BIRDS BY THE WAYSIDE, IN EGYPT AND NUBIA.

BY ALTHEA R. SHERMAN.

The traveler of today in Egypt is but one of its tens of thousands of annual visitors, who form a procession that can be traced back to Herodotus in the dim light of twenty-three hundred years ago. Full many of this visiting host have furnished to the world most accurate descriptions and pictorial representations, whereby the minds of all may be well-stored with mental conceptions of what they are to see in a land slow to undergo changes. Probably in recent years the changes are coming more rapidly, where the waters of the Nile have been held back, where archæologists are uncovering treasures long hidden in the sands, and where some forms of life are apparently vanishing. Such disappearance seems to me to be the case of the Buffed-backed Heron (Ardeola russata). Expecting to see the species in large numbers: flocks of them following the plow or industriously picking flies from the cattle in the fields. I saw barely three individuals on three widely separated sand-bars in the Nile, notwithstanding that for them a keen lookout was kept daily. Charles Whymper in his "Egyptian Birds," published in 1909, writes that this Heron is decreasing in numbers, having found it abundant in the Delta twenty-five years before. A similar diminution may be strongly suspected in several other species.

Certain forms of life, that were associated for ages with the Egyptian and Nubian Nile, are no longer seen there: such were the lotus, the papyrus, and the bulrush. From ancient records we learn that formerly the hippopotamus and the crocodile came down the river as far as Memphis. Sixty years ago occasionally a live crocodile might have been found as far north as Kom Ombos, and forty years ago some still lingered about the Second Cataract. But the naturalist or sportsman of the present day bent on seeing the crocodile in its native haunts must seek it to the south of Khartoum.

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While some living species are fast vanishing the dead remain, and the visitor of today may not only look on the lifeless forms of once masterful Pharaohs, but also on many of the stupendous monuments they reared. One wonder of Egypt is, that despite the lapse of ages and countless hordes of despoilers so much remains as found and described by Herodotus, Diodorus, and Strabo. So thoroughly have modern explorers and travelers explained and described everything that nothing of the unexpected is left for us. Recently Charles Whymper has written most entertainingly of some of the well-known species of birds, and in 1872 Captain G. E. Shelley (a nephew of the poet Shelley) published a comprehensive handbook of the 351 species of birds that had been identified in Egypt. Since then a few more species have been added to the list.

Evidences of the veneration paid to animals, and more especially to birds by the ancient Egyptian constantly attract attention. Even in their hieroglyphic signs the forms of birds outnumber those of any other class of animals: there being twenty outlines of birds to twelve of quadrupeds, four of reptiles, three of fishes, two of insects, and one scorpion. Of the bird outlines a number are of the nondescript sort, while nine of them easily suggest the eagle, heron, ibis, vulture, goose, duck, hawk, owl, and plover families. These on the walls always appear in the same stereotyped forms, and they were probably outlined there by means of patterns.

The time spent by me in Egypt, amounting to five weeks altogether, included the whole of February, four days in March, and three days in the previous December. The last named period occurred when I was on my way to India. The routes traversed were the common ones; which mean the Nile journey from Alexandria to the Second Cataract, a distance a trifle short of a thousand miles, and the journey by train from Cairo to Port Said, thence by steamer through the Suez Canal down to the Red Sea, and the return trips over the same routes.

Three mornings were spent at Port Said, once said to be one

of the dreariest places on earth. It did not prove wildly attractive on any of these occasions. The mornings were those of December 24, February 2, and March 4. On the first of these, after having been up all night and chilled to the marrow, although clad in heavy winter clothing, I walked the steamer's deck for four hours in an attempt to become comfortably warm. Meanwhile the rays of the crescent moon were paled by the light of advancing dawn. Soon there flew overhead a Parasitic Kite and a little later seven Hooded Crows: a Gull was seen and one small bird in some trees that grew near the water's edge. These were the only birds seen about Port Said that day. On March 4, during a long ride to the south of the town, not a bird was seen. Gulls were fairly numerous over the water of the harbor, and on the shores at the back of the place were a few shore birds, among which Green Sandpipers and Ringed Plovers were recognized. Special mention of the scarcity of birds about Port Said is made, because of the very great abundance of them to be found a few miles away on Lake Menzaleh. This lake, averaging about forty miles in length by fifteen in breadth, is the winter home of myriads of water-fowl. Fortunately for travelers excellent views of these birds may be had both from the car windows and from the steamer's decks. Nowhere. not even in the exceedingly populous bird colonies of the Orkney and the Shetland Islands, were so many birds seen by me. Instinctively one begins to fear that it is too fine a paradise to last in this greedy age; and fears are confirmed by statements found in guidebooks and newspapers. Operations are already on foot for draining the lake.

