and on the fruit of a rough and hairy vine that runs up and cleaves fast to the trunks of trees. Ripe persimmons are another of their favorite dishes, and among other fruits and seeds these are found in their stomachs during the autumn months.

The usual spring and summer song of the Bluebird is a soft, agreeable, and oft-repeated warble, uttered with open quivering wings, and is extremely pleasing. In his motions and general character he has great resemblance to the Robin Redbreast of Great Britain. Like the latter bird he is known to almost every child, and shows as much confidence in man by associating with him in summer as the Redbreast by his familiarity in winter. He is also of a mild and peaceful disposition, seldom fighting or quarreling with other birds. His society is courted by the inhabitants of the country, and few farmers neglect to provide for him, in some suitable place, a snug little summer-house, ready fitted and rent free. For this he more than repays them by the cheerfulness of his song, and the multitude of injurious insects he daily destroys.

Toward fall, that is, in the month of October, his song changes to a single plaintive note, as he passes over the yellow, many-colored woods, and its melancholy air recalls to our minds the approaching decay of the face of nature. Even

after the trees are stripped of their leaves he still lingers over his native fields, as if loth to leave them. About the middle or end of November few if any Bluebirds are seen; but with every return of mild and open weather we hear their plaintive note amidst the fields, or in the air, seeming to deplore the devastations of winter. Indeed the Bluebird appears scarcely ever totally to forsake us, but to follow fair weather through all its journeyings till the return of spring.

Geographical Distribution

During the summer the Bluebird is found throughout the eastern United States and as far west as the Rocky Mountains; it ranges as far north as Nova Scotia, Ontario and Manitoba. In winter it migrates in flocks from the northern regions, flying to Cuba and the southern States, where it may be found all winter. As far north as the latitude of New York a few are generally present throughout the winter.

THE ROBIN

JOHN JAMES AUDUBON

DURING the winter in the southern States the Robins feed on the berries and fruits of our woods, fields gardens and even of the ornamental trees of our cities and villages. The holly, the sweet gum, the gall-berry, and the poke are those which they first attack; but as these fail, which is usually the case in January, they come nearer the towns and farmhouses and feed voraciously on the caperia berry, the wild orange berry, and the berries of the pride-of-India. During summer and spring they devour snails and worms, and at the Labrador coast I saw some feeding on small shells, which they probed or broke with ease.

Toward the approach of spring they visit the newly ploughed grounds, the gardens and the interior of woods, the undergrowth of which has been cleared of grass by fire, to pick up ground worms, grubs and other insects, on which, when perched, they descend in a pouncing manner, swallowing their prey in a moment, jerking their tails, beating their wings and returning to their stations.

Whenever the sun shines warmly over the earth, the old males tune their pipe and enliven the neighborhood with their song. The young also begin to sing, and before they depart for the east they have all become musical. By the tenth of April the Robins have reached the middle district; the blossoms of the dogwood are then peeping forth in every part of the budding woods; the fragrant sassafras, the red

AMERICAN ROBIN
Merula migratoria

flowers of the maple, and hundreds of other plants have already banished the dismal appearance of winter. The snows are all melting away, and nature again, in all the beauty of spring, promises happiness and abundance to the whole animal creation.

Then it is that the Robin, perched on a fence stake or the top of some detached tree of the field, gives vent to the warmth of his passion. His lays are modest, lively, and oftentimes of considerable power; and although his song cannot be compared with that of the Thrasher, its vivacity and simplicity never fail to fill the breast of the listener with pleasing sensations.

The nest of the Robin is frequently placed on the horizontal branch of an apple-tree, and sometimes in the same situation on a forest tree. Now and then it is found close to the house, and it is stated by Nuttall that one was placed in the stern timbers of an unfinished vessel at Portsmouth, New Hampshire, in which the carpenters were constantly at work. Another, adds this amiable writer, has been known to build his nest within a few yards of a blacksmith's anvil. I discovered one near Great Egg Harbor, in the State of New Jersey, affixed to the cribbing timbers of an unfinished well, seven or eight feet below the surface of the ground.

Wherever it may happen to be placed the nest is large and well secured. It is composed of dry leaves, grass, and moss, which are connected internally with a thick layer of mud and roots, lined with pieces of straw and fine grass, and occasionally a few feathers. The eggs are from four to six, of a beautiful bluish green, without spots. Two broods are usually raised in a season.

The young are fed with anxious care by their tender parents, who, should one intrude upon them, boldly remon-

strate, pass and repass by rapid divings, or if moving along the branches, jerk their wings and tails violently and emit a peculiar shrill note, evincing their anxiety and displeasure. The young, before they are fully fledged, often leave their nest to meet their parents, when coming home with a supply of food.

Many of these birds show a marked partiality to the places they have chosen to breed in. I have no doubt that many who escape death in the winter return to those loved spots each succeeding spring.

The flight of the Robin is swift, at times greatly elevated and capable of being long sustained. During the periods of its migrations, which are irregular, depending upon the want of food or the severity of the weather, it moves in loose flocks over a space of several hundred miles at once, and at a considerable height. From time to time a few shrill notes are heard from different individuals in the flock. Should the weather be calm their movements are continued during the night, and at such periods the whistling noise of their wings is often heard. During heavy falls of snow and severe gales they pitch toward the earth, or throw themselves into the woods, where they remain until the weather becomes more favorable.

They not infrequently disappear for several days from a place where they have been in thousands, and again they visit it. In eastern Massachusetts flocks often spend the winter in the neighborhood of warm springs and spongy low grounds, sheltered from the north winds.

Geographical Distribution

Our American Robin has a wide range. It is found throughout eastern North America and extends as far west as the Rocky Moun-

tains. It also occurs in Alaska. Nests are built by it from near the coast of the Gulf of Mexico as far north as the Arctic Circle. It passes the winter mostly in the southern States and beyond, where at this time it is found in large flocks, but some Robins are to be found in winter in southern Canada and in the northern States. It has recently been learned that large numbers of the males and the young Robins assemble nightly in certain low woods which are known as "Robin roosts."

THE CHICKADEE

THOMAS NUTTALL

THIS familiar, hardy and restless little bird chiefly inhabits the northern and middle States, as well as Canada. In the latter country it is found even in winter around Hudson's Bay.

During autumn and winter families of these birds are seen chattering and roving through the woods, busily engaged in gleaning food. Along with the Creepers and Nuthatches they form a busy, active and noisy group, whose manners, habits and food bring them together in a common pursuit. Their diet varies with the season; for besides insects and their eggs, of which they are particularly fond, in September they leave the woods and assemble familiarly in our orchards and gardens. Sometimes they even enter cities in quest of food. Large seeds of many kinds, particularly those which are oily, are now sought after. Fat of various kinds is also greedily eaten, and the Chickadees regularly watch the retreat of the hog-killers in the country to glean up the fragments of meat which adhere to the places where the carcasses have been suspended. At times they feed upon the wax of the candleberry myrtle. They likewise pick up crumbs near the houses, and search the weather-boards, and even the window-sills for insect prey. They are particularly fond of spiders and the eggs of destructive moths, especially those of the canker worm, which they greedily devour in all stages of its existence.

CHICKADEE
Parus atricapillus

In winter, when hunger is satisfied, they will descend to the snow and quench their thirst by swallowing small bits. In this way their various and frugal meal is always easily supplied; and hardy and warmly clad in light and very downy feathers, they suffer little inconvenience from the inclemency of the seasons. Their roost is in the hollows of decayed trees, where they also breed, making a soft nest of moss, hair and feathers, and laying from six to twelve eggs, which are white, with specks of brown-red. They begin to lay about the middle or close of April, and though they commonly make use of natural or deserted holes of the woodpecker, yet they frequently excavate a cavity for themselves with much labor. The first brood takes wing about the 7th or 10th of June, and there is sometimes a second brood toward the end of July. The young, as soon as fledged, have all the external marks of the adult, the head is equally black, and they chatter and skip about with all the agility and self-possession of their parents, who appear nevertheless very solicitous for their safety.

From this time on the whole family continue to associate together through the autumn and winter. They seem to move in concert from tree to tree, keeping up a continued '*tshe-de-de-de-de* and '*tshe-de-de-de-dait*, preceded by a shrill whistle, all the while busily engaged picking around the buds and branches, hanging from their extremities and proceeding often in reversed posture, head downward, like so many tumblers, prying into every crevice of the bark and searching round the roots and in every possible retreat of their insect prey or its larvæ. If the object chance to fall, they industriously descend to the ground and glean it up with the utmost economy.

Almost the only note of this bird which may be called a song, is one which is frequently heard at intervals in the depth

of the forest, or from the orchard trees. Although more frequently uttered in spring, it is now and then whistled on warm days even in winter; it may be heard, in fact, in every month of the year. It consists of two, or, less frequently, three clearly-whistled and rather melancholy notes, like the syllables *phée-bee*, not drawled like the song of the wood Pewee, and sweeter and more even than the cry of the Phœbe.

The Chickadee is found in summer in dry, shady and secluded woods, but when the weather becomes cold, and as early as October, roving families, pressed by necessity and failure of their ordinary insect fare, now begin to frequent orchards and gardens, appearing extremely familiar, hungry, indigent, but industrious, prying with restless anxiety into every cranny of the bark or holes in decayed trees after dormant insects, spiders and larvæ. The Chickadee adds by its presence, indomitable action and chatter, an air of cheerfulness to the silent and dreary winters of the coldest parts of North America.

Geographical Distribution

The Chickadee is very generally distributed throughout the northern parts of eastern North America. Its nest is built as far south as Illinois and Pennsylvania, and as far north as Labrador. High up in the Alleghany Mountains it nests still farther south. In the South and West occur closely-related forms with similar habits.

HOUSE-WREN
Troglodytes aedon

THE HOUSE-WREN

ALEXANDER WILSON

THIS well-known and familiar bird arrives in Pennsylvania about the middle of April. About the 8th or 10th of May it begins to build its nest, sometimes in the wooden cornice under the eaves or in a hollow cherry-tree, but most commonly in small boxes fixed on the top of a pole in or near the garden. It is partial to such situations because of the great numbers of caterpillars and other larvæ which may be found in the vicinity.

If all these nesting conveniences are wanting, the wren will even put up with an old hat, nailed on the weather-boards, with a small hole for entrance. If even this be denied him he will find some hole, corner or crevice about the house, barn, or stable rather than abandon the dwellings of man.

The twigs with which the outward parts of the nest are constructed are short and crooked that they may the better hook in with one another. The hole or entrance is so much shut up to prevent the intrusion of snakes or cats that it appears almost impossible that the body of the bird could get in. On the inside there is a layer of fine dried stalks of grass, and lastly of feathers. There are six or seven, and sometimes nine eggs, of a red-purplish flesh color, innumerable fine grains of that tint being thickly sprinkled over the whole surface. Two broods are generally raised each season, the first leaving the nest about the 1st of June, the second in July.

The little bird has a strong antipathy to cats; for having

frequent occasion to glean among the currant bushes and other shrubbery in the garden, those lurking enemies of the feathered race often prove fatal to him.

