THE LEAST BITTERN.

+ARDEA EXILIS, *Wils.*

PLATE CCCLXVI.—MALE, FEMALE, AND YOUNG.

One morning while I was at the Cincinnati Museum, in the State of Ohio, a woman came in holding in her apron one of this delicate species alive, which she said had fallen down the chimney of her house under night, and which, when she awoke at daybreak, was the first object she saw, it having perched on one of the bed-posts. It was a young bird. I placed it on the table before me, and drew from it the figure on the left of my plate. It stood perfectly still for two hours, but on my touching it with a pencil, after my drawing was done, it flew off and alighted on the cornice of a window. Replacing it on the table, I took two books and laid them so as to leave before it a passage of an inch and a half, through which it walked with ease. Bringing the books nearer each other, so as to reduce the passage to one inch, I tried the Bittern again, and again it made its way between them without moving either. When dead, its body measured two inches and a quarter across, from which it is apparent that this species, as well as the Gallinules and Rails, is enabled to contract its breadth in an extraordinary degree.

While I was in Philadelphia, in September 1832, a gentleman presented me with a pair of adult birds of this species, alive and in perfect plumage. They had been caught in a meadow a few miles below the city, and I kept them alive several days, feeding them on small fish and thin stripes of pork. They were expert at seizing flies, and swallowed caterpillars, and other insects. My wife admired them much on account of their gentle deportment, for although on being tormented, they would spread their wings, ruffle their feathers, and draw back their head as if to strike, yet they suffered themselves to be touched by any one without pecking at his hand. It was amusing to see them continually attempting to escape through the windows, climbing with ease from the floor to the top of the curtain by means of their feet and claws. This feat they would repeat whenever they were taken down. The experiment of the books was tried with them, and succeeded as at Cincinnati. At the approach of night they became much more lively, walked about the room in a graceful manner, with much agility, and generally kept close together. I had ample opportunities of studying their natu-

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1, Male, 2, Female, 3, Young.

ral positions, and drew both of them in the attitudes exhibited in the plate. I would gladly have kept them longer; but as I was bound for the south, I had them killed for the purpose of preserving their skins.

This bird ranges over most part of the United States, but is nowhere to be found in tolerable abundance excepting about the mouths of the Mississippi and the southern portions of the Floridas, especially the "Everglades." I have met with them to the eastward as far as New Brunswick, on our large lakes, and in the intermediate portions of the country, although I have seldom found more than one or two at a time. In the Floridas and Carolinas they have been known to breed in small communities of four or five pairs. One instance of this was observed by my friend Dr. HOLBROOK of Charleston, and Dr. LEITNER, another friend of mine, found them quite abundant in certain portions of the Florida marshes.

Although the Least Bittern is not unfrequently started in salt marshes, it gives a decided preference to the borders of ponds, lakes or bayous of fresh water, and it is in secluded situations of this kind that it usually forms its nest. This is sometimes placed on the ground, amid the rankest grasses, but more frequently it is attached to the stems several inches above it. It is flat, composed of dried or rotten weeds, and in shape resembles that of the Louisiana Heron, although this latter employs nothing but sticks. The eggs are three or four, seldom more, of a dull yellowish-green, without spots, an inch and a quarter in length, almost equal at both ends.

When the young are yet quite small, their heads are covered with large tufts of reddish down, their bill is very short, and they sit on their rump with their legs extended on each side before their body, in the manner of young Herons. If disturbed when about two weeks old, they leave the nest and scramble through the grass with celerity, clinging to the blades with their sharp claws whenever this is necessary. At a later period they seem to await the coming of their parents with impatience; and if no noise is made, you may hear them calling continually in a low croaking voice for half an hour at a time. As soon as they are able to fly, they not unfrequently alight on the branches of trees to escape from their various enemies, such as minxes and water-snakes, the latter of which destroy a good number of them.

In two instances, I found the nests of the Least Bittern about three feet above the ground, in a thick cluster of smilax and other briary plants. In the first, two nests were placed in the same bush, within a few yards of each other. In the other instance there was only one nest of this bird, but several of the Boat-tailed Grackle, and one of the Green Heron, the occupants of all of which seemed to be on friendly terms. When startled from the nest, the old birds emit a few notes resembling the syllable *quā*, alight a few yards

off, and watch all your movements. If you go towards them, you may sometimes take the female with the hand, but rarely the male, who generally flies off, or makes his way through the woods. Its ordinary cry, however, is a rough croak, resembling that of the Great Blue Heron, but much weaker.

