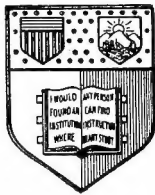


FAMILIAR STUDIES OF WILD BIRDS

F. N. WHITMAN



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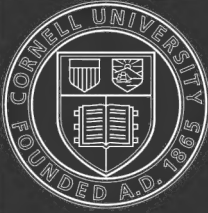
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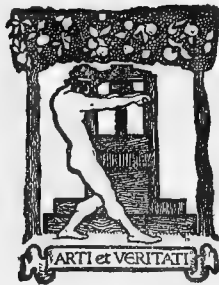
THE FEMALE PARKMAN'S WREN RETURNING TO THE NEST. CRAWLING UP THE JAGGED TRUNK SHE WOULD SLIP BEHIND THE BARK ONTO HER NEST, OFTEN WITHOUT A PAUSE

FAMILIAR STUDIES OF WILD BIRDS

THEIR HAUNTS AND HABITS

F. N. WHITMAN

WITH MANY PHOTOGRAPHS BY
THE AUTHOR



BOSTON
RICHARD G. BADGER
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A REMINDER

THE real haven of the naturalist is out in the fields and woods of the country. But for those city people, who do not find the country within their immediate reach, the city park offers a great deal more than may be thought, in the way of material for nature study.

On an early spring morning, the parks of many of our large cities literally swarm with migrating birds. A wide range of species, to a hundred, or even more, may be counted on a single morning, if one rises early and is sharp-sighted. The observer must also have a fair knowledge of the commoner species of birds, or identify them by means of field glasses and guide book.

Every true naturalist or bird lover counts

Familiar Studies of Wild Birds

it more or less of an epoch in the spring, when certain of the birds first appear. For instance, the morning when he first sees a bluebird carries a certain spring token which is cherished keenly. Likewise with the first swallow, meadowlark, etc. Each stirs its particular feeling in the bird lover and has its special meaning to him in the consummation of spring. Whether he be in the country or city, the same token will be brought to him, and spring will not pass without imparting its message.

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FAMILIAR STUDIES OF WILD BIRDS

FAMILIAR STUDIES OF WILD BIRDS

A FAMILY OF CEDAR WAX-WINGS

(*Ampelis cedrorum*)

ON a tramp in the country early in May one may come on a flock of pretty little cedar wax-wings, engaged in picking the buds from wayside trees and bushes. An incessant chorus of low plaintive notes coming from several hundred of these dainty brown birds frequently attracts one's attention before he has noticed the flock. Although rather shy, the birds may be approached close enough to distinguish with the naked eye the delicate shading of their soft brown feathers, the tapering crests, the

Familiar Studies of Wild Birds

yellow band terminating the tail, and the small red globular structures on the wings (and very rarely on the tail), from which this species derives its name.

Several weeks later, these migrating flocks have separated into pairs, but it is often well along in the season before the birds build their nests, for the berries and fruit on which the young thrive ripen late. During the summer the food of the wax-wings consists of fruit, cherries, and all kinds of wild berries. After the young are old enough to be left alone, both adults go off together in their search for food, often making trips of several miles. Whether in the air or at rest, they have the habit of uttering, continually, low calls, that are expressive of companionability. They are seldom absent more than ten or fifteen minutes at a time, and when they are heard returning, the young set up a complementary chorus; but the latter always remain discreet-



WAXWINGS CARRY SEVERAL BERRIES IN THEIR THROATS IN ADDITION TO ONE OR MORE IN THEIR BEAKS. ONE BERRY BEING FED TO THE YOUNG, ANOTHER MIRACULOUSLY APPEARS



WAXWING ABOUT TO REGURGITATE A BERRY

A Family of Cedar Wax-Wings

ly silent while the old birds are away. Occasionally, mistaking a bird that flits by for one of their parents, the young start begging for food, but quickly appreciate their mistake and subside.

The old wax-wings, returning from foraging, usually carry several berries in the crop, in addition to one in the beak. When a raspberry is stuffed down a gaping beak, behold, another one appears, and is held a moment tentatively before being fed to the next in turn of the progeny. No amount of stuffing satisfies the hungry youngsters, which, flapping their wings, beg in the beseeching way natural to young birds.

The near presence of an unobtrusive visitor does not deter cedar wax-wings from proceeding with their home duties. After the first day which was necessarily spent gaining the acquaintance of the present family, many satisfactory photographs were secured without

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serious difficulty. The old birds would now and then fly around the camera to inspect this strange instrument, and several times alighted on it without fear. At other times they sailed back for a good look at me, where I lay about twenty feet distant, partly concealed in the tall grass, with thread in hand, ready to release the shutter.

It should not be concluded that because cedar wax-wings are relatively tame as compared with some other species that the securing of satisfactory photographs of them does not involve skill and perseverance. As anyone who has attempted to photograph wild birds knows, there are many factors influencing success, and one must always be prepared to be patient, and spend as much time as necessary in gaining the confidence of his subjects.



A WAXWING IN A GRACEFUL POSE



THE WAXWING FAMILY MINUS ONE OF THE YOUNG, WHICH REFUSED
TO REMAIN ON THE PERCH

THE BRONZED GRACKLE

(*Quiscalus quiscula aeneus*)

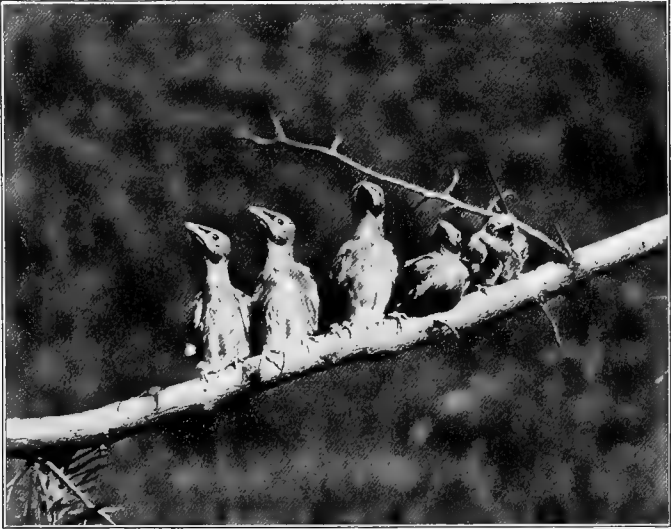
THE bronzed grackles are, on close acquaintance, more interesting birds than their dull plumage and unmusical calls might, perhaps, at first incline the casual observer to expect. These birds and their eastern cousins, the purple grackles, arrive north in large flocks early in spring, but they generally spend several weeks enjoying themselves in idleness before settling down to the serious task of raising a family. They nest in small colonies, frequently near water, usually placing their nests high in trees; but the writer has also found them in bushes, as well as slung like the red-wings' nests, a foot or two above water.

The accompanying photographs were taken

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at a nesting site near a small lake, many of the nests being scattered on small islands, where they were free from molestation. As the grackles walked along the water's edge with their peculiarly ludicrous strides, they presented with their glassy yellow eyes a striking appearance. Frequently they submerge their entire foreparts in efforts to secure choice morsels, and on certain rare occasions I have seen them dive from the air into the water for shiners as do terns, rising to shake the moisture from their feathers with as little concern as do the real divers. But the grackles also obtain much of their food in the underbrush and on the meadows.

The males sing repeatedly the few notes of their not unpleasing song, accompanying this with the ruffling of feathers and the spreading of tails, and they often follow the females, uttering this song, which is apparently characteristic of the mating season.



THE FIVE YOUNG WAXWINGS SOON AFTER LEAVING THE NEST



WAXWINGS AGAINST THE LIGHT



HOMEWARD BOUND WITH A MORSEL FOR BABY GRACKLES



A MALE BRONZED GRACKLE PICKING UP FOOD AT THE WATER'S EDGE. HIS WEDGE-SHAPED TAIL EASILY DISTINGUISHES HIM FROM THE FEMALE

The Bronzed Grackle

While he accompanies his mate as she collects dry grass and other materials for her nest, the male, without lending active assistance, appears to act merely the rôle of protector, being coaxed by the plaintive little calls of his partner to remain near at hand. Yet later he enters strenuously into the task of feeding the young. Being very active the female soon has her nest completed and entrusted with four or five brownish spotted eggs.

BROAD-TAILED HUMMING BIRDS

(*Selasphorus platycercus*)

STRAWBERRY VALLEY, at an elevation of eight thousand feet, is situated about one hundred miles east of Salt Lake City. An artificial lake five or six miles long, covering the greater part of the valley, serves as a reservoir for irrigation below in Utah Valley. The region has recently been made a bird reservation, and the lake is now the home of many ducks and shore birds, while back in the timber on the hills bordering the valley, song birds of all kinds thrive in abundance.