The immense number of insects which this sociable little bird removes from the garden and fruit trees ought to endear him to every cultivator, even if he had nothing else to recommend him. But his notes, loud, sprightly, tremulous and repeated every few seconds with great animation, are extremely agreeable. In the heat of summer, families in the country often dine on the piazza under green canopies of vines and creepers, while overhead the trilling vivacity of the Wren, mingled with the warbling mimicry of the Mockingbird and the distant softened sounds of numerous other songsters, form a soul-soothing music, breathing peace, innocence and repose. In strength of tone and execution the song of this species is far superior to that of the European Wren.

The food of the House-wren consists of insects and caterpillars. While supplying the wants of its young, it destroys, on a moderate calculation, many hundreds of these pests a day, thus greatly reducing their ravages. It is a bold and insolent bird against those of the Titmouse or Woodpecker kind that venture to build within its jurisdiction, attacking them without hesitation, though they be twice as large, and generally forcing them to decamp. Even the Bluebird, who claims an equal and, as it were, hereditary right to the box in the garden, when attacked by this little impertinent, sometimes relinquishes the contest, the mild placidity of his disposition not being a match for the fiery impetuosity of his little antagonist. With those of his own species, who settle and build near him, he has frequent squabbles.

In summer the House-wren is found throughout the eastern United States, west to Michigan and Indiana, and north

to southern Ontario and Maine. It migrates southward in autumn, and is found throughout the year in southern States east of Louisiana.

Note

Other observers do not credit the Bluebird with the placid disposition which Wilson says induces it to yield to the House-wren. It is undoubtedly an amiable bird, and its society is much frequented by many smaller birds after the breeding season is over, but it generally defends its chosen home with pertinacity.

THE CATBIRD

THOMAS NUTTALL

THESE quaint and familiar songsters pass the winter in the southern extremities of the United States and along the coast of Mexico, from whence, as early as February, they arrive in Georgia. About the middle of April they are first seen in Pennsylvania, and at length leisurely approach New England by the close of the first or the beginning of the second week in May.

The Catbirds continue their migration to Canada, where they proceed into the fur countries as far as the forty-fifth parallel, arriving on the banks of the Saskatchewan about the close of May. Throughout this extent and west to the Mississippi they likewise pass the period of incubation and rearing their young. They remain in New England until about the middle of October, at which time the young feed principally upon various kinds of berries.

The Catbird often tunes his cheerful song before the break of day, hopping from bush to bush with great agility after his insect food, while yet scarcely distinguishable amidst the dusky shadows of the dawn. The notes of the different individuals vary considerably, so that sometimes his song in sweetness and compass is scarcely at all inferior to that of the Brown Thrasher. A quaintness, however, prevails in all his efforts and his song is frequently made up of short and blended imitations of other birds, given with great emphasis, melody and variety of tone, and like the Nightingale disturbing the

CATBIRD
Galeoscoptes carolinensis

hours of repose. In the late twilight of a summer evening, when scarce another note is heard but the hum of the drowsy beetle, the music of the Catbird attains its full effect, and often rises and falls with all the swell and studied cadence of finished harmony. During the heat of the day or late in the morning the variety of his song declines, or he pursues his employment in silence and retirement.

About the 25th of May one of these familiar birds came into the Botanic Garden at Cambridge and took up his summer abode with us. Soon after his arrival he called up in low whisperings the notes of the Whippoorwill and Redbird, the *peto peto* of the Tufted Titmouse, and other imitations of southern birds which he had collected on his leisurely route from the south. He also soon mocked the '*tshe-yah*, '*tshe-yah*, '*tshe-yah* of the little Flycatcher with which the neighborhood now abounded. He frequently answered to my whistle in the garden, was very silent during the period of incubation, and expressed great anxiety and complaint on my approaching the young after their leaving the nest.

One of the most remarkable propensities of the Catbird, and the one to which it owes its name, is the unpleasant, loud and grating cat-like mew ('*pay*, '*pay*, '*pay*), which it often utters on being approached or offended. As the irritation increases this note becomes more hoarse, reiterated and vehement, and so sometimes this petulance and anger are carried so far as to persecute every intruder who approaches the premises.

This temper often prevails after the young are fledged, and though originating, no doubt, in parental anxiety, it sometimes appears to outlive that season, and occasionally becomes such an annoyance that a revengeful and fatal blow from a stick or stone is but too often, with the thoughtless and prejudiced, the reward of this harmless and capricious provocation. At

such times, with little apparent cause, the agitation of the bird is excessive; she hurries backward and forward with hanging wings and open mouth, mewing and screaming in a paroxysm of scolding anger, and alighting almost to peck the very hand that offers the insult. To touch a twig or branch in any part of the garden or wood is often amply sufficient to call down the amusing termagant.

The flight of the Catbird is laborious, and usually continued only from bush to bush; his progress, however, is very wily, and his attitudes and jerks amusingly capricious. He appears to have very little fear of enemies, often descends to the ground in quest of insects, and though almost familiar is very quick in his retreat from real danger.

This common and abundant species begins to construct its nest some time in the month of May. The situation in which he delights to dwell is commonly a dark thicket in the woods, or a close brush in some secluded part of the garden, at the distance of five or ten feet from the ground. The materials are coarse but substantial; the external part is commonly made of small interlaced twigs, old grass and dry leaves; to these succeed thin strips of bark, often of the red cedar, somewhat agglutinated. The inside is lined and bedded with black root fibers of ferns. The eggs are four or five, of a bright and deep emerald green, and without spots.

The food of the Catbird is similar to that of the Brown Thrasher, being insects and worms, particularly beetles, and various garden fruits. The young are often fed on cherries and various kinds of berries late in the season. Sometimes these Catbirds have been observed to attack snakes when they approach the vicinity of the nest, and they commonly succeed in driving off the enemy.

Geographical Distribution

In summer the Catbird is found throughout the United States east of the Rocky Mountains. In autumn it migrates, passing the winter from Florida southward.

THE MARYLAND YELLOW-THROAT

THOMAS NUTTALL

THIS common and familiar species extends its summer migrations from Florida to Nova Scotia, arriving in Pennsylvania toward the middle of April and in Massachusetts about the first week in May. They return to the south in September; a few stragglers of the young, however, may be seen to the first week of October. Though some remain and winter in the southern States, many of them retire at this season into the interior of tropical America, as they were seen late in autumn around Vera Cruz by the naturalist and traveler, Mr. Bullock. Early in the month of March, however, I heard this species singing in the forests of west Florida.

The Maryland Yellow-throat, with cheerful devotedness to the great object of his summer migration, the attachments and care of his species, passes his time near some shady rill of water, amidst briars, brambles, alders and such other shrubbery as grows in low and watery situations. Unambitious to be seen, he seldom ascends to the top of the underwood where he dwells busily employed in collecting the insects on which he feeds. After these, like the Wren, he darts into the deepest thicket and threads his devious way through every opening; he searches around the stems, examines beneath the leaves, and, raising himself on his peculiarly pale and slender legs, peeps into each crevice in order to seize by surprise his tiny lurking prey.

While thus engaged his affection to his neighboring mate

MARYLAND YELLOW-THROAT
Geothlypis trichas

is not forgotten, and, with a simplicity agreeable and characteristic, he twitters forth at short intervals his 'whititetee, 'whititetee, 'whititetee, but his more common song is 'whittitshee, 'whittitshee, or 'wetitshee, 'wetitsheewee; sometimes I have heard his notes like 'wetitshee wetit shee, 'witeyu we. On this last syllable a plaintive sinking of the voice renders the lively, earnest ditty of the active minstrel peculiarly agreeable. The whole is likewise often varied and lowered into a slender whisper or tender reverie of vocal instinct.

He appears by no means shy or suspicious as long as his nest is unapproached, but for the safety of that precious treasure he scolds, laments and entreats with great anxiety. These birds generally nest in secluded thickets of the forest, or the low bushy meadow, but sometimes they take up their abode in the garden, or the field contiguous to the house, and if undisturbed they show a predilection for the place which has shown them security for themselves and their young. They commence their labor of building about the middle of May, fixing the nest on or near the ground among dry leaves, withered grass or brush, and often choose for security the most intricate thicket of briars, so that the nest is often sheltered and concealed by projecting weeds and grass. Sometimes a mere tussock of grass or accidental pile of brush is chosen. It is made of dry sedge grass and a few leaves loosely wound together and supported by the weeds or twigs where it rests; the lining consists entirely of fine bent grass.

The eggs, about five in number, are white, inclined to flesh color with touches of specks and small spreading blotches, and sometimes with a few lines of two or three shades of reddish brown, chiefly disposed toward the greater end. The young leave the nest about the middle of June, and a second brood is sometimes raised in the course of the season. The

parents and young now rove about in restless prying troops and take to the most secluded marshes where they pass their time in comparative security till the arrival of that period of scarcity which warns them to depart. As early as the close of July the lively song of the male ceases to be heard, and the whole party now forage in silence.

Geographical Distribution

The Maryland Yellow-throat is widely distributed throughout the eastern United States, ranging in summer north to Labrador. In winter it is found in the South Atlantic and Gulf States, as well as in the West Indies, Central America and eastern Mexico. Nuttall has not described the flight song of the Maryland Yellow-throat. The bird often takes a short upward flight and while in the air utters a hurried medley of notes and calls. This performance is sometimes given in spring, but is more commonly heard in July and early in August.

WHITE-EYED VIREO
Vireo noveboracensis

THE WHITE-EYED VIREO

JOHN JAMES AUDUBON

THIS interesting little bird enters the State of Louisiana often as early as the 1st of March. Indeed, some individuals may now and then be seen a week or ten days sooner provided the weather be mild. It throws itself into the thickest part of the briars, sumachs and small evergreen bushes, which form detached groves in abandoned fields, where its presence is at once known by the smartness of its song. This song is composed of many different notes emitted with great spirit and a certain degree of pomposity, which makes it differ materially from that of all other Vireos. It is frequently repeated during the day.

These birds become at once so abundant that it would be more difficult not to meet one than to observe a dozen or more during a morning walk. Their motions are as animated as their music. They pass from twig to twig, upward or downward, examining every opening bud and leaf, and securing an adult insect or a larva at every leap. Their flight is short, light and easy.

Their migrations are performed during the day, and by passing from one low bush to another. Like all our other visitors they move eastward as the season opens, and do not reach the middle States before the end of April or the beginning of May. Notwithstanding this apparently slow progress, they reach and disperse over a vast expanse of country. I

have met with some in every part of the United States which I have visited.

Many remain in Louisiana, where they rear two broods, perhaps sometimes three, in a season. Of this, however, I am not quite certain. I never saw them alight on the ground, unless for the purpose of drinking or of procuring fibrous roots for their nests. They are fond of sipping the dewdrops that hang at the extremities of leaves. Their sorties after insects seldom extend beyond the bushes.

About the 1st of April the White-eyed Vireo forms a nest of dry slender twigs, broken pieces of grasses and portions of old hornets' nests, which have so great a resemblance to paper that the nest appears as if studded with bits of that substance. It is lined with fine fibrous roots and the dried filaments of the Spanish moss. The nest is cup-shaped and pensile, and is fastened to two or three twigs, or to a loop of a vine. The eggs are from four to five, of a pure white, with a few dark spots near the larger end. In those districts where the Cow-bird is found it frequently drops one of its eggs among them.