The flight of this bird is apparently weak by day, for then it seldom removes to a greater distance than a hundred yards at a time, and this, too, only when frightened in a moderate degree, for, if much alarmed, it falls again among the grass, in the manner of the Rail; but, in the dusk of the evening and morning, I have seen it passing steadily along, at the height of fifty yards or more, with the neck retracted, and the legs stretched out behind, in the manner of the larger Herons. On such occasions it uttered, at short intervals, its peculiar cry, and continued its flight until out of sight. Several individuals were together, and I imagined them to be proceeding in search of breeding-grounds, or on a migratory expedition. When disturbed by day, they fly with extended neck and dangling legs, and are easily shot, as their course is generally direct and their flight slow. When walking, it shoots its head forward at every step, as if about to thrust its bill into some substance; and, if you attempt to lay hold of it when disabled, it is apt to inflict a painful wound.

The food of this bird consists of snails, slugs, tadpoles, or young frogs and water-lizards. In several instances, however, I have found small shrews and field-mice in their stomach. Although more nocturnal than diurnal, it moves a good deal about by day in search of food. About noon, being doubtless much fatigued, they are not unfrequently observed standing erect on one foot, and so soundly asleep as to be easily knocked down or even caught by the hand, if cautiously approached. This very remarkable habit of both our species of Bittern has brought upon them the charge of extreme *stupidity*, whence the name of *Butor* given to them by the Creoles of Louisiana. Whether or not this term be appropriate to the case, I leave for you to determine; but, my opinion is, that the animal truly deserving to be called stupid, yet remains to be discovered, and that the quality designated by that epithet occurs nowhere else than among the individuals of that species which so thoughtlessly applies the opprobrium.

At Cayo Island, Oppelousas, 13th April, 1837, Mr. HARRIS saw a flock of about twenty individuals of this species arriving from the westward, before a heavy gale from that quarter, all of which plunged, as it were, into the marsh, and hid themselves so closely, from fatigue or otherwise, that neither he nor the dog could raise one of them. We have now observed several species of Herons arriving in the same manner from the westward, and it seems that their stay in their roosting places continues only for a night, as on going to the same spot on the next day, none have been found.

At Galveston Island, on the 26th April, we saw many individuals of this species.

LEAST BITTERN, *Ardea exilis*, Wils. Amer. Orn., vol. viii. p. 37.

ARDEA EXILIS, Bonap. Syn., p. 308.

LEAST BITTERN, *Ardea exilis*, Nutt. Man., vol. ii. p. 66.

LEAST BITTERN, *Ardea exilis*, Aud. Orn. Biog., vol. iii. p. 77; vol. v. p. 606.

Male, $13\frac{1}{2}$, $17\frac{3}{4}$. Female, 12, wing $4\frac{3}{4}$.

Resident in Florida. Migrates in spring eastward as far as Maine, and throughout the Western Country, far up the Missouri. Retires southward in winter. Texas.

Adult Male.

Bill longer than the head, slender, straight, tapering to a point, deeper than broad at the base, compressed towards the end. Upper mandible with its dorsal line almost straight, the ridge broad and rather rounded at the base, narrowed towards the end, the sides sloping, the edges very sharp, the tip acute. Nasal groove long; nostrils basal, linear, longitudinal. Lower mandible with the angle very long and narrow, the dorsal line sloping upwards, the sides nearly flat, the edges sharp and inflected, the tip very acute.

Head oblong, much compressed. Neck long. Body very slender, much compressed. Feet long, rather robust; tibia nearly entirely feathered; tarsi covered anteriorly with broad oblique scutella; toes scutellate above; hind toe stout, second and fourth nearly equal, third much longer; claws long, slender, arched, compressed, acute, that of middle toe serrated on the inner edge.