In this region so interesting to the bird student, humming birds are conspicuous, both by their numbers and their loud metallic buzzing, which pervades all the small cañons and imme-



THE FEMALE GRACKLE IS SLIGHTLY SMALLER AND LACKS THE WEDGE-SHAPED TAIL OF THE MALE



BRONZED GRACKLE SINGING. THE FEW NOTES OF THE SONG ARE ACCOMPANIED BY THE RUFFLING OF THE FEATHERS ON THE BACK, AND A SLIGHT SPREADING OF THE WINGS

Broad-Tailed Humming Birds

diately arrests attention. Along the willow-bordered creeks that extend up every cañon the broad-tailed humming birds gather in full force. The sound of their buzzing often swells to a volume, that one would not believe any number of such wee birds capable of producing, unless one had heard it. As a bird shoots up or down the creek bed, the buzzing of its wings swells and sinks in a rhythmic beat, a beat, perhaps, to the second, which may be heard for some distance, getting louder as the bird approaches, and then gradually dying down as it continues up or down the cañon. This loud buzzing is an interesting habit of the hummers, being very expressive of their exuberance of spirits; for they seem to be ever revelling in the joy of living. Lacking a song, their special appeal lies in their dainty smallness, vivaciousness, and an overflowing exuberance of nature.

About the twentieth of June, the nesting

Familiar Studies of Wild Birds

season of the hummers starts in full earnest. Of the six nests I found in the valley, four were less than three feet from the ground on pine boughs, one about six feet up, and one twenty feet up on the dead limb of an ash tree. Two of these nests were found about half completed on June 19th, which appears to be about the beginning of the nesting season. Two other nests were found soon after this, partly completed, so that it seems that all the birds start nesting at nearly the same time. The willow down of which the nests are constructed is available about the middle of June. It is a cotton-like substance shed after the willows have flowered, which readily sticks to a rough bark surface. The beginning of the nest is as ethereal as a spider web, and it is built up very gradually, the bird sitting on the bough and twisting and turning as she models the delicate architecture of her home. Completed, it is the supreme example of bird skill



THE BROAD-TAILED HUMMING-BIRD ON NEST



THE NEST OF THE BROAD-TAILED HUMMING-BIRD IN A BALSAM. IT IS SECURED ON A BRANCH, AND ALSO STRENGTHENED WITH SPIDER-WEB

Broad-Tailed Humming Birds

in nest making. One of the birds observed at work would vanish and reappear with more down, often within three or four seconds. On the outside, the nest is strengthened by the interweaving of small particles of bark. It may be mentioned that one nest was found by following a hummer that was observed collecting bark from a dead ash tree.

Within three days, the female with no help from the male has completed her nest. Either on the third or fourth day after starting to build, she lays the first of her two translucent white eggs which are about the size of a common bean; and begins sitting at once. The following day the second egg is laid, and then for fifteen long days, one would suppose exceedingly long to such a restless little mite, she incubates her treasures. It is to be remarked, however, that she does not remain on the nest as continuously as do many other birds, but leaves frequently during the day to

Familiar Studies of Wild Birds

seek food, though she is absent but a few seconds at a time. This habit may be due to the bird's restlessly active nature. Because of the small size of the eggs, also, she can leave them exposed for only short intervals or they would become chilled. Toward the end of the incubation period, the eggs turn from their original translucent whiteness to a dark shade, the air sac now filling one third of the space.

After trying for fifteen days to imagine the appearance of the bird that would come out of so small an egg, I was considerably surprised, to say the least, when a newly hatched hummer was finally disclosed to view. The young humming bird is black with a few yellow hairs sticking up from the center of its back. Its eyes, of course, are closed, and its bill instead of being long and slender like the adults', is of the short and stubby shape of a sparrow's. The respiration is very rapid, perhaps three hundred to the minute. The development of

Broad-Tailed Humming Birds

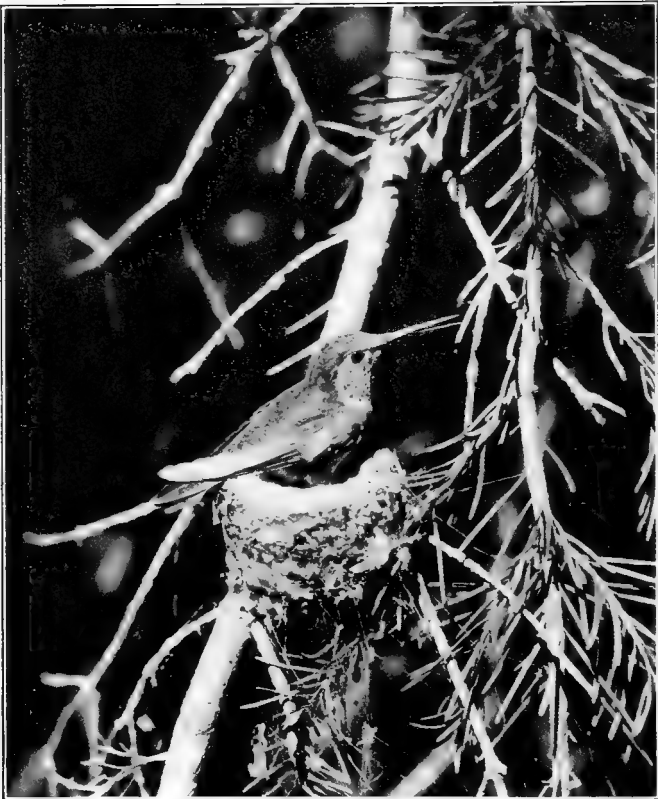
the young birds is very interesting. It is several days before pin-feathers appear, and the bill lengthens very slowly. At the age of twelve days, the eyes are opened now and then for a few seconds only, being as yet very weak. About this time, when young yellow warblers would already have left the nest, the hummers are still in the pin-feather stage, and the bill has become about half adult length. Not until they are nearly three weeks old, do the young begin to look like real humming birds. Although my observations did not continue until the young left the nest, I judge from their rate of growth, that their bills do not become adult length at much less than four weeks from the time of hatching.

The entire work of building the nest, incubating, and raising the young falls on the industrious little female. Never once did I see a male around any of the nests visited. The mother hummer frequently feeds her offspring

Familiar Studies of Wild Birds

while hovering at the edge of the nest, or again she may alight, and with quick dabs of her beak thrust food into the throats of her progeny. The diet of humming birds regularly consists of honey and insects gathered from flowers, but they are also very fond of sap. At a place on one of the roads where vehicles had scraped bark from some bush-wil-lows causing sap to flow, I found numerous hummers gathered to drink as it collected.

Among the many interesting characteristics of the broad-tailed humming birds, a habit that I witnessed frequently was that of darting perpendicularly upward to a height of fifty or one hundred feet, and then shooting down at great speed, producing a loud buzzing which reached a climax as the bird swerved when five or six feet from the ground. As far as could be observed, this performance was indulged in for the benefit of another hummer. Its purpose I was unable to discover, if it had



HUMMING-BIRD SHIELDING THE EGGS FROM THE SUN



THE NEWLY HATCHED HUMMERS ARE BLACKISH, WITH A FEW YELLOW HAIRS ON THE BACK, AND HAVE SHORT STUBBY BEAKS

Broad-Tailed Humming Birds

one other than that of venting a burst of exuberant spirits. Exuberance is one of the most applicable adjectives in describing these winged bullets, as in their every action appears an overflowing of energy and vitality. Each movement is so lightning-like in quickness, and the bird has such remarkable control of itself, that the longer one watches, the more one marvels. What other bird can fly forward or backward with equal ease, or rise in a vertical line as if shot upward from a gun? It starts and stops so quickly that it swings forward or backward as if it were a pendulum. One wonders whether any bird can fly so fast, and certainly none can attain momentum so quickly.

Hummers are very sensitive, and when watched they grow agitated and fretful, leaving the nest repeatedly. Their low peeping expresses much annoyance as they dart nervously here and there. They will spend considerable time inspecting a camera that is

Familiar Studies of Wild Birds

placed near the nest, hovering around to observe it from every angle. Apparently the hummer has a bump of curiosity, for when you meet one, it usually spends some time ostensibly seeking honey from the flowers nearest you, while actually it is regarding you very attentively. They have no song, but their peeping notes are very expressive, being now low and contented as when searching the flowers, or again louder and complaining, when they are intruded on. Occasionally a hummer takes a perch on the tiptop of a tree, sitting there with the majesty of a king. Apparently they are not molested by other birds, doubtless for the good reason that they are courageous little fighters. I have seen a hummer chase a bird as large as a woodthrush in a way to leave no doubt of the former's supremacy.