I have seen the first brood from the nest about the middle of May. Unless disturbed while upon its nest, this bird is extremely sociable, and may be approached within a few feet, but when startled from the nest it displays the anxiety common to all birds on such occasions. The difference of color in the sexes is scarcely perceptible.

Geographical Distribution

The White-eyed Vireo is found through a large part of the United States, ranging from the Rocky Mountains to the Atlantic Ocean in one direction and from southern New England and Minnesota to the Gulf of Mexico in the other. In winter it extends beyond our southern borders into Guatemala and Honduras.

OVEN-BIRD
Sciurus aurocapillus

THE OVEN-BIRD

THOMAS NUTTALL

DURING the summer this rather common bird is found throughout the forests of the United States and Canada even as far west as Oregon. It arrives in the middle and northern States about the middle or close of May, and departs for tropical America, Mexico and the larger West India Islands early in September.

The Oven-bird, or Golden-crowned Thrush, is shy and retiring, and is never seen out of the shade of the woods; it sits and runs along the ground often, like the lark; it also frequents the branches of trees and sometimes moves its tail in the manner of the Wag-tails. It has few pretensions to song, and, while perched in the deep and shady part of the forest, it utters at intervals a simple long reiterated note of *'tsh'e tshe tshe tshe tshe*, rising from low to high and shrill, so as to give but little idea of the distance or place from whence the sound proceeds, and often appearing from the loudness of the cadence to be much nearer than it really is. As soon as discovered, like the Wood-thrush, it darts at once timidly into the depths of its sylvan retreat.

During the period of incubation, the deliberate lay of the male, from some horizontal branch of a forest tree, where it often sits, is a *'tshe te tshe te tshe te tshee*, gradually rising and growing louder. Toward dusk in the evening, however, it now and then utters a sudden burst of notes with a short

agreeable warble, which terminates commonly in the usual '*tshe te tshe*.

Its curious oven-shaped nest is known to all sportsmen who traverse the solitary wilds which it inhabits. This ingenious fabric is sunk a little into the ground, and is generally situated on some dry and mossy bank contiguous to bushes, or on an uncleared surface. It is formed with great neatness of dry blades of grass, and lined with the same; it is then surmounted by a thick inclined roof of similar materials, the surface scattered with leaves and twigs, so as to match the rest of the ground, and an entrance is left at the side. The eggs, four or five in number, are white, irregularly spotted near the greater end with reddish-brown. When surprised the bird escapes or runs from the nest with the silence and celerity of a mouse. If an attempt be made to discover the nest from which she is flushed, she stops, flutters and pretends lameness, and, watching the success of the maneuver, at length when the decoy seems complete she takes to wing and disappears.

The Oven-bird is another of the foster-parents sometimes chosen by the Cowbird; she rears the foundling with her accustomed care and affection, and keeps up an incessant *tship* when her unfledged brood are even distantly approached. These birds have often two broods in a season in the middle States. Their food is wholly insects and their larvæ, particularly small ants and beetles, chiefly collected on the ground.

Geographical Distribution

The Oven-bird has a wide range, being found throughout eastern North America. It nests as far south as Virginia and Kansas, and as far north as Labrador and Manitoba. It goes to Florida and more southern regions to pass the winter.

BARN-SWALLOW
Hirundo erythrogastra

THE BARN-SWALLOW

ALEXANDER WILSON

IN THE United States there are but few persons who are not acquainted with this gay, innocent and active little bird. Indeed the whole tribe are so distinguished from the rest of small birds by their sweeping rapidity of flight, their peculiar aerial evolutions of wing over our fields and rivers and through our very streets from morning to night, that the light of Heaven itself, the sky, the trees, or any other common objects of nature are not better known than the Swallows. We welcome their first appearance with delight, as the faithful harbingers and companions of flowery spring and ruddy summer; and when after a long, frost-bound and boisterous winter, we hear it announced that "the swallows are come," what a train of ideas are associated with the simple tidings!

The wonderful activity displayed by these birds forms a striking contrast to the slow habits of most other animals. It may fairly be questioned whether among the whole feathered tribes which Heaven has formed to adorn this part of creation, there be any that, in the same space of time, pass over an equal extent of surface with the Swallow. Let a person take his stand on a fine summer evening by a new-mown field, meadow or river shore for a short time, and, among the numerous individuals of this tribe that flit before him, fix his eye on a particular one, and follow for a while all its circuitous labyrinths, its extensive sweeps, its sudden rapidly-reiterated zigzag excursions, little inferior to the lightning itself, and

then attempt by the powers of mathematics to calculate the length of the various lines it describes. Alas! even his omnipotent fluxions would avail him little here, and he would soon abandon the task in despair.

Yet, that some definite conception may be formed of this extent, let us suppose that this little bird flies in his usual way at the rate of one mile in a minute, which, from the many experiments I have made, I believe to be within the truth, and that he is so engaged for ten hours in every day, and further that this active life is extended to ten years (many of our small birds being known to live much longer even in a state of domestication). The amount of all these, allowing three hundred and sixty-five days to a year, would give us two million, one hundred and ninety thousand miles, upward of eighty-seven times the circumference of the globe.

The Barn-swallow arrives in parts of Pennsylvania from the south on the last week in March or the first week in April, and passes on to the north as far at least as the river St. Lawrence. On the east side of the great range of the Alleghany, they are dispersed very generally over the country, wherever there are habitations, even to the summit of high mountains, but on account of the greater coldness of such situations they are usually a week or two later in making their appearance there. On the 16th of May, being on a shooting expedition on the top of Pocono Mountain, Northampton, where the ice on that and on several successive mornings was more than a quarter of an inch thick, I observed with surprise a pair of these Swallows which had taken up their abode on a miserable cabin there. It was then about sunrise, the ground white with hoar frost, and the male was twittering on the roof by the side of his mate with great sprightliness. The man of the house told me that a single pair came regularly there

every season and built their nest on a projecting beam under the eaves, about six or seven feet from the ground.

At the bottom of the mountain, in a large barn belonging to the tavern there, I counted upward of twenty nests, all seemingly occupied. In the woods they are never met with; as you approach a farm they soon catch the eye, cutting their gambols in the air. Scarcely a barn to which these birds can find access is without them, and as the public feeling is universally in their favor they are seldom or never disturbed. The proprietor of the barn just mentioned, a German, assured me that if a man permitted the Swallows to be shot, his cows would give bloody milk, and also that no barn where Swallows frequented would ever be struck by lightning, and I nodded assent. When the turrets of superstition "lean to the side of humanity" one can readily respect them.

Early in May they begin to build. From the size and structure of the nest it is nearly a week before it is completely finished. One of these nests, taken on the 21st of June from the rafter to which it was attached, is now lying before me. It is in the form of an inverted cone with a perpendicular section cut off on that side by which it adhered to the wood. At the top it has an extension of the edge, or offset, for the male or female to sit on occasionally; the upper diameter is about six inches by five, the height externally seven inches. This shell is formed of mud, mixed with fine hay as plasterers do their mortar with hair to make it adhere the better; the mud seems to have been placed in regular strata, or layers, from side to side; the hollow of this cone (the shell of which is about an inch in thickness) is filled with fine hay, well stuffed in; above that is laid a handful of very large downy goose feathers. The eggs are five, white, speckled and spotted all over with reddish-brown. Owing to the semi-transparency of the shell the eggs

have a slight tinge of flesh color. The whole weighs about two pounds.

There are generally two broods in the season. The first makes its appearance about the second week in June, and the last brood leaves the nest about the 10th of August. Though it is not uncommon for twenty or even thirty pairs to build in the same barn, yet everything seems to be conducted with great order and affection; all seems harmonious among them, as if the interest of each was that of all. Several nests are often within a few inches of each other, yet no appearance of discord or quarreling takes place in this peaceful and affectionate community.

When the young are fit to leave the nest the old ones entice them out by fluttering backward and forward, twittering and calling to them every time they pass, and the young exercise themselves for several days in short essays of this kind within doors before they first venture abroad. As soon as they leave the barn they are conducted by their parents to the trees, or bushes, by the pond, creek or river shore, or other suitable situation, where their proper food is most abundant, and where they can be fed with the greatest convenience to both parties. Now and then they take a short excursion themselves, and are also frequently fed while on wing by an almost instantaneous motion of both parties rising perpendicularly in air and meeting each other.

About the middle of August they seem to begin to prepare for their departure. They assemble on the roof in great numbers, dressing and arranging their plumage and making occasional essays, twittering with great cheerfulness. Their song is a kind of sprightly warble, sometimes continued for a considerable time. From this period to the 8th of September they are seen near the Schuylkill and Delaware every after-

noon for two or three hours before sunset, passing along to the south in great numbers, feeding as they skim along. I have counted several hundreds pass within sight in less than a quarter of an hour, all directing their course toward the south. The reeds are now their roosting places, and about the middle of September there is scarcely an individual of them to be seen.

How far south they continue their route is uncertain; none of them remain in the United States. Mr. Bartram informs me that during his residence in Florida he often saw vast flocks of this and our other Swallows passing from the peninsula toward the south in September and October, and also on their return to the north about the middle of March. It is highly probable that, were the countries to the south of the Gulf of Mexico visited and explored by a competent naturalist, these regions would be found to be the winter rendezvous of the very birds now before us, and most of our other migratory tribes.

Geographical Distribution

The Barn-swallow is found throughout North America. It passes the winter in Central and South America.

THE CARDINAL

THOMAS NUTTALL

THIS splendid and not uncommon songster is found chiefly in the warmer and more temperate parts of the United States from New York to Florida, and a few stragglers even proceed as far to the north as Salem, in Massachusetts. They also inhabit the Mexican provinces, and are met with south as far as Carthagená; adventurously crossing the intervening ocean they are likewise numerous in the little temperate Bermuda Islands, but do not apparently exist in any of the West Indies. As might be supposed from the range already stated, the Redbird is not uncommon throughout Louisiana, Missouri and Arkansas.

Most of those which pass the summer in the cooler and middle States retire to the south at the commencement of winter, though a few linger in the sheltered swamps of Pennsylvania and near the shores of the Delaware almost through the winter. They also, at this season, probably assemble toward the sea-coast from the west in some of the southern States, where roving and skulking timid families are now seen flitting silently through thickets and swampy woods eager alone to glean a scanty subsistence, and defend themselves from prowling enemies.

At all times, however, they appear to have a predilection for watery groves and shaded running streams, abounding with evergreens and fragrant magnolias, in which they are so frequent as to be almost concomitant with the scene. But

CARDINAL
Cardinalis Cardinalis

though they usually live in families or pairs, and at all times disperse into these selective groups, yet in severe weather at sunset in South Carolina I observed a flock passing to a roost in a neighboring swamp, and bushy lagoon, which continued in lengthened file to fly over my head at a considerable height for more than twenty minutes together. The beautiful procession illumined by the last rays of the setting sun was incomparably splendid as the shifting shadowy light at quick intervals flashed upon their brilliant livery. They had been observed to pass in this manner to their roost for a considerable time, and at daybreak they were seen again to proceed and disperse for subsistence. How long this timid and gregarious habit continues, I cannot pretend to say, but by the first week in February the song of the Redbird was almost daily heard.

As the season advances roving pairs, living as it were only with and for each other, flit from place to place, and following also their favorite insect or vegetable fare, many proceed back to the same cool region in which they were bred, and from which they were reluctantly driven, while others impelled by interest, caprice and adventure seek to establish new families in the most remote limits of their migration. Some of these more restless wanderers occasionally, though rarely, favor this part of New England with a visit.

