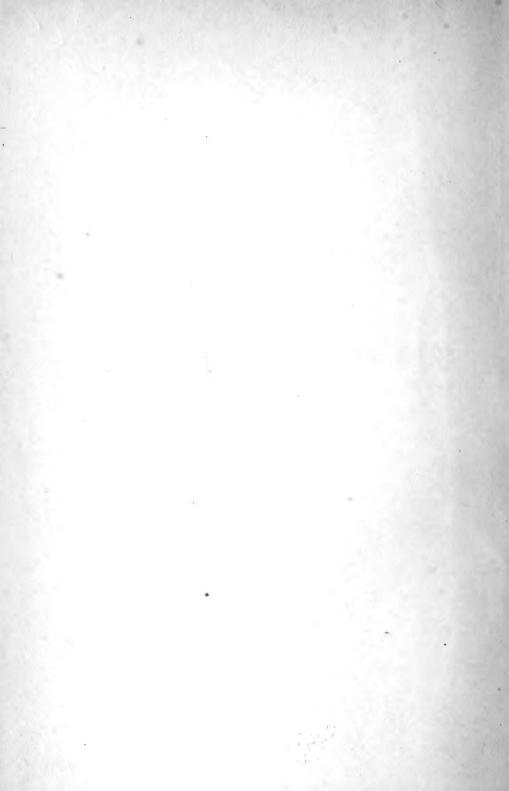


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BOOKS BY H. E. PARKHURST

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BOBOLINKS

An intoxicated bobolink, madly singing in his wild career (p. 187).

SONG BIRDS AND WATER FOWL

BY

H. E. PARKHURST

AUTHOR OF THE "BIRDS' CALENDAR"

"This sport, well carried, shall be chronicled."

Shakespeare

ILLUSTRATED



NEW YORK

CHARLES SCRIBNER'S SONS

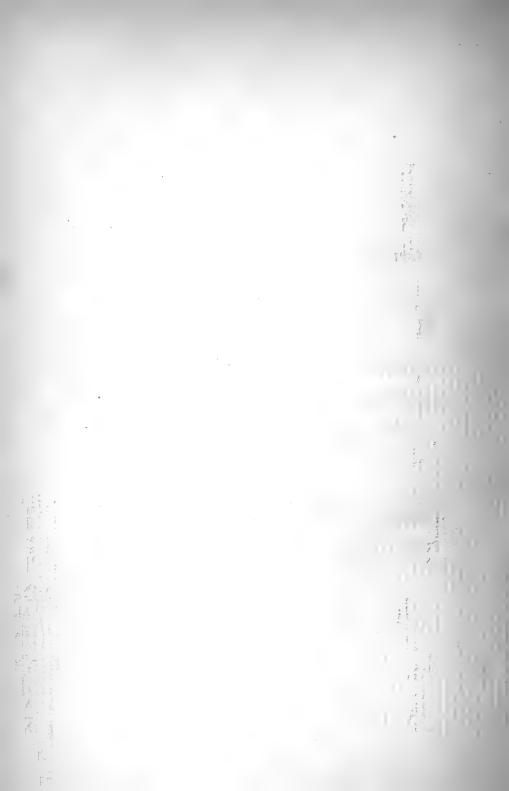
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TROW DIRECTORY . FRINTING AND BOOKBINDING COMPANY NEW YORK

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" Herkneth thise blisful briddes how they singe, And see the fresshe floures how they springe: Ful is myn hert of revel and solas."

Chaucer.

A BOUQUET OF SONG BIRDS



NE of the most famous resorts of land-birds in the Eastern States is in the town of Englewood, N. J.; to be precise, West Englewood, a

small farming district at some distance from Englewood itself. But let no one, meditating a trip to this avian shrine, be misled, as I nearly was, by an unscrupulous ticket-agent of the New Jersey Northern Railroad, who tried to persuade me that all of Englewood worth mentioning was on his road—a statement fully two miles wide of the truth, for West Englewood is on the West Shore road. The circumstance that makes this an attractive spot to the feathered tribe is its variety of topography, and, consequently, of vegetable and animal life; for, within a small area, are comprised upland and swamp, woods, shrubbery, and open landquite an epitome of nature-with such diversity of growth as to allure the varied tastes of a wide range of species. In contrast with the Ramble

of Central Park in New York City, this spot, though so accessible and provided with several intersecting roads, is yet so wild and secluded as to retain a large number of its migrant spring visitors through the summer; and thus affords favorable opportunities for studying their more interesting aspects of song and nidification.

About the middle of May one always finds here not only a remarkable variety of species, representative of all our land-birds, but an immense number of specimens of all the various sorts. Leaving the train at Hackensack, two miles south of Englewood, and inquiring for the road leading thither of a gentleman who thought it preposterous that I should wish to walk, when I could just as well have riddenthus betraying the fact that he was not a naturalist-I at once found myself in the midst of a company of clear-voiced field-sparrows. Simple and artless as it is, nothing in the range of music could have expressed more happily the spirit of peace pervading the pastoral scene to which I had come, with the harsh rattle of city pavements as yet hardly out of my ears.

Pretention is as far from the heart of any sparrow as the east is from the west; but, in this respect, perhaps the bashful little field-spar-

row beats them all; for he is the very embodiment of modesty. Sometimes he mounts a little way up a tree, and delivers his apologetic little message; but often he is too humble even to do that, and will stand on the ground, throw up his tiny red bill, and pour forth his mild and sweet salute. The note of the field-sparrow is like a pleasant word dropped in the morning, that dissolves into a faint radiance for the entire day. It would be incongruous to greet its simple melody with boisterous praise; there are some deeds for whose performance silence is the best applause. The song of this bird is much like that of the vesper-sparrow-three or four detached notes followed by a rippling sound, like the melodious drops of a broken stream of water; but not so loud, rich, and assertive as in the vesper-sparrow. However, if the softer-voiced field-sparrow lives and overcomes his modesty, he will become quite as pleasing a singer as his better known and more confident brother-who, by the way, sings all through the day, and not merely at evening, as a well-known writer has mistakenly asserted. While almost all sparrows prefer the more open places to the deeper woods, this is emphatically true of field and vesper sparrows, that are par-

ticularly fond of pastures, the borders of the highway, and the like. In the general chorus, too, the inferior but neatly dressed "chippy"—as the hair-bird is familiarly called proved that he was anxious to do his best on all occasions; but how variable that best is sometimes so ringing and musical, and at other times as hard and uncompromising as a miniature watchman's rattle.

A heavy fog prevailed early in the morning; but a fog can never dismay a bird in May. He is too joyously full to be choked off by such a vaporous trifle; so they sang in their most wild and rampant fashion, and left to me the only effect of the fog—the difficulty of finding them.

One of the first to be heard was the wood thrush; and he afforded, as usual, the golden, richly modulated undertone, like the melting French horn, throughout the morning's symphony. What a royal repose in his short but stately cadence, giving one the impression that always marks the mature and genuine artist the sense of great reserve power. The wine of his soul is rare, but not intoxicating. If we did not have so many really witching and ecstatic melodists in nature's choir, we might be a bit provoked at times, that so grand a vocalist

as the wood thrush certainly is, should invariably hold himself at so cool, self-possessed, and lofty an altitude. Yet he is so deeply satisfying, even in his glorious reserve, and fills so important a place in the woodland chorus, that it seems ungrateful to speak a single word in disparagement.

It is a cause of great regret that in this latitude we cannot enjoy the vocal gifts of that transient visitor in spring, the hermit thrush, by every aspect of plumage, form, and melody, holding the acknowledged supremacy among his native kindred. We have no species to which we can more properly apply the remark once made of a celebrated cardinal in Italy— "No wonder if he loved music, seeing that everything in his own character was harmony." However, his first cousin, the Wilson thrush, or veery, whose peculiarities will be referred to in another chapter, is a notable singer, and in some measure supplies the lack of the more spiritual "hermit."

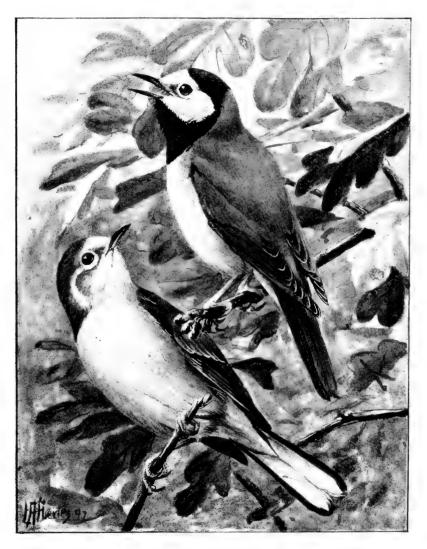
While the wood thrush was already, on the occasion of this excursion, in full song, the "veery" was only in the incipient stage of frequent and suggestive call-notes, thrushy in quality, but unmistakably petulant, as if work-

ing off his irritation over some recent disagreeable experience. But his temper sweetens as the season advances, and in mid-summer he breathes the serenity of his native wilds, where waving trees and purling brooks are chanting restful undertones to the clear, melodic phrases of this noble singer. His call-note is but the chrysalis of his song-at first soft and seldom heard, but gradually becoming louder and more frequent, until at length he breaks out into a rich and finely modulated chant. On the other hand, the very loudest and richest sound of the wood thrush is his call-note, commonly repeated two or three times, marvellously vigorous, sparkling and delicious. Its fiery animation is really startling. If his song were proportionally splendid, he would almost rival the finest human voice; and would certainly make every other bird-song seem insipid. Before leaving the thrush family, I must do that somewhat ostracized member. the catbird-the black sheep of the family-the justice to say that he was never more conspicuously on his good behavior, in action and song, than on this occasion. I cannot but recollect, however, that these are his courtship days; and the sly scamp is shrewd enough to know that it would be very impolitic and disastrous for him

to be in a snarling mood, just at the time when it particularly behooves him to be affable and charming.

Entering the woods I found a perfect carnival in progress-trees and bushes flashing with bright colors, and the air song-laden with a delicate but universal chorus. One of the rare species in our latitude is the beautiful "hooded warbler," elegantly costumed in a black velvet mantle over a golden bodice, unique and striking. These woods are about the most northerly limit where one can find it in considerable numbers. It is an exception to most of the warblers in having a song as rich and characteristic as its plumage. In fact, I heard two entirely different melodies from this species, which one could not suppose to belong to the same bird. Whether he has any more arias in · his répertoire I cannot say. He thus scores a double success, sure not only to please the critics, but to win the approval of that large portion of every concert-audience which is more deeply stirred by the costume than the song. He is also peculiar in his manner of running about over tree-trunks, not hugging the bark, like a brown creeper, but with legs as straight as in the nuthatch.

An interesting incident of the morning was a long and intimate study of a species hitherto quite unknown to me-the white-eyed vireo. It is not often that one can come close enough to a bird to see the whites of his eyes, even if he has any whites, which commonly he has not : but this creature was apparently quite as curious to study me, as I was to study him, and he curtsied around me so closely that I can aver he is well named the "white-eyed." This is perhaps the handsomest of all the vireos (of which there are six hereabouts), bright olivegreen above, almost golden on the crown, white on the breast, and yellow on the sides. But his chief claim to admiration is his unique and voluble song, a sort of vocal jumping-jack, uttered with a peculiar dash, which I am at a loss how to describe, for it is a musical ejaculation that is really indescribable-so rich, piquant, and spasmodically humorous, that the snappy little creature brought me to his feet-figuratively speaking-on the spot. And to think that, until recently, scientists have grouped this handsome, innocent, melodious, and jovial spirit, with that harsh-voiced, gloomy-coated, sullen-hearted bandit, the butcher-bird ! and all because, forsooth, there happened to be



HOODED WARBLERS

One of the rare species, elegantly costumed in a black velvet mantle over a golden bodice, unique and striking (p. 9).



some resemblance in their *bills*. A pair of these vireos lingered suspiciously about a certain clump of shrubbery; and, as they showed premonitory signs of getting their summer-house ready, there was a prospect of renewing the acquaintance later.

Deeper in the woods the <u>red-eyed vireo</u> was warbling endlessly, and his clear, rich tone seemed to have lost all trace of its usual petulance; strongly reminding one of the "whiteeyed." The <u>Maryland yellow-throat</u> first betrayed himself by his unmistakable waltzing *wee-chee-chee*; a sprightly triplet phrase which is always a pleasant sound. He is commonly deep in the thickets, and is not at all eager to show his handsome face and figure. But the knowledge of a bird's song is almost a compensation for the lack of his visible presence; and his familiar message comes like the voice of a friend in the dark.

The woods were full of the fluttering <u>red</u>starts, in their conspicuous attire of glossy black and flaming red; and the ear can pick him out almost as quickly as the eye, for hardly any other singer has a voice so sharp and spicy. Their house-keeping had already begun, or at least their house-building; for I detected

a female that was arranging the frail foundation, about twelve feet from the ground, in a hornbeam tree. As soon as her sharp eyes discovered that she was being watched, she darted off; and, from the torrent of sharp notes I heard immediately afterward, I felt that she was cursing me to her mate, to the best of her ability, which is by no means inconsiderable in such cases; so, with the uncomfortable feeling that I was very much in the way, I withdrew. A few days later I found that she had recovered her temper, and completed the structure, a very neat and compact apartment of delicate material, whose existence was likely to remain a secret between us three.

An ornithologist must often inscribe an interrogation mark upon his memory, sometimes waiting a long time before he can erase it. In this ramble I erased one of mine; for I heard a song which I recognized as the same that I heard two years before, when I vainly tried to find its source. But on this occasion I found it—like the poet who very irrationally shot an arrow into the air—" in the heart of a friend," and, in fact, in his mouth; for it was the chewink chanting a little melody that I did not know was in his répertoire. While uncertainty

is always aggravating, the solution of a question often comes in such a manner as to be worth a long interrogation.

Throughout the woods, and especially along the outer edge, slantingly perched on a limb, or furtively flying from bush to bush, were numerous drooping cuckoos, the black-billed species, with noticeably red eyes. They are not nesting yet. They wait until caterpillar time, late in June. They do not believe in rearing a family until they see their way clear to provide for it. In a cultivated field adjoining, that less woodsy bird, the Baltimore oriole, was helping herself to building material out of the rags and tatters of a last year's scarecrow, which had fulfilled its mission, if it ever had any; and, near by, the pewee had begun the plaintive utterance of its brief elegiac, which, despite its sadness, somehow falls with much the same grateful effect upon the ear as upon the eye fall the cooling shadows of the leaves, striking athwart the massive trunk of a sunlit beech.

I was rather surprised, so late in the season, to encounter frequently the white-breasted nuthatch, more of a winter emblem for this latitude; not more musical, but considerably

more noisy, than in winter. He was evidently in a jocund mood that morning, for he sometimes reiterated his note so lustily and so many times that it sounded exactly like a coarse but hearty laugh resounding through the woods. The *ank* of the nuthatch, as ordinarily uttered, is about the laziest and most nasal sound in Nature—a perfunctory, expressionless tone, as any parental heart will appreciate, on being told it is like the sound he has so often heard squeezed out of rubber dolls and kittens.

I also noted a thin sprinkling of that less brilliant, but always looked - for warbler, the "bay-breasted," which is one of the most transient of our spring visitors. Outside the woods, another vireo, the yellow-throated, enlivened the still air with his loud and peculiar note.

A very delicate, but rather characterless, creature, and quite abundant all about, is the blue-winged yellow warbler, finely, but not strongly, colored with rich yellow, olive-green, and slaty blue. Of all the times I have seen this tiny specimen I have never heard him utter a single sound, which is peculiar; for, since those having the least to say are usually most garrulous, the various warblers, having

nothing of importance to remark, commonly abound in small talk. The curiously colored, chestnut-sided warbler was plentiful, with his insipid but vibrant strain. The pert little oven-bird was omnipresent-a delightful fellow to look at as he struts about in his trim figure and soft olive dress, but his inordinate loquacity often mars the effect. He was hammering the air incessantly with his familiar dissyllable -at first amusing, then wearisome, and finally maddening. His relative, the water thrush, was less assertive, but more musical. The distinctiveness of all the warblers increases with acquaintance. Nature tucks away a trace of individuality into every possible corner. Under the guise of uniformity, she is wonderfully lavish of variety, and evidently abhors monotony as much as she is reputed to abhor a vacuum.

Of course, in mass of brilliant color, the scarlet tanager makes all our other birds pale. Early in the morning he was singing a brief phrase of three notes in a rich but hoarse voice, and as lustily as his indolent nature would allow; but later he indulged in a genuine and really pleasing warble, with a very different quality of tone, not unlike a clear and loud-voiced warb-

ling vireo. This bird, by his manner, reminds one of a bottle of some effervescent liquid that has been uncorked so long that all its native sparkle has escaped. He is too exalted to be annoyed by the remark that his listless air takes even the splendor out of his gorgeous robes; and, as for other fascinations, almost any of the homelier birds are more congenial to my taste. A silent blue jay posed so effectively in the clear sunlight that the lustre of his costume would make one almost forget his villainy, and, fortunately, he did not spoil the charm by uttering a single sound. It is a just retribution on this corrupt fowl that we commonly associate with him only that horrible scream that is so consonant with his nature. Yet, like the catbird, he is a conspicuous instance of wasted talents, of which he often gives proof in a wide variety of clear and beautiful whistles. Potentially he is a rich contralto, his "organ" is not surpassed by that of many of our noted vocalists, and he only lacks that without which the rarest voice is essentially a failure, namely, musical temperament. The busy and vigorous downy woodpecker was loudly knocking for admittance into many a tree, and the endless polyphony showed the

presence of many other familiar species. A single walk in this region in the flood-tide of migration will sometimes reveal between fifty and sixty varieties.

But these woods are not simply an ornithological retreat. They are, perhaps, not less attractive to anyone who delights

"To feed on flowers and weeds of glorious feature,"

of which Nature has here formed so rich an arabesque. What particularly strikes the observer is the luxuriance, as well as the variety, of plant-life in this small area. Such glorious masses of the commoner sorts one seldom sees : enormous buttercups,

"Like nightes starres, thick powdred everywhere;"

giant dandelions, almost dazzling by their numbers and intensity of hue; large tracts where one might suppose that the countless flakes of a belated snow-storm had struck root into the earth and melted their frozen forms into anemones; and *such* violets! mammoth clusters of rare and melting blue, exhaling an ineffably soft atmosphere, a thousand times more subtle than a blush, and lingering in the eye

like an echo of sweet song upon the ear, or a pleasing memory on the heart. These soundless tones of Nature, springing from the ground, are quite as exquisite as those that stream from all the merry throng that glance in air, or hover in the overshadowing woods. What still, sweet lives the flowers live; like rare, pure souls that spread their own calm round them as they journey through the world. Some of our simplest blessings are in reality the best of all; and Nature, as she voices herself here and there in the unobtrusive flower or bird, often speaks a heart-language unheard in many of her loftier utterances. A message is confided to the "oaten reed" that the full-voiced organ never can declare. The carol of the sweet and humble bluebird surely fills a niche that must inevitably stand vacant in the imposing presence of the thrush's grander song, just as a beautiful humility shines in the lowly violet that rivals the magnificence of the rose. Many of our commonest songsters are like the oaten reed, the pastoral, and violet, singing their way into the inconspicuous crevasses of life; the earlier waves in the sea's incoming tide, that fill the lower clefts along the shore.

In this same spot, too, one finds a magnifi-

cent display of trees, showing to full advantage in the thinly wooded swamp, along the winding roads; here and there, like Time's sleepless sentinel, a splendid oak, and many a noble beech, not so assertive as the oak, but far more persuasive.

The dark oak-spirit is in the mood of night, a companion for owls, and motionless as passion's calm. It seems to be in a chronic state of defiance that gives a challenge to the elements; so that, more than any other tree, an aged oak is its own living monument. It is an interesting fact-and not a poet's fancyrecently established by governmental investigation, that the oak is, of all species, the one most frequently struck by lightning; while the beech, for some reason, has the least attraction This less aggressive species for that fluid. bears a mildly massive look upon its whitened bark that blends very companionably with the delicate verdure of its spring foliage.

Such a gracious and yet vigorous growth, impressed with an almost human nobility, inspires a restful, tranquil mood beyond all else in Nature, if one yields his mind to its persuasive mastery. And doubtless there is much more refreshment and uplift in choosing some

sequestered spot where one can quietly absorb the atmosphere that fills the scenery, enjoying only that which lies immediately in view, than in roaming restlessly about, hour after hour, in perpetual anxiety to catch a glimpse of every possible detail. Yet one who has only infrequent opportunities of going where Nature dwells will hardly be persuaded to adopt the former course, however thoroughly convinced that quality of experience always outweighs quantity.

Emerging from the delightful din that had accompanied all the morning's walk, it was a striking contrast to watch a pair of large hawks that serenely ranged the spaces of the upper air, making the silence more acute that reigned outside the woods. My list of species found in a single visit comprised the wood thrush, Wilson thrush, catbird, robin, golden-winged woodpecker, crow, blue jay, Baltimore oriole, chewink, water thrush, oven-bird, redstart, hooded warbler, Maryland yellow-throat, chestnut-sided warbler, blue-winged yellow warbler, black-and-white creeper, black-poll warbler, black-throated green warbler, blackthroated blue warbler, Canada warbler, the white-eyed, the red-eyed, and the yellow-

throated vireos; phoebe, pewee, nuthatch, chickadee, song-sparrow, field and chipping sparrows, chimney swallow, cuckoo, and hawk : considering the place, not an unusual showing, and others have found many more in a single visit.

The encroachments of civilization are not likely, certainly for a long time, to interfere with this favored spot. For it is not only in the hands of those who appreciate and are determined to maintain its peculiar attraction, but-which is its chief safe-guard-a large part of the area is so extremely swampy as to give a naturalist the exultant thought that it is past all redemption for basely practical purposes. Neither have I any fear that the slight publicity given to the spot by this narrative will endanger the interests of its feathered occupants; for the place is plentifully sprinkled with the prohibition against shooting, one signboard giving the threatening information, "You are liable to loose your gun on this property ! "--and another, with an original display of grammar and orthography, kindly advising the traveller to " Leave your guns home and save yourself troble."

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One of the finest walks, for general effects, in the vicinity of New York City, will be found by taking the ferry from One-hundredand-twenty-fifth Street, across the Hudson to Fort Lee, and following the path northward along the shore of the river, to Englewood. Close by, on the right, is the river's broad sweep, and within a few feet on the left hand towers the lofty columnar mass of trap rock that forms the famous Palisades-the glory of the Hudson. The severity of this bold and precipitous front is abundantly softened by the refreshing foliage of a light growth of trees covering the less abrupt declivities-true to Nature's instinct to soften every feature that is harsh, and hide each evidence of ruin. The view of this stupendous pile, thus seen from its base, while more limited and less picturesque than when viewed from the opposite shore, or from the deck of a river steamer, is certainly quite as imposing.

One's thoughts of migration are commonly limited to the long flights in air of the feathered tribe, which is the most conspicuous exhibition of a strange instinct in the animal kingdom. But, as one passes along the Hudson in May, he is reminded, by the numerous

rows of poles stretching half across the river, and by seeing the fishermen here and there grappling the nets attached to them, and emptying the contents into the boats, that fish as well as fowl are now on their way northward, and that shad are making their long submerged journey from the Gulf of Mexico along the coast, and up all of the larger rivers. This seems more incomprehensible than birdmigration. Do the finny tribes have some inexplicable cognition of their locality while beneath the waves; or do they have to stick their heads out, now and then, in order to get their bearings? What cheerless, solemn processions are thus semi-annually pursuing their hidden, winding way along the shore, for hundreds of miles, unless a fish has a sense of sociability, a means of converse, and sources of hilarity which we do not dream of.

Sandpipers were scudding about on the wing, or running among the moss-covered rocks that fringe the semi-marine shore; house wrens sang by the way, and redstarts, vireos, and wood thrushes were numerous; while a flock of chimney swallows—fleet-winged mariners upon the shoreless air—relieved the angularity of the cliffs by continuously circling

above them. A dainty touch of color was afforded in an apple-tree, where a little bluewinged yellow warbler was feasting on the blossoms, while far overhead an immense hawk was sailing majestically — a juxtaposition of two of the most diverse types and moods in the feathered kingdom.

The impression of this walk should be supplemented by making the return trip along the upper edge of the Palisades, where at almost any point one may look down a perfectly sheer and dizzy depth of hundreds of feet, the very edge of the rocky wall being mostly unwooded, carpeted with grass, and illuminated with saxifrage, violets, wild columbine, and other flowers. Here the traveller obtains one of the finest views of this noble river, unsurpassed except where it winds among bold promontories in the vicinity of West Point, resembling a long and narrow lake rather than a flowing stream; as well it may, when we consider that its entire descent, from Albany to its mouth, one hundred and forty-five miles, is only five feet. Water must be extremely solicitous to find its level, when it will spy out so slight an incline as less than half an inch to the mile.

Along the way were several scarlet tanagers

-three or four in a single tree-a species that is locally quite abundant on both sides of the river at this point. The indigo bird, less glaring, but hardly less intense in color, fluttered along the path; and the hooded warbler was flitting low from bush to bush, and incessantly spreading his white-spotted tail. The blackand-white creeper was everywhere-a deceptive fellow in his variety of notes, until one has learned his tricks. It would almost seem that he is sportively mocking the listener, as one hears his frequent change of tune. A pair of complaining veerys-not so abundant here as at West Englewood-an occasional Maryland vellow-throat, oven-bird, chewink, the redeyed and the yellow-throated vireos, were the species that chiefly beguiled the way-twentysix varieties of companionship in what some might have called a lonesome, unentertaining trip-to say nothing of the shy glances of innumerable violet eyes, the nodding flames of columbine, bright skies, and a panoramic scene along the river. Such views inform the mind and mould the soul as well, and sometimes better than all books can do. To one that has a heart for such a walk, there is no solitude in Nature.

I am quite sure that many people who, in a general way, are sincerely interested in the various attractive elements of Nature, are yet disposed to feel that the amount of enthusiasm evolved by naturalists in regard to their respective specimens-and this particularly applies to flowers and birds-exceeds the bounds of reason, and is a little unworthy of mature and serious-minded individuals. In the superficial view of the case, it must be confessed that such an estimate of the value of these sciences is not altogether erroneous. The fact is, such people do not know-and often the naturalist himself does not realize-precisely what are the grounds of his enthusiasm. It is forgotten that the admiration which one feels for any work of Nature or of art springs much more largely than is commonly supposed from various accessories that play an unobtrusive but essential part in every scene. Certainly no bird student, however ardent his admiration for his subject, will assert that his pleasure is derived purely and simply from the bird itself. Neither is the lively pleasure of the botanist derived exclusively from flowers. Eliminate every attendant enhancing circumstance, let the flower or bird be seen in absolute isolation

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from every thought and object forming its setting and perspective (if such a thing were possible), rooted or suspended in meaningless void space, and its charm would often be immeasurably diminished. A universal communism enchances the effect of one element of Nature by another. Even the dank soil, and the refuse of decaying leaves that pollute the ground throughout the woods in spring, through which the earliest blossoms push themselves, give to the hepatica a livelier purple, to the "spring beauty" a daintier pink, to the anemone a purer white. The gloomy skies and rasping atmosphere of March add lustre to the robin's breast and to the bluebird's back, and the roaring winds impart to them their most enchanting delicacy of song. It is summer's intolerable heat and glare that create the heavenly shade and coolness of the woodland path, and the refreshment of the babbling brook. The waters are made glorious at night by shattered and shivered rays that dance upon the moonlight path across the lake, and the paroxysm of a wintry storm without creates a marvellous content within.

When one seeks the acquaintance of some notable personage, he is often aiming, not simply at the advantage that will accrue from such

a person's own friendship, but also at the entrance thereby to be gained into the society in which he moves. In precisely the same way, the genuine naturalist, in the prosecution of his immediate science, is more or less consciously influenced by the attractions of that varied and delightful society to which the insect, bird, or flower will always introduce him-the endlessly diversified, but always restful and exhilarating, scenes of Nature, the woodland walk, the influence of the quiet stream or lake, the contagion of the ocean's boundless energy, the inspiring majesty of mountains, Nature's silver sounds and golden silences, the health that waits upon such occupation, with all the minor glimpses and suggestions of the beautiful of every sort and hue continually flitting across one's path, and, pervading all, the glowing atmosphere peculiar to all such research-these form a coterie of friends in constant league with flowers and birds, with which one quickly finds himself in closest fellowship, and which are quite essential to the fullest charm of even the fairest object in either of these eminent domains. There is a lustre in the flower, that quickly vanishes the instant we abstract it from its native soil; the captive's song has lost the color

of its wildwood haunts; only the dew of morning sparkles on the grass, and the joyousness of sunrise, or the solemn glory of the west,

"Where the Day joins the past Eternity,"

becomes a rare effluence of gladness or of gravity that radiates from every landscape view or woodland melody, according as we see or hear it at the springing or the dying hour of day.

×

In contrast with the open, broad, imposing view along the Hudson, is a rare bit of secluded sylvan scenery, keyed, in musical phrase, in a richer and more mellow scale, to be found in a walk along the banks of the Bronx River, traversing the reservation called Bronx Park, a few miles out from New York City, and easily accessible in various ways. The river through this region is of a sort to please an artist's eye, a scene of limpid loveliness, wandering through a rocky gorge, embowered in fragrant and melodious shade, with here a waterfall, there a cascade, now babbling over shallows, and now expanding into motionless and glassy basins, in which the full inverted lengths of over-arching

trees almost deceive the senses, and suggest the vista of a subterranean Paradise—one of those dainty scenes that make one sure the Lord loved beauty when He made the world.

As this river has become a source of watersupply for the city, the property along the banks has been confiscated-we might say, in the interest not only of health but of art; for the acme of scenic effect is in the various abandoned buildings, made of stone, dismantled, silent, and moss-grown; here a residence, there a mill, discernible through the foliage, and in some cases almost overhanging the rocky riverinhabiting ravine-the nearest approximation to time-worn ruins that is ever vouchsafed to us in this glorious land of only yesterday. In the interest of the picturesque, and of that instinct of the human heart that finds the deepest charm of landscape in its reminiscent aspect, and in the ivy-trailing evidence of vanished life, which can create the only utter silence in the soul-in both these interests, it is to be hoped that the rampant spirit of utility will never be allowed to vulgarize these relics into quarries of brick and stone.

Having heard the fame thereof from other ornithologists, I visited the spot late in May,



WATER THRUSHES

The delicious warble of the wren, the vireo, the water thrush, may effectively have the accompaniment of the babbling brook, or the cascade's noisy plunge (p 56).



and found it not so populous with birds, nor so beautiful with flowers, but, in the general temper of the scene, not less attractive than the smaller and less diversified region in West Englewood.

The pleasure and success of this visit were not altogether derived from what I saw and heard, but were partly due to the fact that my own spirit was attuned to the prevailing mood of this exultant month—I was *en rapport* with dame Nature, and could sing with the poet,

"The fields, the floods, the heavens, with one consent, Did seem to laugh on me, and favor mine intent,"

and all things tipped the "merry wink of invitation."