Whoever enjoys jogging along after a horse traveling at the rate of four miles per hour, thus enabling him to scan well all the birds by the wayside, would for the same reason enjoy traveling on the Suez Canal. A stone's throw away there may be birds sitting on the telegraph wires. The boat seems to be drifting through the people's front yards, in which they are pursuing their daily tasks; or here and there, if the hour is an early one, black-robed people may be seen

driving their flocks of sheep and goats toward bleak stretches of land that show no signs of herbage, and farther away the caravans of camels are taking up their daily march. All is of interest; but the truly wonderful sights come while passing Lake Menzaleh. Embankments only a few rods in width separate the waters of the canal from those of the lake. Late in the afternoon of December 24 this portion of the voyage was taken, and a morning view was secured from the car windows on February 2. The other two passings were made in the night, to my great regret. Among the first birds to be seen were White Pelicans in groups, ranging in numbers from four to nearly or quite a hundred. These were near enough for identification, but it was impossible to say what were the large white birds in the distance that literally covered the mud flats until they looked as if covered with snow. There must have been acres that were thus occupied. Equally impossible was it to tell what species of ducks and of shorebirds were crossing the sky, "like a cloud of smoke," as one passenger described the sight. Common Heron could be identified, and in places Flamingoes. The latter in one place standing in a very long line looked like a row of pink rushes beautifully reflected in the water. Various outlines could be distinguished of birds too distant for a stranger to feel positive regarding their identification. Amid such surroundings the sun, glowing like a ball of fire, appeared to drop into the lake. The afterglow on sky and water made a panorama of beauty with its manifold shades and tints of color that was well worthy of several pages of print or yards of canyas.

Aside from the multitudes seen on Lake Menzaleh the journeys on the Suez routes did not yield many bird sights. Small birds too far away to distinguish their markings were seen, also members of the *Corvidae* that must have belonged to some Raven species. There were seen a few Black-headed Gulls (*Larus ridibundus*) on each of the three visits to the Canal. In March the head of one of these birds was beginning to show dark feathers. (On the previous day at Alexandria the changing color on crowns could be detected on numerous of

these Gulls.) A few times the Common Heron (Ardea cinerea) was seen, once an Osprey (Pandion haliaëtus), and while still in the Suez Canal a Coot swam by our steamer's side. About the Bitter Lakes were many Cormorants (Phalacrocorax carbo). Many of these were on the banks, and others were perched on the red frames that supported the beacon lights marking the course for the vessels. Every frame seemed to have its contingent; some having no more than four to seven birds, while others had from thirty to forty of them. A month later similar frames in the harbors of Alexandria presented like decorations. The largest number of Cormorants counted on one frame was seventy-six. On the Nile this species was seen more frequently than the books led me to expect. They were noted on eight days. The largest flock, numbering fifty-eight, was on a sand-bar near Gebel Abu Fedah. This mountain is said to be one of their breeding places. The nearly vertical faces of its cliffs stretch along the river's edge for several miles. The species was seen at both the First and the Second Cataracts. About the latter, on the sixmile trip by felucca from Wadi Halfa to the Rock of Abusir, a single Cormorant was seen in several places.

For one desirous of seeing birds the window of a moving train is usually a poor place, which proved true in the journevs between Alexandria and Cairo; also on those between Cairo and Port Said, and the short ones between Aswan and Shellal. An exception to the rule was the ride of February 27 from Assiut to Cairo. For long distances the railway track ran quite near an irrigation canal, whose proximity probably accounted for the large number of small birds that so often took flight. Some of the Little Green Bee-eaters (Merops viridis) frequently could be recognized among the birds a-wing, while others retained their positions on the telegraph wires as the train passed. In all several hundred of these were seen. This was my last meeting with the species, a few of which were met with in Egypt on five other days, making in all the same number of days for it there, that it was seen in India.

The other modes of travel in Egypt and Nubia were by boat, carriage, sand-cart and donkey-back, none of which yielded the satisfaction in bird viewing that was experienced on the few occasions when I could go on foot and alone. Since all bird observing was incidental to general sight-seeing nothing more was seen than every tourist may see. On the other hand I fell far short of seeing the wonders reported by some trippers who, after a month spent on the Nile, write of seeing certain species in abundance that Shelley appears never to have seen, but credits them to Egypt on the authority of others. After excepting the marvelous numbers of birds about Lake Menzaleh it can be said that the birds on the rest of the Egyptian trip were far less abundant than they were in India, and not equal to the numbers I found in southern California during the previous winter.

The late Crown Prince Rudolph of Austria related hunting experiences that had a truly regal flavor to them: such as that of "beating" the garden of the Khedive at Heliopolis, where he killed a jackal, and another man killed a fairly large she-wolf. Better still was the hunt among the Pyramids of Gizeh, of which he wrote, "we got some Arabs to go up the second Pyramid and drive down the jackals which it harbors. We were, however, badly posted; so a couple of jackals broke through unhurt and skurried off into the boundless waste." The trustworthy book of Captain Shelley states that the Lanner Falcon (Falco lanarius), the Red-naped Falcon (Falco Babylonicus), and the Egyptian Eagle Owl (Bubo ascalaphus) breed annually on the Pyramids.

The itinerary of the ordinary traveler includes no hunting expedition to the Great Pyramids; instead a very commonplace donkey-back ride around about them. On my visit to them there were seen White Wagtails and Kites. No Eagle Owls were seen there or elsewhere except in cages in the Cairo Zoölogical Gardens. One cage was placarded as containing an American Eagle Owl. The bird of wisdom in it had a decidedly familiar appearance, and I am not absolutely certain that it did not give me a knowing, one-eyed wink, such

as any true American might give another in like circumstances, as dumfounded I reflected that the A. O. U. Check-List made no mention of Eagle Owls. Another glance at the placard went farther and discovered *Bubo virginianus*, thus clearing away the mystery. This was the beginning of finding our birds renamed in foreign lands, sometimes with freakish results exemplified by our Bluebird labeled as "Blue Robin." No doubt it irks the European to hear us call the House Sparrow "the English Sparrow"—one venture at least toward getting even in the renaming business.