After listening with so much delight to the lively fife of the splendid Cardinal as I traveled alone through the deep and wild solitudes which prevail over the southern States, and bid, as I thought, perhaps an eternal adieu to the sweet voice of my charming companions, what was my surprise and pleasure on the 7th of May to hear for the first time in this State and in the Botanic Garden, above an hour together, the lively and loud song of this exquisite vocalist, whose voice rose above

every rival of the feathered race, and rung almost in echoes through the blossoming grove in which he had chosen his retreat. In the southern States where the Cardinals everywhere breed, they become familiarly attached to gardens, which, as well as cornfields, afford them a ready means of subsistence; they are also fond of the seeds of most of the orchard fruits, and are said occasionally to prey upon bees.

The lay of the Cardinal is a loud, mellow and pleasingly varied whistle, delivered with ease and energy for a considerable time together. To give it full effect he chooses the summit of some lofty branch and elevating his melodious voice in powerful as well as soothing and touching tones, he listens, delighted, as it were, with the powers of his own music, at intervals answered and encouraged by the tender responses of his mate. It is thus the gilded hours of his existence pass away in primeval delight until care and necessity break in upon his contemplative reveries, and urge him again to pursue the sober walks of active life.

The song of the Redbird, like that of many others, often consists in part of favorite borrowed and slightly altered phrases. It would be a difficult and fruitless task to enumerate all the native notes delivered by this interesting songster. All the tones of the Cardinal are whistled much in the manner of the human voice.

Latham admits that the notes of our Cardinal "are almost equal to those of the Nightingale, the sweetest feathered minstrel of Europe." The style of their performance is, however, wholly different. The bold, martial strains of the Redbird, though relieved by tender and exquisite touches, possess not the enchanting pathos, the elevated and varied expression of the far-famed Philomel, nor yet those contrasted tones, which, in the solemn stillness of the growing night, fall at

times into a soothing whisper or rise slowly and quicken into a loud and cheering warble. A strain of almost sentimental tenderness and sadness pervades by turns the song of the Nightingale; it flows like a torrent, or dies away like an echo; his varied ecstasies poured to the pale moonbeams, now meet with no response but the sighing zephyr or the ever-murmuring brook.

The notes of our Cardinal are as full of hilarity as of tender expression; his whistling call is uttered in the broad glare of day, and is heard predominant over most of the feathered choir by which he is surrounded. His responding mate is the perpetual companion of all his joys and cares; simple and content in his attachment, he is a stranger to capricious romance of feeling, and the shades of melancholy, however feeble and transient, find no harbor in his preoccupied affections.

On their arrival in the middle States in spring, violent contests sometimes ensue between the unmated and jealous males. When this dispute is for the present closed the pair, probably for greater security and dreading a recurring quarrel of doubtful issue, wander off to a remote distance from their usual abode, and in this way, no doubt, occasionally visit countries but little frequented by the rest of their species. Early in May, it seems, in Pennsylvania, according to Wilson, they begin to prepare their nests, which are often placed in an evergreen bush, cedar, laurel or holly. The external materials are small twigs, dry weeds and slips of vine bark, the lining being formed of fine stalks of dry grass. The eggs, four or five, are of a dull white, thickly spotted all over with brownish-olive. They usually raise two broods in the season.

Geographical Distribution

The Cardinal is found west to the plains region over the eastern United States as far north as the lower part of the Hudson Valley and Iowa. Straggling specimens occasionally wander farther. In winter the Cardinals are found in the southern States.

CHEWINK, OR TOWHEE BUNTING
Pipilo erythrophthalmus

THE CHEWINK, OR TOWHEE BUNTING

ALEXANDER WILSON

THIS is a very common but humble and inoffensive species, frequenting close sheltered thickets, where it spends most of its time in scratching up the leaves for worms and for the larvæ and eggs of insects. It is far from being shy, frequently suffering a person to walk round the bush or thicket where it is at work without betraying any marks of alarm, and when disturbed uttering the notes *towhé* repeatedly. At times the male mounts to the top of a small tree and chants his few simple notes for an hour at a time. These are loud, not unmusical, somewhat resembling those of the Yellow-hammer of Great Britain, but more mellow and more varied.

The Chewink is fond of thickets with a southern exposure, near streams of water, and where there are plenty of dry leaves, and is found generally over the whole of the eastern United States. He is not gregarious, and you seldom see more than two together. These birds arrive in Pennsylvania about the middle or 20th of April, and begin building about the first week in May. The nest is fixed on the ground among the dry leaves near and sometimes under a thicket of briars, and is large and substantial. The outside is formed of leaves and pieces of grape-vine bark, and the inside of fine stalks of dry grass, the cavity completely sunk beneath the surface of the ground and sometimes half covered above with dry grass or hay. The eggs are usually five, of a pale flesh color, thickly marked with specks of rufous, most numerous near the

great end. The young are produced about the beginning of June, and a second brood commonly succeeds in the same season.

This bird rarely winters north of the State of Maryland, retiring from Pennsylvania to the south about the 12th of October. Yet in the middle districts of Virginia and thence south to Florida, I found it abundant during the months of January, February and March. Its usual food is obtained by scratching up the leaves; it also feeds, like the rest of its tribe, on various hard seeds and gravel, but rarely commits any depredation on the harvest of the husbandman, generally preferring the woods and traversing the bottom of fences sheltered with briars. In Virginia it is called the Bulfinch, in many places the Towhé-bird, in Pennsylvania the Chewink, and by others the Swamp Robin. He contributes a little to the harmony of our woods in spring and summer, and is remarkable for the cunning with which he conceals his nest. He shows great affection for his young, and the deepest distress on the appearance of their mortal enemy, the black snake.

Geographical Distribution

The Towhee, or Chewink, is found throughout the United States from the Atlantic seaboard to the region of the Great Plains. It extends northward into the southern part of Canada. It winters from Virginia southward.

CHIPPING SPARROW
Spizella socialis

THE CHIPPING SPARROW

JOHN JAMES AUDUBON

FEW birds are more common throughout the United States than this gentle and harmless little finch. It inhabits the towns, villages, orchards, gardens, borders of fields and prairie grounds. Abundant in the whole of the middle States during spring, summer and autumn, it removes to the southern parts to spend the winter, and there you may meet with it in flocks almost anywhere, even in the open woods.

So social is it in its character that you see it at that season in company with the Song Sparrow, the White-throated, the Savannah and the Field Sparrows, and almost every other species of the genus. The sandy roads exposed to the sun's rays are daily visited by it. There, or among the tall grasses of our old fields, it searches for food, seeking seeds, small berries and insects of various kinds. Should the weather be cold it enters the barnyard, and even presents itself in the piazza. It reaches Louisiana, the Carolinas and other southern districts in November, and returns about the middle of March to the middle and eastern States where it breeds.

Early in May the Chipping Sparrow has already formed its nest which it has placed indifferently in the apple or peach tree of the orchard or garden, in any evergreen bush or cedar, high or low, as it may best suit, but never on the ground. It is small and comparatively slender, being formed of a scanty collection of fine dried grass and lined with horse or cow hair.

The eggs are four or five, of a bright greenish-blue color,

slightly marked with dark and light brown spots, chiefly distributed toward the larger end. They are more pointed at the small end than is common in this genus. Although timorous these birds express great anxiety when their nest is disturbed, especially the female. They generally raise two broods in the season south of Pennsylvania and not unfrequently in Virginia and Maryland.

The song of this species, if song it can with propriety be called, is heard at all hours of the day, the bird seeming determined to make up by quantity for defect in the quality of its notes. Mounted on the topmost branch of any low tree or bush, or on the end of a fence-stake, it emits with rapidity six or seven notes resembling the sound produced by smartly striking two pebbles together, each succeeding note rising in strength, although the song altogether is scarcely louder than the chirping of a cricket. It is often heard during the calm of a fine night or in the warmer days of winter.

These gentle birds migrate by day, and no sooner has October returned and mellowed the tints of the sylvan foliage than flitting before you on the road you see family after family moving southward, chasing each other as if in play, sweeping across the path or flocking suddenly to a tree if surprised, but almost instantly returning to the ground and resuming their line of march. At the approach of night they throw themselves into thickets of brambles, where, in company with several other species, they keep up a murmuring conversation until long after dark. Their flight is short, rather irregular, and seldom more elevated than the height of moderate-sized trees.

With the exception of the Sharp-shinned Hawk, the Marsh Hawk and the black snake, these birds have few enemies, children being generally fond of protecting them. Little or

no difference is perceptible between the sexes, and the young acquire the full plumage of their parents at the earliest approach of spring.

Geographical Distribution

The Chipping Sparrow is found throughout eastern North America east of the Rocky Mountains and north as far as Newfoundland. It winters in the southern States and Mexico.

THE RED-WINGED BLACKBIRD

JOHN JAMES AUDUBON

THE Red-winged or Marsh Blackbird is so well-known as being a bird of the most nefarious propensities that in the United States one can hardly mention its name without hearing such an account of its pilferings as might induce the young student of nature to conceive that it had been created for the purpose of annoying the farmer. That it destroys an enormous quantity of corn, rice and other kinds of grain cannot be denied, but that before it commences its ravages it has proved highly serviceable to the crops is equally certain.

As soon as spring makes its appearance almost all the Red-wings leave the southern States in small detached and straggling flocks, the males leading the way in full song. Prodigious numbers make their appearance in the eastern districts as winter recedes, and are often seen while piles of drifted snow remain along the roads under shelter of the fences. They frequently alight on trees of moderate size, spread their tails, swell out their plumage and utter their clear and not unmusical notes, particularly in the early morning before their departure from the neighborhood of the places in which they have roosted, for their migrations are performed entirely during the day.

Their food at this season is almost exclusively composed of grubs, worms, caterpillars and different sorts of beetles, which they procure in the meadows, the orchards or the newly-ploughed fields, walking with a graceful step, but much

RED-WINGED BLACKBIRD
Agelaius phoeniceus

quicker than either of their relatives, the Purple Grackle or the Boat-tail of the southern States. The millions of insects which the Red-wings destroy at this early season are, in my opinion, a full equivalent for the corn they eat at another period, and for this reason the farmers do not destroy them in the spring when they resort to the fields in immense numbers. They then follow the ploughman in company with the Crow Blackbird, and as if aware of the benefit which they are conferring do not seem to regard him with apprehension.

When the nesting period begins the birds seek along the margin of some sequestered pond or damp meadow for a place in which to form the nest. An alder bush or a thick tuft of rank weeds answers equally well. In such a place a quantity of coarse dried weeds is deposited by them to form the exterior of the fabric which is to receive their eggs. The nest is lined with fine grasses, and in some instances with horse-hair. The eggs are from four to six in number of a regular oval form, light blue, sparsely spotted with dusky brown.

Geographical Distribution

The Red-winged Blackbird breeds from the Gulf of Mexico to southern Canada. It winters from the middle States southward.

THE BALTIMORE ORIOLE

CHARLES BENDIRE

THE Baltimore Oriole is a common and well-known bird throughout our eastern, middle and northern States. In the upper Mississippi Valley it has greatly increased in numbers within the last thirty years, since the country has been settled, and it appears to be holding its own in the east, where many other species are slowly decreasing. This is undoubtedly due to its great popularity in our rural districts, where its beneficial qualities are generally understood.