I had hardly left the train when my ear caught an augury of good fortune—the clear, full whistle of the meadow lark, concealed within the grass of an adjoining field. This cannot truthfully be called a song; but, when uttered with all the animation that is crowded into May, it is one of the most encouraging and inspiriting calls of Nature. Entering the woods beyond, I found the trees alive with various species of warblers, the Blackburnian being the brightest of the train. This can

certainly never incur the curse pronounced upon lukewarmness, for he looks simultaneously cold and hot, in the dead black and white of the body, and the fiery orange of the head and breast. The slender, neck-laced Canada warbler was among the most abundant, and singing his long and sprightly strain, of which, however, he does not seem to have quite mastered the rhythm. But the novelty of the day was the yellow-breasted chat; for I had never had the good fortune, until this morning, to hear the vocal antics of this oddity of genius, this crooked stick in ornithology. I am sure that Nature was in a merry, saucy mood when she devised this fellow's numerous eccen-Externally, indeed, she took great tricities. pains with him, for he looks quite fit to be a ladies' man, so unutterably immaculate and elegant. But when she proceeded to fit him up interiorly, she gave him vocalizing powers that are decidedly on the slap-dash order; and the outcome is more incoherent and incongruous than the medley of the catbird or the thrasher. He whistles, and grunts, and bubbles so confusedly, that the listener cannot but wonder what droll vagary he will next perpetrate. His accompanying gymnastics and wild careerings

in the air are of a piece with his musical buffoonery. But, prodigal as he is of all his natural gifts, he does not betray a genuine, earnest soul for music, like a thrush or finch; and utters his kaleidoscopic *mélange* in a rather shallow, ad captandum fashion. If I mistake him not, he is not a bad type of the professional humorist, who is at first extremely entertaining, but gives no thoroughly substantial pleasure, and ere long becomes wearisome.

At a deserted "mill privilege" the water thrush and a pair of sandpipers had taken up their abode, the red-winged blackbird announced himself in a swamp close by, the kingbird rattled his ominous note as he chased his insect-prey, and bank swallows circled over the stream. The olive-backed and the Wilson thrushes were still shifting all the burden of song upon the faithful wood thrush, the olivebacked only deigning occasionally to snap out a sharp note, while the Wilson's more mellow, but fretful, tone was heard everywhere.

On the edge of a clearing the impetuous white eyed vireo appeared to be domiciled. The first time I heard his dashing strain, a couple of weeks before, he was so captivating by his peculiarly vigorous temperament that,

in my haste, I declared him to be the handsomest of the family of vireos, an assertion which, in my cooler judgment, I retract; for the vellow - throated vireo must doubtless be called the beauty, in this modestly dressy family. The "white-eyed" is just like some people, whose vivacity lights up with an actual beauty features that are almost homely in repose. With all the difference in modulation of the voice, there is a peculiar rich and ringing quality of tone common to all the vireos. The red-eved species is a valuable addition to our woods, from the fact that his continuous message forms so large a part of the entire volume of music throughout the day, and the summer long. His native acid disposition, however, is unmistakable in his call-notes, one of which is very similar to the catbird's snarl.

The great crested flycatcher, a rather solitary bird by nature, and the largest of that family that stands in scientific odium under the technical name of Tyrannidae, was particularly abundant. Admission to the woodland choir has been denied to the entire flycatcher family, on the ground that they have no voice for music—a valid reason, certainly, for exclusion, if the case be so with all this group.

While I would not presume to reverse the findings of the scientific court upon this point, I am at least at liberty to say that, if the note of this great crested member of the family be not music, it is surely one of the best imitations of music I have ever heard. He has no formal song, indeed, only the reiteration of a tone that is sometimes "throaty," and quite as often clear; and this is about as much as can be said in praise of many of the much vaunted "warblers;" but at least the tone is full, resonant, and sometimes extremely rich. I venture to say he knows more about music, now. than the nuthatch or the oven-bird, whose names stand in the chorus; and with a little training he would beat most of the vireos. This fellow gives one the impression of a merry brigand-a sort of Robin Hood-his loud. wild note ringing defiantly from the tops of the trees, as if in conscious defiance of his popular estimate.

At the other end of the line, in point of size, stands the "least flycatcher," which was doing very vigorous work for such a mite, as he perched within a few feet of me, and showed enough energy in his tone for half a dozen birds. If manner of utterance be any criterion,

there is a world of difference in disposition between this snappy little specimen and his disconsolate sister, the grief-stricken, Racheltempered pewee. If, according to the orthodox decision, the flycatchers be not strictly admissible into a bouquet of songsters, they at least find their mission in serving the purpose of an effective spray of green leaves among a floral group, to enhance in others what is lacking in themselves. The song of the indigo-bird, which was holding forth in more open land, can hardly be called good or bad, as it now stands, but could easily drift into either. It reveals the identity of the singer, however, by a peculiarly throaty note in the middle of the phrase.

In a grassy apple-orchard near by, a halfhour's entertainment was afforded by a tiny songster, Mistress Wren — that little brown creature which is one of the neatest specimens of concentrated happiness in feathers that exists—an endless cadenza. As I saw her enter a hole in an apple-tree with a bit of downy substance in her bill, and soon after emerge, minus the same, it was the strongest circumstantial evidence that she was putting the finishing touches on her summer home, in the snuggest and most picturesque of castles. But

her work seemed really to be only play, for she could not lay a single stick of timber in the house without stopping and having a long song about it, and was in a perpetual bubble of delight. A gentleman, passing by at the time, had an evil word for the universally detested English sparrows, as making life a burden to these merriest of warblers in that neighborhood; which is a very great pity, for an ounce of wren is worth a ton of sparrow.

And, by the way, that pair of wrens were particularly happy in their choice, for a home, of that grassy field studded with apple-trees surroundings so cheerful, rustic, and congenial with their nature. I say, *pair* of wrens, although I saw only one during all my stay; for there is something monstrous in the thought of an old bachelor or an old maid wren building a house for solitary use.

It seems strange that poets have so infrequently alluded to the apple-tree. All who are so fortunate as to have been born in the country —where everybody *ought* to be born—will certainly acknowledge that, of all trees, this is the most typical of spring and fall. Anyone is to be pitied, in whose memory of early years there are no kindly thoughts connected with this

rustic, homely feature of country life. The invigorating, fragrant breath of May is in its wealth of delicately odorous, snowy bloom, while its abundant harvest of glowing fruit, mellowing in the cool light of an October day, is suggestive of all the most comfortable thoughts of Its spirit is eminently sunshiny and autumn. rural. What better place could one choose beneath the sky wherein to doze, or read, or ruminate, than a grassy slope beneath the shadow of an apple-tree? We cherish a sort of moral respect, too, for a tree that chiefly aims to be useful, without any pretensions to being ornamental. For, in truth, this tree is not of the kind that can shine in arboreal "society." It cuts no fine and courtly figure, like the elm. To use a word so attractive in its radical sense, but slightly opprobrious in its applied meaning, our dear old apple-tree is decidedly "countrified." The maple, the elm, and the beech at once find themselves at home in the city, as "to the manner born;" but the appletree, never! The very incongruous thought of such a thing is a standing protest against its transplantation; and I am positive that the tree itself would, figuratively speaking, vigorously kick at the idea.

Probably it is rather late in the day to seek a fresh extenuation of an offence said to have been committed in the oldest orchard known to history. But I feel that our great fallen progenitor-albeit he doubtless rose by falling -had considerable excuse, if it was an appletree around which he lingered, being so preeminently "pleasant to the sight and good for food." If it had been a forbidden plum or pear, we might have all escaped. Had his taste been otherwise, and he had limited his walks to the maple avenues of Paradise, who can measure its effect upon the world's tragedy? But time works its revenges. After the lapse of ages the tempting apple in its turn also fell, and from its fall Sir Isaac Newton plucked the formula of the universal law of gravitation.

The attractiveness of the apple-tree's earlier years is largely lost in its old age; its temper becomes tart, and its figure scraggly. Possibly we may see in this the faint and long-projected shadow of that "primal eldest curse" pronounced upon all the participants, at the conclusion of that fateful scene of yore. There is a rumor that the world's moralizing began at an apple-tree, and we may as well let it end there. We shall get the most satisfaction out

of this rustic specimen of arborescence, not by looking back six thousand years, nor by looking forward too far into its degenerating future, but by simply enjoying what it has to offer of flower or fruit from day to day.

This bubbling wren, so joyously carolling upon an apple-bough in a fair day in May, will fittingly be the last in all this group of songsters—a scene as simple as can be imagined, and yet full of the three most salient aspects of Nature's spirit—restfulness, activity, and joy—one of those many scenes in life whose impress is as lasting as the occurrence itself is transitory, and which will perhaps be remembered long after the tiny creature is extinct that was the soul of it; possibly even after the tree itself shall have reached a fruitless, sour old age, and been cut down.

Water Fowl

" Mark how the feather'd tenants of the flood, With grace of motion that might scarcely seem Inferior to angelical, prolong Their curious pastime!"

Wordsworth.

WATER FOWL



VERY attractive province of exploration is awaiting those whose study of birds, hitherto, has not extended to that important, but

less accessible group of species, that chiefly frequent the secluded watery places, the marshes, larger rivers, lakes, and, most of all, the margin of the sea. The general unfamiliarity with this large section of our avifauna comprising a third of all the species found in North America—and with which almost all field ornithologists have a very limited acquaintance, makes pertinent a few prefatory words in regard to them.

It is certainly a shame for anyone, who calls himself a systematic student in any branch of natural science, to be content to leave quite unexplored so large and attractive a division of his subject as the water fowl constitute in ornithology. And, although the geographical remoteness, both of habitat and during migra-

tion, of this clearly defined branch of the subject, will prevent, except in individual cases, such extensive acquaintance as one may have with land birds, yet the occasional species which even the most casual observer, or the most unfavorably situated student, will now and then come across, or of which he will read, are surely invested with a new interest by being brought into systematic relation with the full and magnificent scheme of the world's avifauna; while the general reader, whose knowledge of the water fowl is about as great as that of the land birds-seeing that he knows almost nothing of either-will find the former quite as entertaining, in many respects, as the latter.

Let me preface this general view of water fowl by saying that, as compared with land birds, they are just as distinctive in their traits as in their habitat. Human nature is such that the difficulty of getting a thing makes us particularly desire to have it; so that it is not one of the least attractive aspects of water fowl that, whereas land birds, as a group, come to us, we ourselves must, as a rule, go to the water birds. Their haunts are not, even in their migration, along the roadside, in fields

Water Fowl

and groves, but commonly remote from man's usual resorts. This circumstance will doubtless preclude that degree of popularity which belongs to land birds; while, at the same time, the mystery of their lives, and vagueness of their personalities, which are due, in part, to that self-same cause, will, to people of a certain temperament, greatly enhance their charms.

Whoever presents the claims of water fowl is likely to do it in the $r\partial le$ of a special pleader, who feels that the mind of the listener is decidedly cold in regard to the subject in hand, even if not absolutely antagonistic to his own position. In view of this, I will not, at the outset, seek to evade the depreciation of these strange fowl that will certainly be felt when their claims are first presented : being confident that, when the two groups are placed upon an impartial footing, much of the apparent inferiority of water fowl will disappear; while their various peculiar excellencies will in large measure offset the special and familiar claims of land birds to our admiration.

Let me, then, forestall any unfavorable impression in regard to our sea-friends by confessing two or three of their demerits.

The majority of land birds seem more ap-

proachable than water fowl; not only by occupying, in a literal sense, common ground with ourselves, but by possessing a temperament that, in many ways, better harmonizes with our commonest feelings. However much there may be in regard to them that we cannot understand, there is, if I may so express it, a peculiar frankness in their lives, and, among many of the species, such heartiness of song, as easily inspires a fellow-feeling, even before we come to have a definite sense of familiarity with them. One's first impression of the water fowl, however, is not so favorable. They are certainly less demonstrative and open-hearted, and show a reserve that is likely to repel our advances, even while it piques our curiosity. As compared with our favorite songsters, their wilder and apparently cold and passionless nature appears at a disadvantage. They live on the confines of an unknown world, from which they bring us scarcely any intelligible message; and their lonely, bleak, and inhospitable habitat seems aptly to typify their character. Light-heartedness and warmth of feeling, so characteristic of the robin, chickadee, and finch, seem generally alien to these creatures; which, as a class, are songless, if not silent,

Water Fowl

serious and absorbed, often distinctly reminiscent, and even melancholy.

Yet melody and merriment are not the only traits that make a bird commendable; for there are times when the oriole's song of triumph would be very incongruous with our own mood; and, as is often found in individuals far higher in the scale of life, reserve is not synonymous with apathy, and the most permanently attractive aspects are not always those that lie upon the surface. And so, without the slightest fear of invalidating their peculiar claims to admiration, but with the conviction that the striking difference of the two groups will only serve to enlarge the scope of our enjoyment, we will readily admit that water fowl in general are lacking in the most conspicuous charms of our favorite land birds. We would hardly think of making a pet of one of them, except, indeed, a piping plover, a sandpiper, or a tern. For. without the slightest trace of fierceness in their temper - barring a few species - their mood appears as wild and untamable as that of the birds of prey. In a word, our interest in them is quite unlike our interest in thrushes, warblers, and the like. And we should be thankful for this difference in their nature and effect upon

us. Our variety of song birds fully satisfies the mood that calls for creatures of their sort. Superabundance always spoils the best effect. If all were thrushes, where were the warblers ? If all were finches, where were the woodpeckers ? And if all were chickadees and vireos, where were the herons and the gulls? One will quickly find that, in their own province, the water species are unapproachable, in effectiveness, by any of their fellow-creatures.

The crowning excellence of birds, undoubtedly, is their capacity for song. This gift eclipses any other single claim to admiration. Elegance of plumage, graceful form, and poetry of motion-each of these must yield the palm to the superiority of a melodious voice. It is the soul of Nature speaking to the heart of man. This it is that makes one of the most unprepossessing, in appearance, of all European birds-the skylark-the idol of all poets, the beau idéal of its kind. This it is, chiefly, in our own land, that gives its reputation to the thrush, the purple finch, and many another species otherwise quite unpretentious. And yet, although the choicest quality of all, it is by no means so predominant, in the aggregate of one's enjoyment, as he might think. Even

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in the best of songsters, accessories are needful to enhance the charm-as, for example, in the skylark, its ecstasy of motion; in the thrush, its noble posture of repose. Besides, the singing season only lasts about a quarter of the year; and yet how much delight the ornithologist derives, from the end of summer till the following spring, from the various characteristics of the perfectly silent song birds, such as the winter wren, the kinglet, snow-bird, crossbill, white-throat, and goldfinch. How much pleasure, too, one finds in the many migrant species of this same class, that are with us a brief season in the spring, but whose song is only to be heard in their more northern homes. What an amount of satisfaction is afforded even by the perfectly silent hermit thrush, whose exquisite form, refinement of demeanor, and inimitably rich modesty of plumage, are eclipsed only by the very finest song. Moreover, in studying the curious ways of all the woodpeckers, quite likely it never occurs to the observer that his pleasure is lessened because they never sing at all; nor does one study with less interest, because they are so mute or unmusical at all times, the cedar bird, the humming-bird, the swallow, the flycatcher, and all of the birds of prey.

Although they are mostly the plainer sorts, and, except the chickadee, entirely songless, I think the winter species, after all, as parables of hope, light-heartedness, and trust, come more closely home to us, with their quiet lessons of encouragement and reproof, than all the gayer and more tuneful throng that are wafted hither on spring's glad wings, and luxuriate amid the bloom and balmy airs of May and June.

The supposed inferiority of water fowl in respect of plumage calls for a word of correction. So far as the more brilliant effects are concerned, it is true that there are few of the aquatic species that can rival many of the showy tanagers, finches, and warblers; even as the sea itself is colorless and sombre in comparison with all the gorgeous floral products of the earth. But, on the other hand, it can truthfully be said that, as regards the various softer tints, which are really the most prevalent among all species, the beauty of the water fowl, in the aggregate, is not inferior to that of their terrestrial kindred; that in effects of pure white, and in the rich and striking combinations of black and white, many of the water fowl are unequalled by their allies on the land; and that the very humblest of the group are not more plainly dressed than are

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some of the sparrows and several other species of land birds. Plumage, however, as well as song, is very much overrated, as determining our general estimate of any specimen. Even the most ardent admirer of the brilliant group of warblers will acknowledge the truth of this, when he forms his final judgment of their relative Is there any warbler, after all, that is merits. much more satisfying than the coldly colored "black-throated blue?" It is quite remarkable, too, how much less the showy tints of any species signify, when we see the living creature, than when we look either at colored plates, or at stuffed specimens. Their bearing and manners, which are the truer index of their real natures, overshadow the more superficial aspects, as completely as in the case of any human being; and not infrequently a trait, long unobserved, and almost too subtle for verbal expression, eventually becomes one of the most constant and distinct points of individuality.

After this rather deprecating attitude in regard to the claims of water fowl, let us proceed to their more positive merits.

As compared with the land group, they possess a distinct advantage, as a source of interest to the student, in the remarkable and signifi-

cant variety of physical types to be found among them. It is true, there are some differences in form and figure among the various land groups, and these differences become still more evident upon prolonged acquaintance. Yet the "build" of all the land birds is vastly more uniform than that of water birds, whose variety of appearance, even to the most careless observer, is very striking. We have strong proof of this greater variety in type among water birds in the fact, first, that while the land birds of North America, comprising twothirds of the entire avifauna, are arranged in six orders-which, in the main, conform to the most conspicuous differences in figure-the water birds, only half as numerous, are divided into seven orders. But this expresses only a small part of the truth. For, not only are the six orders of land birds far more nearly uniform in figure than the seven orders of water fowl, but the vast majority of all land birds usually seen by the field ornithologist belong to only two or three orders, wherein, too, the differences of type are quite inconspicuous; while the greatest departure from the general type is among a small number that are comparatively infrequent.

Water Fowl

On the other hand, the commonest species of water birds are much more equally distributed among all the orders, and the variety of types therein is very extreme. This affords a most interesting diversity. About nine-tenths of all the land birds which the average student will find are in the song group; which are classified, to be sure, into about twenty families; yet the general type of all of them is so uniform that the observer would hardly consider it incongruous if they had been arranged in two instead of twenty families. Thrushes, finches, tanagers, waxwings, and blackbirds, only differ in subordinate details; and certainly warblers, vireos, and flycatchers are comparatively uniform in general figure.

But notice the remarkable gradation, not in size only, but especially in the fundamental structural form of the various groups of water fowl, as represented by the sandpiper, oystercatcher, woodcock, phalarope, avocet, rail, curlew, heron, pelican, flamingo, swan, duck, penguin, cormorant, snake-bird, loon, gull, guillemot, puffin, grebe, petrel, albatross—a variety of types consistent with their extreme diversity of life, as wading, swimming, diving, and aërial water fowl. When all the varieties of figure

displayed in land birds, from the humming-bird up to the eagle, have been taken into account, interesting and significant as these variations are, the resemblance of them all becomes absolutely monotonous, in comparison with the numerous and broadly distinctive forms of water fowl. And this variety of form is their least merit, as compared with the terrestrial group.

In poetry of pose and motion, the advantage is strongly with the water fowl, many of which are in this respect quite unequalled by any of the land species, except some of the birds of What could be more beautiful, for inprev. stance, than a flock of terns, disporting with consummate grace upon the wing in intricate convolutions; or the various gulls, winnowing their languorous course on willowy wings; or, among the more aquatic species, the slow majestic sailing of the stately swan? There is nothing in all the earth so airy, graceful, thrilling, as the sea-bird in its flight-the denizen of two contiguous and opposing deeps. Or, again, observe the dainty motions of the piping plover running on the beach, or the heron's lordly air of solitude, when standing motionless. One's thoughts will run in quite a different channel,

Water Fowl

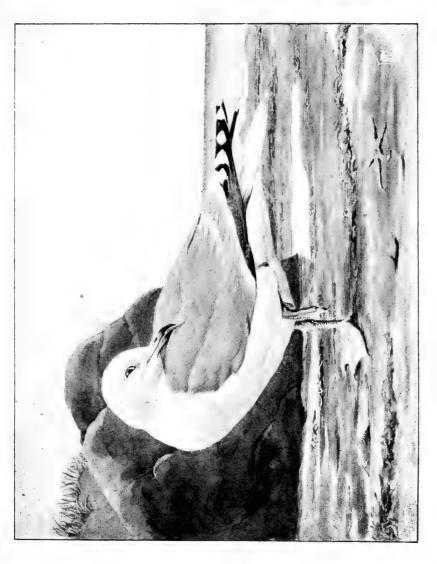
as he studies these varied and less familiar forms of life, from that suggested by arboreal birds, and his pleasure will be often quite as keen. It can be more truly said of many of this group that they are "fowls of the air" than of almost all of the terrestrial sorts. Returning from the vastness and illimitable exposure of the seashore to the close and shady covert of the woods, it seems sometimes as if the song birds really only lived half out-of-doors.

But the most pleasing aspect of water fowl, wherein the peculiar genius of their nature is clearly displayed, is in the fact that, as compared with all other species, they are so preeminently *picturesque*. According to the canons of strict beauty, many of the woodland species are doubtless far superior; but in that subtle quality that makes the most effective *picture*, the water birds are certainly incomparable; and every painter, poet, and observer feels the truth of this. They form a very essential part of that fine atmosphere which is the climax of the painter's art—*suggestiveness*—and are the most poetic link between humanity and Nature.

In most intimate connection with this thought is the fact that the most attractive view of these winged children of the sea is in their close asso-

ciation with that glorious element from which they seem to derive their birth, and a portion of whose spirit they appear to fling upon the winds. In such an atmosphere one cannot feel their lack of melody. Indeed, it would seem incongruous if sea fowl had been gifted with the power of song. The mood that animates the oriole and bobolink would ill befit the solemn, lonely grandeur of the ocean's restless life, whose stormy billows are so furious and defiant, while even his gentlest waves seem terribly in earnest, with the quiet grandeur of suppressed omnipotence. The human heart. when sensible of his majestic pulse, will strongly throb in unison, but throb in silence. The songs of earth are trivial and ephemeral against the ocean's massive and eternal undertones : the contrast grates upon the ear. And when, in storm, he dashes his stupendous, thundering waves against the shore, the spell-bound auditor may well exclaim, "Before the ocean's august presence, let all the earth keep silence ! "

And yet the aqueous element—so it be *fresh* water—is a very harmonious factor in that *ensemble* of Nature wherein the melody is given to the birds. The delicious warble of the wren, the vireo, the water thrush, may effectively



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Water Fowl

have the accompaniment of the babbling brook, or the cascade's noisy plunge; the charm is even heightened by the contrasting liquid undertones. The song that floats across the stream or lake acquires a richer, melting quality; while the fair musician, embowered among the trees of the secluded glen, will catch, as surely as the listener, new inspiration from the translucent pool beneath, in whose still depths the fringing trees appear to live again. There would be sad lack of harmony, however, were the effusion of the wren,

"That crowds and hurries and precipitates, With fast, thick warble, his delicious notes,"

to issue from the sandpiper on the stormy Atlantic coast; or if the stately heron were to mingle a sweet melody with the wild and endless anthem of the sea; or if the gulls, now coursing vigorously to and fro in quest of food, and again, in more restful flight, slowly wheeling in ever receding circles until lost to view, should break their sober silence with a song.

Beneath the despotism of the sea, the water fowl can only wildly cry, or be entirely dumb. Indeed, old ocean tolerates no rival of any sort in his antique sovereignty. Even the

continents themselves, like fabled Venus, sprang from out the sea. We are very much misled by appearances when we speak of the firm land, and the inconstant deep. Like an army, successively advancing and retreating, has the solid earth been oscillating up and down, now out of water, now submerged, throughout the geologic ages-the very type of instability. But, before the mountains were brought forth, or ever a dawning continent emerged above the waves to challenge the dominion of the sea, this hoariest of monarchs reigned in matchless solitude, his shoreless billowy realm encompassing the globe. All instability is of the land, the ocean is the only changeless thing.

" Such as creation's dawn beheld, thoù rollest now."

The continents, before such "chronicles of untold ancientness," are younger and more fair; and, as becomes their state, may revel in bright colors and glad tones, in forest and garden bloom, and the gay song of lark and night ingale. But the ocean, old and gray, is seriousminded, and its grave maturity is better matched by creatures in a quieter attire, of less

Water Fowl

effusive tone and temperament, upon its sombre shores. The everlasting hills may be symbolical of limitless *duration*; but the ceaseless, eager throbbing of the sea's immeasurable expanse is certainly Nature's grandest emblem of eternal *life*. Water, salt or fresh, is a strangely vital substance, half articulate, ever struggling blindly upward into life and melody, a corporeal sister of the evanescent wind. There is no passion to be found in Nature like that of the angry sea. The very essence of music's undertones is in the fluid thunder of the ocean's breakers, and in the roar of the majestic waterfall; while the cascade and the brook beguile the ear with their delicious melting chaos of unrhythmic and uncadenced tumblings; utterly devoid, it is true, of the technical qualities of melody, yet the very incarnation of its spirit.

[Ornithology that drives one to the woods, the fields, the shore—anywhere but to the stuffed collection—is open sesamé to unlock the door to many kindred forms of pleasure and inquiry.] Any ornithologist is very narrow-minded, who, in all his wanderings, finds only birds. Around them, as a nucleus, will crystallize a thousand objects of interest, for

one who has a seeing eye and listening ear; and there is no finer text than they in all the world to stick to or to wander from.

The student of Nature finds every grove and the brink of every stream to be populated, not as of yore with beauteous nymphs and alluring hamadryads, but with a probably much more instructive coterie, capable of transforming every solitude into society, the cultivation of whose acquaintance has been to me what Coleridge declared that poetry had been to him—"its own exceeding great reward. It has multiplied and refined my enjoyments: it has endeared solitude: and it has given me the habit of wishing to discover the Good and the Beautiful in all that meets and surrounds me."

"A length of ocean and unbounded sky Which scarce the sea fowl in a year o'erfly." Pope.

A BIRD'S-EYE VIEW

EFORE giving a systematic account of the many and varied types of water fowl that pass and repass our coast every spring and fall, let me

mention at random a few names, some familiar, others strange, from among the number, whose more intimate acquaintance will quickly awaken a lively interest in this immense but mysterious section of our avifauna.

Among the smallest and commonest is the graceful little piping plover, no larger than a sparrow, flitting fearlessly along the beach, appropriately of a sandy-white color above, and clear white beneath, which, in the ignorance of strict scientific distinctions, may well have been the inspiration of Celia Thaxter's delicate poem, "To a Sandpiper." Another common plover, the "kildeer," is about as large as a robin, and is named from the resemblance of the sound to its short, wild, dissyllabic cry. Besides being found on the coast, the "kildeer"

extends far inland and is to be seen along fresh water-courses, like the spotted sandpiper. The handsomest of the sort is the golden ployer, and one of the finest game birds. There is one almost invariable rule in bird plumage, of which the golden plover is an exception. If the ordinary student of birds bethinks himself, he will probably be unable to recall a single instance wherein the under side of a bird's body is of a darker color than the upper. A few species are of a uniform tint throughout, but where upper and under sides are different, the latter, almost without exception, is noticeably lighter. Among song birds it is quite common for the upper plumage to have various rich shades, and the under to be white. The golden plover is one of the rare exceptions in this respect; and, in full plumage of the breeding season, it presents a striking appearance in its garb of speckled golden yellow above, and pure black beneath. Like the plover, the best of our other game birds are also in the group of water fowl, such as woodcock and snipe, which two, however, are only on the border of the division.

As a class, water fowl are much more wary than land birds, and one of the most difficult

to approach is a peculiar creature called the "ovster-catcher," about as long as a crow, in plumage of black and white, with a characteristic bill, which is quite long, red, and truncated at the end of both mandibles. The bill is a much more important organ to a bird than is the mouth to any other animal, for it renders almost all of the additional service of a hand. The "ovster-catcher" illustrates this, using its long, strong, and blunt bill as a "jimmy" to pry open the shells of various bivalves, in order to extract the meat. An allied species is the little "turnstone" --- also called calico - bird, from its motley variegation of colors-but with a very different form of bill, whose lower half tapers to a sharp point, so that the whole resembles a writing-pen, and is well adapted to its purpose of turning over stones on the beach, to find the various little animals lurking beneath.

An eccentric-looking specimen is the avocet, remarkable for its very long blue legs and slender body, and a bill that is just like a shoemaker's awl — long, sharp, and curved up. Wading about in the shallows it finds food with this instrument in the soft ground beneath; but the bird is also web-footed, and swims easily. In

speaking of this most prominent feature of many of the water fowl, I must not fail to mention the most singular of all, the long-billed curlew, or "sickle-bill," with a bill sometimes eight inches long, and curved downward, the reverse of the avocet.

1.1.

Sandpipers as a class have neutral colors, but there is an occasional exception to this, as in the red - backed sandpiper; while the redbreasted, or "robin snipe," is a large and handsome species, a genuine water robin. Our tiniest swimmer is the little phalarope, its body not so large as that of the hermit thrush, and one species is handsomely costumed in dark wine-color, white and black.

The "sea-parrot" shows another distinct type, and has a parrot-shaped bill, but is not so ungainly as its namesake on land. This comes down from the North in winter as far as Long Island Sound. An allied species, called the sea-dove, has plumage suggestive of our familiar little snow-bird—dark-blue above and on breast, passing abruptly into white beneath.

We have two prominent and interesting groups of water birds among us, belonging, as we shall see hereafter, to the "marsh group" herons, which resort to *wooded* swamps, either

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in large colonies or in pairs, and rails, found in *open*, reedy swamps. Herons as a class are large and aërial, while rails are much smaller and essentially ground birds, rarely on the wing, and, with their strangely attenuated bodies (which have made them the proverbial type of *thinness*) easily gliding among the closely growing reeds and rushes of the marsh. This class furnishes one of the best game birds in the country—the Carolina rail—extremely abundant in their favorite resorts during migration. From their peculiar figure and character of habitat, rails are often called mud-hens.

Of the herons, which serve only for beauty and not for use, the most abundant in the Eastern States are the night heron, the great blue, and the green herons. The handsomest of the class, the great white heron, is, unfortunately, only a rare straggler from the South, and its miniature fac-simile, the little white heron, is almost as rare.

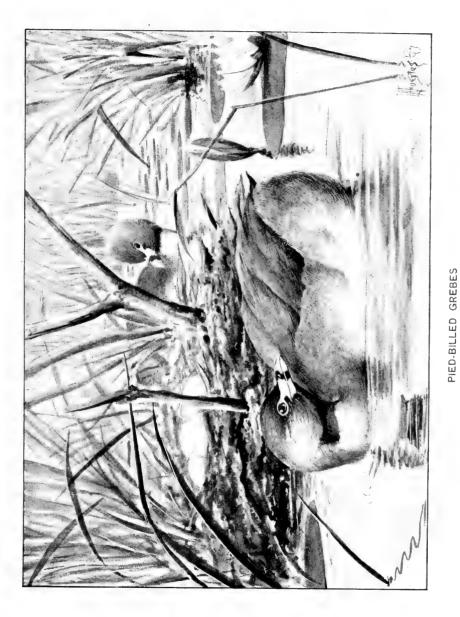
Along almost every stream can be seen the curiously teetering, spotted sandpiper, whose grotesque mannerisms make one wonder whether he is suffering from hereditary uncouthness, or expressing something inexplicable.