There is no need that a learned ornithologist, with his specimens side by side, should point out that there are differences between the Hooded Crow (Corvus cornix) and the Indian House Crow (Corvus splendens), between the Parasitic Kite (Milvus agyptus) and the common Pariah Kite (Milvus govinda), for good binoculars show quite plainly that the plumages of the African birds are not so dusky as those of their Indian cousins. The case of the Egyptian Vulture (Neophron percnopterus) is not so plain. It bears the same scientific name as does the White Scavenger Vulture. If there be differences in plumage and habits they failed to reveal themselves to the wayside observer. As it inhabits other countries on the Mediterranean as well as in Africa the latter name does appear more appropriate.

For twenty-six days in February, on a similar trip up the Nile and return, another person might make a better record of the birds seen; however, I did the best I could, yet on no day saw more than twenty-four species, the general average being thirteen, and the smallest number four. When we remember that part of the journey was in the tropics and that the northward movement for some of the birds had begun, then recall data given in Bird-Lore's Christmas Census, this Nile record appears very poor. There were but four days when a score or more of species were seen; the first of these days we spent at Edfou and up the river to Kom Ombos: the others were February 24, 25 and 26, and were spent at Thebes and Luxor and down the river to Abydos. Longer

trips on shore were taken than on other days, yet for the three days combined the total number of species seen was only thirty-five. The poorest day was in Nubia, when the daylight run of our steamer was from Wadi Halfa to Korosko; the five individual birds seen that day were two Turtledoves, a Raven, an Egyptian Vulture, and a Parasitic Kite. This Kite is worthy of special mention, as it and its mate were the only Kites seen in Nubia. On the passage upstream they were seen visiting a precipitous cliff that overhung the river a few miles above Derr, their behavior indicating that they had a nest there, and one was found there as we returned. The day under consideration was the only one, either in Egypt or Nubia, when the White Wagtail failed to be seen.

The Parasitic Kite was fairly abundant along the Nile to the First Cataract, above which the only birds seen were those near Derr. It was seen above the water most frequently and at the boat-landing, where, like Gulls, it snatched from the water the food thrown overboard. My records for the Hooded Crow stop abruptly at the First Cataract. The seemingly correct explanation for this is that the river higher up in its present condition offers no inducement to Kites and Crows in their role of scavengers. The only representative of the Corvus family seen between the two cataracts were a few Brown-necked Ravens (Corvus umbrinus), a species partial to deserts and rocky districts.

It was at Wadi Halfa, in the Sudan, that the largest numbers of Egyptian Vultures were seen in numerous small groups. In all, eighty-eight were counted, most of them on one walk of about a mile into the desert back of the town, where the apparent attractions were the dumping grounds for refuse matter. This species was seen every day in Nubia, and on a trifle more than half of the days in Egypt. Its non-appearance near the coast was probably due to its preference for a drier climate, such as is found farther in the interior. The Black Vulture (*Vultus monarchus*) was seen on two occasions, and the Griffon Vulture (*Gyps fulvus*) on

four. Once both species were together, there being two birds of the former species and twenty-one of the latter. They were sunning themselves on a sand-bar, their enormous wings spread out in characteristic fashion.

On the Egyptian Nile the Common Heron (Ardea cinerea) was seen on fourteen days, the maximum for one day being one hundred and six individuals, forty-two of which were on one sand-bar. They were usually some distance from our boat, and passengers seeking information from a dragoman were told that they were Storks. This not from a desire to mislead, but because he like others (who should know better) was mistaken in the identity. We were too early for the migration of the Storks, which is said to occur in March and April. I saw the White Stork (Ciconia alba) but once; they were in a flock of less than a score.

The Night Heron (Nycticorax griseus) was seen by me in the Cairo Zoölogical Gardens, where seventeen of the species were counted in one tree. While looking at them and wishing for some one who could give trustworthy information, a party arrived that was conducted by two officials of the Gardens, and it was my good fortune to learn from one of them, the distinguished ornithologist, Mr. M. J. Nicoll, that the estimate for the Night Heron then frequenting the Gardens was upward of a hundred, and the estimate for the wild Ducks was more than a thousand. Among the latter were many Shovellers and a smaller number of Teal. From the Nile boats Ducks in small numbers were seen in the distance on fourteen days. Other species seen at liberty and in abundance in the Cairo Zoölogical Gardens were Parrots and Egyptian Turtledoves.

The only representative of the Alcedinidæ seen in Africa was the Black and White Kingfisher (*Ceryle rudis*), called the Pied Kingfisher by some authors. A half dozen of the species were the most that were seen on a single day, but they appeared on half the days spent on the Egyptian Nile, and were not seen in Nubia. At times the steamers ran quite near the high banks, and on one occasion two of these King-

fishers were seen going in and out of a hole in a bank where excavations for a nest seemed to be under way.