YOUNG HUMMERS ELEVEN DAYS OLD; PIN-FEATHER STAGE



THE MALE BREWER INSPECTING THE NEST

BREWER'S BLACKBIRDS

(*Scolecophagus cyanocephalus*)

BREWER'S BLACKBIRDS nest in good numbers in Strawberry Valley in the Wasatch Mountains. The male Brewer is a shiny black, with a purplish sheen on the head; the female brownish, more or less streaked. The calls and song of this species resemble those of the bronzed grackles, though lower and less forceful. While the male Brewer does not have the wedge-shaped tail and the female grackle is darker, in other respects, including their habits, the two species are much alike.

As I was walking around the south end of Strawberry Valley one afternoon early in June, I noticed a number of Brewer's blackbirds near the shore. As I approached, they

Familiar Studies of Wild Birds

let me know with unmistakable vehemence that I was trespassing. From a good viewpoint on a knoll, I had soon located a nest in the sagebrush. Later I found several of their nests tucked low down among the thickly growing willows along a near-by creek. The nest in the sagebrush proved to have five young about four days old, and, setting up the camera, I prepared to spend the afternoon there. My presence ten yards from their nest was too close to suit the much disturbed birds. For an hour or so, they circled round me, scolding vociferously. But finally the male got up courage to approach and feed the young, and during the afternoon he fed them several times, while his shy mate remained around complaining, without making a single trip away or visiting the nest. She did, however, dart up constantly after flies until she had gathered such a billful, that it was a puzzle, indeed, to see how she could hold those in



THE FEMALE BREWER BLACKBIRD, WITH A BILL FULL OF FLIES,
OBSERVING THE YOUNG ATTENTIVELY BEFORE FEEDING THEM



IF THE FOOD THRUST INTO THE BEAK OF A YOUNG BIRD IS NOT SWALLOWED IMMEDIATELY, IT IS REMOVED AND OFFERED TO ANOTHER

Brewer's Blackbirds

her bill while catching others, and at the same time continue to scold. At last, late in the afternoon, she made one hasty visit to the nest and disposed of her accumulated supplies. In removing the excreta, the male was once or twice observed to light on a distant perch, there drop his burden, and carefully wipe his beak.

I made these birds another call the following morning, and by noon both were sufficiently accustomed to the camera to come and go with little hesitation. They seemed to find an abundance of food down by the creek, but often searched for grubs and insects in the sagebrush near by, and also made an occasional long trip over the hills. The food secured in different places no doubt met the need of a varied diet. The male was the really industrious one of the two, probably because my presence disturbed him less. Sailing down to the creek on gracefully curved pinions, he

Familiar Studies of Wild Birds

was always back within two or three minutes with a white grub or worm, which he sometimes thrust into all five gaping mouths, until he found a recipient hungry enough to swallow it immediately.

I always attempted to change films while the birds were away, but being still distrustful of me they would often hurry back prematurely. If they found me quietly seated, after circling around, they would leave; but if they caught me in the act a disturbance ensued. Neighboring birds joined in and all voiced loudly their fears of an impending calamity.

After young Brewers leave the nest, they follow the adults around for weeks. It is a curious sight to watch these overgrown youngsters begging as they trail at an awkward gait after their parents, which striding proudly on, reward the young occasionally with a worm or an insect.



WHEN THE TREE WAS SCRAPED WITH A LONG STICK THE WREN WOULD
HOP OUT TO SEE WHAT WAS UP



THE BARK REMOVED TO SHOW THE INCUBATING WREN

PARKMANS WREN

(*Salpinctes obsoletus*)

UP in the Wasatch Mountains of Northern Utah, an interesting little bird, the rock wren, makes its summer home. During one season spent in studying the birds of this region, I was fortunate enough to become well acquainted with this sociable little member of the wren tribe, for which I developed a friendship that gave me much pleasure. I discovered seven or eight of their nests, and my observations of their home life included many instructive glimpses of social relations among the birds that afforded a rare insight, indeed, into bird nature.

The rock wren starts nesting early in June. The nests are frequently located behind the shaggy bark of ash trees, but in some cases

Familiar Studies of Wild Birds

the old holes of sapsuckers are selected as nesting sites. Their nests are usually to be detected by a bunch of twigs sticking out from behind the bark, where they are situated. Also, if one passes within four or five feet of the tree the female generally slips out, thus disclosing her secret, if it has not already been revealed by the protruding twigs. The twigs forming the foundation of the nest are as large as one would expect so small a bird to be able to lift. The nest lining is composed largely of hair, feathers, fine grasses, particles of bark, with sometimes a little wool and willow down included. In one instance, I found a piece of cast-off snake skin. The crested fly-catcher has the habit of regularly placing an old snake skin in its nest, but with the rock wren this cannot be a universal trait, as only in a single instance was this material found.

These small wrens courageously undertake a load that, without knowing of their active,



THE NEST OF THE PARKMAN'S WREN WITH ITS COMPLIMENT OF SIX EGGS. THE NESTS ARE EASILY DISCOVERED BY THE TWIGS STICKING OUT

THE NEST OF THE PARKMAN'S WREN WITH ITS COMPLEMENT OF SIX



THE YOUNG WRENS SOON AFTER HATCHING

Parkmans Wren

business-like nature, one would believe would weigh heavily on them. Their eggs, at least six in number, are white, spotted with brown. The male is in every way an exemplary husband. From a perch nearby he cheers his sitting mate with frequent melodious songs, and occasionally brings food to her. At one wren home where I was a frequent visitor, the male, though according to wren custom he did not take part in incubating, yet felt great responsibility in regard to seeing that the eggs were well cared for. The female quickly grew accustomed to me and the camera, so that with the latter placed two feet from the entrance to her home she would return to her duties without hesitation. Her movements were so active, however, that securing the desired poses of her proved difficult. For this purpose I employed the stratagem of scraping the tree with a long stick, which would cause her to hop out to see what was up, without alarming or

Familiar Studies of Wild Birds

driving her away. After having been disturbed a good many times, however, she would grow tired of this game and leave. Almost immediately the male would appear, pouring forth one of his harmonious strains. Before he had repeated it many times, his conscience-stricken mate would usually come hopping submissively back, take a few sly peeps at me, and resume her duties of incubation. Once or twice when her patience was tried to the extreme, causing her to remain absent unusually long, the male became particularly agitated, and attempted to drive his reluctant mate back by darting at her, while continuing at the same time to sing in a beseeching strain. She was not long in obeying, and then with a few final notes of music as if to impress on her the urgency of staying at home, he departed. Any description of a bird's song is unsatisfactory, but it may be mentioned that the song of the rock wren begins somewhat



A CHARACTERISTIC POSE OF A PARKMAN'S WREN



TERN AT NEST. ON ALIGHTING, THEIR WINGS ARE HELD EXTENDED FOR A MOMENT

Parkmans Wren

like that of the song sparrow, runs along in a peculiarly sweet strain, with a line or two of chatter occasionally inserted, ending with a drop in the scale, expressive of "I told you so."

When I removed the bark in order to photograph the eggs as well as the sitting bird, she hopped nervously around inspecting the changed aspect of her home, crawling repeatedly behind the slab of bark (which was merely swung to one side), as if expecting to find her nest behind it as before. She plainly could not understand what had happened, and when she finally hopped into her now exposed nest, not finding the situation to her liking, she twisted around so vigorously that she shoved four of the six eggs out onto the ground, two of them breaking. None of the set hatched, probably because I had unfortunately exposed them too long to the sun. The female, urged without doubt by her persistent mate, continued to sit, to my knowledge, for more than

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three weeks, and was still on the nest the last time I saw her.

While the male above referred to was so conscientious, inspiring such confidence and obedience in his mate, he was more wary than she of the camera. On one occasion, bringing a choice morsel for her, he sat at a distance and sang enticingly, too shy to approach, until she, unable longer to restrain herself, started to go to him; but, changing her mind, she hopped back. Another pair of wrens more cautious than these, would crawl up the opposite side of the tree, peeping out at me from behind it, then inspect several other holes before eventually entering their own.