Aside from its showy plumage, its sprightly and pleasing ways, its familiarity with man, and the immense amount of good it does by the destruction of many noxious insects and their larvæ, including hairless caterpillars, spiders' cocoons, etc., it naturally and deservedly endears itself to every true lover of the beautiful in nature. Only a short-sighted churl or an ignorant fool would begrudge one of these birds the few green peas and berries it may help itself to while in season. It fully earns all it takes, and more, too, and especially deserves the fullest protection of every agriculturist.

The Baltimore Oriole usually arrives in the southern New England States, in central New York, and Minnesota, with a most invariable regularity about May 10th, rarely varying a week from this date. It arrives correspondingly earlier or later farther south or north. About this time the trees have commenced to leaf, and many of the orchards are in bloom, so that their arrival coincides with the loveliest time of the

BALTIMORE ORIOLE
Icterus galbula

year. The males usually precede the females by two or three days to their breeding grounds, and the same site is frequently occupied for several seasons. It is very much attached to a locality when once chosen for a home and is loath to leave it.

Few birds are more devoted to each other than these Orioles, and I am of the opinion that they remain mated through life. Their favorite haunts in our eastern States are found in rather open country, along the roads bordered with shade trees, creek bottoms, orchards and the borders of small timbered tracts. It is equally at home in villages or cities of considerable size as long as they furnish suitable trees for nesting sites. It shuns swampy and marshy tracts and extensive forests.

A very peculiar note, a long-drawn-out chattering, *chaë, chaë, chaë*, is apt to draw one's attention to it on its first arrival, and this is more or less frequently uttered throughout the season.

This note is difficult to reproduce exactly, and I find its songs still more so. One sounds somewhat like *hioh, hioh, tweet, tweet*; another, something like *whee-he-he, whee-he-he, oh whee-he-he-woy-woy*. This last is much more softly uttered than the first. Mr. T. Nuttall describes one of their songs as *tshippe-tshayia-too-too-tshippe-tshippe-too-too*, and there are others impossible to render. The young after leaving the nest utter a note like *he-he-hae*, and another like *heek-heek-he*, varied occasionally by a low twittering. Shortly after their arrival they sing almost incessantly when not eating, but later in the season when they have their always hungry family to provide for they are more silent. Their flight is strong, swift and graceful and they are far more at home on the wing than on the ground, where they are seldom seen except when picking up some insect or in search of nesting material.

In the vicinity of Washington, District of Columbia, nidification commences about the middle of May, and full sets of eggs may be looked for the last week in this month, while in central New York, Connecticut, Wisconsin, southern Minnesota, etc., they usually nest from eight to fourteen days later.

Few of our native birds build a more ingeniously constructed nest than the Baltimore Oriole, and it must always be considered a most interesting example of bird architecture, taking time, intelligence and good judgment to construct. From five to eight days are usually required for its completion.

Some nests show a great superiority over others in general make-up and workmanship; these are perhaps the product of old and experienced birds, while the younger ones, from lack of judgment, often select poor sites, or else secure their nests carelessly to the supporting twigs, so that many are destroyed before the young reach maturity.

Ordinarily the nest of the Baltimore Oriole is pensile, and is usually suspended by the rim from the extremities of several slender branches to which it is attached.

Others, besides being fastened by the rim, which is always neat and smoothly finished, are attached to some perpendicular fork or limb by one of the sides, thus steadying the nest and preventing it from swinging too much during the heavy winds. In a truly pensile nest some of the eggs are occasionally cracked by the violent swaying of the slender twigs to which it is attached, while if fastened at the side this occurs very rarely, unless the entire limb is torn off. Both sexes assist in nest building.

The materials used for the framework consist principally of decayed fibers, such as those of the Indian hemp, the silk of the milkweed (*Asclepias*), nettles (*Urtica*), and when located near human habitations, of horsehair, bits of twine, yarn, strips

of grapevine bark, etc. With such materials a strong purse or pouch-shaped nest is woven and firmly attached to one or more forked twigs by the slightly-contracted rim, and it is usually placed in such a position that the entrance is well shaded by leafy twigs above.

All sorts of materials are used in lining the bottom and sides of the nest—cotton, wool, tow, rags, cattle hair, fur, fine strips of bark, green moss, fine grass and plant down. They readily avail themselves of any suitable materials, such as yarn, which may be thrown out to them, but prefer plain to gaudy colored stuffs.

The color of some of the nests varies considerably according to the materials used; some look almost white, others a pale straw color, and the majority smoke-gray. In the south the Baltimore Oriole builds occasionally in bunches of the gray moss.

The nests are usually suspended from long, slender drooping branches of elm, maple, birch, weeping-willow, buttonwood, sycamore, oak, aspen, poplar, Norway spruce, apple, pear and wild cherry trees; but in some localities they are frequently built in the very top and center of a tree, where it is almost impossible to see them. They are placed at various heights from the ground, from eight to fifty feet and more, and frequently in utterly inaccessible positions. The Baltimore Oriole is tolerant and amiably disposed toward its smaller neighbors, and such are often allowed to nest in the same tree and occasionally within a few feet of its own nest.

Incubation lasts about fourteen days, and I think the female attends to this duty almost exclusively. Both sexes are extremely devoted to each other, as well as to their eggs and young, defending these bravely against all intruders. From four to six eggs are laid to a set, most frequently four, though

sets of five are not uncommon, while sets of six are rather rare. One is deposited daily, and only one brood is raised in a season. The young are able to leave the nest when about two weeks old, and may be seen sitting on some of the branches close by and clamoring for food. They are fed entirely on insects, etc., and are faithfully cared for by the parents until able to provide for themselves. The migration from the northern sections of their breeding range to their winter homes in Central America begins usually in August, but occasionally some birds linger until September.

PEWEE, OR PHOEBE
Sayornis phæbe

THE PEWEE OR PHŒBE

THOMAS NUTTALL

THESE faithful messengers of spring return to Pennsylvania as early as the first week in March, remain until October, and sometimes to nearly the middle of November. In Massachusetts they arrive about the beginning of April, and at first chiefly frequent the woods.

Their favorite resort is near streams, ponds or stagnant waters, about bridges, caves and barns, where they choose to breed, and, in short, wherever there is a good prospect for obtaining their insect food. Near such places our little hunter sits on the roof of some out-building, on a stake of the fence, or a projecting branch, calling out at short intervals and in a rapid manner *phebe*, *phebe*. This quaint and querulous note, occasionally approaching to a warble, sometimes also sounds like *pewait*, *pewait*, and then *pe-wai-ee*, also *phebe*, *phe-bee-ee*, twice alternated; the latter phrase somewhat soft and twittering.

In the spring this not unpleasing guttural warble is kept up for hours together until late in the morning, and though not loud may be heard at a considerable distance. From a roof I have heard these notes full half a mile across the waters of a small lake, and this cheerful though monotonous ditty is only interrupted for a few seconds as the performer darts and sweeps after his retreating prey of flies, frequently flirting and quivering his tail and elevating his feathery cap while sharply watching the motions of his fickle game.

In the middle States he begins to construct his nest about the latter end of March; in Massachusetts not before the first week in April. The nest is situated under a bridge, in a cave, the side of a well five or six feet down, under a shed, or in the shelter of the low eaves of a cottage, and even in an empty kitchen. Sometimes it rests on a beam, though it is frequently attached to the side of a piece of roofing timber in the manner of the Swallow. The outside is generally made of a mixture of moss and clay, and formed with considerable solidity; inside it is lined with flaxy fibers, films of bark, wool, horse-hair, or only with dry grass. The nest is also sometimes made merely of mud, root fibers and withered grass. The eggs are about five, pure white without any spots.

According to the touching relation of Wilson this humble and inoffensive bird forms conjugal attachments, which probably continue through life; for, like the faithful Bluebirds, a pair continued for several years to frequent and build in a romantic cave in the forest which made part of the estate of the venerable naturalist, William Bartram. Here our unfortunate birds had again taken up their welcome lease for the summer, again chanted forth their simple lay of affection and cheered my aged friend with the certain news of spring, when unexpectedly a party of idle boys one fatal Saturday destroyed with the gun the parents of this old and peaceful settlement, and from that time forward no other pair was ever seen around this once happy though now desolate spot.

Their attachment to particular places is indeed remarkable. About the middle of April, 1831, at the Fresh Pond Hotel in this vicinity three different nests were begun in the public boat-house, which may be here considered almost as a thoroughfare. Only one nest, however, was completed, and we could not help admiring the courage and devotedness

with which the parents fed their young, and took their alternate station by the side of the nest, undaunted in our presence, only now and then uttering a '*tship*' when observed too narrowly. Some ruffian at length tore down the nest and carried off the brood, but our Pewee immediately commenced a new fabric, laid five additional eggs in the same place with the first and in haste to finish the habitation, lined it with the silvery shreds of a manila rope discovered in the loft over the boat-house.

For several previous seasons the parents have taken up their abode in this vicinity and seemed unwilling to remove from the neighborhood they had once chosen, in spite of the most untoward circumstances.

Toward the time of their departure for the south, which is about the middle of October, they are silent, and previously utter their notes more seldom, as if mourning the decay of nature and anticipating the approaching famine which now urges their migration. In the middle States they raise two broods in the season.

The young, dispersed through the woods in small numbers, may now and then be heard to the close of September exercising their feeble voices in a guttural *phebe*, but the old birds are almost wholly silent as they flit timidly through the woods when once released from the cares of rearing their infant brood, so that here the Phæbe's note is almost a concomitant of spring and the mildest opening of summer; it is indeed much more vigorous in April and May than at any succeeding period.

Geographical Distribution

The Phæbe is found throughout eastern North America. It breeds from South Carolina to Newfoundland, and winters from North Carolina southward,

THE CHIMNEY SWIFT

THOMAS NUTTALL

THIS singular bird, while passing the winter in tropical America, arrives in the middle and northern States late in April or early in May. Its migrations extend at least to the sources of the Mississippi where it has been observed by travelers.

More social than the foreign species, which frequent rocks and ruins, our Swift takes advantage of unoccupied and lofty chimneys, the original roosting and nesting situation having been tall, gigantic hollow trees, such as the elm and the buttonwood or sycamore. The nest is formed of slender twigs neatly interlaced, somewhat like a basket, and connected sufficiently together by a copious quantity of adhesive gum or mucilage secreted by the glands beneath the tongue of the curious architect. This rude cradle of the young is small and shallow, and attached at the sides to the wall of some chimney, or the inner surface of a hollow tree. It is wholly destitute of lining.

So assiduous are the parents that they feed the young through the greater part of the night; their habits, however, are nearly nocturnal, as they fly abroad most at and before sunrise and in the twilight of evening. The noise which they make while passing up and down the chimney resembles almost the rumbling of distant thunder.

When the nest gets loosened by rains so as to fall down, the young, though blind, find means of escape, by creeping up

CHIMNEY SWIFT
Chactura pelagica

and clinging to the sides of the chimney walls. In this situation they continue to be fed for a week or more. Soon tired of their hard cradle, they generally leave it long before they are capable of flying.