Generally wherever the Kingfisher was noted over the river there would be met on shore its near relative, the Hoopoe (Ububa eboba). One Hoopoe, however, was seen in Nubia, while we were passing a very attractive green island south of Derr. Although an inch and a half longer than the Indian Hoopoe the difference between the two species is not apparent to the wayside observer. Shelley says that the Hoopoe breeds in Egypt. My story is not offered in proof of this, but rather as illustration that boys are much the same the world over. While at Luxor I left the steamer before breakfast each morning except one, and took a walk southward from the town. There a native boy about twelve years old was met, who followed about, telling me that he attended the American Mission School: that he knew Mahmoud Ahmed, our head dragoman on the S. S. Arabia, and various other items of personal interest, but not a word was said about birds, though he could see my frequent use of binoculars. On the day of our visit to the Valley of the Tombs the walk was postponed until late in the afternoon, but the boy was waiting for me, anxious to sell a nest of young birds three or four days old. He said they were Hoopoes. He was obdurate against returning the nestlings to the place where he found them, so he received nothing more than an Audubon-style lecture on the evils of nest-robbing.

Sand-bars in the Nile offer enticing resting-places for the water-fowl, the shore-birds, and for the boats that attempt to navigate its waters. If a tourist steamer refuses to be coaxed, cajoled, pushed or pried from some well-beloved sand-bank, where it has rested serenely for two or three days, the traveler must suffer loss of time on shore; but when the steamer "rests" no longer than one day the time may be made up by running faster, later at night, and earlier in the morning; for the Nile boat's schedule seems to partake more of the characteristics of rubber than of castiron, inasmuch as it is flexible and elastic as well as compressible. It ap-

pears to have been made with a weather-eve out for sandbars, to avoid which the boats tie up at night at certain land-The longest period that we "were stuck" on a bar was twenty-seven hours; and I, avidly covetous for every possible minute ashore, was all that time profoundly thankful that I was not on shore at Assiut awaiting the boat, where for eleven weeks I had expected that I should join the party with which I was to travel for two months. By a stroke of great good luck for me the time for the run between Bombay and Port Said had been shortened by one day, which enabled me to reach Cairo in time to join the party there. The component parts of that party had long been a matter for conjecture. Our conductor was a tall, broad-shouldered Italian, whose gray hat with a black band, visible at the front like the white plume on the helmet of Navarre, led us on through surging crowds from port to port of several Oriental countries. As for the rest of the party — the months were February and March, not the season of our American Thanksgiving, vet Miss Smith, the other unattended woman, and I held many a thanksgiving meeting to give thanks because of the congenial qualities of the rest of the party.

Twenty-seven hours on a sand-bar before a sister ship comes down and drags off the boat may be spent in various ways: there may be the watching of the faithful though fruitless attempt of the crew to get the steamer afloat, or the successful efforts of the crews of smaller crafts. in which the lifting power of broad Nubian backs applied to the underside of the boat, may play an important part. Or there may be by the river's edge the dreary sight of a shadoof in operation, requiring, if the bank be high, its human quota of six men to lift a pail of water to the thirsty land above. But every place may not furnish a strange bird perched on the mud column of an abandoned shadoof. Such a mud pillar stood near our halting place and the bird that frequently came to it answered to the description of the female Palechested Harrier (Circus pallidus), the only individual of that species seen by me.

Who shall decide which was the Hawk sacred to the ancient Egyptians, the Sparrow Hawk (Accipiter nisus) or the Kestrel (Falco tinnunculus)? For my part I was not always sure which of these small Hawks I was looking at against the dazzling sky; but when there was advantage of near views the Kestrel was the species more frequently seen. A half dozen or more of them would be on the wing most of the time over the larger temples, but there was no means of estimating the number of those that remained perched in the manifold nooks afforded by the ruins.

Because my second visit to the temple at Medinet-Abu was made in advance of the other visitors a view was obtained of a small Owl, halted in its chase after Sparrows. It retired to a niche prepared for it by the wise precaution of Rameses III. That monarch realizing how easily many of his forefathers had stolen the monuments of their predecessors resolved to forestall this thieving propensity in his descendants by making the job too hard for them in his temple at Medinet-Abu. This was done by cutting the hieroglyphics very . The depth of some will admit the hand quite to the wrist, a measurement of fully seven inches. There are many hundred of these holes in the walls. It was in the Second Court of the temple that the startled Owl sought refuge in the last character in the cartouche of Rameses III, that is cut into the south wall next to the cornice, and nearest the southwest corner. Having slipped into this recess, admirable for small Owls, it turned, watched me for a time, then slept. An hour later it sat there while Ibrahim Khalil Ghaleb, our Syrian dragoman from Mount Lebanon, delivered his lecture. Amid this multiplicity of detail it is hoped that a certain omission will not be detected; that no one will notice that I am unable to tell whether this small Owl was a Southern Little Owl (Athene meridionalis) or a Little Owl (Athene noctua) or Athene glaux.

The source of the food supply for the small Hawks and Owls is very apparent, but whence comes the food for the Sparrow themselves in the desert surroundings of such temples as those at Medinet-Abu and Wadi Sabua? In the faraway days of Moses no mention is made of Passer domesticus among the zoölogical plagues of Egypt, hence we surmise that this plague is of more recent origin. While speaking of plagues it may be well to advert to the theory recently advanced by a scientist, (whose name cannot be recalled,) that the cat became sacred to the ancient Egyptians, because it was observed that where cats were plentiful the people were spared the ravages of the bubonic plague. Instead of an abatement of the plague of flies, even to the last individual, their present abundance would suggest that all were religiously preserved, and that all had been breeding, according to the law of its kind, ever since. Having flies on him does not appear to trouble the modern Egyptian; possibly his face would feel immodestly bare without at least a dozen flies covering it. This pest swarmed about the temples, even about those at a distance from human habitations; so also did the House Sparrow with its hateful yelpings.