When the young hatch, the male turns his attention from singing to the more important task of feeding the family. Unless familiar with their visitor, the wrens are very wary of approaching the nest. I found it necessary to conceal myself in the bushes when I wished



TERN GRACEFULLY FOLDING ITS WINGS



A TERN'S NEST AT THE EDGE OF SALT-WATER GRASS

Parkmans Wren

to observe, without disturbing a certain pair of birds. The female brooded the young almost continually the first two days, the male being busily engaged bringing food. Sticking his head into the nest hole, he handed the supplies over to his mate, and quickly departed, being at great pains to be inconspicuous. Later, both wrens were continually on the go in the effort to satisfy their hungry family of six. In meeting as they passed to and fro, they shook their wings in a comradely way, peculiarly expressive of a mutual understanding of the important and serious task they had before them. When the young were six or seven days old, they began giving voice to their hunger by peeping vigorously, though not so persistently as young sapsuckers, for they subsided after being fed until another meal was forthcoming.

One nest I knew of was used by the parents for sleeping quarters after the young had

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flown, for one morning as I passed just before sunrise I saw the pair sitting together in the early dawn in the entrance of their hole, evidently waiting for more light before venturing out. In the fall when the young are well developed, the wrens wander around in small groups. It is truly a treat to have such bright-eyed, lively little visitors come around one's camp, chipping companionably as they flit actively from branch to branch, even though they stop but a few moments in passing. It is during the nesting season, however, that the males indulge in their real powers of song, and once having heard one peal forth his melodies, answered occasionally by appreciative chirps from his mate on the nest, one cannot soon forget this friendly rock wren.



THE TERNS' NESTS ARE MERE DEPRESSIONS IN THE SAND, SOMETIMES LINED WITH A FEW GRASSES; OR THEY MAY BE PLACED ON SEAWEED, OR OCCASIONALLY BACK IN THE COARSE ISLAND GRASS



NOTE THE GRACEFUL NECK OF THE TERN

THE COMMON TERN

(*Sterna hirundo*)

THE common tern is one of the most graceful birds that adorn our coasts. At one time it was fast going in the path of the passenger pigeon and trumpeter swan, but thanks to timely laws for its protection, it is now steadily increasing in numbers. The terns congregate at their favorite nesting sites, certain small islands along the coast, and a few isolated interior points, about the middle of June, the nesting season extending thence to the middle of August.

Numerous visits I made to one of these sites, known as the Wee Pecket Islands, in Buzzards Bay, furnished many captivating hours spent in observing the active colony life of the terns. As one approached the island, the

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terns, rising in swarms from the beach and outlying rocks, hovered overhead, their protesting voices swelling to a volume that could be heard far off. Their nests, simply depressions in the sand; sometimes lined with grass or seaweed, are placed along the beach above high-water mark, a few also being scattered inland; and so thickly are they strewn at points, that it is necessary to walk with care to avoid treading on the eggs or young. Two, three, or rarely four, profusely spotted eggs are laid. For a few days the adults brood the newly hatched young, shielding them during the day from the hot rays of the sun. Thereafter the young terns wander about, seeking the shade of rocks during midday. As one walks along the shore, they squat down flat, quite aware of the fact that their protective coloring blends almost indistinguishably with the rocks, or they take to the water, for they are perfect swimmers from the start. From



A YOUNG TERN AT THE STAGE WHEN THEY LEARN TO FLY



A TERN'S NEST IN THE SEAWEED. EGGS HATCHING

The Common Tern

the downy little balls a few days old to those able to fly, these precocious youngsters wander around everywhere, and the first question of the visitor is, "How can the old terns find their own progeny amid such swarms of young birds?"

After one has remained quietly seated for a time, the colony life continues in its usual way. The birds soon alight, covering the beaches and rocks. Occasionally small flocks rest on the surface a short distance from shore. It is an interesting fact that only near their nesting sites do terns rest on the water. Suddenly, all the birds will take wing in mass, fly out over the ocean, circle around and presently return to land. This performance is repeated often and without apparent cause. Terns travel many miles in search of fish. Some are constantly starting off empty-billed, others returning, each with a shiner, sand ell, or other small fry in its beak. Against the wind they

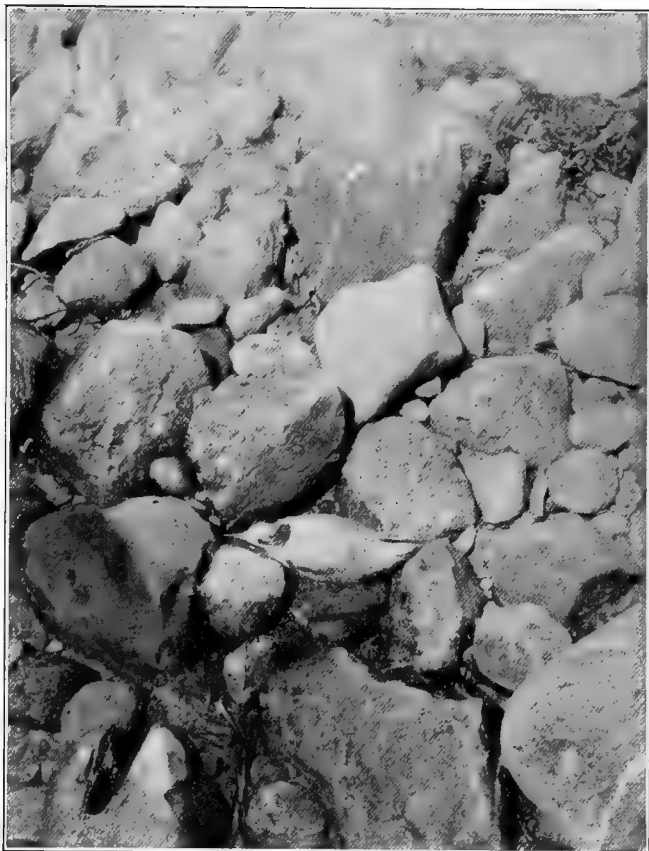
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fly low; with it, high. The food is either fed to the young, or laid down for them to pick up. An adult will sometimes coax a young tern that is near you to what it considers a safer location by walking backward with a fish in its bill, keeping just out of reach of its hungry pursuer.

When one has watched their graceful turns and darts as they plunge into the ocean, it is realized what an important element the terns are in any seaside landscape.



THE YOUNG TERNS FURNISH A FINE EXAMPLE OF PROTECTIVE COLORING



WHEN ALARMED THE TERN SQUATS AMONG THE ROCKS, WHERE IT IS
EASILY OVERLOOKED

YELLOW WARBLERS

(*Dendroica aestiva*)

THE summer range of the yellow warbler, or wild canary as this pretty songster is popularly known, extends from the Atlantic to the Pacific coasts, ascending in the Wasatch Mountains, where the accompanying photographs were taken, to an elevation probably considerably over eight thousand feet. Having travelled two thousand miles or more from our Eastern home, here we have the delight of meeting this bright yellow friend of ours, with his duller mate, slightly streaked on the breast with orange. At these high altitudes, the warblers usually start nesting about the middle of June. I found them building in general in the willows along the

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streams at an average height of six feet, but also found one nest in a hillside bush. Their nests are well constructed of bark shreds, lined with fine grasses, willow down, wool, hair, and feathers. The heavy storms that occur every few days in this region are doubtless responsible for a good deal of damage, and several of the nests I found were probably thus destroyed. The eggs are white, spotted with brown more profusely around the larger ends, always four to the set.

I located the first nest on June 18th, and had no trouble in photographing the female, as she returned within a few minutes after I had set up the camera. She was so tame that when I touched her nest she came within a foot of my hand. She would tilt forward with drooping wings, feigning to fall, then catch herself as she dropped to another perch lower down. Thus did she do her best to lead me away from her treasures. At no other nest



GOOD SWIMMERS, THE TERNS OFTEN TAKE TO THE WATER WHEN APPROACHED



TERNs RESTING ON AND FLYING ABOUT ROCKS OFF THEIR NESTING SITE

Yellow Warblers

did I find a warbler as free from fear as this one.

Another nest, which I found on June 20th, contained one egg; the second egg was laid the following day, then a day was skipped, the two last eggs being laid on the two days following. The bird did not begin sitting until the set was complete. (I felt fairly certain with regard to the time of laying the eggs, though I did not visit the nest on the fifth day.)