Here and there at a pond may be found the

interesting pied-billed grebe, whose nest is one of the curiosities of bird-architecture, its foundations laid, not in a tree, nor on the ground, but in shallow water, in the form of a heap of matted material, which, as it emerges above the liquid, is hollowed out and finished off with a neatly rounded edge—almost a floating islandhome for the five or six chicks that soon appear. The grebe's facility for instantly darting under water and remaining there a long time has given to it the more expressive than elegant *sobriquet* of "Hell-diver."

But the largest and handsomest specimen among diving birds is the common loon, or great northern diver, breeding farther north, but in winter found throughout the United This is of a rich black color, with States. numerous curious white spots, and partly iridescent violet and green. I will add only one more name to this catalogue-that of the murre, one species of which comes down to our latitude in winter. Multitudes of them gather in their breeding-places on rocky islands, and they are called "egg-birds" for the reason that the eggs are so abundant as to be of great value, and are found lying thickly together, with little or no pretence of a nest.

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These vast colonies are described as flying about their island homes "in great files and platoons, at regular hours in the morning and evening, making a dark girdle of birds more than a quarter of a mile broad, and thirty miles long, whirling round and round the island, and forcing upon the most casual observer a lasting impression."

*

Simultaneously with the arrival of thrush, finch, and warbler in swamp and upland, occurs the equally interesting passage of the host of water birds along the coast of New Jersey, north and south shores of Long Island, the water-front of New England, with the numerous adjoining islands. Sometimes at the ocean's edge, but oftener in the protected inlets, where water is quieter, and food more abundant, one may find, in spring and fall, representatives of all the groups hereafter described, an assortment far more diversified in their distinctive types than can be found among land birds. As a rapid review of this regular recurring panorama, and as an aid in remembering the more conspicuous differences of the various groups of water fowl, I purpose to give a bird's-

eye view of the scene, by a classification which, though not based upon the minute criteria of science, is more serviceable to the field ornithologist, who observes the life-habits, rather than the anatomical structure, of his specimens.

No one method of classifying objects, be they animal, vegetable, or mineral, can be so comprehensive as to present all their features. The nature, especially of the higher classes of creation, is so many-sided, that no one system of grouping can possibly summarize all the interesting facts. Human beings can be grouped in many ways, each method emphasizing its peculiar aspect of the race. Some of the most fundamental traits of a man's character are at once revealed by knowing his nationality; but the daily current of his life is better understood by knowing his profession, as a physician, or a merchant, or an artist. The former view presents his more hereditary nature, and the latter his equally individual but more accidental char-The current classification of birds, beacter. ing based on heredity, as shown by anatomical structure, is like the former method of knowing a man's nature; but, however profound, it omits many of the distinctive aspects of birdlife, and particularly some that are of most

interest to the general student. Any other classification than that which now monopolizes the term "scientific," is also valid, just to the degree of its significance; precisely as the recent and popular arrangement of flowers according to color utterly ignores the structural method, and may be called extremely superficial; still it is legitimate, interesting, and, to a large class of botanists, exceedingly helpful. All the methods of classification in the natural sciences being as yet tentative, it ill becomes the advocate of any system to arrogate exclusive validity to his own method. In the science of birds there are other affinities than those of flesh and blood, and other unities than those of mandibles, toes, and feathers. To the average observer, I am sure, the affiliations of the various thrushes is more interestingly betrayed by their prevailing "thrush-like tone," than by all of their bony resemblances; and the most characteristic trait of all flycatchers is a more apparent, if a less profound, bond, than minutiæ of organism.

The classification I propose is a device to aid the memory, rather than one that hinges on the subtleties of consanguinity. It is what the chemist might call a working formula, for those

who have no time nor taste for the profoundly scientific. This grouping is primarily intended for water fowl, as being the class for which, in the general ignorance of the public concerning them, an easy and evident system is desirable, rather than for the more familiar land birds. And the most rigid scientist can find little ground for positive objection to this scheme, since the groups thus formed are almost identical with those established on anatomical principles, while the succession of groups largely follows the order of sequence in scientific works.

My principle of arrangement is that of *special habitat*, which is a peculiarly reasonable one to adopt, in view of the greatly divergent natures of water fowl. To give symmetry to the scheme, and thoroughly to illustrate what may be called *the circle of habitat*—a superficial, yet natural, way of looking at the birdkingdom—I have also briefly grouped the land birds in the same manner. In reply to the possible objection that the divisions thus made are not absolutely distinct, but that the species bordering each group show to some extent the characteristic features of adjacent groups—to this it is only needful to say that precisely the

same confession is made by the best authorities concerning the current anatomical groups.

In devising this scheme for water fowl, my best assurance of the propriety of presenting it to others is the fact that it has been so serviceable to myself in affording the easiest and most interesting method of bringing a great variety of species, many of them quite inaccessible to personal study, into distinct, lively, and comprehensive review.

According to the scheme, I present the land birds in three main groups—*aërial*, *arboreal*, and *terrestrial*; and the water fowl in six groups—*marsh*, *shore*, *swimming*, *diving*, *swimming-aërial*, and *aërial*. This forms a complete circle of habitat that is at once apparent from the following chart. As applied to the water birds, the scheme may be expressed in a word, by saying that it is based on the principle of their gradual approach to, and departure from, the water.

In the great majority of birds, their passage on the wing is only a means to an end; that is, flight is a practical matter, chiefly a transit, in order to get somewhere. Amid all their activities, and almost incessant motion throughout the day, this fact is clearly evident. But there

are a few species of land birds that find flight an end in itself; that pre-eminently live upon the wing; that sail, and circle, or indulge in the most dashing circumvolutions, hour after hour, without alighting, and evidently prompted by no impulse except the thrill of altitude. and the ecstasy of motion. Such birds may nest, and at times perch, in trees; they may even be found occasionally on the ground; but this is for some needful, special purpose; their wings are the truest symbol of their nature, and their home, the broad and unobstructed sky. The few species in this group are not the most familiar nor the most welcome of their kind : but, in this lofty sense of wild abandonment and super-earthliness, they are the most exalted of all birds, showing an intensity of temperament unequalled, in its way, by any other These constitute what is most creature. essentially an *aërial* group, comprising the grandest and most fugacious of terrestrial fowl, of which the most glorious is the eagle-that

> "-winged and cloud-cleaving minister, Whose happy flight is highest into heaven,"

and whose crowning altitude is his best claim to being called the king of birds. Modelled

after the same nature are the hawks, the largest of which hardly stand second to the eagle, but whose essentially injurious nature (as it is mistakenly judged) has made mankind almost oblivious of their finer and grander aspect. Diverse in many ways from the foregoing, and yet closely allied in aërial temperament, are the familiar swifts and swallows, sportively expending on the wing their exhaustless stock of energy, a constant symbol in the sky of joy and silent laughter. In all the animal kingdom I know of nothing that portrays a wilder rapture -not even excepting the heartiest outpour of a jubilant songster-than the voiceless transport of a large flock of swallows in the autumn, as they mingle, young and old, preparatory to their departure for the South-the former in the freshness of their new and untried life, the latter, as if celebrating their release from the cares of summer-in the eager, perplexing mazes of exuberant flight; a prolonged exhilaration, a feathered rhapsody; which, while it wearies them not, leaves the beholder almost breathless. Such a scene, common though it be, is in the highest degree inspiriting; and the contemplation of the collective species of this group is intimately associated with some of

our loftiest thoughts. Well might Celia Thaxter say of the swallow,

"A spark of the gladness of God thou art !"

Next below the aërial group is the one that comprises the mass of all our singing birds, among which are a very few, like the goldfinch, the bobolink, and the blue-gray gnatcatcher, that show some affinity with their songless confrères of the upper air, in the luxury of wanton, aimless chase. The song birds and kindred families, being commonly found among the trees, where they chiefly nest and sing, and rarely soaring above them for any prolonged excursion, may properly be called the arboreal group. This contains the most musical, as well as the majority of the most beautiful in form and plumage of all the race; and yet our fuller appreciation of them is not a little due to the closer approximation of their habitat to our own daily life. By insensible gradations through woodpeckers, nuthatches, etc., that are less volitant, and more closely adherent to trees; owls, parrots, and whippoorwills, that are still more sedentary; and meadow larks and sea-side finches, that are conspicuously ground birds, we descend to what may be called the terrestrial

group, found largely upon the surface of the earth, where they commonly nest, and having a flight that is short and low—a group comprising many of the game birds, such as pheasants, and quail or "bob-white," the domestic fowls, etc. Ill-defined as are the boundaries of these groups, indeed, with perhaps no boundary at all, a bird's-eye view makes clearly evident the distinction on which this method of arrangement is based.

The affiliations of all in these three groupscomprising two-thirds of all our birds in North America-are distinctly with the land; and yet among them are not a few premonitions of the remaining third, the water fowl. Contrary to the usual laws of optics, some objects become more distinct as we recede from them; and this is true of the boundary-line of land and water birds. Each class invades the territory of the other. King-fishers and water-wagtails are scarcely less addicted to the ponds and shallows than sandpipers. Woodcock and snipe seem only like the presentiment of water fowl, herons have many of the habits of crows, and the upland plover is not far from the kingdom of "perchers." Probably Nature had no thought of a fixed gulf between these two great divisions.

Thus at the bottom of the circle we find them insensibly merged, and the same is true at the top. In this latter case, we find a needful correction of a natural supposition, from reading the usual tabular list of birds in scientific works. that the last of the water fowl are of all the class least like the land birds; whereas we find a gradual approximation toward the characteristics of the aërial terrestrial division, and expressed by the popular names of some aërial water species, such as "sea-pigeon," "sea-swallow," "sea-dove," etc. The converging lines of the two distinct natures are finely gathered into one in the "sea eagles" of Africa, the East Indies, and elsewhere, the grandest of that kingly race being perhaps the enormous sea eagle of Kamtchatka.

In the somewhat arbitrary adoption of a boundary-line between these two great classes, we may as well agree with the scientist, who gives to our gamey friend "bob-white" the credit or disgrace of bringing up the rear in the long terrestrial procession. Crossing that imaginary line, which to the ornithologist is as true a fiction as are the equator and arctic circles to the geographer, we now pass over to the more numerous and more clearly defined groups

of water fowl. It is my purpose to touch only lightly upon the broad extent of this division, by instancing a few representatives of the several groups.

Marsh Group.-Scientific works place first in order the shore birds, Limicolae, but, in arranging the groups according to habitat, it is better to put first those species that appear most akin to land birds, that live farthest inland and are least aquatic; so far terrestrial, indeed, that some of them nest in trees; yet, in some ways that can be defined, and in others that cannot, having distinctively the atmosphere and temper of water fowl. From their usual resort I would call these collectively the marsh group; which among others, includes the longest, leanest, and most picturesque of the water fowl-herons, ibises, cranes, and storks, whose poetic popularity is abundantly attested both in picture and in verse. The habits of these principal families are very similar to those of the great blue heron and of the night heron, as described in another chapter. Living generally in almost impassable swamps and marshes, usually silent, and some of them comparatively seldom on the wing, one who would see most of these species, except in mi-

gration, must commonly make long and toilsome explorations in order to find them. In this group, however, are included some of the handsomest, both in form and color, of all water fowl.

The ibis is chiefly found in the Southern States, the two principal species being the glossy and the white ibis, each about two feet long. The former is of a rich purplish chestnut color, and its evolutions on the wing, like those of the white ibis, are particularly beauti-Both species congregate in vast numbers ful. in their favorite haunts, the glossy ibis nesting on the ground, and the white one in trees. Audubon counted forty-seven nests of the latter species in a single tree, and his entire account of its habits is very entertaining. It goes in flocks to the ocean for food, like the night heron, timing its journey, which is sometimes more than forty miles, by the tides. Its motion through the air is by alternate flappings and sailings, and they evince a sense of rhythm in the fact that the whole flock imitates the leader in the alternation of these motions.

The ingenuity of many animals rivals the power of human reason, and the white ibis well illustrates this fact. One of its favorite

articles of diet is the cray-fish, which often burrows from three to four feet into the mud, the material thrown out lying around the burrow in the form of a mound. The device of the ibis to get hold of the animal is as simple as it is clever. It merely breaks up the mound of mud into little pieces, and throws them into the hole, and then moves back a step to await the consequences. The cray-fish at once sets to work to clear out the hole, and as soon as he reaches the surface with the obstruction, the watchful ibis snaps him up.

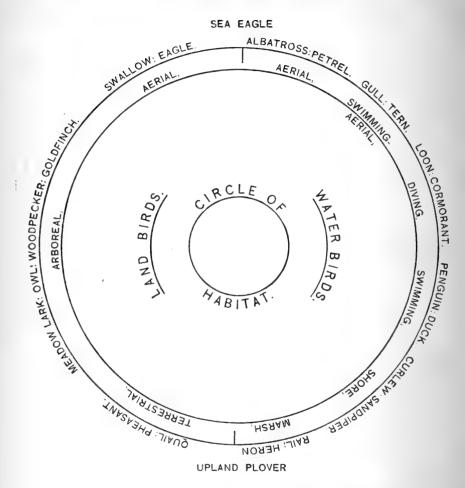
The wood ibis, properly a stork, which feeds on fish, frogs, young alligators and water snakes, is equally clever in procuring a variety of diet in the easiest possible manner; for, going into shallow water where fish abound, it treads around until the water has become muddy, which brings the fish to the top. The stork, striking them sharply with its bill, kills them and leaves them floating at the surface for bait. In ten or fifteen minutes the various reptiles in the neighborhood are allured to the spot, whereupon the stork helps himself to whatever he likes. This is also chiefly a Southern bird, only rarely coming as far North as New England. Like the night heron, it lives in large colonies, but nests on the ground. Storks are among the largest of all our birds, standing nearly four feet high.

One of the noblest figures in the group is the whooping crane, fully as high as the stork, and almost entirely white, but one of the wariest of all species, and extremely difficult of approach. This, too, is a Southern bird, and is seldom seen in the Northern States. The heron family alone spreads over the northern part of the country, and without much difficulty the night heron, the great blue—occasionally the little blue—and the green herons may be found either in migration or in their summer homes.

Coming one step nearer the water we find the

Shore Group.—This is an exceedingly interesting division, the largest of all the groups, numbering about seventy species, and very accurately described as to habitat by the name of *shore* group, since they all live, with very few exceptions, near the water's edge, find their food on the shore, or by wading in shallows, and include only a very few species that are swimming birds. As a class they are characterized by long bills and long legs, the former for probing the ground for food, the latter for





The birds named in the outer circle are merely representative of the groups of the inner circle.

wading. The group is a varied one as regards size and plumage, averaging much smaller than any other group, containing all the most delicate species and some that are brightly colored. It contains also the species that one is most likely to find, as some of them frequent almost all rivers, while others are to be seen along the coast of the Eastern States through the summer. The group comprises several large families, which I will only mention briefly.

Plovers are among the best known, averaging about the size of a thrush, the smallest being the piping plover, with quite a musical note, while the handsomest is the "crested lapwing," which Tennyson refers to, a common bird in Europe, but belonging to the North American fauna only by virtue of having been seen in Greenland. The golden, kildeer, and mountain plovers are also familiar and attractive species, the last-named being an exception to the class in living entirely away from water. The turnstone, stilt, and avocet, which have already been described, belong to the shore group. Another section of it are the sandpipers, a numerous and generally plainly colored family; as a rule quite small, the "least sandpiper" being the most diminutive of all our

water fowl, and no larger than a sparrow or warbler. Some of them are fresh-water birds, and can be seen along nearly every stream. In this group, too, are the phalaropes, which are swimmers; and a flock of these minute creatures, not so large as a robin, disporting in the water, affords a novel and beautiful picture. In the shore group, also, are curlews, and those commonest of game birds, woodcock and snipe. As a class, these various sorts nest on the ground, the structure being adequate for all practical purposes, but not at all ornamental.

Going out upon the water we come to the

Swimming Group.—This contains the most familiar of all the aquatic division—ducks, geese, and swans, whose temperament makes them peculiarly adaptable to domestication. Almost forty distinct species of ducks belong to our avifauna—an imposing flotilla—and, as a class, they are the most handsomely decorated of any water group. Among land birds, Nature has been most prodigal of color in the "warblers," and, for more than one reason, ducks might be called aquatic warblers. Strange to say, yellow, which is such a common color in the land division, is almost totally absent from water birds. Excepting the golden plover and one



AMERICAN AVOCETS

Water fowl live on the confines of an unknown world, from which they bring us scarcely any intelligible message (p. 46).



A Bird's-Eye View

or two others inconspicuously marked, I do not recall a single instance of it. The wood duck, harlequin, and various teals are among the handsomest. In migration, ducks commonly spend the day on the water quite far out from shore, but at night come to land along some inlet, where they can be best approached in the early morning before they fly.

For the field ornithologist perhaps no other family of American birds has so evident a classification, which I will briefly state.

From their habits and habitat they fall into three distinct groups, *viz.*, river ducks, sea ducks, and fishing ducks or mergansers.

River ducks, as the name implies, chiefly frequent fresh-water streams and lakes, and principally subsist upon aquatic herbage, with very little animal food. As a consequence, this group, which naturally includes all the smaller and more delicate kinds, such as teals and widgeons, together with the domesticated sorts, afford fine eating. The breeding range of this group, consistently with their greater delicacy, is more southerly than that of sea ducks, and many of them breed extensively throughout the United States.

Sea ducks are mostly found along the coast,

and subsist largely upon animal food which they find in the water. The nature of their diet makes their flesh rank and usually unpalatable, although the "canvas-back" is a notable exception. These rarely breed as far south as the United States, but commonly far north, one of the largest and handsomest, the king eider, being circumpolar. Sea ducks differ from river ducks in having larger feet and broader webs, enabling them to swim and dive more easily. I will mention one curious and significant distinction between the two groups, although it touches upon the anatomical side of the subject. In all sea ducks the hind toe is bordered by a narrow band or lobe, which is never the case in river ducks. This increases the area of the webbed foot, and the relation of this fact to the different degrees of propulsive power possessed by the two groups, which in turn so largely determines their habitat and diet, and thus their serviceableness to man, justifies an allusion to what might otherwise be called a dry, scientific fact. The field ornithologist ignores nothing in the physique of a bird that has an evident relation to the special habits of the species; but the intricate details of an insignificant bone in the body that

A Bird's-Eye View

he has never seen, and never expects to see, and that has no more connection with the lifehistory of the bird than has the transit of Venus—these microscopic, polysyllabic, and incomprehensible data he willingly relegates to the enthusiast in skeletons.

These two groups comprise all but three of our species of ducks, and these form the third or merganser group, found both in salt and fresh water, but living largely upon fish, for the capture of which they can swim under water. While these are fine-looking birds, especially the "hooded" merganser, their fish diet makes them even more unsavory than sea ducks.

One pleasure of studying water fowl, that is seldom enjoyed when watching land birds, is due to the large numbers in which almost every species congregates, and the peculiar animation that springs from multitudes. As compared with other birds, the water fowl are very silent, it is true; and, from this fact, they get the reputation, among thoughtless people, of being cold-blooded and undemonstrative. But one finds the social instinct emphasized among them quite as strongly as among the other species; and they illustrate the fact that individuals less

loquacious, gushing, and demonstrative than their neighbors, cannot, on that account, be said to have less strength of sentiment and affection.

Standing apart, in most singular contrast to these species, but scientifically in the same order, is the flamingo of Florida, one of the most brilliant of all water fowl-intense scarlet from top to toe, except a few black feathers in the wing-extremely attenuated, standing four feet high, and often on the wing-a sort of airline connection between the marsh and the swimming groups. Scientists must have smiled when they voted to group the dumpy duck with this tall and spindling creature, which stands in the same relation to the remainder of the group as a church-steeple to a cottage. Audubon once made a trip to Florida chiefly to study these gorgeous specimens. His view of a flock in the air, sailing with broadly spreading wings, must have been as unique as it was beautiful, as of a group of crimson clouds dappling the sky at sunset. And, by the way, one must have the greatest admiration for the arduous and indefatigable researches of this wonderful natural-The extremities into which he was someist. times brought, in his long wanderings through

A Bird's-Eye View

wild regions, called for truly heroic treatment. Thus, in camping out, he says it repeatedly happened, after he had cooked his meat, and not having any salt, that he used *gunpowder* for seasoning !

The scientific excuse for putting the lofty flamingo into the lowly company of ducks, etc., is in the fact that this towering bird has, in common with them, what probably no other birds at present possess—two rows of small projections along the inner edges of the bill, apparently the lingering remains of a dental apparatus once enjoyed by this class of beings. For the reader must know that, in olden times, birds had our own troublesome convenience of teeth, the evidence of which is found in skeletons of the Cretacean epoch.

The families thus far named in the "swimming group," especially swans, are but slightly aërial; but we now reach the most peculiar type of all, the penguin, "the flightless sea bird," with almost rudimentary wings, quite like the flippers of a cetacean, without quills, but moving freely at the shoulder-joint, so that they serve as paddles in the water, where they are usually worked alternately, in rotatory motion. This singular creature, of which there are sev-

eral species, is not found in our avifauna, being confined to the coast of the Southern Ocean.

Going not only on, but beneath the water, we find the

Diving Group.-Some species have a remarkable facility for remaining under water a long time, and of swimming rapidly and a long distance while submerged, either by using simply their webbed feet, or, in some cases, by the additional use of the wings. This ability serves the double purpose of capturing their prey, and of escaping from danger. One family of the swimming group-the mergansers -has this faculty to some degree, but it is most conspicuous in those families that are distinctively called "divers." These include the great northern loon, which is able to swim many fathoms deep in water. Grebes are another family, a sort of diminutive loon, and still another are sea-parrots, already referred to. One by one, species become extinct, without any known cause, and the most notable instance of this in recent years is that of the great auk, another species of diver, which is supposed to have disappeared about forty years ago. The few skins and eggs of this bird that remain command a fabulous price, one skin, and a poor

A Bird's-Eye View

one, having been sold in Europe for \$200. With these divers may also be classed three families of very large and heavy birds - gannets, pelicans, and cormorants. The first two of them would be very clumsy in water, were it not for the notable fact that Nature has supplied them with numerous interior airchambers — "water - tight compartments " which enable them to swim very lightly. One noticeable peculiarity of those in this group that are most distinctively divers, is the fact that they stand very erect on land, the legs being placed so far behind that a horizontal position is impossible. Indeed, some species when on land use the tail as the third foot of a tripod for supporting themselves. Doubtless propulsion under water is facilitated by having the feet well behind, instead of under the middle of the body. The birds of this group very consistently are among the least aerial of all our water fowl, although on occasion they can fly swiftly. On the border of this group, and leading into the next and more aërial division, is one that, while equally adept in sub-aqueous practices, has a more airy form - that remarkable bird in Florida, called the anhinga, snake-bird, or "Grecian Lady." This is a

more inland species, living along rivers, lakes, and bayous, rather than by salt water, and is the chief fresh-water diver. Disappearing almost without a ripple, it comes up again many hundred yards distant; and, when fleeing from danger, it often swims along with only its head and long neck above water, presenting the appearance of a snake. Its long bill, small head, serpentine neck, and very slender body give it a very snaky look even upon land; and, with its graceful form and handsome plumage, it is as beautiful as it is singular. Yet, although sometimes indulging in prolonged and lofty soaring on the wing, it spends more than half of its time by day in the water. Through this transition species we come to the

Swimming-aërial Group.—We are now distinctly on and above the water, and here we find as the most important, gulls and terns, which have elsewhere been fully described, easily aquatic and gracefully aerial. In this division, too, is a genuine marine bird of prey—the jäger (hunter)—which obtains its food by robbing the booty captured by small gulls and terns. By one further ascent we come to the

Aërial Group, consisting of the most purely oceanic birds, "rarely landing except to breed,

A Bird's-Eye View

and unsurpassed in power of flight," able to swim, but, with one exception, never diving. The birds of this group have, in general, the peculiarity of producing a single egg, instead of several, and it is quite common for both sexes to incubate, which is rare in land birds.

As king of this group stands the albatross, a magnificent specimen of enormous frame, three feet long and with a spread of seven feet. He is found at large on the Pacific Ocean as well as off our own coast, a marvellous specimen of strength, energy, and imposing grace.

As diminutive as the albatross is mighty is the dainty petrel, whose spacious mansion of wide emptiness has the ocean for a billowy floor, the sky's blue concave for a vaulted roof, and for companions only winds and waves. There is a sort of grandeur in such gigantic loneliness. In this group also is the giant fulmar, hardly inferior to the albatross, in hue like a leaden cloud, and, in distinction from "Mother Carey's Chickens" (the petrels), called by sailors "Mother Carey's Geese." Two other species no less aërial are the graceful tropic bird, and that remarkable specimen, the frigate or manof-war. bird, slender as a tern, and, on account of its long-tail feathers, having a total

length of three and a half feet, found hundreds of miles out to sea, and said by Audubon to be the swiftest of all birds in the world. I cannot more appropriately close this résumé of water fowl than by quoting from this enthusiastic writer a fine description of this strange and beautiful species. "When the morning light gladdens the face of Nature, and while the warblers are yet waiting in silence the first rays of the sun, whose appearance they will hail with joy, the frigate bird on extended pinions sails from his roosting place. Toward the vast deep he moves, rising apace, and, before any other bird, views the bright orb emerge from the waters. Pure is the azure of the heavens, and rich the deep green of the smooth sea below; and now the glad bird shakes his pinions, and far up into the air, far beyond the reach of man's unaided eye, he soars in his quiet but rapid flight. There he floats in the pure air, but thither can fancy alone follow him. But now I see him again, with half-closed wings, gently falling toward the sea. He pauses awhile, and again dives through the air. Thrice, four times, has he gradually approached the surface of the ocean. Now he shakes his pinions, then sweeps

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A Bird's-Eye View

away, shooting to this side and that, in search of prey."

This is a graphic picture of the peculiar atmosphere of water fowl. In such a scene, all the finest song birds the earth can offer will vanish from one's thoughts in the sense of glorious wildness, freedom, and buoyancy of spirits displayed by these noble and graceful creatures, that are so fitting an accompaniment to the sounding solitude and sombre majesty of ocean scenery. Reflecting in their various temperaments the alternating moods of the marine divinity, they are the genii of the deep, ocean's glances in the upper air. The giant blackbacked gull, rapacious and tyrannical, the eagle of all water fowl, matches the ocean's fiercest energy. The frigate bird, petrel, and albatross, forever ranging over its illimitable expanse, betoken well its interminable restlessness. The milder sorts of gulls, and terns, snow-white and pearly winged, reflect its crested waves, when, kindled by a summer's wind, the liquid plain is flecked with silver caps; while the dainty floating phalaropes, with the nimble-footed plover and sandpiper that frequent the shore, image the laughing ripples on the beach, when the majestic ocean spirit throbs in vast serenity. Byron's

famous apostrophe in "Childe Harold" is the unsurpassed expression of one who has felt the magnetism of the sea, resistless in its rage, profound in its repose, and through all ages tireless as the very mind of Him who formed it.

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SEA PARROTS (Puffins)

It would seem incongruous if sea fowl had been gifted with the power of song. The mood that animates the oriole and bobolink would ill be^fit the solemn, lonely grandeur of the ocean's restless life (p. 56).



"You, mistress, all this coil is 'long of you!" Sbakespeare.

"O Cuckoo! shall I call thee Bird, Or but a wandering Voice?"

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Wordsworth.

MISTRESS CUCKOO



HE cuckoo is a household name with multitudes who, nevertheless, are not only totally ignorant of its

appearance and habits, but who know its peculiar sound—"twin notes inseparably paired"—only by their world-wide and accurate imitation. To such it has a singular unreality; while for those, too, who have actual acquaintance with this "wandering Voice," it calls forth a very different sentiment from that which any other bird awakens.

Comparatively rare and silent, and very seclusive, its very tone gives it a shadowy atmosphere, and its personality is that of something distant, incorporeal. In contrast with our cheerful, clear-toned songsters, that come prominently into view, the cuckoo is a pensive spirit, lurking among the trees, and at long intervals uttering its singular cry, now harsh and meaningless, now musical and melancholy, a tone

as passionless as if it were cold moonlight's incarnation. Its darkened, downward inflected notes spring from the solitude like a purple bending flower from out the earth—an audible inflorescence of the woodland silence. To the general eye its name is, so to speak, not carved in deep and clear-cut granite characters, but is like an antique inscription, richly overgrown and half obliterated by the poetic moss of mystery.

Of all the birds common to this region, the cuckoo bears, perhaps, the strongest impress of graceful femininity. Doubtless this is due in part to its delicate attire of soft "quaker brown" above and white beneath; but it is quite as much induced by the dainty gentleness of its ways, both in motion and repose, and by an indefinable reserve that seems quite different from ordinary timidity. Its long and slender drooping form, betokening a pliant nature, emphasizes the same impression. Its figure and demeanor are suggestive of the wild pigeon-a feathered symbol of tranquillity and meekness. We at once feel the propriety of saying Sir Robin and Master Oriole, for they both display masculine vigor in all their graceful conduct; and, with the same sense of con-

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gruity, we may address this shy and tender ornament as Mistress Cuckoo.

Although this bird peculiarly befits a poetic mood, it is curious to observe in what different humor the poets allude to it on different occasions. To Spenser it is at one time

"The Merry Cuckoo, messenger of Spring,"

whose

"trumpet shrill hath thrice already sounded."

At another time, in a very disparaging tone, he says:

" The Cuckoo, when the Mavis sings, Begins his witlesse note apace to clatter."

Shakespeare is equally contradictory in commendation and depreciation of its notes. The difference may be accounted for by the contrast of its harsh and disagreeable cry, as heard sometimes, and its smooth and distinctly intoned effect at other times. On Wordsworth it sometimes has a mystical and sombre effect, as being

> "No bird, but an invisible thing, A voice, a mystery !"

and at other times he speaks of its joyous spring-time mood, with an ardor that is quite in contrast with his usually quiet and conservative utterance. These varied impressions result in part from the variations of the bird itself, and in part from the changing light and atmosphere in which a poet looks at everything. There are certain peculiarities in this bird that deserve attention.

Some people are so symmetrical in their natures that the skilful psychologist, from a single element, might reconstruct the entire framework of their character; just as Agassiz, from a single bone, restored the entire skeleton of a certain geologic reptile. Such may be the most valuable members of society, but they are not the most interesting specimens for psychological analysis. But when one's own nature is at war with itself, when an individual like the cuckoo, modest, graceful, retiring, and evidently of a poetic melancholy temperament, is found to be an artful thief and a cold-blooded murderess, and so wanting in natural affection as to abandon her own offspring-while we should hardly like to admit this character to our own house, we should certainly be eager to scrutinize such a strange anomaly.

The cuckoo is thus abnormal above all our other birds, and excites peculiar interest for that reason; and while we have no right to condone her faults, there are some extenuating circumstances for the behavior of Mistress Cuckoo which should be taken into account.

The first fault of the cuckoo to be mentioned is, that it often eats the eggs of other birds. Crows, jays, and catbirds are in ill-repute for doing the same thing. The eagle, however, whose offence is more heinous, as he often preys upon adult creatures of more value, fares better at our hands, and is considered a rather noble villain. Great offences are at a premium. It is less disgraceful to be an embezzler than a sneak-thief.