In the House Sparrow of Egypt Dr. John C. Phillips has detected sufficient variation from the type form to entitle it to the distinction of a subspecies, and has named it Passer domesticus chephreni. Thus to all our other troubles with this villian we have the additional trouble of subspecies, such as Passer domesticus chephreni, Passer domesticus niloticus, Passer domesticus biblicus, and Passer domesticus indicus. (Note the last syllable in each name!) To the ordinary tourist in their general appearance, their behavior, their indecent clamorings, and their other thoroughly objectionable qualities, these subspecies present no differences from Passer domesticus, and it seems that we might save a deal of bother by calling him and his whole tribe simply and plainly "the cuss."

My stay in Spain was entirely too brief to admit of observations on the character at home of the Spanish Sparrow (Passer hispaniolensis); but when met abroad his behavior was that of a perfect gentleman. The first meeting with this species in Egypt was just beyond the mud houses of Den-

derah, where a flock was quietly feeding among piles of doura stalks, and the conduct of these birds was in marked contrast with that of House Sparrows, which were hurling vituperations from their vantage places on the mud walls.

A little beyond the Sparrows were the first Blue-throated Warblers (*Cyanecula suecica*) seen by me. That was a glorious morning and held other charms aside from the first meetings with interesting birds. The temperature was more comfortable, it having risen to 50°, which was four and six degrees warmer than on previous mornings; the air was fresh, and the surface of the river shone like burnished silver. By rising at the first streak of dawn, omitting breakfast, and having my donkey boy follow with his animal for the return ride, I was able to enjoy the singing birds and the walk of a mile or more to the temple of Denderah in advance of the shouting, dust-raising crowd.

The schedule for the Nile boats, sagaciously planned after the fashion of a feast that offers the more dainty viands toward its close, reserved the visit to Abydos for the return journey, so it came about that the most enjoyable trips to the temples were the first (which was to Denderah) and the last, to Abydos. The roads to both lav between well cultivated fields and afforded the best opportunities I had for seeing the field birds. Baliana, the Nile port of disembarkation for Abydos, was reached about four o'clock in the afternoon of February 25, and the rest of the day was given to walks in the environs of that village. On the following morning the ride by carriage over fairly good roads to the ruins of Abydos presented various interesting features aside from those connected with avian life and death. All along the route small boys, armed with slings, were shooting at the birds. Very likely their slings differed slightly, if at all, from that used by the lad David, son of Jesse; and it is safe to argue that his skill was acquired by practice in shooting at birds. The birds seen most frequently that day in the order of their relative abundance were Crested Larks, White Wagtails,

Grey-headed Yellow Wagtails, Little Green Bee-eaters, and Hoopoes.

Larklike notes borne to the stranger's ears by some morning breeze may be his first introduction to the Crested Lark (Galerita cristata). The singer is easily found: a brownish bird slightly smaller than our members of the Alaudidæ family, also less distinguished in appearance in spite of his crest. Much tamer than the Prairie Horned Lark he will keep to a race along the roadway until nearly under foot, and appears better content to sing from no greater eminence than a clod than does his American cousin. This species appeared to be the most abundant and evenly distributed of Egypt's field birds. Sometimes its cheerful song was heard on the river when the steamer ran close to the shore. Although the Desert Lark (Ammomanes lusitana) abounds in Egypt it was not met by me until we reached Abu Simbel in Nubia, where a few individuals were seen; also on subsequent days.

The bird that was seen almost everywhere and on every day except one, was the White Wagtail (Motacilla alba). No place apparently was too dry and forbidding for its thorough searchings: railway tracks, roofs of houses and of steamers, bottoms of row-boats, river banks, and rubbish heaps all claimed its careful attention. Seemingly the northward migration for the White Wagtail had begun the last of February, when it was met in large numbers in the same desert spot back of Wadi Halfa, in which the Egyptian Vulture was found so abundant. The Wagtails were constantly changing places, rendering an exact count of them impossible, but their number there must have equaled one hundred and fifty. The thought did not then occur that later in the vear I might meet some of these same birds three thousand miles to the north of that place, yet subsequent experiences indicated that such a meeting was not in the least improbable. Most unexpected meetings await the tourist on the highways of travel; of this class was the encounter with our own American bird, the Turkey; several of these domesticated birds were strutting up and down the river front at Wadi Halfa, when we made our first landing there.

The Grey-headed Yellow Wagtail (Budytes flava) was identified in but two localities, which were along the road between Baliana and Abydos and on the plain of Thebes in the neighborhood of the Colossi of Memnon. All about these giant statues the land was green with crops of grain, in which the field birds made their home. There, under the shadow of these vast monuments three thousand generations of birds have built their nests and reared their broods, and a hundred generations of men have plowed, planted, and harvested the surrounding acres, while overhead circled untold numbers of Swallows, Swifts and Martins, Dynasties waxed strong, then perished; nearly all the known history of the world has been made, the poetry, art, inventions have been created, since those days wherein Amenophis III watched the erection of his famous Colossi. When for him there was the same smile on the face of nature, the same lilt in the song of the Crested Lark, the same flash of colors in the flight of the Grey-headed Yellow Wagtail that greet us today in the Valley of the Nile.