When one is in the vicinity of a nest he is soon made aware of the fact by the distressed peeping of the warblers. The male always seems to be on hand, and one will frequently hear him singing in the bushes near by. As far as observed, he does not assist in incubating; but as soon as the young hatch, he becomes as active as his mate in procuring food. During the first few days, in fact, she is engaged in brooding, while he does all the for-

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aging. So rapidly do the young warblers mature that in seven days they are fairly well feathered. When the young in the hillside bush were eight days old, I decided to photograph them; but no sooner had I touched the nest than all four youngsters hopped out, and fluttered in as many directions. Two days later they could fly well.



YELLOW WARBLER ENTERING NEST



NEST OF WARBLER ABOUT TWO FEET FROM THE GROUND IN A BUSH

A FAMILY OF TREE SWALLOWS

(*Iridoprocne bicolor*)

THE tree swallow is one of the many birds that nest at high altitude in the Wasatch Mountains. The favorite nesting places of these square-tailed gleaners of the air are old sapsuckers' holes, and in suitable clusters of mountain ash trees, they often nest in colonies of several dozen pairs.

The situation of their nests puts a difficulty in the way of photographing them. I found, however, a nest in an ash that was close to another ash; the accompanying picture explains the method by which photographs were secured. Cross pieces nailed one above the other furnished a ladder up the unoccupied tree, and a slab nailed at the proper height pointing directly at the nest hole served as a

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support for the camera, which was clamped on with a universal clamp. Although this did not bring the lens so close to its object as could have been desired, the arrangement was otherwise very convenient.

This pair of swallows showed practically no fear of the camera, and while I snapped most of the pictures from below (using a thread), they would come and go when I was up changing films. The old birds were carrying in food when this nest was discovered about June 24th. After it had fed the young, each bird remained impatiently waiting in the entrance during the three or four minutes that usually elapsed before the arrival of its mate. The bird waiting always greeted its returning mate with a twittering welcome, and then soared forth immediately into the sky. The above precaution may have been for the purpose of guarding the newly-hatched young against the inroads of thieving sapsuckers.



YELLOW WARBLER ON NEST, PANTING FROM THE HEAT OF THE SUN



YOUNG WARBLERS EIGHT DAYS OLD

A Family of Tree Swallows

About ten days after the discovery of the nest the first signs of life were heard from within the hole, and a few days later the young swallows appeared at the entrance looking interestedly out at the world. As their doorway was only large enough to hold one at a time, there was a continual struggle for this point of vantage. The young must now have been between two and three weeks old, judging from the time the nest was found, and the old birds no longer guarded the entrance. They usually pushed the eager young back before feeding them. They had grown very irritable for some reason, perhaps from having to hurry so strenuously for a livelihood, for they fought each other off when meeting at the nest, and once inside one frequently sat there malignantly preventing its mate from entering.

Three weeks after discovering the nest, I enlarged the entrance in order to remove and photograph the young swallows. I was not

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surprised when the first of the three young in this brood, slipping through my fingers, soared away as if it had flown for many a month. But my patience was severely tried before I succeeded in inducing the remaining two to sit still long enough to be photographed. Just as they were well placed the irate parents, darting down with sonorous whirring of wings, would set them off into another paroxysm of activity. Once having seen the outside world, they refused thereafter to remain in their former home; but their chirps in the tree-tops during following days were evidence that they did not immediately leave the vicinity.



IN THE FOREGROUND THE BUSH WILLOWS ARE SEEN FOLLOWING A WINDING CREEK. BEYOND ARE THE ASPEN TREES IN WHICH THE TREE SWALLOWS, PARKMAN'S WRENS, AND MANY OTHER BIRDS NEST. WITHIN A HUNDRED YARDS OR SO INCLUDED IN THIS PICTURE WERE THE NESTS OF A YELLOW WARBLER, A HUMMING-BIRD, AND NUMEROUS SAP-SUCKERS AND TREE SWALLOWS



A SERIES OF CROSS PIECES FORMED A LADDER UP TO THE SLAB ON WHICH THE CAMERA WAS CLAMPED. THIS BROUGHT THE INSTRUMENT WITHIN ABOUT SIX FEET OF THE HOLE IN THE OPPOSITE TREE

THE MOURNING DOVE

(*Zenaidura macroura*)

OF the thirteen species of the family Columbidae found in North America the mourning dove is much the most common and widely distributed. In its delicate brown coloring, graceful body, and tapering tail it resembles its larger relative, the now extinct passenger pigeon. Because of its habit of nesting in isolated pairs, as well as its natural wariness, it is able to survive and flourish in populated regions where well protected, often nesting within town limits. In winter it is more gregarious, gathering in small flocks and frequently feeding around farm houses. Its low mournful cooing lends enchantment to the woods at evening.

In its selection of nesting sites, the doves

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pick out odd and various places, sometimes choosing the hollow top of a broken tree, sometimes a limb (rarely higher than twenty feet), or again a low bush; still again it may build in a brush heap, or on a leaning log, where there is sufficient support. On the log shown in the photograph, a loose piece of bark provided a hold for the scanty framework of the nest. At best, the nest is a slight affair which does not hold together much longer than is necessary. The two white eggs, producing male and female, are laid one on the second day following the first, and hatch in fourteen days. Both birds take turns at incubating, the female sitting at night, the male in the daytime. The young thrust their bills, often both at a time, into that of the parent, which feeds them by regurgitating the food contained in its crop.

Because of its shyness, the mourning dove is very difficult to photograph. It generally



THE SWALLOWS RETURNED AT INTERVALS OF FIVE OR TEN MINUTES. FROM THE BILL FULL OF INSECTS SHOWN HERE ONE MAY JUDGE WHAT A QUANTITY OF INSECTS THE YOUNG CONSUME



THE OPEN BEAK OF A YOUNG SWALLOW BEGGING FOR
FOOD MAY BE SEEN WITHIN THE HOLE

The Mourning Dove

deserts its eggs if one disturbs the surroundings in the least, remains long, or returns often. After the young are hatched, however, it is much less apt to desert, although in the writer's experience a dove will never return to its nest while a camera is near by.

Many previous attempts to photograph these birds failed before the pictures here shown were obtained. In this case, I moved toward the nest very gradually, with camera ready, placing it down at frequent intervals, and acting all the while as unostentatiously and unconcerned as possible. Despairing of getting closer I made the first exposure at about fifteen feet, then another at eight, and finally one at four feet. Before the last exposure I was forced to stand motionless behind the camera for half an hour, waiting for the sun to shine full on the bird, and the process of working up took, altogether, perhaps two hours. So slowly had I approached that the

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dove seemed hardly conscious of my presence. A similar attempt at the same nest the previous morning proved a failure, and it was only by going at the task in a most leisurely way that I was finally successful.



THE NEST HOLE WAS ENLARGED AND THE YOUNG REMOVED IN ORDER TO PHOTOGRAPH THEM, A DAY OR TWO BEFORE THEY WOULD OTHERWISE HAVE LEFT. ONE OF THE YOUNG ESCAPED AND THE REMAINING TWO CAUSED THE PHOTOGRAPHER CONSIDERABLE DIFFICULTY BY REFUSING TO REMAIN ON THE PERCH



A BACK VIEW

THE GREAT HORNED OWL

(*Bubo virginianus*)

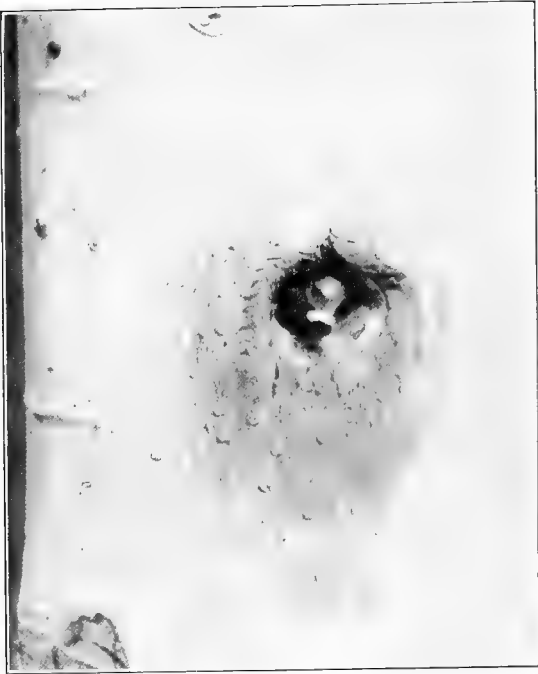
A FEW pieces of down and some feathers first drew my attention, and when a short search presently revealed more feathers caught in the ragged edges of a broken-off old oak tree, my expectations quickly mounted. I forthwith aimed a few handy sticks at the broken tree top, and at the second throw with startling suddenness, the huge form and spreading wings of a great horned owl emerged. Poising a moment, threateningly, it then swerved up and away, disappearing in the woods.