We all know that a large proportion of animals sustain life wholly or in part by devouring their fellow-creatures. A flycatcher will sit almost by the hour on the end of a twig, watching his chance, and every sally he makes means the death of a luckless gnat, moth, or butterfly; and we never think of criticising its propriety. We say it is necessary for food and for the destruction of injurious insects. But the bird's only motive is to gratify appetite, and he is not at all praiseworthy for doing unconsciously what

happens to be of service to us. We should judge all his conduct according as it is normal or abnormal to his nature. But precisely what is normal to a mere animal is not always easy to determine. To accuse any animal of crime is contrary to reason; and yet we virtually do so in saying, for example, that a horse, or a dog, or a cow is vicious. An ugly specimen of a domesticated animal does not seem to be in its normal state; it appears to show depravity of something very like a moral nature. Many an animal is crafty, that is, devilishly intelligent; and we often inflict punishment, ostensibly only to restrain it by fear from doing the vicious or crafty deed again, but with a lurking feeling that the animal is really guilty.

No one criticises a bird for capturing insects; but when it comes to its eating another bird's eggs, we draw the line. Is it a reasonable line? Somehow it seems more against nature for an animal to violate the interest of creatures of its own kind than to destroy lower forms of life. Is such a distinction rational? If so, since mammals stand higher in the scale of life than birds, ought we to have indignant feelings toward a cat that has captured a robin or bluebird? If it were only a butcher-bird, no

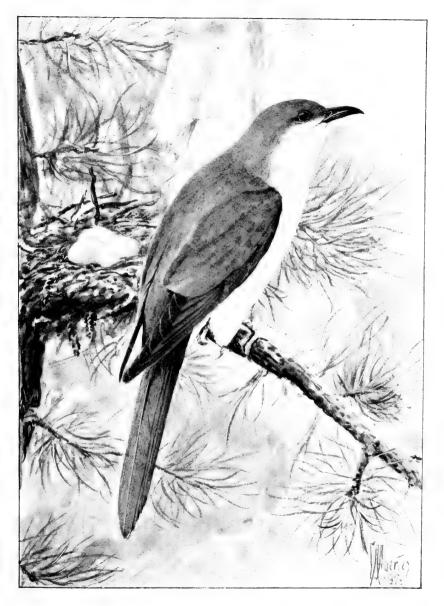
one would say anything, because we don't happen to like butcher-birds. As a matter of fact, our judgments of these things are all warped by personal feelings. Doubtless the only tenable ground is that, from a bird's point of view, all that he wants and can get is legitimate prey. Yet, despite all logic, we shall continue to believe that such conduct in any bird is somehow against Nature, and rascally; and we can never feel that modesty and theft, gentleness and murder, are consistent elements of character.

The other serious charge against the cuckoo is quite as criminal as the first, but, upon examination, admits of a far better excuse.

A bird's parental instincts are one of the most beautiful aspects of its nature, and establish a closer bond of sympathy in mankind than any other characteristic. But, when we find the cuckoo coolly depositing one egg in one nest, and another egg in another nest, of other birds, thus shirking all the maternal responsibilities and felicities, it seems a more flagrant exhibition of heartlessness than sapping the potential life out of inanimate eggs, and as unnatural as even the destruction of the young of other species. But the ground of such ab-

normal conduct is in a structural peculiarity found in none other of our familiar birds.

If Nature ever devised a scheme that should bewilder her own creatures, we may be sure she did it in the present instance; for the poor cuckoos find themselves in a dilemma that baffles instinct itself. Other birds lay their full complement of eggs, usually about five, on so many successive days, and immediately proceed to incubate. But with the cuckoos, by some natural derangement of the oviparous apparatus, several days often elapse between successive depositions. If she knew how many eggs to expect she would probably postpone sitting. In that case, however, those first laid might possibly become stale. But her arithmetic is at fault, or else she is confused by the delay, and, after laying one or two, and finding that none follow, she does the best she knows how and begins to sit. Later another egg is deposited, then another, and possibly a third, at intervals of several days. As a result, the eggs begin to hatch at corresponding intervals. The mother is now in a quandary. If she remains on the nest to finish all the hatching, she will perhaps starve the first arrivals. If she goes off to get food for her first-born, she will



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The poor cuckoos find themselves in a dilemma that baffles instinct itself (p. 106).



possibly chill the life out of their prospective brothers and sisters. In such extremity she may well vote family life a failure. Do what she will, it may cause some of the brood to perish; and even if she succeeds in making the two ends meet, she is all the time in a desperate anxiety. As the historian would say, this is no fancy sketch. Nests are sometimes found with birdlings in different stages of development, and eggs still unhatched.

Placed in such a predicament, who can blame Mistress Cuckoo for retaliating on Nature, as it were, and offsetting one abnormality by another? Still, the American species are not commonly deterred from maintaining the household, and they cherish their offspring with the same affection that other birds display. But we can hardly wonder if, with the memory of previous disastrous experience, they now and then seek a happy issue out of all their troubles by passing over an egg or two to the charitable offices of another bird.

Moreover, as regards the fault of eating eggs in others' nests, the discredit of American cuckoos is quite out of proportion to their offence. It is chiefly the prevalence of the unnatural habit in European species that has, as

Mr. Elliott Coues expresses it, "set a stigma upon the family name." It is an instance, not infrequent, where one may suffer for the sins of his contemporaneous relatives quite as much as for the sins of his ancestors. Undoubtedly, a bad physical odor spreads no faster than a good one; the scent of the skunk cabbage radiates no more rapidly than that of the rose. But, in the moral world, it sometimes seems as if the law of dispersion were founded on variable dynamics, that the odor of an evil deed could diffuse itself more quickly than a virtuous perfume. Scandal rides post-haste, and a breath of suspicion has more energy of radiation than a perfect gale of compliment. Certainly, in the feathered tribe, the merits of the European species do not seem to reach this country with the facility of their occasional mal-odorous traits.

In the matter of architecture, too, while our own cuckoos are as yet very indifferent builders, they are distinctly in advance of the European varieties, which simply build no nest at all, but habitually leave their eggs in the nests of other species. Their impulses, in this country, are plainly for higher things; and if a being is to be judged not so much by what he is as by what he aims to be, our sympathies

will go out toward this degenerate but graceful and aspiring creature quite as strongly as toward the ninety-and-nine just species that need no repentance.

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The conflicting opinions of good authorities as to whether the cuckoos' notes are musical, suggest an interesting inquiry, which I would not presume definitely to settle, but concerning which a few facts are quite evident—this question, namely, by what criterion shall we determine which of Nature's sounds are musical?

A universal and invincible definition is often a will-o'-the-wisp, that leads many a seeker through a long and fruitless search. Nature's music can be discussed scientifically or popularly. A technical definition of music is easy enough; it is the agreeable combination of tones, according to accepted laws of melody, harmony, and rhythm. But the popular sense of music is difficult, if not impossible, to bring within any such precise verbal expression. A scientific definition sometimes hits the mark as accurately for the head, as it shoots wide of it for the heart. Hence the dictionary is some-

times the poorest place in the world to go to, to learn the meaning of a word. We often speak disparagingly of popular notions of things, because of their notoriously scientific inaccuracy, forgetting that the popular sense of a fact often involves an element of truth that is persistently ignored by science, and yet is quite as important as any aspect of the matter that science recog-In fact, the popular estimate is likely to nizes. be more vital than the scientific, since science is inclined to be anatomical. The popular mind comes close to the popular heart, while science glories in standing aloof from all sentiment. Weighed in purely scientific balances, sentiment is lighter than vanity. Science looks at an object in nature analytically, in its isolation; sentiment regards it comprehensively, in the lights and shadows cast upon it by surrounding objects. Therefore the most untutored lover of nature is a far higher authority as to the music of nature than the profoundest professor of acoustics, or the most consummate technical Possibly sentiment is more supermusician. ficial than science; but, at any rate, it often discerns what is quite unknown to science; and, to those that scorn the shallowness of a merely sentimental view of things it is com-

petent to retort, that the cream of many a matter lies on the top.

Wherever a sentiment of the beautiful is conveyed in sound, the poet's ear discovers music. whether that sound be intrinsically and at all times musical, or only accidentally so, by virtue of reactionary influence from surrounding scenes, or association of ideas. Nature's music is a subjective as well as an objective matter; and, therefore, what is musical for one may not be so for another. Again, what is actually hideous at close range, like the hoot of an owl, the scream of a crow or jay, or even the squawk of a duck, may need only distance and appropriate setting to be tempered into a delightful impression that is essentially musical. A reverberation of thunder, which has been well called Nature's diapason, is, in scientific sense, utterly unmusical; but, in an equally true poetic sense, its nature is precisely that of the grandest oratorio, as an audible expression of sublimity. Yet even here we must distinguish between the inherent capacity of thunder to impress us, and its indebtedness to adventitious circumstances for nearly all its power over the mind. If the same reverberation were produced at the level of the earth, and by me-

chanical means, it would at once sink to the level of offensive noise. Thunder's power to stir the sentiment is chiefly through its association with lightning, elevation, cloud, and storm. With such association it is musical; without it, it is not. The sentiment of sound is thus very often only an echo from accessories.

The success of any of Nature's sounds, like the success of a remark, lies in its appositeness. Science would extract no music from the buzzing of a bumble-bee; but when, in the calm and brightness of a country day, a number of them are hovering about a fragrant syringa-bush. what, if not music, is that drowsy hum that is wafted through the air, without time or tune, uncadenced and unrhythmical? The tones of Nature take their color from surrounding objects. In a sense we may say that visible beauty thus becomes audibly transformed, and floats into the ear. The very merriment of weddingbells is in the song of lark and oriole, in the joyous atmosphere of June; and all the melancholy of a funeral march is gathered into a single gust of a November sighing wind. Temperament is the soul's eagerness, and that is the soul of song, be the quality of voice what it may. Throughout Nature's gamut of sounds, there is none

more unmelodious and rasping than the chickadee's note; yet it stirs the heart as quickly as a thrush or finch. Something worth more than music has made it musical. Nature's audible effects, thus slightly tinged or deeply saturated with sentiment, are so innumerable, by day and night, in every season of the year, that we may well ask whether the attentive listener will not, in the aggregate, derive more of music's very essence from Nature than from Art. With an ambition for nothing short of omniscience, yet, in thoughts upon these things, I would far rather be the poet than the philosopher, since beauty is more than truth to my soul-nay, rather, we should say, beauty is very truth, fashioned in fairest form, instinct with spirit's force, robed in soft color, and flushed with keen vitality. For surely it cannot be called vague transcendentalism nor odious pantheism to say that the Divine Soul lives in the insect, flower, and crystal, in wave and cloud, in storm and sunshine, as He does not in algebraic equation or in geometric theorem.

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The universal familiarity with the cuckoo's notes finds its reason, not in their greater beauty,

as compared with other songs, but in their perfect ease of imitation, in which they are unrivalled. This is due to their having what the scientist calls the basal element of all musical sound—fixed intonation, definite pitch, produced by extreme rapidity and equidistance of successive sound - waves — that basal element that runs through the entire gamut of musical tone, from its grossest to its most spiritual manifestation, from the depths of a buzz-saw to the heights of a Jenny Lind.

The difficulty, usually amounting to an impossibility, of reproducing bird-songs is partly due to great intricacy or confusion of rhythm, as in any genuine warble, like that of the warbling vireo and wren; partly due, also, to that surprising and inimitable change of tonecolor that passes suddenly over the successive phrases of many a song, and even over the several notes of the same phrase; as in the case of the wood thrush, one of whose phrases seems like a flood of golden light, and the next like a stream of sparkling water; but perhaps the greatest difficulty of all, in reproducing a song, is in the almost incessant conversational slide of the voice-a sort of slippery pitch-instead of the definiteness of strictly musical tones, and in the

Mistress Cuckoo

almost total lack of precise intervals of the scale, without which no song can be imitated, or expressed in black and white.

The cuckoo stands almost alone in the distinct intonation of his pair of notes; and their consequent ease of imitation, both in this respect, and as regards tone-color, not only has given the bird a world-wide reputation, but was the cause of its selection to represent Nature's songsters in that fairy piece of tonal scenery so artfully devised by Beethoven, in one of the movements of the Pastoral Symphony, wherein the ear absorbs what commonly the eye alone can feed upon.

Quite as important as tone-color, in determining the character of a song, are rhythm, and inflection, or modulation, of the voice. This is shown in that delicious but decidedly characterless outpour of the goldfinch which is surpassingly sweet-toned, but incoherent and expressionless, from the total absence of any rhythmical swing and marked inflection. On the other hand, the song of the Baltimore oriole displays a definite and vigorously masculine character, in the emphatically martial accent of one of his phrases ; and, in the midst of that inextricable maze of volubility known as the purple finch's song, one

hears a whirlwind of notes suddenly crystallizing into a dancing phrase, followed by a luminous whirr of sound that baffles all attempts at clear description. This tripping phrase is the nucleus, the transparent gem, in the vocal setting of this famous singer's ecstasy, like a sparkling diamond in the forefront of a kingly crown. The warbling vireo, with no such climactic point of rhythmic simplicity, has just the mellifluous and aimless exuberance of an innocent damsel of sixteen ; leaving upon the listener no other distinct impression than that of a saccharine and slightly insipid pleasure.

Among all the "warblers" (who, however, never warble), and whose musical efforts are commonly very brief and rather pointless, there is one notable exception, as regards decisive rhythm and inflection, in the beautiful " black-throated green," who evidently has a very distinct impression of what he is about to say before he begins to sing. The intonation is remarkably pure, the tones have a broad range in the scale, and the *swing* is very marked. In general, I pity the innocence of those who reduce bird melodies to human musical notation, in the expectation that they will convey any correct idea; but such a course is warranted in the

Mistress Cuckoo

present instance; and I submit the following composition (not a long one, but at least having beginning, middle, and end, which is more than can be said of many a more pretentious effort of human authors) as the precise song by which, every spring, I recognize the return of this brilliant and gay musician, even before I catch a glimpse of him :



The temperament of the song-if it may be called so-often depends quite as much upon the modulation of voice as upon any other feat-This is seen in the above-cited melody ure. of the "black-throated green," where the brilliant tone and rhythmical swing are so strongly reinforced by the vigorous major progressions, which, in their very nature, are so declarative of clear and strong delight, with an effect as of a fresh October breeze blowing in the face. In the cuckoo's phrase it is the reverse-inflected downward, with an effect that is retrospective, even if not sad. There are shadows caught from the deep foliage within which it lurks, in that simple chant. As an example

wherein the sentiment seems all contained in an incomparably simple upward slide of about a "minor third," there is nothing more striking or familiar than the pewee's elegy of tears, that everywhere delightfully saddens the silence of the woods. It is the very acme of simplicity and gentle plaintiveness; and, while the grim scientist forbids us to call it a song, he must be to the last degree obtuse who does not feel therein the most pathetic sentiment of sound.

To the careless listener there seem to be but narrow limits to the possible variation of effects from all the woodland choir: but, to the responsive mind, there is endless diversity in all this poetry of tone that so delightfully re-echoes and intensifies the changeful moods of Nature; whose endless scenery appeals so deeply to man's heart just because it is the timely and delicate expression of many a deep, vague thought that never comes to human utterance.

"Whence come ye, so wild and so fleet, For sandals of lightning are on your feet, And your wings are soft and swift as thought, And your eyes are as love which is veiled not?" Sbelley.

SEA SWALLOWS



T the extreme southeastern end of Massachusetts, where the main land, as if partially dissolved by the ocean, crumbles off into numerous

islands, are several favorite resorts of the sea swallow or tern, a rather small and particularly beautiful and graceful species of water fowl, closely allied with the gulls, and among the most aërial of sea birds. Probably the spot where they congregate in largest numbers is Muskegat, a low and desolate island about five miles northwest of Nantucket. A few years ago they became almost exterminated from this resort by the depredations of numerous parties that sailed thither in quest of the delicate plumage or of the eggs of these birds. But, through the public-spirited efforts of Mr. Mackay, an ornithologist living at Nantucket, these harmless and attractive creatures are now sheltered beneath the wing of the law, and have so far recovered from the effects of past havoc, that

they are now almost as abundant as of old. Next to Muskegat, in point of numbers, is probably Penekese, an island made famous some years ago by its school of natural history; which, since the death of its eminent leader, Agassiz, has been transferred, at least in part, to Wood's Holl, while the abandoned buildings erected for it, and standing empty for many years, were not long ago accidentally burned.

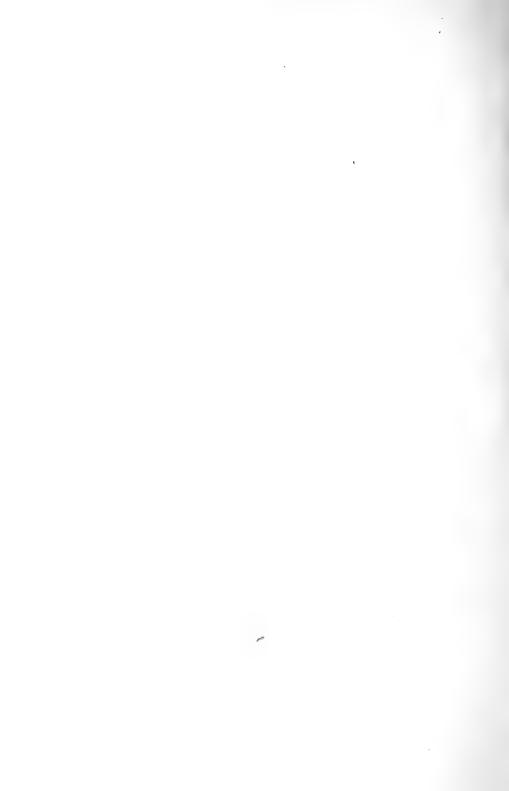
About the middle of June I made a trip to this now almost deserted island for a brief study of the sea swallow. Leaving New York at night on a Fall River steamer, I arrived at Fall River early the next morning. Thence a short railroad ride brought me to the good old town of New Bedford, where I engaged a small yacht to take me to Penekese. It was a bright, cool morning, and the sail down the Acushnet River, and out into Buzzard's Bay in a jaunty little craft, with a fine breeze and a jolly skipper, was the most delightful release from the limitations of dry city life that can be imagined.

This island is the smallest but one of a group of five, lying to the west of Martha's Vineyard, and has an area of hardly a hundred acres. But it is by far the most fertile of all the group, being almost entirely covered with grass, and



SEA SWALLOWS

As eager and buoyant as the sparkling, dancing waves that roll beneath their feet throughout the summer (p. 135).



affording excellent pasturage. After Penekese fell from its high estate of being a place for raising scientists, they put it to the next best use and went to raising sheep, of which about two hundred are scattered all over the island. The keeper says this number is too large, and that, to realize all the latent possibilities of a sheep, there ought to be only one to the acre.

Next to the dignity of owning and handling a sail-boat yourself, is the lordliness of being the sole passenger and manager *ex-officio*. The direct run to Penekese was fourteen miles; but it was so prolonged by head-winds, and finally by no wind at all, that I did not reach land until about the middle of the afternoon, and after a long risk of being stranded in the harbor, through the skipper's ignorance of the buoys.

There is but a single dwelling on the island, occupied by a single man, who proved, however, to be no small part of the island's attractiveness, and an interesting specimen of nature in the rough—a tall and vigorous old man, slightly bent, with grizzled beard and sunken cheek, sharp, kindly eyes, and a thin mist of white hair encircling the bald summit of his head, like a ring of vapor round a barren

mountain top, an ancient mariner left stranded on the beach, courtly in thought, if not in bearing-such was my cook and waiter, host and hero; a regular hermit in his life and tastes. as genial and hearty as sailors commonly are, and not half as profane; although I felt that he had a smouldering, hot vocabulary of impiety kept in reserve for emergencies, even without a single exhibition of it. As I was very desirous of passing the night on the island, which was possible only with his permission, and at his house, and being a perfect stranger to him, I asked, with considerable trepidation, whether such a thing would be possible. To my surprise, he assented cordially; and when I asked him his price for supper, lodging, and breakfast, he replied, with a simplicity and unworldliness that I have looked for in vain in New York City: "Oh, pay what you please, and if my accommodations are not worth anything, then don't pay anything." As he made his own fires, did all the cooking, and washed all the dishes, this answer amounted to a good deal more than merely a polite bit of euphony; and his hospitality did not slumber for an instant throughout my stay. With many assertions of inability to serve my needs acceptably,

he spread what was certainly an elegant repast for supper. Breakfast was still more elaborate. so that one might almost have thought he was the chef of some fashionable hotel in disguiseexcellent coffee, splendid hot rolls (he named the "baking powder" he had used for twenty years, and declared it couldn't be beaten, and, judging from his biscuit, I thought so, too), beans, terns' eggs-and two kinds of cake ! Attractive as were all the outward aspects of the house, high on a bluff overlooking the ocean. with its broad veranda, amid silver-leaf poplars, and birds, sheep and chickens flocking about, the coziest spot was the "throne-room" of my generous host-the low-studded kitchen. with barrels in one corner, an old lounge in another, pails of water in the sink, shining lamps on the narrow shelf, and a polished stove giving out a comfortable warmth, while the presiding genius often interrupted his dish-washing and other duties of state with high argument of philosophy and theology.

Probably the rarest delicacy in the world is a dish of peacocks' tongues. It is doubtful whether fine feathers make fine tongues; even if they do, economic considerations prevent my hoping ever to enjoy that luxury. Perhaps

my nearest approach to it was in a plate of these beautiful terns' eggs, offered me a few moments after my arrival. They are quite small, the yolk of a bright salmon color, and richer than hens' eggs. Some think they have a little gamey flavor, but I found only the merest suggestion of it. The eggs of wild fowl have always seemed a hallowed thing, and the idea of actually eating them at first struck me as being almost sacrilegious. They are highly prized by many, and, previous to the "close season" each year, are collected in great numbers from Penekese and sold in the streets of New Bedford.

With this literal foretaste of the object of my search, I then left my host to find the birds themselves. Crossing the island to the south or ocean side, and approaching the shore, immense swarms of terns were to be seen rising from the water's edge; which, in their circling and continuous flight, showed themselves to be a sort of silvery prototype of our familiar dusky land swallows, although considerably larger, being about fifteen inches in length, and coursing through the air with the same boundless and exultant ease. With a pearly blue mantle upon the back and wings, pure white

or nearly so beneath, and the tail lustrous white, the top of the head and the hind neck a glossy black, the lengthened bill and legs a bright, pinkish red, the long, slender wings as willowy as the gulls', they formed a picture as beautiful as it was lively and dashing. A flock and flurry of birds like this, with their surging mass of vitality and grace, afford a pleasure never found in a single specimen; and yet, in such a multitude, the sense of individuality is lost, and the observer comes closer to its nature when he watches a single individual, than when he follows the motions of a large concourse. Throughout almost my entire circuit of the island, they formed a bright and flying cloud above my head. Being rather conservative in my estimate, I said there were hundreds and perhaps thousands of them. That this was not a rash conclusion seems evident from the fact that the skipper declared there were a million; and, on appealing to my hermit host for his opinion, he gravely said, "forty million."

While this canopy of swiftly interweaving birds was spread above my head, I was also overarched by the maze of their continuous and peculiar little cries, which I will not make the birds nor myself ridiculous by trying to imi-

It was not precisely musical, yet far tate. from unmusical: a wild, vague, restless sound, somewhat in the mood of the complaining wind that sighs through a dark passage; soft, melancholy notes, the over-tones that fittingly accompany the moaning of the sea. At the middle of the prolonged sound it is, as a rule, suddenly inflected downward in a mournful cadence that is "sadly pleasing"; and when not so inflected the simple note quite resembles the soft cree of the red-winged blackbird. But their voice is not always hung with crape; there is a hidden, snappy temper in their soul, and sometimes they utter a sharp, rasping, vigorous note that ill comports with their mild-One writer compares it to the sound ness. produced by forcibly tearing a piece of strong At first, I thought that their cotton cloth. general commotion and continuous lamentation were due to their anxiety at my approaching their nests; but when I sat down and remained perfectly quiet for half an hour, there was no pause in their incessant flight and murmuring, so I inferred it had no reference to me.

One peculiarity of this bird is, that it is continually varying the form of its tail when flying. Sometimes it is no wider than a single

feather, running to a point; again, it is in the form of two separated parallel lines; when still more spread it is distinctly forked, like the barn swallow's; and when they hover for several seconds over a spot, the tail is spread to its full width, and becomes triangular. Graceful and easy on the wing, rather than majestic, like the heron-except for the occasional grotesque effect of scratching the head with one claw while flying, which is done so daintily that it only looks exquisitely vulgarelegant in figure, as seen in repose when scattered on the rocks, their most beautiful appearance, after all, is undoubtedly at the moment of alighting; when, instead of immediately closing their long wings, they suddenly raise them high in the air, and almost touch back to back, like a butterfly, holding them thus for an instant, and then slowly closing them. This is the most striking and buoyant attitude in which to mount a stuffed specimen, but I have never seen it attempted. It seems as if their very nature spurned the earth the moment that they touched it. The lightness, grace and gentleness of their character flash out in this momentary act.

It is impossible to avoid finding their nests,

for the terns do not aim at concealment: they appear, rather, to court publicity. Along the seashore, in the line of seaweed above high tide, in any clear space back among the rocks. especially in the stunted herbage and along the narrow sheep-paths, one will find these primitive affairs, hardly to be graced with the name They are thus scattered over a large of nest. part of the island; and, unless one takes heed to his ways, he is liable to tread on them. I saw one nest in which two eggs had been crushed by the foot of man or sheep, and barely missed doing the same myself. The receptacle of the eggs is a slight depression in the ground, on which they occasionally arrange considerable dried grass; but usually a few wisps of hay are thought quite sufficient, and sometimes even this barest lining is dispensed with, and the eggs are committed to the cold earth. Indeed, the very depression in the ground may be lacking; for, in one instance, when I had taken the egg in my hand, I was at a loss where to replace it, so deficient was the nest in every vestige of material and form. This is the very opposite of the laborious and artistic productions of many of our land birds, and is commonly adduced as an argument to prove

the lower grade of intelligence of birds that are so careless or apparently clumsy in their architecture. As we shall see in a later chapter, perhaps this is so, and perhaps it isn't. Among land birds, ornithologists place thrushes at the top of the list, in the scale of development; yet their nests are very clumsy, compared with the workmanship of some of the inferior families of songsters, as well as of some that are below the range of any of the song birds, like phœbes and humming-birds. May be nests are something like handwriting; sometimes you think you can read character from it; and sometimes you find you can't.

At the time of my visit the eggs were being laid, but none were yet hatched. The nests contained from one to four, with a little variation in size, but generally about an inch and a half long. Audubon says there are never more than three eggs in a set, but I found one nest, and only one, with four. The markings are brown and brownish-black splashes all over the surface, and the ground tint varies from dirty brown to almost lilac. As a class they are not as pretty as the majority of eggs; but possibly their dingy color conduces to their safety by blending with the dull surroundings. My friend on the island

said that, in several years that he had lived there, he had never yet detected a bird on its nest. Their labors of incubation seem to be nil, and the sun's rays in mid-summer are said to be motherly enough for all practical purposes. The wild-fowl vigor is thus manifest already in the egg, but probably the birds sit on them in the night. The shell is very thin and fragile, as the skipper found when one broke in his pocket.

It is far more difficult to learn the range of water fowl than of land birds; but it is evident that gulls are northern representatives of a type of water bird that finds its southern exponent in the smaller and more delicate terns. The general habits and appearance of gulls and terns are much alike, and science calls them closely related; but the former come down to us from the north in winter; the latter come up to us from the south in summer.

Of the thirteen species of terns that we call ours by reason of being seen at least occasionally along the coast, only four summer in our latitude. They are the arctic, roseate, Wilson (or sea swallow), and "least" terns. Their resorts in our neighborhood are chiefly the islands at the northeast end of Long Island, and those lying near Martha's Vineyard and Nantucket.

These four species begin to arrive from the south in the latter part of May, apparently already mated, but with flirtations and jealousies enough to make things lively. Soon afterward, by the middle of June, they have scattered to their various breeding grounds. While the Wilson and roseate species ordinarily build a rude nest, the arctic tern simply deposits its eggs on the bare sand. After the incubation season is over, those that are scattered on the various islands gather in larger groups, and in September are found in great numbers on the coast and inlets all Their particular location at about Nantucket. this season depends in part upon the movements of the blue-fish, inasmuch as they feed largely upon the smaller fishes by which blue-fish are attracted; and fishermen are even said to rely to some extent upon the presence of terns to indicate where a school of blue-fish may be looked for. Lingering about their summer homes until fall, or, in pleasant weather, passing farther out to sea, they begin to leave for the south by the middle of October, and have all disappeared by the last of the month, when their northern representatives, the gulls, with other hardy aquatic fowl, begin to arrive for the winter.

Terns will at times plunge entirely under water, and even swim submerged a short distance in pursuit of prey. In such occupation they sometimes display the very keenest spirit of mirth; for one of them, bearing aloft a captured fish, will drop it, when it is seized, before reaching the water, by another that sportively repeats the act, and so the graceful, airy game goes on. The most beautiful of all the species is the roseate tern, whose other features resemble the "Wilson" or sea swallow, but having also a rosy tint on the under side that glows in fine contrast with its otherwise pure white and pearly plumage. The roseate tern is somewhat abundant at Muskegat, but I looked in vain for any at Penekese. The rosy tint is, however, very ephemeral, either disappearing utterly after the bird dies, and even sometimes before the body is cold, or else changing to a lifeless salmon color.

I necessarily lost a little of my reverence for the eggs from having eaten them, and because, in point of beauty, they are no match for the birds themselves; and I accordingly carried away a few as a souvenir of a most enjoyable excursion. I doubt very much whether the sad and lonely cry of the sea swallows be a fair index of their

usual feelings. Probably their temperament is as sunny as the bright skies in which they calmly sail or speed their dizzy course the livelong day; as eager and buoyant as the sparkling, dancing waves that roll beneath their feet throughout the summer.

The return trip was enlivened by a pair of stormy petrels-" Mother Carey's chickens "--flitting hither and thither, quite in butterfly fashion, near the boat, or skimming the ocean's wavy pavement in eager search of palatable The species I saw was one of the morsels. smallest-about the size of a sparrow-but presenting a rather large appearance by its great extent of wings. When hovering near the water it is not so easily discovered, as it is dusky, almost black, throughout, save a conspicuous spot of white upon the back. The petrels are among the most oceanic birds, found hundreds of miles out to sea, and probably never going on shore except to nest. They are supposed to appear as the harbinger, or else in the wake, of a storm. The nest is made in holes in the ground, sometimes beneath the surface of the beach, under some large rock, and sometimes on the side of lofty cliffs, when it is a long horizontal excavation like that of the bank swallows,

and contains but a single egg. Although so essentially aërial, they are web-footed, and in calm weather will often half fly and half spring over the surface of the water. Hardly any bird is less intimately known than the ever-roaming petrel; and, as we look upon this vanishing and ever-distant living mystery, with its minute and dusky form, white spotted, dashing tirelessly above the sea, it is an exquisite symbol of the dark waves, crested with white, that are ever sweeping on, age after age, in restless flight.