It is to be hoped that the wayside stranger, dependent on binoculars for identifications, will not be expected to speak confidently as to which species of Martins and Swifts were seen almost daily and frequently in large numbers along the Nile. In the matter of Swallows the task is easier: The Swallow (Hirundo rustica) — or its allied form that occurs in Egypt — was seen but a few times, its creamy underparts easily distinguishing it from the Egyptian Swallow (Hirundo savignii), whose underparts are reddish-brown. was a very abundant species and was seen daily in Egypt. but not once in Nubia. In its choice of nest-site it resembles our Barn Swallow, and lacking the barn it builds the nest inside the mud hut of a native. The Pale Crag-Swallow (Cotyle obsoleta). I believe, was identified in several localities and was the only species found in the Valley of the Tombs of Kings and Queens. As we came out from the tombs of Amenophis II, Seti I, and those of other Pharaohs, the Pale Crag-Swallows were flying back and forth in the narrow valley, as beyond doubt their ancestors have done through all the ages since these mighty "Kings of the South and North" were laid to rest in their wonderful rock-hewn tombs.

Warbler identification in North America is attended with puzzles and perplexities, but when our Warblers are set over against the Warblers of the Old World they appear on the whole to be brighter in colors and easier to name. Let one read the handbook description of Old World Warblers and he will feel their lack of salient points of difference. him examine museum specimens and he feels the same lack, as he feels it also in the field. The difficulties to be surmounted in identification will be appreciated when it is known that to a dearth of prominent markings there is added brevity in the glimpses attainable of the birds as they fly from one bean-stalk to another, or show themselves momentarily in the garden patches, for it was in such places, not in trees, that I found them, and felt reasonably confident of my identifications in the cases of the Fantail, Black-headed. Chiffchaff, and Blue-throated Warbler.

Perhaps the most winsome of the birds seen on the Nile trip were the Chats. The three species met were the Desert Chat (Saxicola deserti), the White-rumped Chat (Saxicola leucophygia) and a Black-eared Chat (either Saxicola aurita or Saxicola amphileuca). The meetings with all of them were in the southern stages of the journey on the border of Nubia and in the Sudan. Several of the White-rumped Chats were seen in the desert waste at the foot of the Rock of Abusir, where their dainty motions and showy dress contrasted strangely with their rugged surroundings. The Chat with black ear-coverts answered the description of S. aurita, though S. amphileuca seems to be the common form of that region.

A grove of palm-trees at Aswan looked inviting from the steamer's deck. To reach it was a long before-breakfast walk across the sands; when reached the palm-trees were

destitute of bird life except a couple of Turtledoves. Thereafter this was the usual experience with the palm-trees, not in them, but in species of acacia — the sont and the lebbek — and in tamarisk trees were the birds found. Such trees lined a street occupied by Europeans, in whose yards were trees, shrubs, grass-plats, together with blooming roses and oleanders. In one of the sont trees was found a Masked Shrike (Lanius nubicus), and in a nearby tree were two more of the same species. They were handsome fellows: their white underparts were bordered by bright rufous on sides of neck and breast; and their upperparts were blue-black trimmed here and there with creamy white and gray. The only other species of Lanidæ seen in Africa was the Pallid Shrike (Lanius lahtora), which bears considerable resemblance to our Shrikes.

Although the Egyptian Turtledove (*Turtur senagalensis*) is an abundant species and said to occur wherever there are palm-trees it was not seen every day. And in abundance the semi-domesticated Rock Doves and the Pigeons failed to meet expectations.

Many shorebirds were seen along the Nile too far away for identification, but a few opportunities for seeing some of them close at hand were afforded, and at such times there were seen some of the Ringed Plovers, the Green Sandpiper (Totanus ochropus), the Black-headed Plover (Pluvianus agyptius), and the Spur-winged Plover (Hoplopterus spinosus). Great interest attaches to the last two species named, because of their alliance with the crocodile. The story of these social relations is one of the oldest bird stories in the world. Told first by Herodotus about twenty-three hundred years ago, it has been reaffirmed by many witnesses and denied by very many more skeptics. Those claiming that it is a true story have wrangled over various points, including these: whether the birds actually enter the crocodile's mouth or merely skirmish on the outside; whether the prizes sought by the birds were the fragments of flesh adhering to the reptile's teeth, or leeches inside the mouth, as stated by Hero-

dotus; or flies among which was the dangerous tsetse fly. Another point controverted is whether the Plover ally belongs to the Black-headed or the Spur-winged species, few people seeming to realize that this habit may be common to both species, as Mr. John Lea has suggested in "Romances of Bird Life." Since the crocodile still survives in the upper reaches of the Nile there is offered brilliant opportunities for the ambitious young man with the camera, who shall secure for us moving pictures of the Plovers at work cleaning the saurian's teeth. This is especially desirable because of the skepticism still prevailing in spite of John Lea's array of evidences. Beginning with the account given by Herodotus he quotes the testimony of several travelers in the more recent centuries and concludes with an account by Mr. John M. Cook, that was published in the *Ibis*. He with another man, aided by field glasses, watched a Spur-winged Plover enter the mouth of a crocodile, but the distance was too great for them to discern what the bird did. Thus the field for investigation remains wide-open for the man with a camera. Ziczac is the name by which the crocodile's friend is known to the Arabs. On our Nile journey we traveled on four steamers, so came under the guidance of nine different dragomans, only one of whom pointed out to us the Ziczac, carved on the temple walls, and repeated the story that is familiar to the natives. As given by him there was an admixture of the phenix fable with the well known narrative.