Thrilling with the discovery of the old owl's nest, I accomplished the twenty-five foot climb in feverish haste, a final swing landing me in a crotch looking down into the hollow top of

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the tree. From the twenty-inch cavity below, two young owls, fluffy white balls about twelve days old, gazed back in startled amazement. They had plainly been well fed, for in a circle around them were strewn the remains of five birds, a ground squirrel and part of a rabbit, the birds including a robin, two yellow-bellied sapsuckers, and two flickers. Surely, here was food sufficient at one time, even for hungry young owls. On my numerous visits to the nest during the three following weeks, there was always a surprise in the variety of new prey these ravenous birds had brought home. Song birds, rails, herons, rodents, etc., in variety were found, usually with the heads eaten off. One long-eared owl was also found, a testimony of cannibalistic habits.

Covered with white down, and their eyes closed, with head, beak and talons much out of proportion to the body, newly hatched owls are grotesque objects. They are fed at short



SWALLOW CLEANING THE NEST



THREE YOUNG TREE SWALLOWS, AND AN ADULT FLYING. AFTER LEAVING THE NEST THEY ARE FED FOR SEVERAL WEEKS. THE PARENTS DO NOT ALIGHT, BARELY PAUSING IN THEIR FLIGHT AS THEY DELIVER THE FOOD

The Great Horned Owl

intervals, small bits, from the carcasses at hand, including the feathers, entrails and all. On this diet the young birds grow rapidly, attaining at an age of four weeks almost adult size, although not yet fully feathered. They are soon encouraged to help themselves from the food available, and their legs, at first very weak, gain strength enough to support them.

While one of the parents is attending to household duties, the other is foraging for more game. In the dead of night, noiselessly, like a ghost it sweeps along through the trees, mercilessly picking its sleeping victims from their sheltered roosts.

That these owls are savage birds may be learned by experience. With a wing spread of between four and five feet, large and powerful, dauntless in courage, they prove dangerous antagonists for the intruder who meddles in their home affairs.

During some time that I spent up in the tree

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photographing the young, the old owls hooted their chagrin and anger from near by. Growing quickly bolder, they presently flew into trees closer at hand to observe what was going on at their nest, sometimes perching low down, sometimes in the very tiptop of the neighboring pines. Their long doleful hooting, interspersed with subdued cries or an occasional grunt, was accompanied by the ruffling of their feathers and the snapping of beaks, for this is their way of showing anger. When hooting they looked straight ahead, apparently giving their entire attention to the operation, and their white chin patches seemed to expand, presenting a very peculiar appearance.

I was placing my subjects for a last picture, when suddenly prompted to look up, I beheld one of the old birds only a few yards off sailing directly toward me. But instead of attacking me as it probably first intended, it alighted on a limb within a distance of six feet.



MOURNING DOVE ON NEST ON A SLOPING LOG. THE JAGGED PIECE OF BARK AFFORDS SUFFICIENT HOLD FOR THE NEST



MOURNING DOVE'S NEST IN THE SHOOTS AT THE BASE OF A LEANING
TREE

The Great Horned Owl

There it perched, almost within arm's reach, long ears erect, the powerful talons of its stout, feathered legs gripping and contracting with readiness for action, the large, relentless eyes fixing me with deadly intentness. The camera was unfortunately tied in place for photographing the nest, and as it was thus out of commission for the occasion I had to sit astride a limb, content to observe and wait. A hostile move toward the young would have invited vengeance, but no further provocation being offered, the bird presently glided away.

This close introduction apparently lessening the awe in which it had held its visitor, it now perched still nearer and was presently joined by its mate, both sitting statue-like side by side only a few yards away. Having obtained satisfactory photographs, I was now ready to descend. I was about half way down when something struck me a blow just behind the right ear, nearly breaking my grip. I was so

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dazed by the stunning force of the blow that it was a moment before I could realize what had hit me. Hardly had I recovered my hold, when another similar blow caught me on the left cheek, leaving a good-sized gash beneath the eye, and when I finally reached terra firma I was in a very cut-up and bleeding condition.

A visit to the nest the following day found the owls on hand anticipating trouble, and perceptibly more ready for a duel after the previous encounter. On the other hand, I also was on the alert, prepared to protect myself against emergency. Climbing to and from the nest proved most hazardous, as the owls seemed to fully realize my awkward position, and therefore took this act to be the signal for attack. During my short observation of the nest, the birds hooted and snapped loudly, and as I started down one of them launched out for me. In a long swift swoop on horizontal pinions, it came on down, the great yellow eyes



THE YOUNG MOURNING DOVE SHOWS LESS DISTINCT SPOTS ON THE WING



**THE GREAT HORNED OWL LEAVING ITS NEST IN THE HOLLOW TOP OF AN
OAK**

The Great Horned Owl

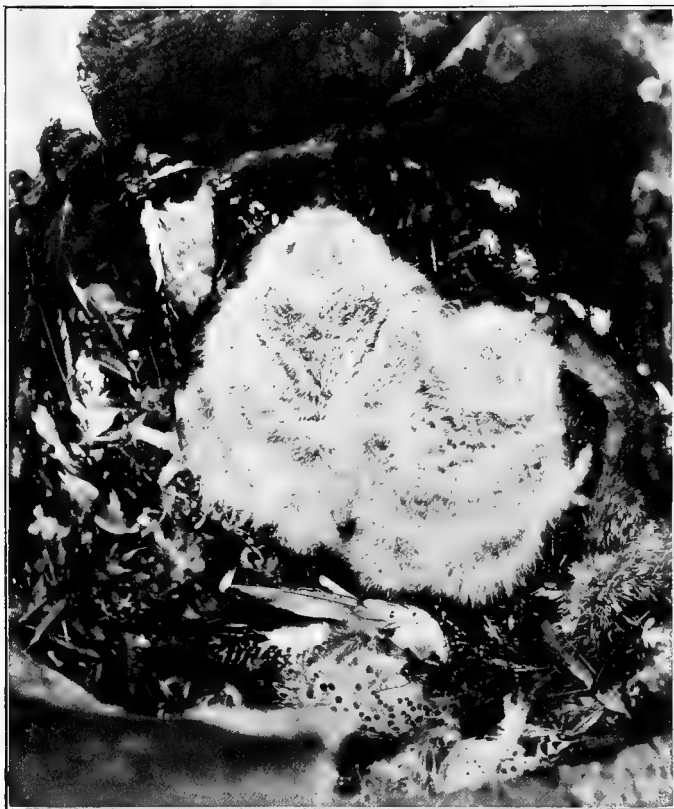
holding me with a sinister intensity, ominous of impending impact. The next instant, hugging close to the tree, I swung up an arm as if to strike, simultaneously ducking. Checked by this feint the owl passed, missing its aim by a few inches, and before its mate could follow up the opportunity, I slipped to the ground. Quick action was necessary, for as one bird came from one direction, the other would follow up the attack closely from the opposite side.

The blow, in every case aimed at the head, caused a curious, numbing sensation; the bird seemed to strike in full collision, yet at the same time to pass. While the main force of the stroke came, apparently, from the beak, the claws left their deep, unmistakable furrows in the flesh. It was indeed necessary to keep an unremitting watch when in proximity to the nest, as the least laxity of vigilance was sure to result unpleasantly. The owls'

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eyesight, contrary to popular opinion, is sufficiently keen even in bright sunlight, and the sagacity with which the birds would time and consummate their attacks merits admiration.

One other incident of the day was of particular interest. One of the owls was perched in the tiptop of a pine watching me jealously as I handled the young. Suddenly a body shot downward out of the sky, swerving past the owl's head at such terrific velocity as to produce a sound like a small clap of thunder. It was an uneasy glance the wise old bird cast upward, as it apprehended the swoop of the cooper hawk just in time to prevent being struck. The hawk evidently had perceived the owl's unwonted preoccupation, and had been tempted to startle it, probably an unusual occurrence in the life of these birds.



THE YOUNG OWLS ABOUT TEN DAYS OLD, SHOWING THE NEST STREWN
WITH A VARIETY OF GAME



YOUNG HORNED OWLS ABOUT TWO WEEKS OLD, STILL IN THE DOWNY
STAGE

A KINGBIRD FAMILY

(*Tyrannus tyrannus*)

KINGBIRDS, members of the fly-catcher family, are truly kings among birds, for they will fearlessly attack anything on the wing that happens along, and may be counted on to come out the better. It must be said that they will also occasionally pounce upon smaller birds, striking them to the ground, though only rarely and when especially provoked. Kingbirds lay their eggs late in the season, the young often not leaving the nest before the middle of August when the insects that form their diet are most plentiful. At this period large grasshoppers, dragon flies, etc., often still alive, are pushed whole into the gaping beaks of the hungry youngsters. In securing their food, these

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birds simply have to wait, for the most part on their observation perches, from which they dart out at short intervals for the insects that float by in the air. They seldom stray far from the nest, therefore, and are always on hand to question any intruder.