STORMY PETRELS

Whose spacious mansion of wide emptiness has the ocean for a billowy floor, the sky's blue concave for a vaulted roof, and for companions only winds and waves (p. 93).



Birds' Nests.

"I love to view these things with curious eyes, and moralize." Southey

BIRDS' NESTS



HE knowledge of all other aspects of bird-life, combined, gives no such feeling of intimate acquaintance and peculiar interest as is gained by fol-

lowing even the most familiar species, like the robin or sparrow, through the short period of nesting; and this probably for the reason that this brief annual experience in their lives calls into action the most subtle, personal, and charming qualities of their nature.

A bird, like a human being, is best known, after all, in the intimacies of its own home. Here it finds a warmer response from our own nature than even in the glow and ecstacy of its most delicious song. Here it is most nearly human, and affords most marked analogies of human wisdom, patience, solicitude and affection. And yet it is in the intricate and almost inaccessible details of their short family life that we still have most to learn concerning birds—a fund of problems giving infi-

nite zest to every annual return of this, their period of exceeding joy, the time of their greatest hope, activity, and realization of their life.

Nest and eggs are the two distinct factors in nidification, the interest in which is too apt to be monopolized by the eggs. The minute size, the elegant form so unique and graceful, the beautifully varied coloring, and, above all, the mysterious life-potency of an egg, invest it with the deeper interest that is reasonably felt for the gem, rather than for the casket that contains it. In many ways it is certainly the more important of the two; yet, in one respect-in the evidence of individuality, conscious exertion, and intelligence of the creature that fabricates it-the nest is a far more interesting and suggestive study. Moreover, the collecting of eggs involves in some cases an abstraction of just so much possible and valuable life from the fields and woods; although, if it be not too late in the season, Nature commonly recoups her losses by producing an additional clutch. But, even so, the collector, unless he be a hardened naturalist, has a mean and uncomfortable feeling of having done violence to the innocent creatures; so that such spoliation is to be strongly depre-

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cated, except when done from genuinely scientific motives.

On the other hand, after the nest has been vacated, it has served its full purpose, and, if removed at once, its often perfect condition renders it permanently illustrative of the peculiarities and skill of that particular species. Such a collection of nests will doubtless foster a livelier interest in this branch of natural history, and impress the acquired facts more permanently upon the mind, than any other phase of the subject. An attractive writer, Mr. Ernest Ingersoll, has referred in so interesting a manner to the relative claims upon our attention of nest and eggs, that his words are well worth quoting: "Whether or not it is worth while to collect nests-for there are many persons who never do so-is, it seems to me, only a question of room in the cabinet. As a scientific study, there is far more advantage to be obtained from a series of nests than from a series of eggs. The nest is something with which the will and energies of the bird are concerned. It expresses the character of the workman, and gives us a glimpse of the bird's mind and power to understand and adapt itself to changed conditions of life. Over the shape and ornamentation of an egg the bird

has no control, being no more able to govern the matter than it can the growth of its beak. There is as much difference to me, in the interest inspired, between the nest and the egg of a bird, as between its brain and its skull-using the word 'brain' to mean the seat of intel-Don't neglect the nests, then. In them, lect. more than anywhere else, lies the key to the mind and thoughts of a bird-the spirit that inhabits that beautiful frame, and bubbles out of that golden mouth. Nests are beautiful, too. What can surpass the delicacy of the humming-bird's home, glued to the surface of a mossy branch, or nestling in the warped point of a pendent leaf; the vireo's silken hammock; the oriole's gracefully swaying purse; the blackbird's model basket in the flags; the snug little caves of the marsh wrens; the hermitage huts of the shy wagtails and ground warblers; the stout fortresses of the sociable swallows! Moreover, there is much that is highly interesting which remains to be learned about nests, and which can only be known by paying close attention to these artistic masterpieces of animal art. Many points remain to be cleared up. Variation shows individual opinion or taste among the builders as

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to the suitability of this or that sort of timber or furniture for their dwellings, and observations upon it thus increase our acquaintance with the scope of ideas and habits characteristic of each species of bird."

A nest is ordinarily in perfect condition only for a few days after its completion. The incubation of the mother bird, the pressure of the chicks, as they develop, and the weight of the old birds perching on the edge, all tend to flatten and otherwise distort its original and ideal shape, especially in the more delicate sorts. Yet, oftentimes, it is not thus impaired to an appreciable extent; and, in case it is, a slow and careful inward pressure of the upper part will usually restore it almost to its normal form. But, if not taken before it is abandoned by the birds, it should be secured as quickly as possible thereafter; since, from exposure to the weather, it soon begins to disintegrate. Nor is the study of the nest of any species complete when a single specimen has been obtained, and its characteristics have been learned; for even the same species will sometimes show curious differences; as, for example-to mention two of the most familiar instances-the barn swallow, with its two distinct

forms of nests, and the robin, whose structure, usually containing three distinct walls, occasionally has only two, when the inner lining is omitted; this latter deviation being perhaps due to the greater indifference sometimes shown in constructing the second nest of the season.

An extensive observation of nests, in all their diversity of form, material, and location, reyeals numberless differences which we are not as yet competent to explain. Yet it is not all a mystery; for we can easily see that the most essential differences, both in construction and location, are determined by three prime considerations-safety, durability, and convenience. I have no desire to withhold from these wise and entertaining creatures a single iota of merited praise; but I see little reason to suppose that distinct artistic sense is a moving impulse in even the most beautiful and elaborate of their constructions; while, on the other hand, I am inclined to believe that the more clumsy examples of architecture, hardly worthy of the name of nests, prevalent among the water fowl, are no convincing proof of a corresponding inherent incapacity of those species. As a rule, water fowl nest on the ground, and in the most primitive fashion; land birds, for the most part, build

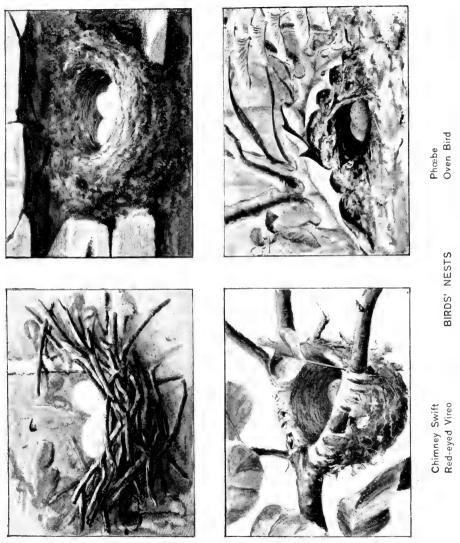
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above the ground, and show conspicuous skill and ingenuity. This broad distinction between the nests of the two groups is commonly, and, as I imagine, erroneously, accepted as significant of their relative intelligence.

The numerous dangers to which land birds are exposed make successful nidification a rather difficult art. And perhaps nowhere else in nature shall we find a better illustration of the trite proverb that necessity is the mother of invention. Some of these dangers are obviously avoided by building above the ground, and in the seclusion of foliage. But, at best, the forking branches of a bush or tree are a rather perilous support for such frail tenements; and, exposed besides to wind and rain, such a location is doubly treacherous. The nest must therefore be both firmly knit together, and bound sufficiently strongly to its foundation. But, although these precautions afford ample security against the elements, they are no safeguard against the watchful eyes of numerous foes that would find a delectable morsel in the eggs or the young. This danger prompts the selection, not only of neutral colors throughout. but also, sometimes, of such delicate material as moss and lichens for the exterior, to make it

blend with its surroundings; a precaution which, quite unconsciously to the builder, produces one of the most pleasing effects of rustic art. As an instance where still greater difficulty in meeting the requirements of the case is matched by increased skill, we may cite the nest of the Baltimore oriole. Whatever motive may have induced this bird to adopt its elegant. pensile form of a nest, its situation at the tipend of a slender, swaying branch, is manifestly conducive to the utmost security from all sorts of foes; and this was not improbably the main consideration in deciding its location. Yet, on the other hand, when so placed, the nest is peculiarly unstable in its exposure to wind and rain, and demands much greater skill in its weaving and attachment to the branch; which makes this nest one of the most remarkable and beautiful structures of its kind.

While safety and durability thus apparently determine the general character and situation of the land birds' nests, it also evidently suits their convenience to place them about in the plane of their average flight. The ground seems as inappropriate a place for a hawk's or crow's nest as the summit of a tall tree for the abode of a low-flying sparrow or a ground war-



Choice bits of rustic architecture, with their treasure of a bird's best hopes (p. 232).



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bler. With no positive difficulty, perhaps, in building at any height whatever, we should certainly expect every species to conform, in this respect, to its instinctive altitude. In this matter of location, it may also be observed that few if any of our species of trees have a system of branching that is more favorable for nestsupport than the apple-tree; and no other kinds, moreover, are so plentiful around most of our country houses; which explains, I believe, better than any sentimental theory of fondness for human society, the frequency of nests around our homes. Nor do I suppose that the changed habits of barn, cliff, and whitebreasted swallows, and of phœbes, in placing their nests on beams, or under eaves, or in artificial bird-houses, instead of fastening them to sand-banks and rocks, as formerly, indicate anything more than a bit of pardonable laziness on their part, and a desire for a drier or firmer In the case of support than Nature furnishes. phœbes, the moss and lichens that still superfluously decorate their abodes, when under the edge of a piazza, are a survival of their former precaution, when they fastened them to rocks and branches.

Passing now from land to water birds, we

find a difference in instinct, that does not necessarily indicate a constitutional inferiority, as architects; but one that exactly conforms to the difference of circumstances; wherein mere safety, requisite durability, and convenience are just as much the determining thought as among the land birds.

In the remote and desolate regions to which, for the most part, water fowl resort, they are largely, and often entirely, exempt from the depredations of various enemies that so constantly endanger the abodes of land birds; and they have little cause for anxiety and concealment, when man and beast seldom invade their Moreover, the unwooded sea-coast, territory. to which so many of them resort, affords no opportunity for building above the ground; and either one or the other of these circumstances affords sufficient reason for their commonly nesting directly on the ground, with little or no pretence of secrecy; sometimes, indeed, so openly and closely together, that the chance explorer is likely to step upon the eggs, as in the case of terns on the Atlantic coast, and of murres in Alaska. But no such elaborate construction as is required in trees is needed on solid ground, where the merest outline of a nest

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is quite sufficient to keep the eggs together, and where the vigorous nature of the chicks demands no luxurious lining. Under such circumstances the various ingenious devices of land birds would be entirely superfluous. It seems to me that this radical difference of situation is a more reasonable explanation than any supposed natural incapacity of water fowl, for the inferiority of their nests. From the tern to the oriole is a long leap, in respect of architectural accomplishments; but, if the oriole were transferred to the barren and desolate seacoast, he would find little need and still less opportunity for his "high art;" whereas the tern, if domiciled amid the oriole's natural surroundings, would doubtless be equal to the occasion, and reveal no one knows how much latent ability.

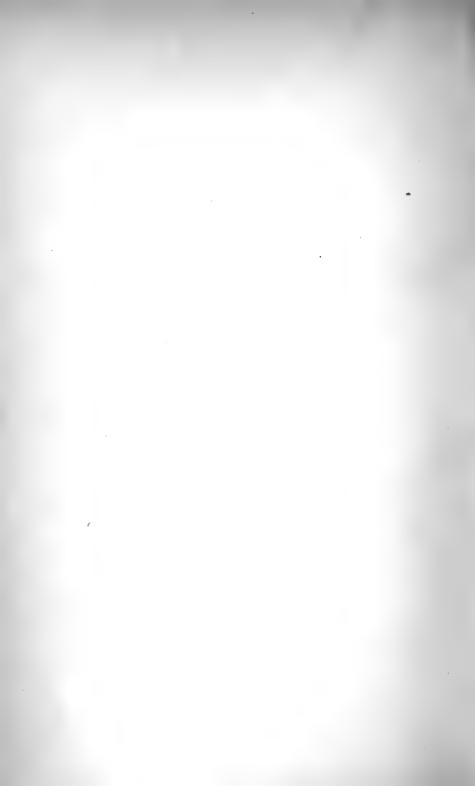
Very significant testimony as to the reason why some birds nest in trees, and others on the ground, is afforded by a gentleman who lived on an island near the Bay of Fundy, which was a resort of herring gulls. Like water fowl in general, the various gulls nest on the ground. But Audubon, when he visited this island, was surprised to find many of them nesting in fir-trees, sometimes more than forty feet

from the ground; and, in explanation, the owner of the island told him that, "When I first came here, many years ago, they all built their nests on the moss and in open ground; but as my sons and the fishermen collected most of their eggs for winter use, and sadly annoved the poor things, the old ones gradually began to put their nests on the trees in the thickest parts of the woods, while the youngest birds still have some on the ground." On some adjoining islands, to which fishermen and eggers had free access, Audubon afterward found that the gulls were nesting entirely in trees. The ground was first chosen, as being amply sufficient in this remote region; but when circumstances made this location dangerous, they resorted to the trees; which seems to summarize the whole problem.

Since writing the foregoing, I have found a rather strong corroboration of the argument, in the record of a naturalist concerning a peculiar nest of the red-winged blackbird, which he had discovered. The nest of this bird is commonly on the ground, or in low bushes, and, as the books describe it, is "rather bulky, and not at all artistic." But the writer states that he had found one that was "placed on a slender

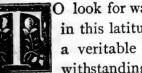
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sapling, fourteen feet high, that swayed with the slightest breeze. The nest was constructed after the manner of our Baltimore oriole, prettily woven of the bleached sea-weed called eelgrass. So well constructed was this nest that, had it not been for the female sitting on it, I should have taken it for a nest of the oriole." In other words, this so-called clumsy builder felt constrained, for some reason, to nest in a very perilous situation, where its usual style of structure would be entirely inadequate. It immediately rose to the occasion, utilized its latent talent, and vied with our most artistic species in the beauty and durability of its edifice. This certainly argues that the actual product of any species is no certain measure of its ability, and makes the supposition reasonable that even water fowl, if compelled by circumstances, would prove as skilful as any of the land species.



" Childe Harold wends through many a pleasant place, Though sluggards deem it but a foolish chase, And marvel men should quit their easy chair, The toilsome way, and long, long league to trace." Byron.

AT THE WATER'S EDGE



O look for water fowl in mid-winter, in this latitude, is quite likely to be a veritable wild-goose chase, notwithstanding the fact that several

species regularly appear in our neighborhood at that season. All the coast of New Jersey, Long Island, and New England is a resort of all species that find the winter climate of the Northern States congenial. But having, at this season, no local attachments and home ties, as in the breeding period, they are continually roaming hither and thither along the edge of the sea, apparently governed by no impulse save to find their requisite daily food. Even in the case of the land birds, which are certainly less flighty than their aquatic neighbors, it is quite a matter of chance whether in winter they will be found in a given region at a particular time. Much more then must the naturalist be prepared to have his researches crowned with disappointment, when he at-

tempts to find the more fugacious water fowl, which are constantly on the wing—here to-day, and to-morrow perhaps fifty miles away.

But, go where one will along the coast or larger rivers in winter, he will not be long in discovering the almost omnipresent gulls, winter's cold and snowy emblem; particularly, that most abundant species in this region, the herring gull. In point of numbers and general prevalence this species predominates over all the others, at least hereabouts, as much as English sparrows over all the other winter birds on land. Herring gulls-named from their diet-are almost always on the wing, always eating, and never satisfied. But their feast, although perpetual, is not elaborate; for, at least in their summer home, they rarely get beyond the fish course. As this, however, constitutes the fuel for maintaining almost endless motion, it is hardly to be wondered at that they should be voracious.

Those who have only seen these birds upon the wing would not be able to judge of their appearance in repose, which is graceful and aërial, rather than aquatic. I know of no better comparison than an enormous pigeon, two feet long, but web-footed.

Gulls are well called in the books "longwinged swimmers;" at times floating or gracefully paddling upon the water, but much oftener seen in the air, slowly coursing upon their very long and pliant wings. Most of the species are quite large, and they are chiefly coast birds, although a very few of them extend also far into the interior of the continent. There are in all, in North America, twenty species, a dozen of them found on the Atlantic coast, and the remainder on the Pacific. They are for the most part arctic birds; that is to say, they commonly breed very far to the north; so far, indeed, that several of them are called circumpolar. At the approach of cold weather most of the species wander southward along the coast; some not even so far south as to the United States; others to New England and the Middle Atlantic States, and a very few to Florida. Possibly their coming south in winter is not so much due to their being "frozen out" from arctic regions, as to the fact that food is more abundant in warmer waters. Our herring gull breeds between New England and Labrador, while another and much smaller species, commonly found along our coast, even in summer, and called the "laughing gull," from

its peculiar note, breeds no farther north than Maine. This latter species goes quite far south in winter, and is not seen in this region again until spring. A special rendezvous of herring gulls in winter is at the mouths of our larger rivers, like the Hudson, which are always utilized for seaports, and whose shipping affords variety and abundance of food.

In plumage there is a strong family resemblance in all the species, yet with distinct marks of difference. On the under side all of them are pure white, except two, which have a slightly rosy tint. On the back and wings most of them are, like the herring gull, overspread with a beautiful pearly-blue mantle, as delicate a tint as is ever worn by the daintiest little warbler. The herring gull-which is the one commonly seen far out at sea by transatlantic travellers, and following the ship with all the devotion of hunger-is easily distinguished from others that are very similar, by the distinct black on the tips of the longest wingfeathers, covering a very small area, it is true, but wonderfully conspicuous even at a long distance, as the bird wheels about and inclines the body. Occasionally one sees, in a flock, a specimen that is quite dark throughout, a sort

of grayish brown. Any thus colored are immature birds of the first year. But in all the large flocks I have seen in winter, the dark specimens are so exceptional, that I infer that, being younger and less hardy, they migrate farther south in winter.

Two magnificent great fellows, the largest of the family, are the glaucous gull, living far to the north, with this same light-blue mantle. and no black on the wing-tips; and its more southern congener, the black-backed gull, covered with dark slate, like a pall, which accounts for its gruesome epithet of "coffin-carrier." It is not infrequently to be seen hereabouts, and is, with perhaps one exception, the most majestic sea bird that we have. One of the most beautiful species is the ivory gull, pure white, and perhaps the largest aërial white specimen in existence. Being a resident of the polar regions, it can very seldom be seen, except by those hardy and valiant scientists who periodically tempt Providence by making a trip in quest of the mythical terminus of our terrestrial axis. In Audubon's interesting account of his experience in Labrador in summer, where he made a study of the herring gulls, he speaks of their ingenuity in extracting mollusks from

the shell, although their staple food is herring. To do this, they take up the shells into the air, and drop them on the rocks to break them; and he adds, "we saw one that had met with a very hard mussel, take it up three times in succession before it succeeded in breaking it; and I was much pleased to see the bird let it fall each succeeding time from a greater height than before."

Their choice of habitat in summer necessarily precludes the general student from enjoying many of the aspects of this very interesting fam-But, in their winter life among us, they ilv. afford most pleasant entertainment for an hour to anyone who finds a flock of them upon the The spectator can no more tire of beach. watching the graceful and gigantic scrolls that they inscribe upon the air, or their languishing passage over the sea, than he can weary of the ocean's ceaseless roll, whose deep incessant undertones are an apt accompaniment for these noble airy beings in their diverting and untiring exhibitions; beings formed, as one might imagine, from the waves' foamy crests, mysteriously winged and vitalized-the offspring of the sea, and mantled by the sky.

Possibly others may not derive any positive

enjoyment from species of birds which they have never seen, and are never likely to see. But, for my own part, it gives me no small satisfaction to recall, as distinctly as I may, the appearance and habits of the many varieties that lie quite beyond my own narrow field of observation; to imagine, for instance, the beautiful ivory gull, living among the icebergs of the arctic zone, and, as it sails aloft, flooding its snowy form in the same purple and rosy beams of morning light that gleam in brilliant coldness on the pinnacles of ice; one of the rare ornaments of vitality that hover in that vast and frozen silence; and, again, to think of that magnificent specimen of quite another sort, far in the sunny south, the great white heron, tropical and pensive. There is pleasure, too, as well as aggravation, in the thought of numerous species nearer home, which I have seldom or never seen, nesting and singing their lives away, year after year, in their favorite habitats which I have not yet visited, but whom it is one of my long ambitions one day to bring within the circle of intimate acquaintance. A shadowy sort of pleasure, some prosy or cynical person may say. Well, it is at least positive, although so unsubstantial; and I submit that it is some-

thing of an art, or of a gift, and exceedingly good philosophy, to rejoice in the shadow until the substance comes.

Along the water's edge one quite as often sees a very different sort of bird, jet black, like goats over against the sheep in the oceanic pasturea vulgar terrestrial delegation, a pack of crows; which, however unlike sea fowl by nature, may well be included in the list of winter coastbirds, driven thither in part by the failure of their other sources of supply. Probably they are never to be seen in such large flocks as on the sea-shore and in the adjoining forests during win-Europe, Asia, Africa, and North America ter. divide the honors equally of harboring this cosmopolitan fowl. Almost the only stirring incident that once relieved a long railroad ride across a third part of Germany was the immense flocks of crows plundering the grainfields bordering the track, and, rising like thunder-clouds at our approach, making for the woods, yelling like demons, only to return as soon as we had passed. I have never seen them elsewhere in such vast numbers : possibly, because they are more appreciated and less persecuted there than in America. For the world is slowly learning that there are two

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sides even to a crow. Wherever he is found. he always shows at least that one virtuous quality of constancy, in ever maintaining his dual though contradictory character - wily, mischievous, and beneficial, if not beneficent. The range of his appetite is as boundless as the range of his habitation, scouring the entire ménu of nature's almost interminable repast; being, as the temper suits him, carnivorous, piscivorous, graniverous, frugivorous, insectivorous; so that, when the time comes for an old crow to lie down and die, he has all the satisfaction that can be derived from the thought that there is little, if anything, in the dietetic line which he has not enjoyed. There is always something heroic in extremes, even of evil; and so this lusty old sinner, so generally detested, excites a sort of admiration in spite of ourselves. He has the free and easy way of one who has given himself up as past redemption, but resolved to get all the fun he can out of life; ostracized from all good society. yet showing a downright heartiness in depravity that reacts in his favor.

Ocean scenery has something of the same effect on me that the blast of a trumpet has upon an old dilapidated war-horse. which, after

the lapse of many years, spent in the peaceful labors of the farm, when once he hears that old familiar martial strain, which recalls the tumult of the battle, feels the old tingle in his blood, becomes impetuous as of yore, and dashes off in answer to the call. And certainly, if one can be profoundly moved by the resistless power the ocean manifests upon a balmy summer's day, what an added sweep of majesty he will find in winter, when the blackened, white-tipped waves are hurled upon the frozen beach, and break against the ice-girt rocks! At such a time the savage monster looks fascinatingly merciless; and while it has the serpent's charm, repellent in its snaky winsomeness, it kindles all one's admiration by its spirit of immensity and unconquerableness-a grandeur that is royal and sublime above all other potencies in nature. Old ocean, enveloping the earth in prehistoric times, was a magnificent premonition of the forthcoming restless tide of human life, mankind's broad shadow, cast before, the formless spirit of humanity in embryo. And, through all time, it shows itself the boundless reflex of a mighty soul in every phase and hue of its emotion, as though the speechless depths of Nature's heart

were struggling for utterance. There is no passion to be found in nature like the anger of the stormy sea, when wildly dark, beneath a blackening sky, it hurls its furious billows in sublime assault against some towering and invulnerable cliff, that stands upon the world's foundations in supreme repose, and spurns the raging flood in silent and contemptuous disdain -the most stupendous picture of nature's antagonistic forces, the finest symbol earth can vield of the universal warfare between light and darkness, good and evil. But anger is not its ruling passion. Beneath a radiant sky, before a freshening breeze, its rejoicing waves sweep onward in a buoyant humor, dashing themselves against the rocks only in harmonious encounter, with the reaction of a sparkling rebound, quickened into an exalted liveliness of hue and motion, as if land and sea were two great kindred souls experiencing the stimulus of eager, exhilarating converse.

What endless graduation in the pulsations of the deep, from the terrible sublimity of storm to the majestic peace, approaching nearest slumber, that broods at other times upon the main; in all its wide diversities of character presenting aspects multitudinous as are the

moods of this wild human heart, and making it a symbol "worthy a soul that claims its kindred with eternity." What a little image of impending Fate one sees coiled in the recess of each darkly curving wave-top, just before its edge crumbles into foam. And, as its restless billows chase each other in a sort of frenzied eagerness the livelong day, how finely its mood has been imaged by the poet, who called it

"-----the unpastured sea hungering for calm."

In the midst of such a view-worth miles of walk to enjoy-and whose intenser bleakness almost warmed the stinging cold air, it was one of nature's quaint surprises to see the numerous gulls serenely settle down and float upon the waves, as comfortably as if the waters had been feather-beds or warming-pans. When not upon the wing, it is the almost constant inclination of the gulls to keep in touch with the water. floating about upon its surface, or motionless on the shallows ; and I have seldom seen them stand where the successive waves would not play around their feet. At this point on the coast, where numerous little rocks are rather closely scattered near the beach, and half submerged, the gulls occasionally make a very

pretty scene by standing, one upon each rock, while the waves dash by them — "mounted specimens," in nature's own inimitable fashion. Amid such bleak scenery, I discovered, a few rods back from the water, what I had never seen before, although in such localities they are by no means rare in winter—a large flock of shore larks; which, at this season, frequent the borders of the ocean, particularly in stubble fields, and showing as much affinity for the sea as many water fowl, although toward spring they are often found farther inland; and, a few weeks later, they all leave us for the more inviting wastes of Labrador.

The shore lark—also called horned lark, from a short feathery tuft over each eye—is one of our prettiest winter birds, about seven inches long, brownish olive above, white beneath, yellow on the throat, and with a conspicuous black crescent on the breast. At a distance, larks resemble in plumage one species of plover, but their manners are distinctly different. They show timidity and confidence curiously mingled; for, generally as you approach them, they simply edge away from you, plainly saying that familiarity shall go so far and no farther. They are exceedingly nimble on foot, gliding about

very much like mice, and apparently hiding among the little irregularities of the ground. Occasionally, when I came unexpectedly near, the whole flock would whirl up a little distance in the air, and, with a lively and musical chica-chic-a-chic-a, fly to a remote spot, and resume active life on the ground. At other times, as if in a spasm of sudden joy, they would mount to a great height, circle about with the swiftness and *abandon* of a bevy of swallows, and then return, like a boomerang, almost to the very spot from which they rose. They are easily detected, as they run about over the hard snow; but, on the bare ground, their color blends so perfectly with that of the soil, that it is extremely difficult to find them, unless their occasional burst of tinkling notes reveals them. Some weeks after my first visit, I found the flock in the same field as before, which. possibly, has been their base of supplies through the winter.

The shore lark has a double claim upon our interest, by reason of its own attractive personality, and as being the only representative among us of the famous lark family of Europe, immortalized especially by the ecstatic motions and gushing song of the field lark — Alauda



SHORE LARK

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arvensis-which has secured to the family name an eminence in some respects superior even to that of our own superb thrushes. The contagion of its rapture has been caught by many a famous poet-the fiery Shelley, the reposeful Wordsworth, the genial, roguish and fatherly old Chaucer. With the last, the lark was an evident favorite; and, although he did not indulge in any such lengthy, formal, and elaborate apostrophe to the exalted songster as will at once occur to the reader of Wordsworth and Shelley, his brief and frequent allusions, incidental, affectionate, and spontaneous as they are, betoken quite as deep and fervent admiration. Every lover of this benignant and intensely human poet-"a genial day in an English spring," as a critic happily styles him -will recall the passage in the "Canterbury Tales," beginning

> " And now the larke, messager of daye, Saluëth in hir song the morwe graye;"

wherein he reverts, with the dainty touch of the genuine poet, to his favorite theme—the beautiful in nature.

Among many pleasing memories of German life, I recall one with peculiar distinctness—a

certain June morning in Munich, when I went through the Brandenburg gate, outside the city limits, and explored the surrounding fields. For the first time, I then enjoyed the unique display of Chaucer's lark, with its soaring flight and rapturous song. It was quite common thereabouts, and the morning was one to kindle all its musical spirit. Mounting slowly, yet airily, and with a rapid fluttering of wings, in an absolutely perpendicular ascent, as if scaling an invisible ladder, he began, when a short distance from the ground, and accompanying his upward motion, to pour forth a delicious and continuous effervescence of delight, until he reached so high a point that he became only a throbbing vocal atom in the distant blue; where, poised upon the very climax of his ecstasy, ensphered in the irradiation of his wild and glittering notes, he uttered his impassioned heart in such a thrilling lyric chant as could not fail to hold the listener spellbound and amazed. The best that poetry can say of the lark has been expressed in Shelley's famous apostrophe, which, in its entirety, is the most breathless and delicious of his minor poems, a gem among the classics.

This famous vocalist is an instance, not ex-

ceptional, of a gifted soul within an unprepossessing exterior; in fact, there are extremely few species that are not more presentable. Our own shore lark, which is also a denizen of Europe, and there called the handsomest of the family, is a much more attractive specimen. Perhaps we have no plainer bird than the sweet-voiced vesper sparrow, which the field lark closely resembles; being a trifle larger, of about the same color on the back, and with similar pure white outer tail-feathers. On the slender basis of its having occasionally been found in Greenland and in Bermuda, it is included in the list of North American birds. But most of the attempts, made hitherto, to introduce and naturalize this remarkable species in our own land, by which alone it can ever become a prominent member of our avifauna, have been unsuccessful.

In its summer home our own shore lark, so silent when with us, is said to exhibit vocal powers not unworthy of the family repute, and to mount and sing upon the wing like the European species; although, according to Audubon, it does not begin to sing until its highest altitude is reached. But why does its heart warm toward Labrador? Although that dis-

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mal name is, to the popular mind, an emblem of all that is desolate and forbidding, the ornithologist cannot fail, sometimes, to cast a wistful glance in that frigid direction, where so many of his favorite species are truly wasting their sweetness on the desert air—the fox sparrow, snow bunting, lark, redpoll linnet, pine finch and crossbill; not to mention golden plover and other dainty water fowl, the silent members of the winged fraternity.

The curvature of the earth in general is eight inches to the mile. But, excepting on its north shore, Long Island is an exception, where the terrestrial convexity cannot exceed one-thirtysecond of an inch to the mile, as any traveller will be convinced who takes a trip from Brooklyn to Montauk Point. This unutterable flatness, while destructive to all interior scenery, affords ample compensation in the glorious beaches along the south shore, extending for miles in an unbroken stretch, ornamented with the ocean's fringe of breakers—a scarf that binds together sea and land, a cincture of live foam to girdle all the continents. There is more savage grandeur and wildness, to stir the blood, on some precipitous coast, where towers

——" A mighty rocke, 'gainst which doe rave, The roring billowes in their proud disdaine :"

but the attractiveness of the sandy shore is of quite another sort. Here one finds a milder and more restful beauty on the broad and level beach, where each retiring wave leaves, spread before the eye, a momentary mirror of magnificent extent, wherein the clouds and sun by day, and stars by night, age after age, are ever newly imaged in the quicksilver flood; and where, from spring to fall, the dainty nimble plovers, running to and fro with each advancing and retreating wave, reflect their graceful forms and motions on the glassy sands. During migration, particularly, one finds various species of water fowl along this beach, especially in the sandpiper family; and I here made the acquaintance of that beautiful little coast-bird, the semipalmated plover, one of the two ring-necked species that are the most abundant of the plover kind.