On their first arrival, and for a considerable time afterward, the males particularly associate to roost in a general resort. This situation, in the remote and unsettled parts of the country, is usually a large hollow tree open at the top. These well-known "Swallow trees" are ignorantly supposed to be the winter quarters of the species, where in heaps they are believed to doze away the cold season in a state of torpidity, but no proof of the fact has ever been adduced.

The length of time such trees have been resorted to by particular flocks may be conceived perhaps by the account of a hollow tree of this kind described by the Rev. Dr. Harris in his journal. The sycamore alluded to grew in Waterford, Ohio, two miles from the Muskingum River. Its hollow trunk, now fallen, of the diameter of five and a half feet, for nearly fifteen feet upward, contained a solid mass of decayed Swallow feathers, mixed with brownish dust and the exuviae of insects.

In inland towns these birds have been known to make their general roost in the chimney of the court-house.

Before descending they fly in large flocks, making many ample and circuitous sweeps in the air, and as the point of the vortex falls individuals drop into the chimneys by degrees, until the whole have descended, which generally takes place in the dusk of the evening. They all, however, disappear about the first week in August.

Like the Swallow, the Chimney Swift flies very quick, and with but slight vibrations of its wings, appearing as it were to swim in the air in widening circles, shooting backward and

forward through the ambient space at great elevations, and yet scarcely moving its wings. Now and then it is heard to utter, in a hurried manner, a sound like *tsip-tsip-tsip-tsee-tsee*. It is never seen to alight but in hollow trees or chimneys, and appears always most gay and active in wet and gloomy weather.

Geographical Distribution

The Chimney Swift is found in summer as far north as Labrador and the fur countries; west as far as the region of the plains. In autumn it migrates southward and passes the winter in Central America.

DOWNY WOODPECKER
Dryobates pubescens

THE DOWNY WOODPECKER

ALEXANDER WILSON

THIS is the smallest of our Woodpeckers and closely resembles the Hairy Woodpecker in its tint and markings, and in almost everything except its diminutive size. It remains with us the whole year.

About the middle of May the male and female look out for a suitable place for the reception of their eggs and young. An apple, pear or cherry tree, often in the near neighborhood of the farmhouse, is generally selected for this purpose. The tree is minutely reconnoitered for several days previous to the operation, and the work is first begun by the male, who cuts out a hole in the solid wood, as circular as if described with a pair of compasses. He is occasionally relieved by the female, both working with great diligence.

The direction of the hole, if made in the body of the tree, is generally downward, at an angle of thirty or forty degrees, for the distance of six or eight inches, and then straight down for ten or twelve more. Within it is roomy, capacious and as smooth as if polished by the cabinet-maker, but the entrance is judiciously left just so large as to admit the body of the owner. During this labor the birds regularly carry out the chips, often strewing them at a distance to prevent suspicion. This occupation sometimes continues for nearly a week.

Before she begins to lay, the female often visits the place, passes in and out, examines every part, both of the exterior

and interior, with great attention, as every prudent tenant of a new house ought to do, and at length takes complete possession. The eggs are generally six, pure white, and laid on the smooth bottom of the cavity. The male occasionally supplies the female with food while she is sitting. About the last week in June the young are perceived making their way up the tree, climbing with considerable dexterity.

All this goes on with great regularity where no interruption is met with, but the House-wren, which also builds in the hollow of a tree, but which is furnished with neither the necessary tools nor strength for excavating such an apartment for himself, sometimes allows the Woodpeckers to go on until he thinks it will answer his purpose. Then he attacks them with violence and generally succeeds in driving them off. I saw some weeks ago a striking example of this, where the Woodpeckers, after commencing in a cherry-tree within a few yards of the house, and having made considerable progress, were turned out by the Wren. The Woodpeckers began again in a pear-tree, fifteen or twenty yards off, where, after digging out a most complete apartment, and one egg being laid, they were once more assaulted by the same impertinent intruder and finally forced to abandon the place.

The principal characteristics of the Downy Woodpecker are diligence, familiarity, perseverance, and a strength and energy in the head and muscles of the neck that are truly astonishing. Mounted on the infested branch of an old apple-tree, where insects have lodged their corroding and destructive brood in the crevices between the bark and wood, he labors until he has succeeded in reaching them. At these times you may walk up pretty close to the tree, and even stand immediately below it, within five or six feet of the bird, without embarrassing him in the least. The strokes of his bill

are heard several feet off, and I have known him to be at work two hours together on the same tree.

These Woodpeckers also dig out holes in dead trees as homes for themselves at other times than the nesting season. In winter these snug houses must be especially useful to them. "A new nesting site is usually selected each season, in the vicinity of the old one, but occasionally this is cleaned out, deepened a little, and used for several seasons in succession. After the nesting hole is finished, the male frequently digs out a somewhat shallower one for himself in the same tree or another close by. Each pair of birds lay claim to a certain range and intruders are driven away."

Geographical Distribution

The Downy Woodpecker is found from the southern borders of the United States northward to Labrador, occurring as far west as the Great Plains and British Columbia.

THE HAIRY WOODPECKER

CHARLES BENDIRE

THE Hairy Woodpecker is fairly common through the wooded regions of our northern and middle States, and in winter is occasionally found in some of the southern States—Louisiana, for instance. It is a resident in the mountainous regions of North Carolina, while in the lowlands it is replaced by a smaller southern race. It is a hardy bird, and intense cold does not appear to affect it much.

As a rule the Hairy Woodpecker is rather unsocial, and unless followed by their young more than a pair are rarely seen together. It does not live in harmony with smaller species of its own kind, and drives them away when they encroach on its feeding grounds, being exceedingly greedy in disposition and always hungry. It is partial to timbered river bottoms, the outskirts of forests and occasionally it makes its home in old orchards and in rather open, cultivated country, interspersed here and there with isolated clumps of trees. It is also found in the midst of extended forest regions.

The Hairy Woodpecker, like most of its relatives, is an exceedingly beneficial and useful bird, which rids our orchards and forests of innumerable injurious larvæ, like those of the boring beetles, which burrow in the wood and between the bark and trunk of trees. It never attacks a sound tree. Although commonly known as Sapsucker, this name is very inappropriate. It is not in search of sap, but of such grubs as are found only in decaying wood. Nevertheless it is exceed-

HAIRY WOODPECKER
Dryobates villosus

ingly difficult to make the average farmer believe this, and in winter when these birds are more often seen about the vicinity of dwellings and the neighboring orchards than at any other season of the year, many are shot under the erroneous belief that they injure the very trees they are doing their best to protect.

The food of this bird, besides larvæ, consists of various species of small beetles, spiders, flies, ants, and in winter when such food is scarce to some extent of seeds and grain, and less often of nuts and acorns. I have seen it cling to fresh hides hung up to dry, picking off small particles of fat and meat, and in summer it occasionally eats a few berries of different kinds. In the fall of the year it can often be seen inspecting old fence-posts and telegraph-poles, probably on the lookout for cocoons, spider eggs, etc.

Like all the Woodpeckers, it is an expert climber, and moves rapidly up and around trees in short hops. It is equally easy for it to go backward or sidewise, and it is astonishing how rapidly it can move in any direction. The strong feet and sharp claws enable it to hold firmly to the bark, and the stiff spiny tail feathers also come in play while it is at work, acting as a support for the body, which is well thrown back when a blow is delivered with its powerful chisel-like bill.

Although usually rather shy, when busy in search of food one will occasionally allow itself to be very closely approached. I have seen one alight on the trunk of a crab-apple tree within three feet of me and deliberately commence searching for larvæ, apparently perfectly unconcerned about my presence, and when I moved up a little closer he simply hopped around on the opposite side of the tree and continued his search. Every once in a while, however, his head would appear from behind the tree to see if I were still watching him.

He remained fully thirty minutes on the same tree, where he evidently found an abundance of food, and then flew off uttering several loud notes like *huip, huip*. His ordinary call sounds like *triii, triii*, a shrill rattling note.

The tongue of the majority of our Woodpeckers is especially adapted for extracting larvæ, etc., from the wood in which they live. The tongue proper is rather small, flat, and terminates in a sharp, horny point, which is armed at the sides with a series of bristle-like barbed hooks. The worm-like neck, or the *hyoid process* to which it is attached, is generally rather long and curves around the back of the skull in a sheath, and this can readily be thrown forward for two or three inches. A sticky saliva is also secreted, with which the tongue is covered to facilitate the extraction of the food of which they are in search.

Their sense of hearing must be exceedingly acute, as they appear to detect readily the slightest movement of any insect under the bark or in the solid wood, and they make no mistakes in properly locating it. Their flight is rapid, undulating, usually not very protracted, and they rarely descend to the ground in search of food, where their movements are rather awkward and clumsy.

Nidification usually begins early in April, and it requires about a week to prepare the nesting site. Both sexes take part in this labor, and it is really wonderful how neat and smooth an excavation these birds can make with their chisel-shaped bills in a comparatively short time. The entrance hole is as round as if made with an auger, about two inches in diameter, and just large enough to admit the body of the bird; the edges are nicely beveled, the inside is equally smooth, and the cavity is gradually enlarged toward the bottom. The entrance hole, which is not unfrequently placed

under a limb for protection from the weather, generally runs in straight through the solid wood for about three inches and then downward from ten to eighteen inches, and some of the finer chips are allowed to remain in the bottom of the cavity in which the eggs are deposited.

After this is completed the male frequently excavates another hole, or even several in the same tree, or in another close by, in which to pass the night or to seek shelter, and to be close to the nest while the female is incubating. These holes are not as deep as the others. A fresh nesting site is generally selected each season, but where suitable trees are scarce the same one may be used for several years in succession. In such a case it is usually thoroughly cleaned out, and the old chips in the bottom replaced by new ones. Beach, ash, poplar, birch, oak, sycamore, haw and apple trees are mostly used for nesting sites. The number of eggs laid to a set varies from three to five, usually four. They are pure white and unspotted.

The duties of incubation are divided between the sexes and last about two weeks. The young when first hatched are repulsive looking creatures, blind and naked, with enormously large heads and ugly protuberances at the base of the bill, resembling a reptile more than a bird. They are fed by the parents by regurgitation of their food, which is the usual way in which the young of most Woodpeckers are fed when first hatched. The young remain in the nest about three weeks. Even after leaving the nest they are assiduously cared for by both parents for several weeks until able to provide for themselves.

THE AMERICAN SPARROW-HAWK

CHARLES BENDIRE

NEXT to the Cuban Sparrow-hawk, this handsome little falcon is the smallest of our diurnal birds of prey. It is pretty generally distributed over nearly the entire North American continent, excepting the extreme arctic portions thereof. In the eastern United States it is not nearly so abundant as throughout the west, where I have found it a common summer resident almost everywhere, if suitable timber for nesting sites was available. It winters from about latitude 38° N. and southward in the eastern United States, as well as in the Rocky Mountain region; on the Pacific Coast from about latitude 41° N., though stragglers remain in sheltered and favorable localities at still higher latitudes throughout the country.

They usually arrive on their old nesting grounds in the central portions of their range about the middle of March, some seasons not before the beginning of April, and at later dates farther to the northward. In Florida nidification begins about the middle of March, sometimes in the last half of February; in southern Arizona, southern Texas and southern California about the first week in April; in the middle States from April 15th to May 10th, and in the more northern States from May 1st to June 1st.