All of the party that went by the small boat to the Rock of Abusir were agreed that it was one of the most delightful excursions of the Nile trip. In addition to other pleasures it furnished several views of the Egyptian Goose (Chenalopex ægyptiacus), and some of these birds were near enough for us to enjoy their handsomely colored plumage. There is in Egypt a certain picture that I meant by all means to see. It is believed to be the oldest painting in the world and depicts six geese feeding. I had different guides on my two visits to the Egyptian Museum at Cairo and neither of them knew of this picture. Reproductions of it had made me fa-

miliar with its composition, hence prepared to reject my first guide's numerous announcements of "Here it is!" as he pointed out one Pintail Duck after another, sometimes varying his choice with a picture of some other species. Wearied at last by his impositions I told him I intended to see the picture and that he must learn from some attendant where it was located, which resulted in the speedy finding of it. execution the oldest painting in the world would do no discredit to a modern artist. The treatment is somewhat decorative and is suggestive of the Japanese manner of laying on of colors. As a natural history study it is exceedingly remarkable, as the following quotation from Mr. Charles Whymper shows: "Probably no single work of art in all Egypt has been more widely copied than the picture of geese, which is now in the museum at Cairo. It came from the tomb of Ne fer maat at Medum and is universally known as 'the oldest picture in the world,' for it is ascribed to the earliest dynasty, and approximately about 4400 B.C. To a naturalist it is peculiarly interesting, but the interest is linked with sadness, as the subject of the picture being entirely of bird-life one would have thought that bird-life would be a subject of continued interest; but the reverse is very much the case, so much so, that though this very picture is known to thousands who have never been to Egypt, and many thousands more who have been to Egypt and gone to see this very picture, and bought photographs or copies of it, few or any have really interest enough in it even to learn or inquire what are the names of the geese depicted the two geese at the extreme left and right are Bean Geese, birds that one might expect the old-time artist to be familiar with, and the same is true of the two geese in the left-hand group, which are White-fronted Geese, as both are winter migrants to Egypt, remaining till March. Of the two remaining birds, from their markings the naturalist will have no doubt but that they are Red-breasted Geese; and there is a mystery, as they never come to Egypt, and being a northern bird, one is utterly at a loss to explain why the artist of that longdistant date should depict that special Goose. That he did see the bird, and with fidelity drew it, are facts, and one can only conclude that zoölogical collections are no new thing, but that men nearly six thousand years ago, must have kept rare birds in captivity for the pleasure of their beauty, and that artists went to their zoölogical gardens or collections, and drew pictures of the inhabitants of far distant climes for the walls of their temples and tombs."

This picture does not furnish the sum total of evidence of the ancient Egyptian's interest in natural history collections. There is left amidst the ruins of Karnak the lower portion of the walls of a chamber, on which are sculptured in low relief representations of the fauna and flora of the countries of Asia invaded by Thothmes III. The carved similitudes of birds, animals, plants, shrubs, and trees are sufficiently accurate for identification by those familiar with the objects themselves. Sometimes on a panel is a portrait in stone of a tree, while on other panels of similar size are carved life-sized representations of leaves and fruit, or leaves and flowers. This is not one of the regular show places of the temple, but an assistant dragoman assured me that he knew "the garden of Thothmes III," and after the usual rounds he guided me to it. After that I had an hour beside the Sacred Lake, where I found several species of shorebirds, Coots, Ducks, and in the shrubbery Blue-throated Warblers, while overhead were the Kestrels and Swallows.

Another illustration is afforded us by the walls of the temple at Deir-el-Bahari, on which are portrayed scenes from Queen Hatshepsu's expedition to Punt. Most exquisite is the modeling of the captive Cranes that march in the procession of slaves and wild animals sent from the foreign land

Egyptologists tell us that a bit of ornithological history is set forth in a certain picture in the temple of Rameses III at Medinet Abu. They tell us that it represents a coronation scene, that the king having assumed the double crown of the Upper and the Lower Kingdom, a priest sets at liberty four carrier pigeons, bidding them carry the tiding to the north, south, east and west of his majesty's dominion. And they let this point out for us the antiquity of the service of the carrier pigeon.

We saw other pictures in which birds have a prominent place. This is true of the hunting scene depicted on an outer wall of the temple at Kom Ombos. It delineates a Nile boat covered with reeds that have been sprayed with bird-lime or a similar sticky substance used for catching birds. picture about a dozen species of birds could be recognized. their modeling being very good; the same could be said of the cat, which was climbing the stalks to get the birds, though the cat was smaller than the birds. The motive of such pictures can be recognized, but there are many others in which the part played by the birds is symbolic with hidden significance. Seven charming little birds, colored blue, are carved on the prow of the boat in the Judgment Hall of Osiris at Karnak, but in the "holy of holies" at Abydos there are six blue-colored birds and a fish for adornment of the prow, their purport no one seems to know. But the symbolism of the hawk and the vulture, appearing in countless numbers of decorations, is understood to some extent. the wall pictures a small bird, supposed to typify the departing spirit, hovers over the body of the dead. This the dragomans will always identify for you as a sparrow. Had these fellows ever lived in America and fought Passer domesticus they might have very good reasons for selecting it as the emblem of eternal life.