While the writer was photographing a family of these birds, they would repeatedly dart down past his head, giving resounding snaps with their beaks. Their graceful and dexterous sallies after insects furnished a sight worth seeing. They would suddenly dart out in a long curve, and a loud snap of the beak, signifying the capture of an insect, would be followed by a continuous glide on and up to another perch; or perhaps turning a complete somersault they would return to their original station. Long dashes of fifty yards or more were frequent, and rarely did the luckless insect escape. Sometimes in pursuing a fugitive fly they performed several rapid revolutions with-



AT THE AGE OF THREE WEEKS THE YOUNG OWLS ARE MORE LIVELY AND RESENT INTRUSION BY HISsing AND PUFFING OUT THEIR FEATHERS



AFTER THEY ARE FOUR WEEKS OLD THE YOUNG OWLS FEATHER OUT
RAPIDLY

A Kingbird Family

in the radius of a foot. Hours quickly passed, indeed, while one was engrossed in watching the aerial manœuvres of these expert flyers.

The old birds repeatedly tried to entice their offspring away from the perch on which they were placed for photographing. With a choice morsel in its beak, the parent would hover just behind the young, approaching and retreating in its efforts to coax its progeny to a safer location; and without dropping the morsel from its beak it argued and called persistently. In this endeavor, it was frequently successful to the annoyance of the photographer, whose patience and perseverance were otherwise sufficiently tried.

To secure bird pictures, the naturalist often must spend many tedious hours in gaining the confidence of his subjects, but once they begin to overcome their original shyness it becomes a question of dexterity in snapping the required poses. These preliminary hours of pa-

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tience should be profitably employed in studying the characteristics of the species, for without knowing the birds, one can not hope to have his pictures tell accurately a part of their life history. Lying concealed in the tall grass about thirty feet distant, the writer was able to make many interesting observations, the camera eventually verifying many of them in an invaluable way.

It was several days before really satisfactory pictures of this kingbird family were obtained, but gradually the birds became accustomed to the camera, until the writer was able (by means of a thread) to snap as many pictures as he desired. Yet the birds continued to regard the camera with distrust, and never failed to greet the appearance of the visitor with clamorous demonstrations suggestive of anything but welcome.



DRAGON FLIES, LARGE GRASSHOPPERS, ETC., OFTEN STILL ALIVE, ARE THRUST WHOLE WELL DOWN THE THROATS OF THE HUNGRY YOUNG KINGBIRDS



KINGBIRD FEEDING YOUNG. NOTE THE HORIZONTAL POSITION OF THE BIRDS. THE HEAD OF THE ADULT IS TURNED AT AN ANGLE AT WHICH IT CAN MOST EASILY THRUST THE FOOD DOWN THE THROAT OF THE YOUNG

NOTES FROM THE INDIANA SAND DUNES

IT was the latter part of February, and the sun was near setting, when a deluge of snow flakes sent me crawling into my "pup" tent. Tucked under blankets a-plenty, I was soon dozing off into the Happy Hunting Grounds of the ornithologist, for I was now encamped on the southern shore of Lake Michigan, for the purpose of studying the bird life of this region.

The extended tract of sandy hills bordering the lake, with their plentiful growth of deciduous and coniferous trees, is a stopping-off place for many migrating birds. Always the forerunners of spring, the geese arrived late in February, and remained for several weeks, flying inland at night and out into the lake in

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the day. Flocks might be seen at almost any time floating a few yards off shore. On March 2nd, crows appeared in large numbers flying eastward along the lake front, and in a somewhat fluctuating stream they continued to fly by day after day, chiefly in the morning, for the rest of the month. The migratory movement seemed to be about over by April 1st. Some winter resident crows had a favorite perch in the rear of my camp, which they occupied at frequent intervals with an eye to seconding a pair of friendly red squirrels in a camp raid. This afforded me an unusual opportunity of meditating on the profundity of the crow language, particularly in the very early morning. The caw note alone is encyclopedic in expressiveness, but there are countless other distinct sounds, endless subtle undertones and accentuations included in the crow's dialect.

One morning I walked around to a broken-



THE PARENT KINGBIRD THRUSTS THE FOOD DOWN FORCEFULLY TO INSURE AGAINST ITS BEING DROPPED



AFTER FEEDING THE YOUNG, THE PARENT KINGBIRD CAREFULLY WIPES
ITS BEAK

Notes from the Indiana Sand Dunes

off oak, which had been occupied two seasons before by a pair of great horned owls, and to my delight found its hollow top again in use, possibly by the same pair of birds. For these owls (which may remain paired for life) often frequent a chosen locality for many years. The nest, containing on the present occasion two soiled white eggs, was lined with snow. Just about the time the first bluebirds' notes herald the approach of spring, young horned owls are hatching. The other night a horned owl began hooting no farther away than ten yards. Very soft it was, yet laden with the tragedy of countless lives that had called forth from the veiling darkness of night, as they awoke to find themselves in the monster's clutch. I listened to the hooting repeated every few seconds, and between each hoot the sobbing gasp of some small creature nearing its end, those talons sinking deeper into the victim's flesh in every interval, pressing forth

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another gasp, at last, a choking cry. The amazing range of noises which these owls are capable of emitting is not generally known. On rare occasions, when my presence near their nest has aroused their ire, I have been treated to a recital of variations in hooting, grunting, and muffled mutterings, punctuated by a frequent snapping of beaks, which combined to produce an effect altogether startling and gruesome,—far beyond description.

March 2nd, I also heard the first bluebirds' notes conveying their authoritative message on the south winds. In small groups or pairs they passed during the following days, fluttering high in the air, when they struck the lake, as if getting their bearings, and then generally turning westward as they proceeded on their journey. They were still passing during the early days of May, but at this late date were probably simply wandering over the general section in which they intended to settle. With-



KINGBIRD READY TO LEAVE



EVIDENCE OF THEIR DOWNY STAGE REMAINS SOME TIME AFTER THE
YOUNG KINGBIRDS ARE WELL FEATHERED

Notes from the Indiana Sand Dunes

in a few days meadow larks were heard, then killdeer, and finally one morning I was awakened by the familiar chirps of robins. Once, when I was returning to camp with firewood, I surprised a gray fox trotting directly toward me. He disappeared fleetly over the knoll he had just passed, but a party of crows, which took the matter up, told me very plainly that he was making a detour along the side of the next large dune, and probably observing me the while.

It was maple sugar time, for the sapsuckers had been at work on every hand. Small holes a quarter of an inch in diameter and of about equal depth were drilled in rings encircling the trees or scattered irregularly from the roots upward. Presently I discovered the "sap-bird" going the rounds of his grove, gathering the sap and also the insects which had collected. Within a few weeks a bright vermilion mold formed where the sap had streamed down the

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trunks, and the trees looked as if they had been daubed with red paint. As I was about to move on a low clucking behind announced the approach of a ruffed grouse, and I turned my head slowly to observe him out of the corner of my eye. He was not alarmed at my motionless figure, but somewhat disturbed and curious. He took a few steps forward, while his mate some paces behind clucked warningly; then a few more steps forward, a hasty retreat, another advance; but finally deciding on the safe course, he returned over the hill. During this, the drumming season, grouse are to be found along streams "budding" in the willow trees. Slate-colored birds flashed their white outer tail feathers and followed me through the woods with their sucking intonations. Some of them would nest in the dunes, others in the far northern lands of Labrador and Alaska. The crows were wasting a lot of time badgering their ancient enemy, for they never do



A GOOD PORTRAIT OF AN ADULT KINGBIRD



THE CATBIRD IS ONE OF THE FINEST SONGSTERS, RIVALING EVEN THE
MOCKING-BIRD IN THE EXTENT OF ITS REPERTOIRE

Notes from the Indiana Sand Dunes

overlook an opportunity to rain down retribution on the heads that doubtless cause them much anxiety at night. A red-tailed hawk departed before me from the remains of a cotton-tail, but a pellet convicted *Bubo Virginianus*.