The most common nesting place of the Sparrow-hawk is in holes of trees, either natural cavities or the abandoned excavations of our larger Woodpeckers. In regions where such

AMERICAN SPARROW-HAWK
Falco Sparverius

sites are not readily obtainable, it resorts to holes in sandstone cliffs and clay banks. Occasionally a pair will nest in some dark corner in a barn, and even dovecots have been known to be appropriated. Several observers report their nesting in Magpies' nests in the west, but this is by no means a constant habit with this species.

There seems to be a great difference in the manner of lining their nests. Strictly speaking the Sparrow-hawk ordinarily makes no nest, depositing its eggs on whatever rubbish may be found at the bottom of the cavity used. Occasionally the eggs are laid on a few leaves or grasses, scarcely deserving the name of a nest. In some localities, however, they are credited with bringing in a considerable amount of dry grass and leaves to form the nest.

The number of eggs laid by this species seems to vary from three to seven; the latter number is rare, however, five and four being the number most commonly found. They are deposited at intervals of a day. Their shape varies greatly, the majority ranging from a rounded ovate to an oval, and a few may be called elliptical ovate. The ground color of the eggs ranges from a pure clear white in a few instances to pale buff or cream color in the majority, and to a bright cinnamon rufous in a few others. They are spotted, blotched, marbled and sprinkled with different shades of walnut brown, chestnut, cinnamon rufous and ochraceous in various patterns. Frequently these markings are confluent, predominating in some specimens on either end; in others they are heaviest in the center, forming a wreath. Mixed among the various tints, a few eggs show handsome lavender-colored shell markings.

Incubation lasts about three weeks. The young when first hatched are covered with fine white down, and their heads, as is the case with most young birds of prey, are nearly as large

as the remaining parts of the body. Both parents assist in incubation, and are very solicitous in the care of their family. No other birds are allowed to come in the vicinity of their nest at such times without subjecting themselves to a vicious attack, and it makes no difference if the intruder has greatly the advantage in size, for they will attack a Swainson's or a Red-tailed Hawk as readily as any other bird.

While in search of food these handsome little falcons frequently arrest their swift flight instantly, hovering suspended over the spot where their prey is supposed to be found. Their food consists principally of small rodents, grasshoppers and other insects, and larvæ of various kinds; lizards and small snakes are also eaten by them, and occasionally, when other provender is scarce, especially in winter, small birds have to suffer. Grasshoppers, when attainable, form the bulk of their fare, and it is amusing to watch them catch and dispose of the latter, handling them as expertly as a squirrel does a nut. And no sooner has one been caught and swallowed than they are after another. They seize them with their talons, both while on the wing and on the ground. After gorging themselves, they return to some favorite perch on a dead limb of a tree standing on the edge of a prairie or meadow, or to the top or the crossbars of a telegraph-pole, and sometimes to the wire itself. In the west, where these little Hawks are abundant, every such pole in sight stretching across a prairie may sometimes be seen occupied by this or some larger species. These poles appear to be very attractive to all the Raptores, affording them an unobstructed view of the surroundings. The common call of the Sparrow-hawk is a shrill *kee-hee, kee-hee*, repeated several times.

SCREECH-OWL, OR MOTTLED OWL
Megascops asio

SCREECH-OWL OR MOTTLED OWL

JOHN JAMES AUDUBON

THE notes of this Owl are uttered in a tremulous doleful manner and somewhat resemble the chattering of the teeth of a person under the influence of extreme cold, although much louder. They are heard at a distance of several hundred yards, and by some people are thought to be of ominous import.

The little fellow is generally found about farmhouses, orchards and gardens. It alights on the roof, the fence or the garden gate, and utters its mournful ditty at intervals for hours at a time, as if it were in a state of great suffering, although this is far from being the case, the song of all birds being an indication of content and happiness. They are chiefly heard during the latter part of winter, just before the nesting season.

The nest is placed in the bottom of the hollow trunk of a tree, often not at a greater height than six or seven feet from the ground, at other times as high as from thirty to forty feet. It is composed of a few grasses or feathers. The eggs are four or five, of a nearly globular form, and a pure white color. If not disturbed, this species lays only one set of eggs in a season.

The young remain in the nest until they are able to fly. At first they are covered with a downy substance of a dull yellowish white. By the middle of August they are fully feathered, although considerable difference in color is found

in different individuals, as I have seen some of a deep chocolate color and others nearly black. The feathers change their colors as the season advances, and in the first spring the bird is in its perfect dress.

The Mottled Owl rests or spends the day either in a hole of some decayed tree, or in the thickest part of the evergreens which are found so abundantly in the country to which it usually resorts during the nesting season, as well as in the depth of winter.

The flight of the Mottled Owl is smooth, rapid, protracted and noiseless. It rises at times above the top branches of the highest of our forest trees whilst in pursuit of large beetles, and at other times sails low and swiftly over the fields or through the woods in search of small birds, field mice, moles or wood rats from which it chiefly derives its subsistence. On alighting, which it does plumply, the Owl immediately bends its body, turns its head to look behind it, performs a curious nod, utters its notes, then shakes and plumes itself and resumes its flight in search of prey.

Geographical Distribution

The common form of the Screech-owl is found in the eastern portions of the United States and Canada, south as far as Georgia and west as far as the Great Plains. In other parts of North America there are closely related varieties. This Owl, like the rest of its family, swallows its food whole, and ejects afterward the indigestible portions in the shape of pellets formed of the bones wrapped in fur or feathers.

MOURNING-DOVE
Zenaidura macroura

THE MOURNING-DOVE

THOMAS NUTTALL

THIS almost familiar pigeon in the course of the spring leisurely migrates through the interior as far as Canada, though in the eastern States it is rarely met with to the north of Connecticut. Many appear sedentary in the warmer States, where they breed as far south as Louisiana. They are also said to inhabit the Antilles, and we saw them not uncommon in the territory of Oregon. In the warmer parts of the Union they commence laying early in April, and in South Carolina I heard their plaintive coo on the 29th of January; but at the extremity of their range they scarcely begin to breed before the middle of May. They lay usually two eggs, of a pure white, and make their nest in the horizontal branches of a tree. It is made up of a mere platform of twigs so loosely and slovenly put together as to appear scarcely sufficient to prevent the young from falling out.

By the first fine days of the early southern spring we hear from the budding trees of the forest, or the already blooming thicket, the mournful call of this Carolina Turtle-dove, commencing, as it were, with a low and plaintive sigh, *a'gh coo coo coo*, repeated at impressive intervals of half a minute, and heard distinctly to a considerable distance through the still and balmy air of the reviving season. This sad but pleasing note is also more distinguished at this time, as it seeks the noon-day warmth in which to utter its complaint, and where it is then heard without a rival.

The flight of this species is rapid and protracted, and, as usual in the genus, accompanied by a very audible whistling noise. The birds fly out often in wide circles, but seldom rise above the trees, and keep out near the skirts of the forest or around the fences and fields, which they visit with considerable familiarity, gleaning after the crop has been removed, and seldom molesting the farmer except by now and then picking up a few grains in sowing time, which may happen to be exposed too temptingly to view.

The usual food of this species is various kinds of grains and small acorns, as well as the fruit of the holly, dogwood, poke, whortle and partridge berries, with other kinds according to the season. In the nuptial period the wide circling flight of the male is often repeated around his mate, toward whom he glides with tail and wings expanded, and gracefully alights on the same or some adjoining tree, where she fosters her eggs and infant brood. On alighting they spread out their flowing trains in a graceful attitude, accompanying the motion by a clucking and balancing of the neck and head evincing the lively emotion and mutual affection they cherish. When the female confines herself to her eggs her constant mate is seen feeding her with a delicate and assiduous attention.

The roosting places preferred by this Carolina Turtle-dove are among the long and unshorn grass of neglected fields, in the slight shelter of corn-stalks, or the borders of meadows. They also occasionally seek harbor among the rustling and falling leaves, and amidst the thick branches of various evergreens. But in every situation, even though in darkness, they are so vigilant as to fly at the instant of approach. They do not huddle together, but take up their nest in solitude, though a whole flock may be in the same field. They also frequently resort to the same roosting places,

if not materially molested. It is a hardy species, enduring considerable cold, and individuals remain even in the middle, as well as the southern States, throughout the year.

These Doves are far less gregarious and migratory than is the common Wild Pigeon. When their food becomes scanty in the fields in the course of the winter, they approach the farm, feeding among the poultry with the Blackbirds, Sparrows and other guests of the same accidental bounty, and if allowed without reprisal appear as gentle as domestic Doves. Raised from the nest they are easily tamed, and instances are known of their breeding in confinement.

Geographical Distribution

The northern limit of the distribution of the Mourning-dove is along a line drawn from southern Maine to southern Canada and British Columbia. In winter it occurs from southern Illinois and New York to the West Indies and Panama. Its nest is built wherever it occurs over this wide range.

THE BOB-WHITE OR QUAIL

JOHN JAMES AUDUBON

THE common name given to this bird in the eastern and middle districts of our Union is that of the Quail, but in the western and southern States it is called the Partridge. It is abundantly met with in all parts of the United States, but more especially toward the interior. In the States of Ohio and Kentucky, where these birds are very abundant, they are to be seen in the markets both dead and alive in large quantities.

This species performs occasional migrations from the northwest to the southeast, usually in the beginning of October, and somewhat in the manner of the Wild Turkey. For a few weeks at this season the northwestern shores of the Ohio River are covered with flocks of Quails. They ramble through the woods along the margin of the stream and generally fly across toward evening. Like the Turkeys, many of the Partridges fall into the water while thus attempting to cross, and generally perish, for although they swim surprisingly they have not muscular power sufficient to keep up a protracted struggle, although when they have fallen within a few yards of the shore they easily escape being drowned. I have been told by a friend that a person residing in Philadelphia had a hearty laugh on hearing that I had described the Wild Turkey as swimming for some distance when it had accidentally fallen into the water. But almost every species of land bird is capable of swimming on such occasions, and you may

BOB-WHITE, OR QUAIL
Colinus virginianus

easily satisfy yourself as to the accuracy of my statement by throwing a Turkey, a common fowl, or any other bird into the water. As soon as the Quails have crossed the principal streams in their way, they disperse in flocks over the country and return to their ordinary mode of life.

The flight of these birds is generally performed at a short distance from the ground. It is rapid and is continued by numerous quick flaps of the wings for a certain distance, after which the bird sails until about to alight when again it flaps its wings to break its descent. When chased by dogs or startled by any other enemy they fly to the middle branches of trees of ordinary size, where they remain until danger is over. They walk with ease on the branches. If they perceive that they are observed, they raise the feathers of their head, emit a low note and fly off either to some higher branch of the same tree or to another tree at a distance. When these birds rise on wing of their own accord the whole flock takes the same course, but when "put up" (in the sportsman's phrase) they disperse; after alighting, call to each other, and soon after unite, each running or flying toward the well-known cry of the patriarch of the covey. During deep and continued snows they often remain on the branches of trees for hours at a time.