The island of Philæ, for centuries esteemed the gem of the Nile, once the theme for universal praise, endeared to all who saw it, now sits submerged beneath the desolating waters of modern commercialism, a place to close one's eyes whilst passing, a subject to be shunned. Few are so pious at this point as to be unwilling to insert another dam when viewing the damage done by the waters above Philæ. So recent are the changes wrought in Nubia by the Aswan dam that some account of them may not lack interest. Such effects may be

called far-reaching since they reach nearly two hundred miles: that is several miles beyond Abu Simbel to a point scarcely more than a score of miles below the Second Cataract. For many miles south of Philæ the depth of the water is so great that no more than the tops of the tallest palmtrees appear above the surface. As we go farther south inch by inch more of the trees show above the water, until at the end of about two hundred miles small deposits of Nile mud mark the last effects of the damming. In front of the famous rock-hewn temple of Abu Simbel, which is 175 miles above the dam, may be seen one of the results. It is in the form of about twenty acres of land that has been formed there since the dam was built. A portion of it is under cultivation, in other places the Nile mud is baked in the sun until it resembles broken pottery, and the ground is seamed with crevices, some of which are a foot and a half to two feet in depth. Formerly the Nile boats lay close to the cliff, and in recent years the visiting steamers furnished electricity for the lighting of the temple before the new land was formed.

Abruptly, almost as abruptly as darkness fills a room at night when the lights are turned off, come changes on the Nile as we enter Nubia. The dam has caused some of these changes and intensified those previously existing. Forty vears ago, when Miss Amelia B. Edwards made her observations that are recorded in "A Thousand Miles up the Nile," the arable land between Philæ and Wadi Halfa averaged from six to sixty yards in width. This slender strip is now under water for the greater part of the year. The natives driven to the rocky heights above their former homes have in some places gathered pitiably small patches of soil, some no larger than a grave, upon which vegetation was growing. For the dispossession the Government paid them a small sum with which to rebuild their homes. homes of stone look more comfortable than the mud-walled houses of Egypt. They exhibit unique taste in mural decoration, for vaulting ambition is displayed in the enrichment of the frieze. The unit of design is a plate. There appear

repetition, variety, and contrast in the arrangements of the plates, showing that the laws of good design have not been overlooked. Dinner-plates, soup-plates, large plates, small plates, various kinds of plates are set fast in the mortar. Above one door there was a large plate in the middle with a smaller one on either side. Another house displayed a single plate with a decoration around its entire edge. A peep into one of these houses, which was about ten feet square, discovered a bed, a bench, and some shelves holding a few bottles, cans, and dishes.

To visit temples we went ashore at Kalabsheh, Dendur, Gerf Hossavn, Wadi Sabua, Amadah, and Abu Simbel. From the nearby hamlets most of the adults were absent at work in Cairo, but their children were left at home with the old and disabled. Upon landing the children came racing down to meet us. With relief it was noted that their faces were free of flies, most of the flies having been left behind in Egypt. All of the children were keenly alert to earn a few piasters, their strongest role consisting in poses for the amateur photographers. Considerable invention was shown in the design of costumes that would catch the eye. At one landing place on the Nile a tiny tot of a girl was busily working a miniature shadoof, apparently entirely unconscious of our arrival. She received her reward. At another place a juvenile showman exhibited a large green chameleon, while others brought their household pets, a puppy or a full-grown dog. But animals were rare. At Kalabsheh I saw one don-Such scarcity of life, both animal and vegetable, was characteristic of Nubia nearly a half century ago, when Miss Edwards wrote of it in these words: "Meanwhile. it is not only men and women whom we miss - men laboring by the river-side; women with babies astride on their shoulders or water jars balanced on their heads — but birds, beasts, boats; everything that we have been used to see along the river. The buffaloes dozing at midday in the shallows, the camels stalking home in single file toward sunset, the water-fowl haunting the sandbanks seem suddenly to Owls 393

have vanished. Even donkeys are now rare; and as for horses, I do not remember to have seen one during the seven weeks we spent in Nubia."

Between Aswan and Abu Simbel almost all the birds that were seen were either on the wing, or perched in the tops of partially submerged sont trees. Sometimes we ran near enough these trees to allow of identification of the birds, at other times they were clearly seen but had to be assigned to the class of birds unidentified. Of these there were several, both in Egypt and Nubia, that by me had to be remembered in the great class of the unknown.

OWLS, AS REGARDED BY THE SCIENTIST, THE THE AGRICULTURIST, AND THE SPORTSMAN.

BY R. W. SHUFELDT.

(Photographs from Life by the Author.)

When Doctor R. Bowdler Sharpe, of the British Museum, published his invaluable work entitled A Hand-List of the Genera and Species of Birds, he recognized no fewer than thirty genera of Owls in the world's avifauna, and, according to him, they have been created to contain 316 species of these very interesting birds. This classification was made in 1899, since which time there have doubtless been many more species added to the list. Some of these thirty genera contain but one species, while others contain all the way from two to eighty, the latter number being found in the genus Scops. Besides these existing species of owls science recognizes quite a number of extinct forms, which are known to us only through their fossil remains.

The owls of the United States, according to the last Check-List of the American Ornithologists' Union, fall into twelve different genera, and there are at least forty-three species and subspecies of them. As in the case of the Old World forms, too, several species of large fossil owls have been dis-