The morning of April 19th, I set out with the intention of finding at least a crow's nest. A dense growth of pine bordering some swampy meadows offered promise. Red-headed woodpeckers, their heads bobbing out comically from behind sheltering limbs, uttered their rattling disapproval of my intruding presence. A junco that lighted on a chosen tree drew forth the same call. At the appearance of a marsh hawk, the red-heads repeated their challenge, while the junco dropped into a bush like a stone, and remained as still until I began to doubt that I was regarding an animate object. Presently, a song from a neighboring thicket brought it back to

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life, and the hush of suspense was dispelled by a general outburst of carefree song. Surely, "in Nature danger passes like the shadow of a fleeting cloud; no sooner is it past than it is forgotten." Bluejays have an interesting habit of imitating hawks, which one might surmise arises from a mischievous desire to startle other birds. As I was picking my way through the marsh from one dry clump to another, a crow suddenly bursting out vindictively aroused my suspicion. For a moment before I had seen the wily bird departing through the timber some distance ahead. Its present outburst was clearly intended to convey the false impression that it had just discovered me. As wily as the crow, I passed its nest without an upward glance, but the crafty bird followed me stealthily for some distance. A few hundred yards farther on, a cushion of pine needles under a fine pine offered an invitation to rest. I was slipping

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off my pack, when something a few yards overhead drew my attention, and looking up I discovered a long-eared owl staring down at me intently. Silently he glided away into the swamp underbrush. A glance at the ground strewn with pellets told me this was one of his regular perches. My eye fell on a seedy-looking crow's nest, situated in the top of a half fallen tree, which on the face of things was long since abandoned by its original owners. It did not deserve a second glance, but the ends of a pair of diverging sticks projecting above the rim, somehow riveted my attention. Irresistibly my eye returned again and again to the leaning tree. Surely such a ramshackle affair without a leaf to shelter it would not be selected as an abode by any bird. Still by tossing up a stick the matter could be easily settled.

A long-eared owl slipped off and glided after its mate into the swamp underbrush.

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Exposed to heaven and earth, safe in its very conspicuousness, the long-eared owl sits aloft on its eggs, while its mate secluded amid dense pine bows a few yards off keeps guard. For there are many sharp eyes in the woods, among them the ever prying ones of those unendurable crows. At any time it may be necessary to divert and lead elsewhere some inquisitive visitor; so during the day the mate in the pine is ever ready in an emergency. I have known a horned owl to kill and feed to its young a long-eared owl, so that the anxiety of a constant watchfulness has to be continued even at night. Long-eared owls are very beneficial birds, feeding as they do largely on rodents. They are rather active during the day, often being found on the ground hunting mice.

It was one of those supremely calm mornings. Through the mist rising slowly over the lake came the wild laugh of a loon. Presently, his form emerged into view; then he



A YOUNG WOOD THRUSH JUST AFTER LEAVING THE NEST. THE YOUNG THRUSH RESEMBLES THE YOUNG ROBIN, TO WHICH IT IS CLOSELY RELATED

Notes from the Indiana Sand Dunes

sank, without a ripple, without an effort. Watching carefully, I soon saw his head reappear, then gradually his back, and now again that wild laugh. Far in the distance, like a faint echo, an answering call floated back. A gull near by burst out hilariously. In the calm of the morning every bird seemed to laugh forth its call, and I responded inwardly in perfect accord.

Turning inland I followed a pine-scented trail to a reedy marsh; red-wings were swinging and singing on the cat-o'-nine-tails; a bittern pumped; in the distance a marsh-hawk sailed low over the meadows, circling, criss-crossing, its white rump flashing in the sun. It repeated frequently its low cry (not so forceful as that of the red-shouldered hawk), and occasionally a low chucking call. Suddenly, it dropped into the tall grass after a lizard, frog, snake, or mouse, which constitute its staple food. It also occasionally captures

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birds, even rabbits, but altogether does much more good than harm. As it was now June, somewhere in or about the marsh in a dry tuft of grass, which was merely matted down to form a nest, the mate of the hawk observed was sitting on her usual complement of four to six bluish eggs.

Red-headed woodpeckers are plentiful in the dunes the year round, their numbers being augmented in the fall, when they congregate here to feed on the abundant crop of acorns. Their low-pitched resonant "querl" rings out to an accompaniment of rapping, and their frolicking manœuvres give a lively tone to the landscape. Dropping into an oak top, one will hang upside down onto a sagging bough, while securing an acorn, which it takes to a neighboring stump, wedges into the bark, and then pecks at leisure. While thus engaged, it squeals persistently, as if challenging others to pursue it, and this they eagerly do, the pur-



WESTERN CHIPPING SPARROW SETTLING ON NEST



WESTERN CHIPPING SPARROW ENTERING NEST

Notes from the Indiana Sand Dunes

sued circling back through the midst of its pursuers, if they show any signs of lagging. I have seen them clash and fall to the ground in a rather serious encounter. The adults with their bright red heads seem just as youthful in spirits as the brown-headed young, and altogether they are the most jolly lot of play-fellows imaginable. A marsh-hawk sailing in among them evidently causes little apprehension; they dodge at a pinch, but the hawk is not out of sight before they are as noisy as ever.

PHOTOGRAPHING BIRDS

TO be successful in photographing birds, the first requirement is a love for birds. In addition some photographic ability and considerable patience are needed. A plate camera, the Premo No. 9, was used in securing most of the accompanying photographs. For some phases of the work a reflex camera is of great advantage.

The photographer proceeds in the taking of his bird pictures largely according to the particular circumstances which confront him. He may set out to get the game on the nest, at the feeding ground, resting on a bough, or flying. Generally, the easiest photograph is obtained at the nest. Begin with the nests near the ground, where the tripod can be used.

Set the camera up within three or four feet of the nest, preferably just before the time for



NEST OF LEAST FLYCATCHER. A LARGE AMOUNT OF PAPER IS
WOVEN INTO IT



LEAST FLYCATCHER SHOWING THE FEATHERS ON THE HEAD ELEVATED IN THE FORM OF A CREST



LEAST FLYCATCHER AT NEST. IN THIS PHOTOGRAPH THE BIRD
APPEARS WITHOUT A TRACE OF A CREST



YOUNG MARSH HAWKS

Photographing Birds

the eggs to hatch. If, as most often happens, the old bird is frightened away from the nest during the process, a thread is attached so that the picture may be snapped from a distance of twenty or thirty feet or more. A few leaves placed so as to conceal the camera as much as possible may be necessary, when the birds are timid. The camera all set, the next thing is to find concealment in tall grass or behind a bush, from where the nest may be viewed and the thread pulled. The old bird is very reluctant to leave the eggs exposed during the period of a few days preceding the hatching, and at this crucial time will seldom cause one to wait long before she overcomes her fear and returns. The various poses of the bird as it alights at the nest, inspects the eggs, and, finally, tucking them skillfully under her, settles down to brood, offer opportunities for a series of photographs, valuable both from artistic and scientific standpoints.

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The different degrees of timidity in species, as well as among individual birds draw on all the ingenuity one may have. There are certain localities that offer abundant possibilities in the bird field of photography. A lake with a reedy marsh adjoining furnishes the most excellent grounds for water birds, which are found nesting in such places in surprising numbers. Many of these species construct a floating nest of sticks and other débris, or place their nest on small clumps of earth. Others build in the rushes. Various species of blackbirds, rail, coot, bittern, the black tern, and others of the water fowl, may be found in early spring in domestic occupations within a short radius. The reflex camera can be used here with most success, and in catching the birds on the wing they are indispensable.

Bird pictures may also be taken successfully with a telephoto lens. Where it is possible, however, to get within close range, the results



A BROWN THRASHER WHOSE ANXIETY FOR HER YOUNG FAMILY HAS OVER-
COME HER NATURAL SHYNESS



THE MAGPIE IS A SCAVENGER AND GATHERS IN LARGE NUMBERS TO FEED AROUND SMALL SLAUGHTER-HOUSES IN CERTAIN PARTS OF THE WEST. IT IS ABUNDANT IN THE LARGER VALLEYS OF UTAH, BEING SCATTERED MORE SPARINGLY IN THE FOOTHILLS

Photographing Birds

are generally more satisfactory, as there are numerous difficulties attending the hunting of birds with a telephoto outfit.

When the young are hatched, making pictures of various phases of their bringing up, the feeding, etc., is the most interesting of pastimes. An amount of patience and skill may be required to secure pictures with the birds in natural attitudes and free from alarm. By working with one nest day after day, and following up developments, gradually getting the birds accustomed to the camera, friendly relations, with profitable results to the photographer, may be established.