Following the beach for a mile or more, I discovered at first only numerous ducks, persistently floating beyond the surf-line, and outside the pale of specific distinguishableness, or occasionally flying, in their characteristic manner, in small squads, with rapid wing-beat, baggy

bodies, and fearfully long, straight necks, as if each one of them had swallowed a ram-rod; while, farther on, were fully fifty gulls, which now and then gathered in solemn convention on a narrow sand-bar. Standing with their heads all turned in one direction, a more quiet and stupidly attentive audience one never saw; until, either from a subtle simultaneous impulse, or at a signal from the leader of the meeting, the whole assembly suddenly rose on the wing, broke up into numerous committees, and posted off in all directions.

Not far from this conclave I stumbled upon a flock of plovers. Brownish above, white beneath, a distinct black ring around the lower part of the neck, white on the forehead, bounded by black, about seven inches long, a running gait, and a general watery look—these were the external signs that certified the larger of the ring-necked plovers, the smaller species being the piping plover. To save time, I made immediate advances toward intimacy; but at first they showed their decorous training by not allowing me to come within *beau*-shot. At length, however, timidity gave place to confidence, and, in a very mute way, we finally became quite sociable.

The plover has an odd habit of frequently bobbing his head, as if in a state of chronic obeisance, or else of permanent acquiescence; and makes the observer feel that, although a very silent creature, he is nevertheless doing a great deal of hard thinking-as if continually giving outward assent to his private conclusions. Keeping as close to the water's edge as possible, when a larger wave than usual rolled in, he would instantly wheel about, and then how his long, slender, bright-red legs would twinkle away, six inches in advance of the shallow ripple that chased him fast and far over the level sands. Gliding in this manner across the glassy floor that gave back a perfect inverted image of his delicate figure, and even of his wiry limbs, keeping time and step to his own retreat-this dissolving view was far more picturesque than any scene of warblers or thrushes. And then, when the wave reached its limit, how quickly he faced about, and ducked his head to the great deep, as if to say, "I salute you, hoary monster ! you didn't catch me that time, did you?" The silent, delicate plover, and the noisy, stupendous ocean, thus brought face to face, as in battle array, form the most delicious and suggestive combination of minuteness and immensity that I

have ever seen; and there is withal a sober comicality in such an impromptu scene that can never be forgotten.

But, although so conservative in behavior before an in-rolling wave, these creatures are not at all timid, when sure of its depth; and they wade fearlessly through the pools formed in the depressions of the sand, even when almost deep enough for swimming. I hope these little friends of mine have some poetic sense of their surroundings, in habitually lingering by the sea; but appearances indicate that their impulse is of a grosser sort, and that they are only after the bodily refreshment thrown on the shore by every tide.

A curious and interesting chapter could be written on the intimate connection existing between facts apparently standing in no kind of relationship, in the economy of nature. One instance of the sort would be, the purposes, more numerous and important than at first appears, served by the oceanic tides; one of them being that, by the endless circulation of the water near the shore, vegetable and animal growth is both promoted and thrown upon the beach, thereby maintaining the life of water fowl. Marine ornithology is thus



SEMIPALMATED PLOVERS

The silent, delicate plover, and the noisy, stupendous ocean, thus brought face to face, as in battle array (p. 175).



brought into unexpected dependence upon the moon.

A few days later, on the same beach, I had the quite unusual opportunity of seeing an immense migration-wave of gulls, passing close by the shore. They were evidently not anxious to make a short journey of it, otherwise they would have cut across from Cape May to Montauk Point, instead of skirting along the entire coast of New Jersey and Long Island.

They did not form one solid group, in their flight, as wild geese often do, but passed along, sometimes in a continuous stream, at other times in detached flocks in close succession. varying in numbers from ten to forty, and occasionally in such compact masses as to be quite imposing. For the most part they flew very close to the water, as when skimming the surface for food; but one flock of about seventy-five passed high overhead and descended to the water farther on. Being interested to form an estimate of the entire number, I counted one hundred and sixty that passed in five minutes, and as the "wave" lasted with little interruption for nearly two hours while I was watching it, and had apparently begun before I arrived at the beach, it doubt-

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less numbered at least from two to three thousand. The passage of such a host, by so mysterious an impulse, is an exhibition of one of the "forces of nature" that one does not often have the opportunity to witness. A bird's-eye view of such a silent procession, fifty miles in length, swiftly winding its way along the sinuosities of the Atlantic coast, from the Southern States to British America, would certainly be an interesting spectacle. Afterward, a "wave" of ducks passed by, not as large in the aggregate as that of the gulls; but the individual flocks, numbering from fifty to over a hundred each, were much larger and more picturesque. While gulls are much more aërial, I observed that the ducks flew very much higher in migration.

Along the shore, too, were sandpipers. The principal feature that distinguishes them from plovers is the long bill, by which they can not only obtain food in shallow water, but can probe for it in sand or soil, like woodcock and all long-billed species; which shows the extreme sensitiveness of what appears to be a mere dead, horny protuberance, and somewhat analogous in its functions to the teeth of other animals. I could not "specify" this

flock of sandpipers. Many of the species in this family are as much alike as some of the sparrows, and hardly admit of discrimination, except by the aid of a little powder and shot.

Running about in the salt grass was a species that occupies the debatable ground between land and water birds—one of the sea-side sparrows, the sharp-tailed finch; in anatomy and appearance a thorough land bird, and even in the "song group;" but with as much partiality for water as some of the genuine water fowl, and perhaps never found far from shore.

While beauty and, with few exceptions, musical excellence are not conspicuous features in sparrows, it is certainly interesting to note, in this large class of closely related birds, such a degree of individuality as is shown in their different tastes in regard to habitat; some preferring our temperate climate, and others going into the Arctic regions; some abiding in the fields and the upland pasture, a few resorting to the swamps, and still others found almost exclusively among the salt marshes along the coast. Of this last-named sort are the seaside and the sharped-tailed finches, and the savannah sparrow—in general appearance quite alike, but with dissimilar head-markings, and

all of them nesting very unpretentiously in a tussock of grass near the water's edge. This sharp-tailed finch is easily recognized by a long and prominent bright-buff line over the eye, and large, dark spots on a light breast. Nothing complimentary can be said of any of these water sparrows, in a musical way, as they rank among the lowest, even of this humble class.

Scientific names are often as meaningless or misleading as they are unpronounceable; but this is not so with the sea-side and sharp-tailed finches. Their generic name, ammodramus running on the sands—aptly expresses their prevailing habit, as their flight on the wing is infrequent, short, and low; and their specific names, maritimus and caudacutus—which define themselves to the rustiest Latin scholar—are equally appropriate.

Whoever roams over sands and salt marshes is familiar with the "fiddler crab," of which I found an immense colony near the finch—two or three inches long, their shells prettily marked with gray, brown, and a bluish purple centre. They numbered thousands and tens of thousands, and the entire army beat a hasty retreat, as fast as their eight legs could carry them, at

my approach; they even tumbled over each other in their anxiety to get away. So dense were they that the very ground seemed to be slipping off, as they fled away, and their innumerable bodies rustled curiously through the salt grass. While the males are armed with a formidable apparatus that looks like a pair of slender ivory nippers about one inch long or more, for seizing their prey, the females are provided with only a very diminutive weapon of this sort; depending, probably, upon their powers of persuasion for holding their victims; a peculiarity not confined to crustaceans. My attention was called to this swarm of crabs by seeing the ground riddled with holes, as if punctured by a cane, and about three inches deep; and, as I followed them up, the crabs dropped into these holes like pool-balls into a "pocket." After standing still a minute, I could see them popping their heads out all around me, and, if I moved at all, drop back again. At Cape May I afterward found acres of them, sunning themselves on the muddy flats, and along the inlets. They are called "fiddler crabs" from the awkward way in which they hold their prehensile apparatus high in the air as they run along; which, with their motion sideways, is about as

clumsy a complication of affairs as one ever finds in nature.

In the salt marshes, sea-side sparrows were singing-my first view and hearing of them. Their strain is almost the lowest in the scale of song, and yet it is distinctly a song, and not a reiterated call note. One of them perched on a low bush within a few feet of me, and indulged for several minutes in his soft soliloguy, the first part of the chant resembling the conk-a-rée of a minute red-winged blackbird, and tipped off with the snarl of a microscopic catbird. There was certainly a genuine impulse of song in his heart; and he seemed as happy in his puny efforts as the most gifted of his race. All about on the marshes the wild, vague note of the sandpipers could be heard, whose discovery, when they keep still in the grass, rivals the needle-in-the-haymow problem. Having their nests in this seclusion, they now and then pass over in small parties to the ocean's edge to feed, lodging in the marsh, and dining on the beach.

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One of my excursions in search of water fowl was nothing but a "comedy of errors," from beginning to end. Early in June I took the

train for Sayville, a town on the south shore of Long Island. This was only a means to an end, the end being a swamp in one of the chain of islands that forms the outer boundary of Great South Bay, which at this point is about six miles wide. The island in question is a deserted swamp and sand-bar during nine months of the year, and quite populous the other three, as it is then occupied by a branch of the Chautauqua Circle, from which it gets the name of Chautauqua Landing. In the swamp that covers a part of the island I had been told that the little white heron, one of the rarest and most delicate birds that come from the South, had been found nesting the previous year, and I made the trip expressly for the purpose of finding it.

On reaching the shore I found that the small steamer that during the summer plies between the main land and the island was not yet in commission, and if I was to cross the Bay it must be by some slower conveyance, and by private contract. Accordingly I chartered a small yacht, with a young skipper and his still more juvenile friend to manage it—or *her*, to be nautical. The run across the Bay was very fine, until the inexperienced skipper, attempting to make a short cut, on approaching the

farther shore, and not having posted himself for that year as to the arrangement of the evershifting sandbars, made us reach ground before we got to land, so that we came to a dead standstill, "docked in sand." We stuck fast until the brilliant thought struck the two boys to lighten the boat by jumping overboard; but they were too young to weigh much, and the boat didn't budge an inch. Then they pushed and pried, and threw the ballast into the bow, and sent me after it, so that finally we slid off. and in two minutes were gently perching on another bar, whereupon all hands except myself went overboard again. My hesitation to do the same was not because I was afraid of water, but I had already paid my passage, and proposed to go over dry-shod, if it took all night. I learned a good lesson, however, in submarine topography, bumping around on the various sand-bars for an hour or two; but at last by some accident we drifted into the channel, and came to shore.

The first impression on reaching land was ominous and disheartening. The mere absence of civilization makes no solitude for me; but here everything was helter-skelter, half savage and half civilized, neither nature nor art. "A

motley collection of cheap, tasteless houses, worse than factory dwellings, each propped on its own arid sand-heap, not one of them facing any conceivable point of the compass, and no two standing at any calculable angle with each other, but all looking as if they might have been carried across the Bay from the main land by a tornado, and dropped on this general dumping ground; various small restaurants bearing the questionable inscription-" Chautauqua Bottling Company," with a few long, low buildings straggling off in odd directionsthis dismal and heterogeneous aggregation of architecture, crowned with an east wind and drizzling clouds, made me more lonesome than if there had been no sign of human life within a hundred miles.

Escaping from the scene as soon as possible, I wandered over to the beach on the south side. The desolate, sandy stretches were buttered thick—as if to make them more palatable—with dense, low masses of bright yellow flowers, a marine vegetation much resembling mossy stonecrop. It was a marvel how any plant could extract enough moisture from parched sand to break forth into such a rich display of bloom. Where the ground began to rise, beyond the

centre of the island, as one approaches the cliffs fronting the ocean, I found an equal profusion of some leguminous plant whose abundant red, white and purple blossoms would pass, at a distance, for sweet peas. From the base of the cliff the beach sloped for two or three hundred feet down to the water, and for miles east and west this broad expanse was without a sign of animation, save a pair of king-birds fluttering about. I then attempted to reach the opposite shore of the narrow island, but was soon confronted by an impenetrable mass of the densest prickly undergrowth and sullen pines. The original curse of thorns certainly struck this particular point of the earth's surface with tremendous force. Land birds were numerous-the Maryland yellow-throat, looking painfully out of place, the sharp-tailed finch and song sparrow, with red-winged blackbirds galore, but no water fowl except one sandpiper and a single green heron, that saw me the instant I saw him, and vanished into the bushes. Not a glimpse could I get of the little white heron, on whose account alone I had made the trip. I had intended to spend the night on the island, and continue the exploration on the following day; but the effect of all my surroundings caused a desperate

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feeling to creep over me that I must get away from the hideous place at once. The thought of remaining there over night grew strangely intolerable. To see in my dreams, as I certainly should have done, those empty, ghastly, malevolent human habitations staring down upon me all night out of their unblinking, clammy window-eyes would have given me forty nightmares.

I now bent all my energies to find a boatman to take me back; and when I succeeded, and he assured me I could get across in time for the last train, I felt unbounded relief. Supposing that he knew where the railroad station was, I loitered along, after reaching the main land, enjoying a rich and sudden change of scene. The sun, just setting amid heavy and brilliant clouds, shone over an immense and luxuriant meadow, with numerous blackbirds hovering over it, and uttering their whistling cry, swallows darting about, and an intoxicated bobolink madly singing in his wild career; while in the distance the picturesque roofs of houses loomed among the foliage, and gave to the scene the repose of evening for a background. It came after the day's fatigue like the snatch of a pleasant dream. At least a gilded edge, I thought,

to the day's blank page. But the end was not vet. Sauntering along, I asked the first person I met how far it was to the station, thinking it might be a five minutes' walk. My lower jaw dropped in amazement when he replied, "Four miles ! "-with fifty-one minutes to do it in, after a hard day's tramp, and by an unfamiliar and circuitous route. He unconsciously rubbed in the agony by adding that, if I had come ten minutes sooner. I might have ridden all the way. It was the last train; I felt as if I were escaping from a plague-stricken district, and, by an impromptu system of rapid transit, I reached the station, with two minutes to spare. This was in the town of Islip, of which I had only a glimpse, but it sufficed to take away much of the bad taste of the day. With the verdure of an English landscape, dotted with comfortable colonial houses, this town is the type of many along the South Shore. But with all my zeal for water fowl, I doubt whether a whole flock of little white herons would tempt me to repeat my experience at Chautauqua Landing.

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Do butterflies ever migrate? If they do, there was certainly a "wave" of them at Cape

May, early in October. It was no involuntary passage, such as might be produced by a violent wind, for the air was absolutely calm; and the flight of such a multitude indicated a preconcerted plan for a prolonged transit. Walking along the beach early in the morning, I was aware of numerous butterflies passing me, long before I gave them any definite thought, except that I had never seen so many before. But at length they forced themselves upon my distinct attention, and I was persuaded there was "something in the air." Beginning to watch them carefully, I quickly discovered that they were passing along the beach in a regular stream; not in their usual zigzag course, but in a very direct line, sometimes in small groups, sometimes singly, but in almost uninterrupted suc-Some were near the ground, and cession. others at various heights as far as a hundred feet in the air, but not a single one was going in an opposite direction from the others, and only one alighted, but only for an instant. T watched the fluttering, but rapidly moving current for nearly half an hour, and when I left them there were still many stragglers in the procession. The entire number, as far as I could judge, were of one species. Although at this particular point their direction was from east to west, they were pursuing such a course as migrants at this season would adopt in moving southward along the coast.

Near the light-house I saw my first osprey, or fish hawk (I call him mine, by that divine license that gives to every naturalist a sense of owning everything that comes within his view). On the blasted relic of a tree, as dead as though drowned in the Flood and standing ever since. in which was a huge, coarse nest that may have been his, he was breakfasting on his usual diet. He seemed loath to be disturbed at his repast, and allowed me to approach him nearer than he would otherwise have done; but at last, fearful that there might be powder behind my eyes, he seized the fish in his talons, and, with a majestic flight that fully concealed his fear, sailed away. This splendid hawk is recognizable among other species both by its great size-being two feet long, with an immense spread of wing-and by the fact that the head and neck are largely white, as is the entire under side of the body. The tree, nest and bird were a most harmonious picture, and pleasing to any one who likes a dash of cold severity in scenery now and then. I am almost ashamed

to confess that, after watching some grand old barbarian bird of prey like this—a typical cannibal-chief in feathers—there *is* something excessively diminutive and slightly tame in a civilized little song bird. I sometimes think I modulate too easily into the mood of my surroundings. This chameleon trick has a disadvantage as well as advantage.

The osprey is quite abundant around the numerous creeks to the north of Cape May. where two or three could be seen at a time, circling suspiciously over the water, and occasionally making a fatal dash upon some finny resident beneath, and not hesitating to plunge entirely under water for the capture of their prey. But sometimes this operation proves fatal to both parties; for, when he attacks a fish he is unable to lift out of the water, and does not succeed in letting go his hold immediately, the fish drags him under, and it proves a double tragedy. In several instances the dead body of a large fish, with the osprey still clinging to it, has been washed upon the beach. For some reason, fish hawks feel particularly amiable toward crow blackbirds, which they allow to nest in the cavities of their own huge structures; in one case four grackles' nests having

been found in the interstices of an osprey's nest. Another peculiarity of these hawks is that in the fall they often repair and strengthen their nests, in evident anticipation of the severe weather at hand. These successive additions of material sometimes result in a perfectly enormous building, as in the case of one found at Plumb Island, Conn., that was seven feet high, and from six to eight feet across.

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Our familiar "flicker," or golden-winged woodpecker, is esteemed a great luxury by Jersey hunters; and their method of decoying them is peculiar. I noticed, here and there, in the scrubby woodland, a very long dead branch projecting slantingly upward from near the top of a tree, looking half artificial, half natural—a clever device for the accommodation of flickers, which, in migration, pass over this region in great numbers and in fat condition. Arriving in the night, they find these conspicuous perches very alluring for resting places, and are shot in the early morning. They roost so close together that sometimes several will be brought down at one discharge. There is so much rivalry among hunters in capturing this



OSPREY

A grand old barbarian bird of prey —a typical cannibal-chief in feathers (p. 191).



game, and some of the perches are so much more attractive than others, that a gunner will sometimes sleep all night under a tree, in order to pre-empt the claim in the morning.

Besides finding Cape May favorable for studying the various hawks, which are particularly abundant hereabouts-one man telling me that he had shot fifty-six the day before, just for practice !--- I had an opportunity of observing one of the most repulsive species in the feathered kingdom-the turkey buzzard. We might say of it, as was once remarked in regard to a certain person's conduct, "it is worse than sinful, it is vulgar." And, as I saw these ungainly creatures moping about on the beach, with unkempt plumage, tall but crouching figures, round-shouldered, with snaky necks, and slinking, glittering eyes, coarse-visaged and stupid, and with a nauseous appetite, the sight struck me as the very quintessence of vulgarity. They are perfectly harmless, however, never capturing live animals, and serve a valuable, if disgusting, purpose, in converting into their own tissue carrion of every sort, for which we should be grateful that they have the taste.

Yet, as we are enjoined to give even the

devil his due, so the buzzards can be heartily commended in one aspect of their life; for there is something immensely impressive in the sight of a large flock of these huge black creatures, with a spread of six feet as they fly, slowly gliding on motionless wing, high in the air, in magnificent circles, and at the same time the whole flock advancing. Tipping the body now this way and now that, they are borne aloft and along like enormous kites, and will cover immense distances-one writer says, two or three miles-without a single wing-beat. The eagles' flight is grander; but one sees the eagle only alone or in pairs; and, in this respect, the view of a cloud of buzzards is more imposing. They seemed to be gathering at their accustomed rendezvous on a neighboring shore, where I counted sixty, with many more in the air, and slowly settling.

There is something phenomenal in their power of smell, as they are able to detect carrion several miles away. We not infrequently hear people lament that their own senses are not as keen as those of the lower animals. But we know not what is good for us. Coleridge's perception of over seventy distinct odors in Cologne, besides the one that has made the town

famous, suggests the annoyance incident to oversensitive sensibilities.

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Not a water fowl, but commonly found near the coast, or on the shore of our larger lakes and streams, is the bald eagle. There is no other creature that awakens just the sentiment that is aroused by this, our grandest bird of prey. This class of birds, in every aspect of their life, is isolated from all others. From their personality, habits, and habitat, they appeal to a certain poetic feeling which, without gauging its comparative excellence, is remarkably distinct from that inspired by any other class of animals. Setting aside the owls -nocturnal birds of prey-which are half uncanny, half ridiculous, the very names of eagle, vulture, condor, hawk, and kite, excite a feeling that is curiously compounded of immense admiration and deep contempt. They are like some monstrous and destructive energy in nature, from which we instinctively recoil, but to which, at the same time, we are instinctively drawn; as incapable of being loved as icebergs, storms, or volcanoes; but with an aspect of sublimity, in varying degree, quite unapproachable

by any other species of the race. They admirably picture forth the heroic side of villainy ; they are the Attilas, the Neros, the Borgias of bird-history. Neither refined, nor, in the usual sense, beautiful, they strikingly possess the very commanding attribute of rugged and pronounced personality; and this rare quality is always a strong rival of both beauty and goodness for the admiration of mankind. Even the more ignoble vulture, kite, and buzzard, the very type of carrion scavengers though they be, are not entirely powerless to elicit a certain quality of lofty approbation; while hawks and eagles, by a life as taciturn and solitary, and by a certain nobility of form, combined with those impressive evolutions in the air which cannot fail to elevate the mind, are qualified to stimulate the thoughts of the observer to an intense degree. The distant and the silent are alike in always being strangely fascinating to the human mind; and these qualities are combined in the birds of prey. The imagination plays most untiringly around the vague and enigmatical.

As I stood by the Hudson River, watching a large flock of wild ducks, called buffle-heads, that frequent all our larger streams in the win-

ter season, suddenly a bald eagle came upon the scene. He was soon joined by another, even larger than himself; and, in broad evolutions. now high, now low, at times the merest specks in the blue distance, and then with majestic dash quite close at hand, they swung from side to side of the noble river, and far beyond its edge. Their motive power, in their gigantic circuits, seemed to be merely the force of their imperial will, so slight was their exertion in comparison with the energy in evident reserve. Occasionally they moved their wings with stately beat, but otherwise pursued their passage broadly floating in sublime repose. Mingling amicably with numerous gulls, this lordly stranger still seemed distant from them, even when most near, so profoundly different was he, both in spirit and appearance.

" Around him some mysterious circle thrown Repell'd approach, and showed him still alone."

Apparently it was only a case of kingly exercise that morning—sportive, yet intensely dignified —for I did not see either of the pair gather any food from the river, which they closely approached at times; nor did they cause any consternation among the ducks, and a hungry eagle

has a good relish for a duck. At first I was uncertain of the species, for bald and golden eagles have much the same general appearance at a distance; but when one, in particular, of these two specimens came into close range, I could see the pure white tail and neck, which are characteristic features of the bald eagle's plumage. His companion was quite dark throughout—I judged, the heir apparent, the prince in his first year.

The beholder sometimes almost feels a touch of terror in this bird's vindictive silence; and an eagle's scream, a ragged fracture of barbaric sound, is probably the most discordant note that ever pierces the empyrean. And who would have it otherwise? Not every state of heart can be translated into song. Whoever knows the butcher-bird will say that its coarse. defiant cry is the only adequate expression of its savage nature. Individuality is the most interesting aspect of every object in creation; and this is possessed by the songless species as fully as by any bird of melody. One may study a villain as eagerly as he would a saint; and sometimes the villain has the best of it, in power of sustaining the interest. A vice is as prolific a text for thought as a virtue; and the orni-

thologist may have as much desire, although of quite another sort, to see an eagle or a hawk, as a rose-breasted grosbeak or a thrush.

It is a curious fact in regard to birds of prey, as distinguished from the generality of the race, that the female is commonly larger than the male; and also interesting to note that an eagle in its second year is larger than ever afterward. I have never heard its subsequent shrinkage accounted for. The difficulties and occasional uncertainties of bird-classification are well illustrated by this bald eagle, whose plumage is so different in the various stages of its growth as to have misled even Audubon into supposing a young specimen he found to be a distinct species. Apparently familiar only with the mature plumage of the bird, he congratulated himself immensely on the supposed discovery; which, in admiration of his adopted country's father, he named "the bird of Washington." There are, however, only two distinct species in the entire country-the bald and the golden eagles. In its second year the bald eagle is much lighter in color, and not until the third year does it attain its permanent coloring-head, fore-neck, and tail pure white, the rest of the body dark brown.

The adoption of the eagle as our national emblem has been strongly condemned, on the ground that no animal so fierce and rapacious is worthy of such exalted symbolism; and Benjamin Franklin expressed his disapproval of the choice in very vigorous language. It is to be remarked, however, that no parable is obliged to "go on all fours," and I know not why more should be expected of emblems than of parables. The eagle is as truly the king of birds, in its most striking aspects, as the lion is the king of beasts; and, as the mother-country had appropriated the latter as an emblem, it was quite natural that her aspiring children should aim higher, and adopt the loftiest symbol they could find. Ethically considered, both of these creatures are, perhaps, as far as possible from adequately typifying a nation's greatest glory; but they are certainly pre-eminently qualified, as compared with all other creatures of their class, to symbolize that strength, immensity, sublimity, and sovereignty which, in the minds of men, are predominant features of a magnificent national life.

Another and more forcible objection against giving this honorable distinction to the bald eagle in particular is not so easy to be met;

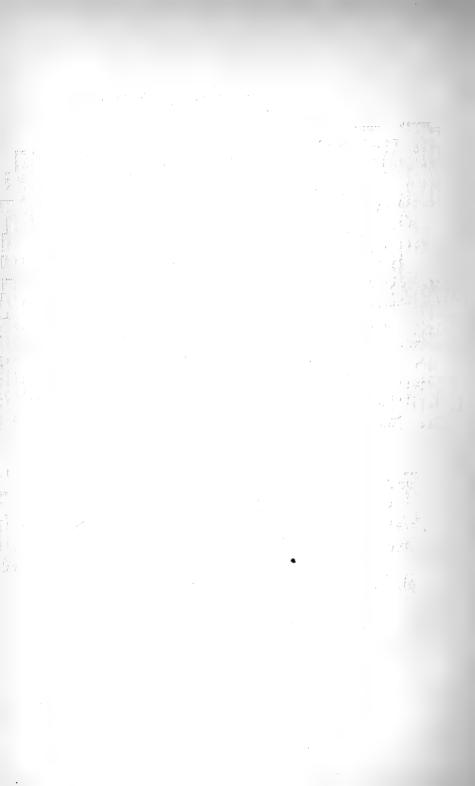
viz., that he often displays both a lazy and a tyrannical disposition; inasmuch as he will quietly sit upon a tree, and watch the osprey capture its fish, whereupon the eagle dashes down upon him, and compels him to relinquish his booty, which is then seized and borne off by our glorious emblem. For this ignoble trick there is no adequate apology to offer. It is a clear case of unpardonable despotism. If we wait, however, for some creature to arise that shall be beyond all criticism as a mere animal type of our country, we shall have to get along without any symbol. Unquestionably, as between the bald and the golden eagles, the former is the worthier on the score of beauty; and his adoption, to be emblazoned on our national escutcheon, was probably a compromise, such as the world often makes, between character and good looks.

We must notice one more attack upon the worthiness of this emblematic bird. His bravery has been impugned, on the ground that he is sometimes put to flight by the contemptible little king-bird (Tyrannus tyrannus), which is a good deal smaller than a robin. This argument looks very plausible, but in reality it is the weakest of all. The enormous galleons which

composed the Spanish Armada could never be called cowardly because they were no match for the little English corvettes in dexterity of naval evolution. It was their very superiority in point of size that made them an easy prey to their diminutive but more lively enemies. An insignificant horse-fly will goad the very noblest of four-footed creatures to madness and flight; and, in precisely the same manner, the very hugeness of the eagle makes him vulnerable to the nimble assaults upon his back of a minute and vicious enemy. If any one thinks it would be more praiseworthy for the august bird to stand still, and let his microscopic foe assail him at will, it can only be replied, if to flee in such case is cowardly, to stand still is both cowardly and imbecile.

Just a word ought to be said in regard to that ill-sounding name, "birds of prey." In a single aspect it is accurately descriptive of a large division of the feathered kingdom; but otherwise it is a most unfair reflection upon the group, which are thus permanently reviled for following out their instincts, and sustaining life, it is true, by the destruction of their fellowcreatures, yet by a method imposed by nature, perfectly legitimate and blameless. I know of

no nonchalance more exquisite than that with which a man will stamp with obloguy another's conduct that is precisely the reproduction of his And when one speaks in disapproving own. terms about bloodthirsty beasts and birds, let him occasionally call to mind the countless cattle on a thousand hills, destined for the shambles to satisfy man's own carnivorous appetite. Only he who from principle is a vegetarian can, without making himself ridiculous, cast a slur upon a bird's use of fresh meat. Instead of wasting our disdain upon the lower animals of prey, it would certainly be used to much better purpose by turning it upon that barbarity of our fellow-beings who call themselves perfectly respectable, although they will go, year after year, to the woods, and fields, and beaches, and slaughter scores and hundreds of innocent and beautiful creatures, not on the plea of any need whatever, but to experience the luxury of killing, wherein the satisfaction gained is precisely measured by the amount of life destroyed. Between the brutality of the fiercest beast or bird, and that of the average hunter, let the impartial critic choose.



Lake George

"The desert, forest, cavern, breaker's foam, Were unto him companionship; they spake A mutual language, clearer than the tome Of his land's tongue, which he would oft forsake For Nature's pages glassed by sunbeams on the lake." Byron.

LAKE GEORGE



AKE scenery is mild, rather than heroic; in a word, with all due respect to lake and poet, Wordsworthian; and one can hardly imagine

any nature of Byron's dash and vigor and truly oceanic mood contentedly and permanently reposing in the placid prospect of soft inland waters. Yet life's cadences sometimes require just such restful influences as pervade the atmosphere of mountain-girt Lake George, whose majesty of repose is the best punctuation for a period of activity. Indeed, if one would know the rare sublimity of nature's calm, he can perhaps feel it nowhere more fully than at the purpling hour of a clear summer's eve, when floating on the middle of this famous lake. As by magic influence, the waves subside until the last faint ripple drops off into slumber; deepening twilight fills the cool and windless air; the mountains, softly dark, rear their massive forms with unwonted grace and dignity above the

water's glassy plain, magnificent embodiments of profoundest peace; the pale stars, one by one, begin to glisten in their mild serenity; and silence, like a heavenly mantle spread by hands invisible, wraps all the scene in the prolonged repose of dreamless night.