The usual cry of this species is a clear whistle, composed of three notes; the first and last nearly equal in length, the latter less loud than the first, but more so than the intermediate one. When an enemy is perceived they immediately utter a lisping note, frequently repeated, and run off with their tails spread, their crests erected and their wings drooping, toward the shelter of some thicket or the top of a fallen tree. At other times, when one of the flock has accidentally strayed to a distance from its companions it utters two notes louder

than any of those mentioned above, the first shorter and lower than the second, when an answer is immediately returned by one of the pack. This species has moreover a love call, which is louder and clearer than its other notes and can be heard at a distance of several hundred yards. It consists of three distinct notes, the last two being loudest, and is peculiar to the male bird. A fancied similarity to the words "bob white" render this call familiar to the sportsman and farmer, but these notes are always preceded by another easily heard at a distance of thirty or forty yards. The three together resemble the words *ah-bob-white*. The first note is a kind of aspiration, and the last is very loud and clear. This whistle is seldom heard after the breeding season, during which an imitation of the peculiar note of the female will make the male fly toward the sportsman.

In the middle districts the love call of the male is heard about the middle of April, and in Louisiana much earlier. The male is seen perching on a fence-stake or on the low branch of a tree, standing nearly in the same position for hours together and calling *ah-bob-white* at every interval of a few minutes. Should he hear the note of a female he sails directly toward the spot whence it proceeded. Several males may be heard from different parts of a field challenging each other, and should they meet on the ground they fight with great courage and obstinacy until the conqueror drives off his antagonist to another field.

The female prepares a nest composed of grasses, arranged in a circular form, leaving an entrance not unlike that of a common oven. It is placed at the foot of a tuft of rank grass or some close stalks of corn, and is partly sunk in the ground. The eggs are from ten to eighteen, rather sharp at the smaller end, and of a pure white. The male at times assists in hatch-

ing them. This species raises only one brood in the year, unless the eggs or the young when yet small have been destroyed. When this happens the female immediately prepares another nest, and should it also be ravaged, sometimes even a third. The young run about the moment they make their appearance, and follow their parents until spring, when, having acquired their full beauty, they make nests for themselves.

The Quail rests at night on the ground, either amongst the grass or under a bent log. The individuals which compose the flock form a ring, and moving backward approach each other until their bodies are nearly in contact. This arrangement enables the whole covey to take wing when suddenly alarmed, each flying off in a direct course, so as not to interfere with the rest.

Geographical Distribution

The Bob-white is a widely distributed species. In the eastern region it is found from Maine and Ontario to the Atlantic and Gulf States, and it is found west as far as South Dakota and eastern Texas. "Of late years it has gradually extended its range westward along lines of railroad and settlements, and has also been introduced at various points in Colorado, New Mexico, Utah, Idaho, California, Oregon, and Washington."

THE SPOTTED SANDPIPER OR “PEET-WEET”

THOMAS NUTTALL

THE Peet-weet is one of the most familiar and common of all the New England marsh birds, arriving along our river shores and low meadows about the beginning of May. As soon as it arrives on the coast small roving flocks are seen at various times of the day, coursing rapidly along the borders of our tide-water streams. Flying swiftly and rather low, in circular sweeps along the meanders of the rock and river, and occasionally crossing from side to side, they now present a more sportive and cheerful mien than they assume at the close of autumn when foraging becomes less certain. While flying out in these wild circuits, agitated by feelings superior to those of hunger and necessity, we hear the shores reëcho the shrill and rapid whistle of '*weet, 'weet, 'weet, 'weet*, the note usually closing with something like a warble as they approach their companions on the strand. The cry then varies to *peet, 'weet, 'weet, 'weet*, beginning high and gradually declining into a somewhat plaintive tone. As the season advances our lively little marine wanderers often trace the streams some distance into the interior, resting usually in fresh meadows along the grass, sometimes even near the house; and I have seen their eggs laid in a strawberry bed where the young and old, pleased with the protection afforded them, familiarly fed and probed the margin of the adjoining duck-pond for their usual fare of worms and insects.

These birds have the very frequent habit of balancing or wagging the tail, in which even the young join as soon as

SPOTTED SANDPIPER, OR "PEET-WEET"
Actitis macularia

they are fledged. From the middle to the close of May the pairs, receding from their companions, seek out a place for the nest, which is always in a dry, open field of grass or grain, sometimes in the seclusion and shade of a field of corn, but most commonly in a dry pasture contiguous to the seashore. In some of the solitary and small sea islands several pairs sometimes make their nests near each other, in the immediate vicinity of the noisy nurseries of the quailing Terns.

On being flushed from her eggs the female goes off without uttering any complaint, but when surprised with her young she practices all sorts of dissimulation common to many other birds, fluttering in the path as if badly wounded, and generally proceeds in this way so far as to deceive a dog and cause it to overlook her brood for whose protection these instinctive arts are practiced. Nor are the young without their artful instinct, for on hearing the reiterated cries of their parents they scatter about and squatting still in the withered grass almost exactly their color, it is with careful search very difficult to discover them, so that in nine times out of ten they would be overlooked.

At a later period the shores and marshes resound with the quick, clear and oft-repeated note of *peet-weet, peet-weet*, followed up by a plaintive call of the young of *peet, peet, peet, peet*. If this is not answered by the scattered brood a reiterated '*weet, 'weet, 'weet, 'wait, 'wait, 'wait* is heard, the voice dropping on the final syllables. The whole marsh and shore at times echoes to this loud, lively and sometimes solicitous call of the affectionate parents for their brood. The cry, of course, is most frequent toward evening, when the little family, separated by the necessity of scattering themselves over the ground in quest of food, are desirous of again reassembling to roost.

The young, as soon as hatched, run about the grass and utter from the first a weak, plaintive peep, at length more frequent and audible, and an imitation of the whistle of *peet-weet* is almost sure to be met with an answer from the sympathizing broods, which now throng our marshes. When the notes appear to be answered the parents hurry and repeat their call with great quickness. Young and old previous to their departure frequent the seashores, but never associate with other kinds, nor become gregarious, living always in families till the time of their departure, which usually occurs about the middle of October.

Geographical Distribution

This little bird has an extraordinary geographical range, being found from Alaska in North America to Brazil in South America, and from the Atlantic to the Pacific Coasts. It is as common on the inland ponds and streams as on the seashore, although Nuttall speaks of it as a "marine wanderer."

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GREAT BLUE HERON
Ardea herodias

THE GREAT BLUE HERON

JOHN JAMES AUDUBON

FEW of our waders are more interesting than the birds of the Heron family. Their contours and movements are always graceful, if not elegant. Look on the one that stands near the margin of the pure stream! See his reflection dipping as it were into the smooth water, the bottom of which it might reach had it not to contend with the numerous boughs of these magnificent trees! How calm, how silent, how grand is the scene! The tread of the tall bird himself no one hears, so carefully does he place his foot on the moist ground, cautiously suspending it for a while at each step of his progress. Now his golden eye glances over the surrounding objects, in surveying which he takes advantage of the full stretch of his graceful neck. Satisfied that no danger is near he lays his head on his shoulder, allows the feathers of his breast to droop and patiently waits the approach of his finny prey. You might imagine what you see to be the statue of a bird, so motionless it is. But now he moves; he has taken a silent step and with great care he advances; slowly does he raise his head from his shoulders, and now what a sudden start! His formidable bill has transfixed a perch, which he beats to death on the ground. See with what difficulty he gulps it down his capacious throat, and then opens his broad wings and slowly flies away to another station.

The Great Blue Heron is met with in every part of the Union. Although more abundant in the low lands of our

Atlantic Coast it is not uncommon in the country west of the Alleghany Mountains. I have found it in every State in which I have traveled, as well as in all our territories. It is well known from Louisiana to Maine, but seldom occurs farther east than Prince Edward Island, in the Gulf of St. Lawrence, and not a Heron of any kind did I see or hear of in Newfoundland or Labrador. Westward I believe it reaches to the very base of the Rocky Mountains.

It is a hardy bird and bears the extremes of temperature surprisingly, being in its tribe what the Passenger Pigeon is in the family of Doves. It is not rare in the middle States, though more plentiful to the west and south of Pennsylvania.

Extremely suspicious and shy, this bird is ever on the lookout. Its sight is as acute as that of any Falcon, and it can hear at a considerable distance, so that it is enabled to mark with precision different objects it sees, and to judge with accuracy of the sounds which it hears. Unless under very favorable circumstances it is almost hopeless to attempt to approach it. I have seen many so wary that on seeing a man at the distance of half a mile they would take to wing, and the report of a gun forces one off his grounds from a distance at which you would think he could not be alarmed.

The Blue Heron feeds at all hours of the day, as well as in the dusk and dawn and even at night when the weather is clear, his appetite alone determining his actions in this respect; but I am certain that when disturbed during dark nights it feels bewildered and alights as soon as possible. When passing from one part of the country to another at a distance the case is different, and on such occasions they fly at night high above the trees, continuing their movements in a regular manner.

The commencement of the nesting season of the Great

Blue Heron varies according to the latitude, from the beginning of March to the middle of June. In Florida it takes place about the first of these periods, in the middle States about the 15th of May, and in Maine a month later.

It is at the approach of this period only that these birds associate in pairs, they being generally quite solitary at all other times. Except during the nesting season each individual seems to secure for itself a certain district as a feeding ground, giving chase to every intruder of its own species. At such times they also repose singly, for the most part roosting on trees, although sometimes taking their station on the ground in the midst of a wide marsh, so that they may be secure from the approach of man. This unsocial temper probably arises from the desire of securing a certain abundance of food, of which each bird requires a large quantity.

The nest of the Blue Heron is large and flat, externally composed of dry sticks and matted with weeds and mosses to a considerable thickness. When the trees are large and convenient you may see several nests on the same tree. Three eggs are laid in the nest. They are very small compared with the size of the bird, measuring only two and a half by one and a half inches. They are of a dull bluish white color, without spots, and of a regular oval form.

The male and female sit alternately, receiving food from each other, their mutual affection being as great as it is toward their young, which are provided for so abundantly that it is not uncommon to find the nest containing a surplus of fish and other food.

As the young grow older they are less frequently fed, although still as copiously supplied whenever opportunity offers. But now and then I have observed them, when the nests were low, calling for food in vain. The quantity which

they now require is so great that all the exertions of the old birds appear at times to be insufficient to satisfy their voracious appetites. They do not provide for themselves until fully able to fly, when their parents chase them off and force them to shift as they can.

This species takes three years in attaining maturity, and even after that period it still increases in size and weight. When just hatched the young birds have a very uncouth appearance, the legs and neck being very long as well as the bill. By the end of a week the head and neck are sparingly covered with long tufts of silky down, of a dark gray color, and the body shows young feathers, the quills large with soft blue sheaths. At the end of four weeks the body and wings are well covered with feathers of a dark slate color, broadly margined with brownish-red; the bill has grown wonderfully, the legs are quite strong and the birds are able to stand erect on the nest or on the objects near it.

They are now seldom fed oftener than once a day, as if their parents were intent on teaching them that abstinence without which it would often be difficult for them to subsist in after life. At the age of six or seven weeks they fly off, and at once go in search of food, each by itself. These birds feed on fish, frogs, lizards, snakes, shrews, meadow mice and other animals.

Geographical Distribution

The Great Blue Heron occurs throughout North America south of the Arctic regions. It extends through the West Indies and the northern part of South America. It winters from the middle States southward.

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