However beautiful a spot may be, it always gains an added charm, a sort of personality, by historic association-the subtlest element of attractiveness, which kindles nobler sentiments than merely sensuous landscape beauty ever can In such historic interest few spots in inspire. all our country are richer than Lake George. Its banks and waters silently commemorate many a striking scene in the Revolutionary War. As an anonymous writer has well expressed it, "The imaginative mind can easily reanimate the Lake with the splendid armies of Abercrombie, Amherst, and Montcalm, numbering from nine to sixteen thousand men each, and sailing in boats and bateaux, marshalled in beautiful array, with all the pomp and circumstance of war. How peaceful it appears to-day, at the head of the Lake, around the ruins of Fort George, and the grass-grown site of Fort William Henry. Yet here, through long and bloody wars, the Cross of St. George waved defiance to the

Lake George

Lilies of France. Here forts and palisades went up, opposing trenches were dug, and mines sprung. But now all sign of bloodshed and strife has passed away, and the hapless victims are forever at rest." Beneath the waters, too, at different points, the relics of those warring times can still be seen—the sunken wrecks of many a transport ship and gun-boat, the very uncertainty of whose precise history only serves to deepen the impression, as one looks down through the peculiarly clear water upon the buried hulks quietly reposing for almost a hundred and fifty years.

Civilization consists largely in the multiplication of our wants; and the numerous small resorts scattered along these shores can be heartily recommended to anyone wishing to shuffle off, for a season, this artificial commodity or embarrassment. A few weeks' residence in such a region is more convincing than all verbal argument, that man really wants but little here below. It is an instinct in our nature to desire to do whatever is being done around us; and probably this accounts for the fact that, after being here a little while, amid forests, grass, fruits, and grains, one awakes to the fact that he has himself also begun to vegetate.

This is not a disparagement of country life, but one of its chief commendations. For, to secure the healthy equipoise of human existence, this lower vegetative element of our nature cannot be ignored. Nothing is better for the soul than periodically to go where, for awhile, one can be "of the earth, earthy;" and Lake George can be commended as a delightful and economical spot in which to make the experiment.

But the foregoing is only the lower, earthward side of rustication in such a region as this. On the borders of this ever-changeful lake, that gives a quick and fleeting transcript of all the varying moods of earth and sky, and in this noble amphitheatre of everlasting hills, whose loftiness, solidity, and dignified repose are an unobtrusive, and yet grave, rebuke to all the transient, petty, fretful views and aims of the immortal beings crawling at their base; with numerous running brooks along the mountain sides, breaking, but not marring, the country silence, congenial substitutes for books, the pleasantest sort of summer reading-in such surroundings one may find ample diet for imagination, and the choicest wine of inspiration, to promote the growth of his higher powers,

and to help him realize the only legitimate aim of all vacation—a sound mind in a sound body.

As everyone knows, in a small village, "exempt from public haunt," and especially when several miles distant from a railroad, the only thrilling and perennial episode in life is the daily arrival of the mail. And this little fact fully shows what extremely adaptable creatures we all are. It is said that no other animal is able to endure such extremes of heat and cold as man, and certainly no other is able to survive, as he can, the shock of alternate excitement and monotony, which are the soul's heat And how great is man's ingenuity and cold. to invent excitement where none exists! In a little summer-resort one still enjoys something like the exhilaration of grand opera, as he sees the approaching coach down the road. And when it actually rolls up to the door he almost feels the thrill of a theatrical climax.

In daily excursions to and from the postoffice I passed the village school-house, with its brood of hardly a dozen pupils; and I soon discovered that beneath the eaves a flock of cliff swallows were building their homes—a sort of collegiate annex, which is so much in vogue nowadays. They had just begun the erection

of their peculiar structures, and their lack of timidity gave good opportunity to watch the This nest differs from that of all our process. other birds in having its walls composed entirely of mud, which the bird moulds into little pellets, fastening them together with its own saliva; and thus the entire nest, which is very thick and heavy, is supported only by adhesion to the wall against which it is built. The architectural taste of these swallows involves a peculiar difficulty and danger, for the nest must always be placed where it will be protected from the rain by an overarching projection; otherwise, from the added weight of moisture, and its disintegrating effect, it would suddenly collapse in a storm. The rounded form of the pellets gives the exterior of the nest a peculiar corrugated appearance, but the inner surface is perfectly smooth. From its situation it results that the cavity is like a pocket, bending out horizontally at the top to afford egress. After the birds had worked diligently several days, I found, one morning, that some of the nests had fallen to the ground. But, without wasting precious time in vain regrets, they began at once to repair the loss. Everything went smoothly until the nests were almost completed,

when there was another collapse. This seemed a little suspicious. Yet surely there was no conscienceless contractor in this case, for the swallows were building their own houses; and, moreover, in this little rural paradise, it was hard to believe that any human being would be wantonly destructive. But, upon inquiry, I was told it was probably the doings of a young rascal in the neighborhood, who perpetrated all the small villanies that are possible in a diminutive village. I found where he lived, and appealed, not to his heart, which might be an unknown quantity, but to his pocket. Whereupon he agreed, for a stipulated sum, not to molest the nests until the young were He assured me, however, that the hatched. nests had sometimes fallen of their own accord; and there was a little reason to suppose that this might have been the case in the present instance. For, when the nests were begun, the ground was extremely dry, and perhaps the birds' saliva was insufficient to moisten and agglutinate the material. At all events, whether due to the boy's reformation, or to the rain that followed, there was no further trouble.

One morning, in passing a muddy place in

the road. I found it to be the source of their building material, quite a flock being engaged in collecting it. Alighting at the spot, they instantly raised their long and slender wings high over their backs, like the tern at the moment when it touches the ground ; and, with the tail half erect, like a wren's, they maintained this peculiar attitude, with a continual tremulous motion of the wings, while they walked around, picking up bits of mud here and there, and compacting them into a single mass. Standing where I was unobserved, I saw them come again and again, and invariably they assumed and kept this position so long as they were collecting the material. Sometimes they remained standing by the spot for a moment after alighting, with wings entirely closed, but they were raised to a perpendicular as soon as they began work. The action was as novel as it was graceful, a pose well worthy of a picture, except that, from its rarity, it would commonly be pronounced unnatural. Barn swallows, which one finds everywhere, and distinguishable from all other swallows by the forked tail, also make their nests mostly of mud, but with some dried grass intermixed, which makes it more adhesive; and these are often attached to



CLIFF SWALLOWS

The action was as novel as it was graceful, a pose well worthy of a picture (p. 214).



the roof and rafters in the same manner as is the cliff swallow's nest. Occasionally, however, they avoid all anxiety as to whether adhesion or gravitation will prevail, by placing a circular nest directly on a beam; but I think this is rather exceptional. The nests of these two species differ more conspicuously in the interior than in the walls; for that of the cliff swallow has but the scantiest lining of dried grass, with a few insignificant feathers. But barn swallows are either extremely doting parents, or else their young are very delicate; for I have never seen so luxurious nests as those I collected this summer, with double linings; the outer, of soft grass neatly woven, and the inner, a mass of downiest feathers filling the cavity almost to the very brim, and kept in place by being deftly bound to the outer walls with horse-hairs.

A peculiar aspect of a bird's nature is its sensitiveness to the smallest change of climate. No human being, I am sure, is competent to detect the difference of latitude between this region and a spot fifty or a hundred miles farther south. But these creatures are endowed with sharper senses than ourselves. As a result, a two or three hours' car-ride from Albany

brings one where he finds several noticeable differences in the avifauna.

One feels more of a sense of proprietorship in birds that come about his own hired door than in those he finds in public woods. Vet I felt that they were not on my rented premises by sufferance, but by virtue of a prior lease, which made them tenants of all the world at their own sweet will. Of about fifty species that are quite abundantly represented hereabouts, a large number were daily visitants in the orchard, and devoted their particular attention to a large mulberry-tree, whose ripened fruit hung among the branches like black raspberries, which it somewhat resembles in flavor also, but of which I hardly had a taste, so bold and ravenous were the orioles, catbirds, robins, and various smaller species that were on hand to pick the fruit as fast as it ripened.

There is no other bird that has just the wavy, graceful, and buoyant motion of the downy woodpecker. A brisk, and perhaps businesslike, cheerfulness is the characteristic mood of this species; and, while not ranked as a songster, its strong, rich note is quite consonant with its feelings. The term "tone color," which is a favorite one with musicians, expresses a truth

which one intuitively feels, without perhaps being able scientifically to explain. A man, blind from his birth, was once asked to give his idea of the sunrise. He replied that it seemed to him it must be like the sound of a trumpet. A bolder, more poetic, and in a sense accurate, comparison of sight and sound could hardly be imagined. Even those dry and literal people, who would scorn the analogy under other circumstances, will hardly disapprove of this pathetic, yet masterly, attempt to define, in terms of his own experience, what one had never seen. And, although without the excuse of blindness for being fanciful, there always seems to me to be a sort of crimson quality in the dark rich tone of the downy woodpecker, different from the call-note of any other species, and matching the ornamental head-piece displayed by the male.

The Wilson thrush, or veery, is one of the most abundant species in this region, and can be heard occasionally throughout the day, in all the woods, but becomes more melodious at dusk, and prolongs its song later into the evening than almost any other bird. The robin and the thrushes belong to the same family; but the former is more plebeian and companionable, the

latter more distant and harmlessly aristocratic; somewhat more refined in their nature, too, which both justifies and even compels a certain measure of reserve. The robin is the bird for every day; the thrush for state occasions. To me, the veery is one of the most tantalizing of all birds-as disobliging in his performances as a spoiled *prima donna*. Potentially he may be equal to the wood thrush, but practically he is quite inferior. It may be too severe a criticism to call him half-hearted in his art, but a little absent-minded he certainly seems to be, with that soliloquizing, sotto voce sort of strain which is the foretaste of what never comes; like the cardinal grosbeak's preamble. It would be a great mistake if all our songsters were as vociferous as the whippoorwill, as ecstatic as the wren, or as gushing as the goldfinch. Occasional reserve and melancholy form a cool, dark background that enhances all the warmer, brighter tints in nature's symphony. One lamenting pewee is an incomparable blessing to all other songsters in the neighborhood. And yet, in listening to the Wilson thrush, one must feel that he would like to spur him on a little, just to test his full capacity for once, and see what he might do under the impulse of a really

enthusiastic thrill. He is one of the very few species in whose case I fear that, when they come to judgment, they will ignominiously draw forth a few fresh, unused napkins, neatly wrapping up some latent talents.

It is a peculiarity of this thrush that his tone, which near at hand sounds faint and veiled, seems to be magnified by distance. It is also noticeable what a carrying, and almost re-enforcing, power there is in water; and it is one of the finest of musical effects, as one rows on the lake, a little way from shore, to hear, in the quietness of sea and sky, that distant rich and rippling triplet phrase so characteristic and seemingly touched with the lake's own placid atmosphere, giving the scene a vital beauty and a vocal climax that escape the painter's art. A liquid, thrushy quality of tone has peculiar affinity with such a scene.

An unusual sight in mid-summer is the herring-gull—essentially a maritime bird of the far north, and only wintering in the States. Yet now and then he is to be found at the larger inland waters during the breeding season, a pair having evidently concluded to summer at Lake George. It doubtless requires some individuality of bird character, being so gregarious as

gulls are, thus to break away from all their fellows, and live in such seclusion; and I rather admire the spirit of any biped, feathered or not, that does not follow the crowd, nor tie up to another's faith, but has his distinct taste, which he is not afraid to express and live up to.

Sitting on the piazza one morning, a pair of cedar-birds flew by several times, at short intervals, in a very eager and suspicious manner. It must be king's business, I thought, to require such haste. I noticed that they kept flying into an apple-tree in the yard; and, knowing their uppermost thought at this particular seasonearly in July—I was not surprised to find that they were very busy over a long string that was caught in the branches. It was so entangled in the twigs that it looked at first like the foundation of a nest; yet, without pretending to understand the fine points of nest architecture, I should have known that this was no suitable spot for the cedar bird to build in. The next morning one of the birds came again, and labored long and frantically over that string, at last taking hold of the very end and giving it a strong pull, and a final vicious twitch. and then darting away. I was now in doubt whether they were trying to wind it about the

branches still more, or to loosen it, so as to take it away. To test the matter, I hung two other strings close by. The next morning I saw that they were gone, while the original one seemed to have been untouched. This showed that they were building elsewhere, and had been trying, for two days, to secure this tempting material. As Providence helps those who help themselves, I loosened it and cut it in two, and soon both pieces were carried off. Following. the bird to a small apple-tree on the other side of the house, I soon found the framework of the nest, saddled in a crotch of the branches about six feet from the ground; and, among the dried grass and roots, they had interwoven what they must have considered a very mysterious supply of building material. Although I have used the plural number, it was probably the female that was allowed to do most of the work, and who deserved most of the credit, after her lord had sanctioned the location of the nest.

Feeling a supervisory interest in their domestic affairs, and thinking they would be grateful for a supply of suitable material for interior decorations, I then hung up three pieces of soft yarn, red, black, and white, to see what their taste might be, and knowing that, at any rate, bright

colors would amuse the babies. My lady friend quickly took the white yarn, with which she adorned the upper edge of the cradle, but ignored the other pieces; either having enough already, or being too wary to be ensnared by their strong colors, which usually in such cases are wisely avoided. The nest was finished on the twelfth of July, and the first egg was laid on the fourteenth, four others following on the four succeeding days; quite pretty specimens, thickly blotched with dark spots on a ground of pale lilac. Among domestic fowls it is quite uncommon for eggs to be laid after mid-day; but the third, fourth, and fifth of this set were laid. respectively, at about four, five, and six o'clock in the afternoon. Incubation began immediately; and in just thirteen and one-half days I saw the five chicks fully hatched, closely packed together, all breathing rapidly, and one gaping furiously. It is quite likely that they had already been hatched a full day when I first saw them; but it is very difficult to ascertain the exact period of incubation, for the reason that the mother-bird remains on the nest quite constantly for the first few days after hatching, especially if the air is cool, as it was at this time. Their tiny forms swelled so rapidly that in

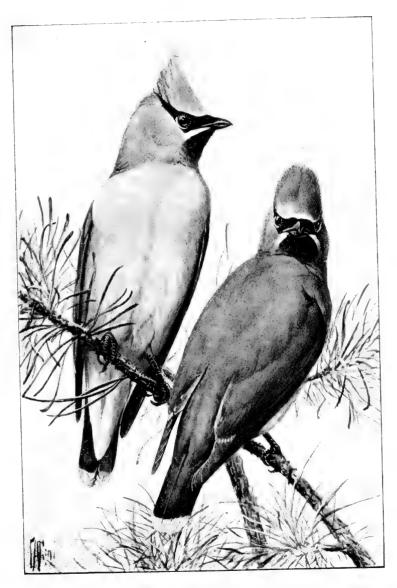
about five days they nearly filled the nest, and I almost feared there was a miscalculation on the part of the architect.

It is wonderful how rapidly berries, bugs, etc., are converted into avian tissue. Yet in this rapid growth there is a striking resemblance to the quick vernation of the vegetable kingdom in spring. For as, in the latter case, the foliage is, as it were, fed from material already stored up in the plant in the preceding autumn, so the chick, by the process of regurgitation that seems to be more or less common in fowls. finds a reservoir of partially digested food in the stomach of the parent bird, which can be at once assimilated ; and thus the chick resembles the bud that suddenly expands by simply appropriating nature's store of prepared vegeta-It seems as if this were nature's deble tissue. vice for lessening the dangers of nidification, by hastening the growth of the chick, and making it as quickly as possible self-protecting.

On the morning of the thirteenth day one vigorous and ambitious youngster crept out on to a branch; but the responsibilities of life looked too onerous, and he crept back again. On the next day three of them bade farewell to their birthplace, and perched on different

parts of the tree. The remaining two, evidently smaller and weaker, remained in the nest two days longer; and for several days I saw one and another of the brood, or heard their faint chirps among the trees of the orchard, by which they signalled to the mother-bird, that now had her hands full in flying hither and thither to feed them. When the chicks had all left their narrow quarters I followed my beaten track to the apple-tree for the last time, and took away the nest for a memento. It is not an elaborate affair, although neatly woven, and composed of straw, dried grass, slender twigs of evergreen, and several strings which I had furnished; while the lining is of soft lint, apparently from a carpet, and my white yarn.

At this late season, too, the air seemed full of goldfinches; for the young were just beginning to try their wings and voices. Cedar birds and goldfinches have this peculiarity in common, that they are the latest of all our birds to rear their young, almost all other species having their second or even third brood quite as early as these have their first. I am ignorant of the cause of so great delay; but it is reasonable to suppose that the supply of suitable food for the young largely determines the time of



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rearing them, of which we apparently have an example in the cuckoo. Delicacy of organization, which would seem one of the most natural causes for a delay until the heat of July, cannot explain it in these cases, since both goldfinches and cedar birds are sufficiently hardy to remain with us all winter.

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Lake George is said to be famous for pickerel fishing. Certainly it was not impoverished by any abstractions of mine; and I served a faithful two weeks' apprenticeship in trying to allure, with a "spoon-hook," those tasty creat-I asked advice as to the best method ures. from all the noted fishermen in the neighborhood, whom I found to be, in one respect, very much like music-teachers-each one knew his art better than all the rest. By actual count I was told of four different ways of trolling. Of course I followed them all consecutively; and, as a "reward of my labor, I found myself for once in the same boat with the holy Apostles, who toiled all the night, and caught nothing. Evidently the pickerel were above (or below) being fed with a spoon, or else were in league with the permanent residents as against

the summer boarder. In my mortification and disgust I could only maintain my self-respect by adopting the views of an English writer, and dub the angling art as "the cruelest, the coldest, and the stupidest of pretended sports." I have a mean suspicion that the one who penned this noble opinion had been gluing his eyes on a "bob" so long, without a nibble, that he waxed furious, and swore he would have nothing more to do with fish-lines.

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Just as many a person retains a trace of his childhood's fear of the dark, so a large portion of mankind appear to shrink from autumn, as if there were something frightful about it; so that, in consequence, even the sights and sounds peculiar to that season become exceedingly unwelcome to them. Possibly such people are in the majority, and in that case they must not be called peculiar, while that stigma is left attaching to the fortunate minority who give a hearty welcome to the nightfall and to the waning Apart from the inevitable and powerful vear. association of times and seasons, I am positive there is no sound in all of nature's gamut more absolutely free from mournfulness and

premonition than the cricket's chirp; indeed, Dickens has given it a classic place among the symbols of contentment and gladness. Yet many seem "adrad of it as of the deth," and when they hear the first cricket of the season, even though it be in the sunniest day of June, it blights them like a shadow, and sends a cold chill through their spirits; so that, in consequence, I judge that this harmless and apparently happy creature is one of the best hated specimens in entomology. Nevertheless, to those who enjoy its sound, as well as to those who dislike it, it certainly has a wizard's power to call up visions of colder days and lengthening nights, crowded both with memories and forebodings, scenes of harvest, sunset clouds, silence and dead leaves, and, stretching dimly through the mists that linger round the closing year, the clammy fingers of November. That first faint chirp, that comes like a cold knock at the mind's door, is a vacant, bloodless sound ; but in its fulness of suggestion, it is one of the most powerful and eloquent of nature's tones.

Another sound, not associated with autumn, but with evening twilight, and similarly odious to many, is the cry of the whippoorwill—hardly to be regarded as a songster, yet vigorous,

hearty, and cheerful-to me the jovial bird of night, and yet considerably abused by all but poets and sentimentalists. If only it were usually heard amid daylight scenes, it would certainly rank among the brightest and most joyous sounds in nature; but it is an instance where extraneous circumstances have such power to make or mar the effect. This region is a perfect nest of whippoorwills, the woods on every side resounding with their cry; chiefly about eight o'clock in the evening, and as a postlude to the Wilson thrushes; but whenever I wake in the night, I seldom fail to hear its call, as bright as moonlight, cheery as the dawn; and its last note in the early morning is a prelude for the robin's opening song.

This is the only bird in which I have ever heard the effect of a decided *accelerando*, which gives to the prolonged reiteration of the cry **a** very animated effect. Its silent, shadowy figure, roaming about in the gloaming, might make it seem a bird of ill-omen to some, a dark antithesis of all that we count most bright and hopeful in bird-life—mysterious, vague, and inauspicious. Yet, for all its ghastly flittings at twilight and midnight, motley coloring, awkward form, and inexpressible mouth, I believe

the whippoor ill is really as innocent and lighthearted as any wren or purple finch.

A novel experience with a pair of phoebes, this summer, put me into possession of a beautiful nest and a full set of eggs, without robbery, and without the bird's abandonment of the nest. On the piazza of a neighboring house several pairs of birds were nesting; and my humble stores of learning were appealed to, for determining the species. As the uninitiated observer's method of describing a bird is marvellously vague, and commonly leaves the ornithologist quite as much in the dark as ever-as in the case of an enthusiastic student who told me of an unfamiliar bird he saw, with a double tail, by which I afterward inferred he meant a forked tail-I could only say that the indefinite data furnished would cover a multitude of species, and be equally applicable to swallows, catbirds, and other small varieties of dark complexion. This only illustrates how indistinct one's perception of an object usually is, until he has learned the art of clear discernment. Visiting the house, I found, on the beam under the piazza eaves, three nests of the same kind, at intervals of about three feet from each other, and proving to be phoebes's nests. One contained

chicks, in the second were three eggs, and in the third two eggs, which, however, were not so purely white as phoebes's eggs usually are. I was quite nonplussed, as the nests and eggs all appeared fresh, and it seemed incredible that three pairs of phoebes, which are not gregarious, like swallows, should nest so close together. Not to obtrude myself too abruptly upon their family affairs. I waited to see what a couple of days might bring forth, since a full set of phoebes's eggs consists of four or five. As the number did not increase, I half concluded there had been a tragedy in the case, and that a pair of cats belonging in the house could unfold a tale if they chose. But just then I discovered that the nest containing young also had in it three unhatched eggs. This seemed to solve the mystery, and to exonerate the cats; for it was good evidence that the one pair of phoebes were at the bottom of the whole business, and were now indulging in their third brood, and that the other nests and eggs were the relics of the first and second broods, only a part of the eggs having hatched in each case. Being the last of July it was just the time for the third brood, which they sometimes have, the first coming in May, and the second in June.

It was to be expected that at least some of the eggs would contain partly developed chicks, which would make it difficult or impossible to obtain a full set. But, on taking the five eggs from the vacant nests, I found, to my great surprise, in blowing them, that they all were simply addled, so that they gave me no difficulty. Also my fear that the shells were permanently discolored proved groundless; for I found that the dark tint came from the yolk showing through the thin, transparent shell; and, as the contents were gradually expelled, the shell resumed its normal color. In the great majority of eggs, the shells are sprinkled with dark spots, but those of the phoebe are commonly immacu-I thus secured a perfect and beautifully late. constructed nest, and, by combining the leavings of two nests, a full set of eggs. The nest is more artistic than that of many of the song birds, which are said to stand higher in the scale of intelligence, for poor phoebe is only a songless flycatcher. Its broad foundation of mud and small sticks was overlaid with mosses, that were still green when I took it, and the cavity was delicately lined with thread-like strips of inner bark of a tree and horse-hair. There are few nests more elegant than a fine specimen of a

phoebe's, with its thick, strong walls, whose sloping sides are picturesquely stuccoed with moss and lichen, and the finely moulded, deep receptacle holding the five white globules, pure as alabaster—a choice bit of rustic architecture, with its treasure of a bird's best hopes. So much fascination, indeed, can one find in these endlessly varied specimens of frail texture and consummate art, when gathered for himself, that it is safe to assert, that whoever has collected half a dozen of even the commonest sorts, will find himself ticketed for the whole journey through the nest-country, so far as time and circumstances will allow.

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The mountains round about Lake George are not always the emblem of imperturbable serenity. Nature's destructive forces, that are here commonly smothered into a deceptive calm, now and then break loose with surprising violence. I have never experienced nor heard of anything so weird, in the way of a thunderstorm, as the display that occurred here one night. A thunder-storm, à la mode, may be very grand, but it is a trifle conventional. On this occasion we were not treated to the usual intermittent flashes, like electrifying glances of Nat-

ure's glittering eye, followed by a startling crash. Such was not the method of this tempest's mad-Early in the evening, the distant, silent ness. glow in several quarters of the heavens gave premonition of the scene to come. As the night advanced, and the storm squadrons gathered in ever-narrowing circles, the flashes became at length extremely numerous, but as yet without even an ominous rumble to break the silence; which I can only explain by the fact that the electrical discharges were almost exclusively from cloud to cloud, so that the thunder was reflected away from the earth. At about ten o'clock the storm had swept directly overhead, incessant flashes filled the sky, and, while in ordinary storms it is a reign of darkness, broken by occasional blinding light, the night was now continuously luminous, interrupted by instant flashes of darkness. The entire landscape-mountains, lake, and islandscame clearly into view beneath a steady glare that surpassed the brightest moonlight, and, for a quarter of an hour, one needed no artificial light even to read the time upon a watch. And now, amid torrents of rain,

"broke

The thunder like a whole sea overhead----"

a strange, dirge-like accompaniment, not unlike the solemn resonance of a cathedral bell, whose echoes float in wild and wailing majesty upon the wind. There was no terrific crash, followed by a distant, disappearing roar that melts at last to silence. The multitudinous reverberations of incessant thunderings were all merged into one long, loud, ever-present, and absolutely unvaried tone, like a deep organ-bass sustaining its sublime monotony, with neither swell nor subsidence-a resistless tidal wave of For a brief time such an effect sound. might not be impressive; but, as the moments passed, that persistent, restrained, and yet gigantic voice grew awful and overpowering. It was like the Apocalyptic "sound of many For fully twenty minutes this heavenwaters." filling tone remained unchanged, then gradually grew fainter, until it died away-a noble, strange accompaniment to the most impressive night-scene I have ever looked upon. A mountainous region is the chosen home of tempest and lightning, but the natives declared that this surpassed any exhibition of the kind they had ever had at Lake George.

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A Colony of Herons

"From each tree The feather'd people look down to peep on me." Dryden.

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ET us now betake ourselves to a scene quite different from anything in the preceding chapters; where we find no brilliant colors, melodious

graces, and fine flowers; but where, in a lonely swamp, black spirits and white, blue spirits and gray, hold high and barbarous carnival, and travel twenty-four miles a day for their meals. Although, in comparison with our most familiar land-birds, the majority of water fowl are very noiseless—whose song is only in the melody of silent, winged motion—the reader may be assured that the transition from the foregoing list of fluent and accomplished songsters to the night herons will by no means be a passage into "the silent land."

The heron family, comprising five species known to this region, illustrate a peculiarity often found in human households, wherein one member has a humor for solitude, while another is quite devoted to the world. The night heron

differs from all his kindred in being very much of a society bird; that is, he is commonly very gregarious, which is the animal name for sociability. The members of almost every bird species are, to be sure, banded together, more or less, during the migrations of spring and fall, and throughout the winter; but, as the breeding season approaches, the land-birds pair off. and generally nest quite independently of each other. The water fowl, however, as a class, live in large communities throughout the year far more than the land species, and the night herons are a very conspicuous instance of this neighborly spirit. But it is unfortunate that this commendable trait is not conducive to their best reputation. Some people shine best in society; but society life seems to have developed the more objectionable characteristics in heron nature, particularly the disposition for gossip and bickering; so that the "qua-bird" shows off best when seen solitary, or in pairs; when he becomes meditative and melancholy. and seems something rare and almost spiritual.

Early in June I visited a large community of night herons, located in the town of Roslyn, on the northwest end of Long Island. This is one of the corners of the island that

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helps to redeem the landscape reputation of this generally unimpressive waste of sand and flatness. There is a breeziness of its own, quite independent of any currents of air, in the rugged scenery of this northwest shore-numerous bays deeply indenting the coast, vigorous hills and pleasing valleys, with a luxuriant growth of forests and herbage that show a vegetable ambition painfully wanting on the arid plains of the southern and eastern portions of this immense Connecticut breakwater. In this town of Roslyn lived for many years William Cullen Bryant, the legacy of whose name is a proud thing for Roslyn. The devotion of the Roslynites to the memory of Bryant has been doubly lasting and sincere, without doubt, for the reason that the poet proved himself a benefactor as well as an ornament, by his donation to the town of a substantial library.

A few years ago this flock of herons lived several miles distant from their present quarters; but the people living in the neighborhood were so annoyed by their disagreeable clamor, that they drove them away, whereupon they betook themselves to this remote and wooded swamp, covering an area of ten or twelve acres. Yet even in this out-of-the-way place they were

not left in peace; for certain pestilent fellows, thinking them excellent objects for target practice, came thither, and destroyed large numbers from time to time, one person boasting of having shot three hundred. As such a large quantity could be of no possible use to anyone, and as the swamp was often so impassable from water that many of them could only have been reached with great difficulty after being shot, it resulted that scores and perhaps hundreds of the poor victims were left to die a lingering death on the ground. A local ornithologist, Mr. L. H. West, indignant at this barbarity, induced the proprietor of the swamp to prohibit any further shooting; and Mr. West, who lives near by, is a dangerous individual for any would-be depredator to encounter. The outlook is, therefore, very promising that they will suffer no more molestation. It is perfectly easy to understand the excitement of shooting a small and agile bird when on the wing, for it is the best evidence of skill in marksmanship. But there is about as much exhilaration in killing a large heron, perching quietly in a tree, as there would be in going into a pasture and shooting down a cow. The inclination to such butchery, and to the wholesale destruction of

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smaller game, both inland and on the coast, comes, I believe, from pure and unadulterated depravity, the seeds of which the world seems to be everywhere full of.

This bird, which on some occasions presents a very noble and poetic aspect, is two feet long, and, when flying, shows a breadth of almost four feet, from tip to tip of the wings, rivalling the majestic size of the largest hawks. Although he is called the " black-crowned," it is rather a dark glossy green upon the top of the head and covering a portion of the back, while the remainder of the upper side is a soft bluish gray, with a lilac tint. The under side, and the two or three very long and slender plumes, reaching from the hind-head down over the back, are a lilac-tinted white. More prominent bits of color are found in the large black bill, the red eyes, and the long yellow legs dangling backward as he flies. The immature specimens, which are numerous in the fall, have a very different plumage of motley brown, and quite resemble the rather ignoble bittern.

It is not at all to be wondered at that those whose hearts are not aglow with ornithology should seek to rid themselves of such clamorous neighbors as the night herons are; for, in

truth, the vociferous crow is a nightingale in comparison; and even a flock of enraged geese is not to be mentioned in the same day, as regards the gift of diabolical cacophony. Wilson, who says all he can in commendation of every bird, confesses that the noise of these "qua-birds" - also irreverently called "squawks"—is like that of two or three hundred Indians choking each other; and I have heard even more uncomplimentary comparisons, but I spare the reader and the bird. When living in isolated pairs, they are comparatively silent, their slow and easy flight is almost as graceful as that of the gulls, and they certainly constitute a very charming addition to the scenery of lake and stream.

This community, numbering several hundred, was, at the time I visited it, in all stages of domesticity; some building nests, some laying eggs, some hatching, and in a few cases the young were already well developed. The nests are located near the tops of the trees, forty to sixty feet from the ground, and one tree often contains several nests. Nothing but the want of scaling irons prevented my climbing up and getting into touch with these castles in the air. As I passed along under the trees,

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the crackling of dead twigs under my feet put all the flock in an uproar; and their broad shadows, as they beat a retreat over the tops of the trees, produced a singular effect. But after I had remained quiet a few minutes, they all trooped back again, although many of them remembered I was there; for they turned their large red eyes full upon me in a suspicious and reproachful manner that was rather comical.

One is apt to show a lack of discernment by speaking contemptuously of their rude and bulky nests. Ornamental they certainly are not, being composed of coarse sticks laid together in the form of a loose platform somewhat depressed in the centre. But, considering the material used, I think they are marvellously well built, and show an ingenuity hardly inferior to that of the much-praised song birds. Certainly it would puzzle any human hands to arrange an unpromising heap of stiff twigs so compactly that it would not be loosened by the winds, or the swaying of the trees, and so durable as safely to hold from four to six eggs, the young when hatched, and the weight of the mother-bird. On the whole, I think it would be quite as easy a problem for a human being to undertake to construct the more attractive

nest of a finch or warbler, woven as it is out of pliable material, than to make the bulky edifice of the heron hang together for a few weeks. The bird itself knows it will not do to test the endurance of its work too severely, and, in approaching the nest on the wing, it takes the precaution of alighting on a branch close by, and then stepping into the nest. The texture is so coarse that one can sometimes even see the heads of the birdlings through the latticework of stout branches, and the shrill squeaks of the youngsters can be discerned amid the general commotion.

During the day the herons procure food for their little ones, and what might be called a light lunch for themselves, from the two or three small ponds in the vicinity, containing fish and frogs; and there are some in the air most of the time, passing to and fro between the ponds and the swamp. But their grand "spread" for the day comes at the fashionable hour of dark; and toward sundown large flocks begin to fly across the west end of Long Island to the south shore, twelve miles distant, where they can find larger and more abundant game, their loud cries giving evidence of their movements throughout the night, from which they doubtless get the name

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of "night" heron. The long distance they thus travel daily to the coast is evidently a matter of small moment for their great wings. Their preference is strongly for the south shore, although the distance to the north shore is only six miles, which probably does not afford so plentiful a supply of food. Besides fish and frogs they have side dishes of shrimps, tadpoles, water lizards, crustacea, etc.

As the same nest occasionally contains fresh and partly incubated eggs, as well as chicks fully hatched, it looks as though the proprietors sometimes sublet a corner in the room, or as if some of the herons had the effrontery to camp down in their neighbors' home without an invitation, as relatives will sometimes do. This so mixes up the domestic arrangements, that it is no wonder that serious misunderstandings arise between families, when they do not hesitate to express their minds with utmost freedom. For a few minutes perfect quiet will reign throughout the swamp, when some such private squabble in a single nest will start a wave of irascibility that spreads like vocal wildfire throughout the whole camp.

There is another similar community of herons at the eastern end of Long Island, and numer-

ous colonies are scattered throughout New England and other States; yet the seclusion of their resorts makes them as unfamiliar to the general public as are the rarest of the so-called landbirds.

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The much larger and handsomer "great blue heron" is usually a solitary bird, and much more of a rarity. On reaching Lake George I learned that this species was sometimes to be seen in the swamps across the lake. As the "great blue" was one of my ornithological ambitions, the information was extremely welcome. After two or three preliminary rows on the lake, for muscular development, I started out one morning to find the prize. The round trip was about ten miles-country folks have no idea of distances, and this is the average of many wildly contradictory estimates-and my broad and heavy boat was warranted not to capsize in any storm. I wandered through the waters of the swamp, among water-lilies - of four species - bright skies above, and hundreds of red-winged blackbirds around, with numerous other sorts that, at another time, would have been quite entertaining enough, by themselves, for a pleasant excur-

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sion. But my heart was set on the heron that did not materialize, and the expedition was a failure.

But the heron must be found, and a few weeks later I started again. A three-mile row diagonally across the lake brings one to Dunham's Bay, and thence my course lay along a creek the most peculiar I ever saw, winding in literally serpentine folds for two miles, and rivalling the famed Meander for crookedness. For the last half mile the weeds almost choked the shallow channel; and, as I laboriously approached the head of the creek, with only a flock of ducks to enliven the tedious journey, I felt that my patience was almost expended. At last, just as I was on the point of turning back in disgust, I saw a huge shadow pass over the ground before me, and, turning around, I discovered the object of my search, rising into the air, circling about, and finally alighting in a tree. The thrill of a new discovery, following long and arduous effort, is one of those brief experiences of anyone who reconnoitres among the nooks of Nature, that amply repay a long discouragement.

The usual resorts of this heron, in summer, are commonly so inaccessible, that one will rarely, if ever, have an opportunity of observ-

ing its habits as minutely as those of other birds. The effect of such a huge creature (standing about four feet high), when on the wing, is very singular. Without the impressive manner—one might almost say, hauteur-of the eagle, it has a filling presence that is very striking. Flying is the eagle's vocation, but only an avocation of this heron. The lonesome marsh seemed only more silent and lonely after a view of this its presiding genius, hovering about in its wild, mute, and suspicious manner, then floating off half moodily where it could maintain, more unobserved, its noiseless, melancholy reign over its solitary domain. On my way up the creek I asked a man whom I found couching in the grass for ducks, in regard to herons. He replied, without the least animation, that he saw three or four of them that morning; but one meant more to me than three or four to him. It could be seen at a glance that he had no "eves in his heart" for that stately and picturesque creature; he had, poor soul, only a capacity for ducks.

In a close view of the "great blue," when flying, there is something rather comical in its budget of angles—long dangling legs, outstretched serpentine neck, thin body and broad



GREAT BLUE HERON

Then floating off half moodily where it could maintain, more unobserved, its noiseless, melancholy reign over its solitary domain (p. 248).



A Colony of Herons

canopy of wings—that makes even an admirer feel a bit derisive. But as he showed himself time and again afterward, coursing high and grandly over the lake, the angularity was all subdued to broad and flowing outlines, and he seemed a touch of sailing sky that crowned the picture worthily.



" The trumpet of a prophecy ! O Wind, If Winter comes, can Spring be far behind ?" Shelley.

EARLIEST SIGNS OF SPRING

ARDLY has the strength of the old year failed when the energies of the new year are found to be in motion. It is never Nature's way

for the new to make a clean break with the old; and the future is not more thickly strewn with reminders of the past, than is the past with premonitions of the future. Sporadic signs of life may be detected under snow-drifts. I have heard bluebirds singing on the seventh of January in New Jersey, and an occasional owl, too cold-blooded to know when it is cold, builds his nest almost under the very shadow of the Old Year.

There are certain emphatic spring tokens that in due season flood the earth, and compel the attention of even the most thoughtless observer—the peculiar warmth of dripping clouds, the spongy, pregnant earth, the thrill that darts along each tinted beam of light, the fragrance of sweet promise in each breath we

draw. But not less pleasing to an eager naturalist are many other lurking signs, out of the broad highway of the year's advance, which are worthy of brief mention.

It is often in February when, in panoply of ice and storm, the climax of winter's reign seems to come, and his domination is apparently most absolute. Yet at this very instant of imagined supremacy, his power is already on the wane. By the middle of this short but rigorous month, spring sends her fleetwinged messenger before her face, and the year's dark age is coming to an end. In an unwonted way the sunlight now begins to make itself conspicuous, both by such a peculiar, general effulgence of the atmosphere as was not observable before, and by the fact that when one walks abroad he finds the sun is tumbling into his eyes in a most peculiar fashion, now pouring his beams directly over the eye-lid's edge, in a blinding way, and again lurking roguishly around the corner of the eye, as if the rays of light were bent on playing hideand-seek among the lashes. It is true that spring and winter meet in open battle only on the field of March. But even some weeks before, in this peculiar play of sunlight, one can

detect, as it were; the insidious blandishments and diplomatic wiles of artful spring—grim winter's fair antagonist—who afterward so gallantly puts all his batteries to flight with her inexhaustible artillery of smiles. Winter, like a burly giant, relies for his supremacy on bluster and open violence. Spring's victories are won by woman's skill in dainty stratagem.

There are some individuals that always find the earliest indications of plant and animal life, in their region, with each returning spring. They have plucked the anemone, and heard the bluebird (which is like the rainbow, a gently uttered promise that there shall be no more winter), many days before the discovery is vouchsafed to others; and they take immense satisfaction in the fact that Nature's secrets have been whispered to them first. The success of such people is due partly to good fortune; but I will not enviously rob them of all credit; it is due still more to a deathless ambition for such pre-eminence. If they made the first discovery, and were unable to publish it abroad, it would probably be, in the poet's phraseology, like fire shut up in their bones. While I am equally glad to welcome these

various returning friends, botanical and ornithological, I am not so desperately ambitious of priority in greeting them as is many another naturalist, and can bear with equanimity the accusation that my affections are sluggish. It is a delightful circumstance that each one, for himself, turns the leaves in the great annual book of Nature; and, to all intents and purposes, my first bluebird is the first of all the year, even though my neighbor may have seen the same two weeks before.

There is a factitious value in these first specimens, something like the factitious value of "first editions" of books. The discovery of the one, like the possession of the other, is certainly very enjoyable to those who can indulge in the luxury, but not to be compared with the far more solid satisfaction of intimate acquaintance, be it with bird or book. Tt seems sometimes as if the sharp-eyed birds were fully aware of this emulative trait in human nature, and were making merry at our expense; at one time, by appearing before they were even looked for, and at another time by aggravatingly delaying their arrival. For, however uniform their advent in general, there

is occasionally great irregularity as regards their return to particular localities.

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One that walks much abroad in woods and by-ways finds a mute but endless sociability in trees. They seem really more companionable, because more self-revelatory, in winter and early spring than in summer, when their distinctiveness of character, as shown in their various types of growth, is so largely concealed by their foliage. But their leafless forms stand out against the winter sky in a rugged honesty of openness, defiant of criticism, and reminding one of that stern old monarch among men, a sort of destroying angel in English history-Oliver Cromwell-who exclaimed to an artist painting his picture, "Paint me as I am; if you leave out the scars and wrinkles I will not pay you a shilling ! " In their summer dress, trees show themselves, as it were, under the polish of society manners, which easily becomes the varnish of deceit. Even the oak, which bravely manages to carry his brusqueness so victoriously through the summer, is, notwithstanding, greatly mellowed by the luxurious ways of the softer season; and it is only in winter that he

comes to his true self, when one can see how he cuts the sky with his exhaustive catalogue of belligerent angles. It is only in winter that we get down to a tree's inner nature. And how beautifully the lace-like tracery of the white birch then reposes on the sky-blue background; and what an undertone of strength is evident in the stately elm, which is almost lost sight of beneath its pliant, engaging manners during the leafy season. It is only the evergreens that are exasperatingly self-contained, immobile, in winter and summer alike, either from absolute stagnation of soul, or from the perfect self-restraint of an iron will, that would die rather than show itself impressionable; almost oblivious of the very winds, that mourn, indeed, most dolefully among their branches, while the trees themselves are stolidly impervious to smiles or tears.

The most significant view of the lower forms of creation is that in which we see the adumbration of the higher. Mrs. Browning has said,

"A tree's mere firewood unless humanized ;"

and the adjectives so often applied to many of the objects of Nature—humble violet, lordly pine, angry sea, etc.—striking deeper than their own

intrinsic character, show the satisfaction in finding in the external world a mirror of humanity.

In their winter aspect some trees, like poplars, cypresses, and cedars, vividly betray a single life-purpose in their growth. Others are more versatile; diffuse, and yet symmetrical, harmonious, and unified; still others plainly show they have no definite design, and are content to sprawl in every direction, aimless and loosejointed; while, in many trees, the very bark is tell-tale of a rigid or compliant spirit lodged within. But, by the last of March, many of these strong, gaunt forms begin to have a live, expectant look, as seen in the budding drops of red with which the maples are already sprayed, and in the long, brown catkins, swinging in the breeze, of many of the amentaceous species.

No omen of spring is more anticipated by the naturalist than the clear call of the songsparrow; and few contrasts are stronger in Nature than when, amid the silence of a breathless snowstorm in March, this hilarious and irreverent creature interrupts the frozen benediction of expiring winter. I have read of a bird student — evidently a young one — who boasted he had learned "the nine songs of the song-sparrow." With a little more experience

he will call it ninety and nine, and later still, seventy times seven, for throughout the year no two song-sparrows sound just alike. So characteristic and instantly recognizable as this bird's vocalization is, it is remarkable how free it is from stereotyped form. Few other songs sound quite so impulsive and unpremeditated. Its message is like the anecdote of a versatile story-teller, who puts on new fringes every time he tells it, so that the listener never knows just what to expect. Yet with all the diversity of form, the clear sunshine of its tone and its irrepressible enthusiasm are the essential qualities that are never lacking, from March until November.

One of the peculiar pledges of the coming season is in the delicate tints of dawn upon a cloudless morning, that not only burnish the skies and glow throughout the air, but stream through all the earth—clinging to the trees, and getting entangled in the thickets, adorning the willows with bright yellow, purpling the briers, suffusing the red osier with an intense crimson, embrowning the branches of the white birch, and giving a bronzed metallic glint to other birches.

Whoever reconnoitres in early March must chiefly be content with possibilities; in April he can hunt for certainties. But the last ten

days of March, between the vernal equinox and April, seem like spring's vestibule. During this time one hardly heeds the unkempt look of all natural scenery, in his eagerness to catch the wakeful signals of the general reanimation. No sound is more suggestive, in this season. than that of the frogs, that are sounding the long, monotonous pitch for Nature's tuning-up. At a small pool, in one of my resorts, I first heard a solitary one-an early riser-who was probably calling to his hibernating brethren still lingering beneath the water; and, at a larger pond within the woods, a dozen fellows, wide awake, were sprawling at the surface of the water, protruding only their bright, staring eyes and roomy mouths, while in an unrhythmical medley they chanted a natural "ground bass" to the shrill piping of their fair soprano sisters, the tree-toads, that had climbed a few feet above the water-and how hard it always is to find them-invariably stopping in the midst of the song when one approaches. The tree-toad's. note is one of the most stirring episodes of March, so consonant with Nature's ringing call to life, quite as cheery as the song-sparrow itself, and, as well, full of the memories of summer's eventide in quiet woods.

The maltese pussy-willows, too, are out; and, in the peculiar generous-heartedness of the season, one must needs give a kindly greeting even to the skunk cabbage-a low-lived relative of several gorgeous specimens in the Arum family-which, at all events, sets a worthy example of promptness to many a more agreeable individual. The public puts a substantial premium, however, upon the earliest signs of spring; and it was not long after I discovered my first specimen, that I found the blossoms of this vile weed for sale, on the streets of New York, at ten cents each ! Moreover, throughout the entire year, there is not to be found a livelier, richer color, anywhere, than the intense emerald green of the moss that is already so luxuriant on all the rocks, each little patch a mimic forest for a bevy of infinitesimal fairies. Unless we are "specialists" we seldom stop to discover what a wealth of creative skill and beauty is concentrated in many such a common object. Between the microscopic, on the one side, that we trample under foot, and the telescopic, on the other side, that lies, unrealized, above our heads, what a relatively small portion of creation comes within our ordinary range of vision or of thought.

Nature never displayed a more unobtrusive yet profound contrast of the transient and eternal in plant-life, than in placing side by side, on trees and rocks, in all the woods and fields, this brilliant and ephemeral moss-a hectic flush upon a dying root-and the scarious, passionless lichen, cadaverous, yet having in itself almost the strength of endless life-a life, as one naturalist expresses it, "which bears in itself no cause of death, and is only to be ended by external injuries, or by the alteration of climatic and atmospheric conditions." Whoever recognizes this nature of the lichen beneath its humble. frigid exterior, must feel a genuine and peculiar respect for it, as the very tissue of heroism, the type of grim and inexhaustible tenacity of pur-Deriving its nutriment from the moisture pose. and floating particles of mineral substance in the atmosphere, it can withstand almost the severest changes of climate, and is nearly impervious to the extremes of cold and heat, of flood and drought. It has an unparalleled capacity for dormancy; and, when its surroundings are so insufferable as absolutely to prevent its further development, it simply goes to sleep, and waits for better times to come. Profoundly philosophical! It is correspondingly slow in coming to

maturity, one writer citing the case of a lichen, in every way favorably situated for growth, which, after forty-five years, had some of its organs still undeveloped; and there is good reason to believe that the longest lived species maintain their vitality many hundreds and even thousands of years, attaining an age that exceeds that of the very oldest trees—the cedars of Lebanon and the sequoias of California. Surely there is sublime simplicity in the thought of this unquenchable and lonely spark of life surviving, undisturbed by all vicissitudes, upon some bleak and barren mountain-top, from a period that antedates the Cæsars.

X

Besides the conventional early birds of the new year—the song-sparrow, bluebird, redwinged blackbird, phoebe, robin, grackle which have come to remain with us all summer, this blustering month is enlivened by the first of the so-called migrants—birds of passage — which make a brief stop, and then speed away to their more northern homes. Our earliest migrant, that comes as a sort of silver lining to the clouds of March, is the beautiful foxsparrow, the handsomest and most gifted of his

humble family. He not only puts in an appearance several weeks before the other migrants, but is almost gone again before the main part of the host begins to arrive; enjoying the monopoly of our admiration for the large and varied migrant group, not at all chary of his wild, sweet strains while he is with us, and gladdening every locality to which he comes with his vivacity, friendliness, and melodious talents. When he leaves us he becomes a messenger of light and life to the cheerless tracts of Labrador.

One of the earliest arrivals among our summer species, of which I found a small flock in the woods, is a very pretty little blackbird-speaking only of the male, for his lady is a dreadfullooking creature-called the cow-bird, much smaller than a robin, iridescent black throughout, except the rich brown head and neck. When we say it is polygamous and without natural affection-building no nest, but leaving its eggs in the nests of other species, like European cuckoos-we need hardly add it is the most curious anomaly in avian character that we have. It curiously illustrates the fact that "blood tells," for the young cow-birds, on leaving the nest, abandon their foster-parents, that have been to them all that parents can be, and consort with

their own kind. They are not ranked as singers, and usually splutter as badly as grackles; but a pair of notes one will sometimes hear from them are as rich as a starling's, to which they are distantly related.

If one can get near enough to a large flock of red-winged blackbirds chattering in a tree in spring, he will hear an effect I have never seen mentioned; beneath the loud and incessant medley of coarser notes, he will distinctly detect an almost continuous soft undertone of a very musical jangle, as of distant sleigh-bells a reminiscence very *apropos*.

It is interesting to notice how we find, annually, a copy in small of that supposed order of procedure which arranged the programme throughout the original creative year. The lowest order of plant-life is the algæ or seaweeds, which are represented very early in spring, or in the latter part of winter, by thick masses of confervæ—the slimy, green substance so luxuriant in every stagnant pond and pool. Above the algæ, in the scale of organization, are the mosses that, with equal promptness, richly deck the rocks, protruding roots, and trunks of trees. Still higher in the line are the two distinct groups of the monocotyledoneus

and dicotyledonous vegetation; the former much the simpler, and far more quickly and abundantly responding to the warmth of spring than the latter. This former group—the endogenous—contains the grass, that hardly waits for the snow to melt before it shoots up its fresh green blades; also the snow-drop, crocus, and trillium, with the various liliaceous forms of life conspicuously sprouting along the water-courses, like the blue-flags and the "laughing daffodils." The second and higher group—the exogens is thus early represented, with slight exception, only by the inferior amentaceous trees and shrubs, that anticipate by several weeks the more highly organized varieties.

We sometimes say that Nature makes exceptions to her laws; but there is good reason to doubt whether she ever jumps the track of her own established principles. Exceptions are but the unsightly gaps, from our point of view, in a plan too vast for us as yet to comprehend. And thus, in this matter of vegetable progression, our plan does not quite harmonize with hers; and so we complacently say that she now and then goes off in a tangent. At all events she allows, sometimes, the various types of life to overlap each other, so that a lower species of

a higher group will often antedate a higher species of a lower group. Thus the intricate "composite" class, that finds a recognition of its structural elaboration in its marked ascendency in fall, and standing at the very opposite end of the scale from the supremely simple algæ —this highest group is, notwithstanding, early in the field, in the form of the ubiquitous dandelion; which, on the first spring days sounds the miniature trumpet-note that heralds the coming of that vast kindred host in the latter part of summer and through autumn.

How quickly, too, insect-life becomes reanimate. Even in winter a very sun-exposed and wind-protected spot is populous with some of the lower orders of this class, enjoying the untimely warmth, only to find themselves dead or dormant after a few genial hours; while, almost at the very summit of this same class, the sportive butterfly is dancing about before spring has fairly opened. I found one large and beautiful specimen—the vanessa antiopa, or mourning-cloak butterfly, to be precise—seeming to gather buoyancy from the most cheerless surroundings in the latter part of March. At this colorless season it was very conspicuous and attractive, being almost three inches across, of a

rich, dark-brown color, with the wings broadly banded with yellow, and finely spotted with blue. It is one of the commonest species later in the year; but the books do not speak of its appearing before April, so that this was an unusually "early bird," and to be called valiant or venturesome, according to our own mood. Its early appearance is due to the fact that, like a few other species, it hibernates in protected corners and hiding-places, instead of dying in the previous year, as the majority of species do, soon after depositing their eggs.

Wonderful as is the wing of the butterfly, in variety and intensity of its delicate hues, still more wonderful is the unique method that Nature has employed to produce its ornamentation. For, under the microscope, the surface of the wing is seen to be the verisimilitude, in miniature, of a tiled roof; the tiles, in this case, being minute colorless scales overlapping each other, and by whose interference with the rays of light along their edges, the various colors are produced, precisely as in mother-of-pearl. Nature is masterly, indeed, in producing the tints of the rose, the lily, and the countless other forms of inflorescence and of foliage. Yet in all these instances she works, so to

speak, upon the level of the human painter, by using material dyes which, in the form of chlorophyll and other coloring matter, are laid beneath the epidermis. But when she embellishes the wing of this gay creature, a brilliant fancy seizes her; and, with one of those sudden revelations of consummate ease, before undreamed, with which at will she dashes off the most stupendous stroke of genius, as if the very universe were a plaything in her hands, she dips her magic brush, not into the rarest pigments of earthly texture, but into that most subtle fountain of all color—the pure prismatic rays of light streaming direct from heaven.

Perhaps no judgment of mankind is more unjust and superficial than that which exalts the bee into a paragon of most praiseworthy diligence, while it degrades the butterfly into an odious emblem of frivolity and indolence. Almost the earliest taste of poetry which the infant mind enjoys—or suffers—is an indirect injunction, in " common metre," to admire and emulate this painfully industrious *hymenopta*; and this early impression is doubtless the foundation of its universal and impregnable reputation. It is not at all difficult, however, to show that the life and habits of the calumniated but-

terfly are fully as commendable as are those of the bee; and one of the highest authorities upon the subject arrived at conclusions that are certainly very damaging to the bee's reputation for good judgment in accumulating so much more property than either he or his posterity will ever use. The famous wise man of old pondered long and deeply upon the question of gathering together superfluous riches, when it is quite uncertain whether it is to be a wise man or a fool that will enjoy them. And while he has nothing to say against a reasonable provision for one's old age, and for the needs of his children, he does declare, emphatically, that when one has heaped up riches, so that he wants nothing for his soul, and yet has no "power to eat thereof, but a stranger eateth it, this is vanity and an evil disease."

On the other hand, in favor of the butterfly, that basks in the sunshine, and flits from flower to flower during its brief life, content with satisfying immediate needs, the same authority declares that "It is good and comely for one to eat and to drink, and to enjoy the good of all his labor that he taketh under the sun all the days of his life; for it is his portion." And

another writer has voiced the same sentiment in more modern phrase, when he said,

"From mead to mead with gentle wing to stray, From flower to flower on balmy gales to fly, Is all she has to do beneath the radiant sky."

Observe the different obligations of these two insects. Bees survive the winter, and need to lay up a moderate store for the unfruitful days to come; yet even this does not call for their excessive hoarding of treasure. But how perfectly ridiculous for a butterfly, that commonly dies soon after depositing its eggs, or, if it lives through the winter, merely hibernates, and whose acquisitions could be of no possible avail to its descendants, which, like itself, are but the creatures of a summer's day—how absurd for this ephemeral being to make itself a drudge, toil early and late, and eat the bread of sorrow.

We are commonly very much prejudiced in favor of any creature whose habits directly conduce to our own interests. If honey happened to be sour and unpalatable, instead of delicious, with what contempt should we probably regard the bee's miserly disposition. We should then use him to point a very severe moral, instead of adorning a very handsome tale. Solomon, who

was no mean entomologist, as well as moral scientist, and probably as well acquainted with the nature of this insect as we are, referred the sluggard to the ant for his best model. Why improvidence and idleness, as we contemptuously call it, should be so reprehensible in butterflies, and quite permissible and even praiseworthy in birds, is difficult of explanation; unless it be that the latter are shielded under scriptural endorsement.

The butterfly may not be a model of incessant toil; leave to the bee the dubious praise of restless industry. But a nobler mission than being a type of drudgery is accorded to our brilliant, careless, happy friend; namely, that it should symbolize what is the deepest hope of all mankind. The most earnest question that has come down to us from the twilight of human history, and has re-echoed from every century since, is the inquiry, "If a man die, shall he live again?" As Coleridge has said,

"The butterfly the ancient Grecians made The soul's fair emblem, and its only name— But of the soul, escaped the slavish trade Of mortal life !"

Let it then be the light but glorious task of this frail beauty to preach the truth of immor-

tality beyond the sad and arduous limitations of our earthly life. Let him be the delicate reminder, not of earthly accumulations, but of lofty anticipations, which are not less powerful than material comforts, to mitigate the miseries of life.

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Late in March I discovered a rarity for this latitude—a pair of crested titmice, allied to the chickadee, and similar in habits, but larger. Its crest gives it a jaunty air, but otherwise it is plainly dressed, of a leaden hue throughout, except chestnut sides. They first attracted my attention by a peculiar hoarse sound, but soon broke into a song whose snappy vigor and inflection is very much like that of the white-eyed vireo.

Besides those earliest species of birds that announce themselves so conspicuously in song, or by their friendly approach to human habitation, there are a few others, which, although not uncommon, are less abundant, and generally require more research to be discovered. One of these is the meadow lark; no connection of the shore lark, but belonging to the starling family, a group that, so far as the

name goes, trades on the reputation of that trans-Atlantic genius, the European starling. The American group of the same name, numbering twenty-seven species, among them the oriole, the bobolink, meadow lark, redwinged blackbird, and grackle, although not blest with any name of genius, includes two superior and favorite vocalists — the Baltimore oriole and the bobolink, whereas many of the species do not deserve to be called singers.

The meadow larks have a *penchant* for open fields, where they are to be found, in smaller or larger flocks, all day long; but they are inordinately shy, and commonly take to the wing the instant they are approached. Their clearly whistled song of three or four notes, which seems peculiarly suggestive of the freshness and openness of spring, often betrays their invisible presence in the grass or grain field; and at other times they may be seen walking about over the ground, which is also their usual place of nesting. When on the wing, their identification is easy, both from the large amount of white on the outer tail-feathers, and from two peculiarities of flight, viz., the particularly straight course they take, and the

very rapid and intermittent fluttering of the wings. In most species the line of flight is more or less irregular and curvilinear; but meadow larks adopt a very evident "beeline." Their rapid motion of wings is also quite unusual; for, in general, the larger the bird the slower the wing-beat; but, in this case, it is as rapid as in the warbler or sparrow. The sandpiper's flight reminds one very much of the meadow lark's; but, among land-birds, the latter's motion is quite unique.

It is much to be hoped that the efforts made, in different parts of the country, to introduce its congener, the European starling, may prove successful, as it would be one of the greatest acquisitions in woodland vocalism that we could possibly have. A society of Germans living near Portland, Ore., have recently, at an expense of over sixteen hundred dollars, imported a large number of birds, representing the most important European species ; and all, with one or two exceptions, seem to have become acclimated to that region. A small flock of starlings made their winter quarters last year in Central Park, New York, and probably summer in the vicinity. The performances of



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MEADOW LARK

Its clearly whistled song of three or four notes seems peculiarly suggestive of the freshness and openness of spring (p. 275).



Earliest Signs of Spring

these birds at sundown, and just before sunrise, remind one somewhat of the intoxicated hilarity of the bobolink; and, in its native land, the starling is a favorite caged bird. One German naturalist, who confesses, very truly, that the natural song of a bird, however simple, is commonly far superior to any artificial performance, says that the starling is an exception to the rule, and that his talent for imitating every melody and tone-color is marvellous; but he adds that it is dangerous to let him hear the squeaking of a door, the snarling of a file, or the rasping of a saw, which he is sure to pick up and introduce among his more melodious effects; which shows that, while he knows the perfect technique of his art, he is like some other so-called artists, in having missed the very soul of it.

The fascination of all natural research is largely in the striking contrasts and uncertainties always incident thereto. One never knows beforehand just where he will catch the snowbird's modest but delightful tintinnabulation, or hear the chickadee's contagious gayety ringing through the air. I am utterly weary of caged birds: in part, because the very spot from which their next song is to come is pre-

Song Birds and Water Fowl

determined. They are allowed no spontaneity of place:

"Nor is that sprightly wildness in their notes,

Which, clear and vigorous, warbles from the beech :"

nor can such a prisoner, hanging in a room, with a kalsomined sky, be enhanced by the effective contrast of its various kindred, or by the foil of surrounding Nature, nor pleasantly diversify its own melody by the alternate swell and ebb of varying distance. It becomes a genuine song only when poured forth as the sparkling climax of its wildest freedom.

But let one walk abroad, in this transition period, through sombre lanes and fields, or along a country road, and he will listen to a story that, however old, is ever new. From a stone wall or bush, close by, he will hear, undoubtedly, the strong, vivacious strain of the song-sparrow, which, more than any other bird, seems to feel the responsibility as well as joy of announcing spring's arrival. A little farther on, a telegraph wire transmits a novel message in the contented self-communings and mellow meditations of a guileless bluebird, the emblem of gentleness in every motion of its soul and body.

Earliest Signs of Spring

Continuing his ramble, our traveller will next hear, perhaps, the sputtering and spilling at the mouth of an excited gathering of purple grackles, from the summit of a clump of treesan ill-trained rabble of March trumpeters, producing a hubbub, spicy and not unpleasing at a distance; but close at hand abounding in such idle gossip, spiteful criticism, and sour morality, as would do credit to a flourishing country teaparty of old ladies. The goldfinch, downy woodpecker, red - winged blackbird, meadow lark, flicker, purple finch, phoebe, cow-bird, and field-sparrow, will quite likely add some rich and varied grains of sound to all the morning's medley; possibly even the wild screams of the hawks should be attributed to a helpless ambition to be musical; and before the walk is ended he will surely hear that carol, familiar, and yet never growing old, and crowning all-the clear-toned, satisfying, and uplifting warble of a joyous robin.

The restfulness and stimulus of Nature, which every attentive observer experiences in out-door life, consists as largely in the easy and unpremeditated alternation, and ever-fresh setting of such familiar objects, as in their intrinsic excellence. These earliest spring - sounds,

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so far from becoming trite by annual recurrence, are rather cumulative in their effect, through the lapse of years; weaving themselves into our memories, and recalling many a pleasant, long-forgotten scene of yore.



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