Eyelids and a large space before and beneath the eye, bare. Plumage soft, blended; feathers of the hind head elongated, as are those of the neck generally, but especially of its lower part anteriorly. Wings short, broad, rounded, the second quill longest. Tail very short, rounded, of twelve feathers.

Bill dark olive-brown above, edges of upper mandible and bare frontal space yellow; lower mandible pale yellow, inclining to flesh colour. Iris yellow. Feet dull greenish-yellow, claws brown. Upper part of the head, and the back, greenish-black and glossy; sides of the head and hind part of neck brownish-red or light chestnut; wing-coverts pale greyish-brown, quills purplish-grey, tipped with yellowish-brown, the inner secondaries broadly margined with light chestnut, of which colour also are the secondary coverts and the edge of the wing at the flexure; the tail greenish-black. The throat and fore neck are reddish-white; the rest of the lower parts are

of the same colour, excepting the fore part of the breast, which is blackish-brown, the feathers tipped with reddish-yellow, and the outer tibial feathers, which are reddish. In younger individuals the fore neck is more or less spotted with light brown, as was the case with that represented; but in old birds that part is unspotted.

Length to end of tail $13\frac{1}{2}$ inches, to end of claws 16; to end of wings $12\frac{4}{12}$; extent of wings $17\frac{3}{4}$; wing from flexure $5\frac{1}{4}$; tail $11\frac{1}{12}$; bill along the ridge $1\frac{3}{4}$, along the edge of lower mandible $2\frac{1}{2}$; tarsus $1\frac{8}{12}$; middle toe $1\frac{1}{2}$, its claw $\frac{5}{12}$. Weight $4\frac{3}{4}$ oz.

Adult Female.

The female is smaller, and differs considerably from the male in colour. The bare parts and iris are the same. The upper part of the head is reddish-brown, with a tinge of green; the back and scapulars are dark chestnut, and there is a line of yellowish-white along each side of the back, formed by the outer edges of the feathers. The rump is darker, the tail bluish-black, as in the male. In other respects the colouring is similar, but the feathers of the fore neck and sides have each a narrow central line of dark brown.

Length to end of tail 12 inches; wing from flexure $4\frac{3}{4}$; tail $1\frac{3}{4}$; bill along the ridge $1\frac{3}{4}$, along the edge of lower mandible $2\frac{2}{12}$; tarsus $1\frac{1}{2}$; middle toe $1\frac{5}{12}$, its claw $\frac{5}{12}$. Weight $3\frac{1}{2}$ oz.

Young in first plumage.

The young has the bill, eyes and feet nearly of the same tints as the old; but the upper parts of the plumage are generally of a light brownish-red, variegated with brownish-yellow; the primary quills and tail black.

I have lately received a letter from my friend JOHN BACHMAN, stating that he had found this species breeding in considerable numbers on the plantation of JAMES H. SMITH, Esq., six miles east of Charleston, where he procured specimens both of the birds and of their eggs. Mr. SMITH's sons had killed, in the course of a couple of weeks, not less than fourteen of these diminutive Herons. He describes the nest as flat, composed of pieces of dry rushes about a foot in length, and placed in a bunch of *Juncus effusus*. The eggs were nearly white, with a very light tinge of blue.

In an adult male preserved in spirits, the interior of the mouth is of the same structure as in the other Herons; the tongue 1 inch 4 twelfths long, very slender, trigonal, tapering to a point. Width of mouth 5 twelfths. Œsophagus 8 inches long, its width at the upper part 1 inch 2 twelfths, gradually tapering to 8 twelfths, and within the thorax enlarged to 10 twelfths. Belt of proventricular glandules $\frac{1}{2}$ inch in breadth. Stomach large, 1 inch in diameter, its tendons 3 twelfths in breadth, its walls extremely thin, being quite membranous. The contents are three small fishes, and remains of others. Lobes of the liver unequal, the right $1\frac{1}{4}$ inches, the left 1 inch in

length; gall-bladder 8 twelfths long, $2\frac{1}{2}$ twelfths in breadth. Intestine 2 feet $9\frac{1}{2}$ inches long, $\frac{3}{4}$ twelfth wide in the duodenal portion, gradually diminishing to $\frac{1}{2}$ twelfth; cœcum a small knob nearly 1 twelfth long, and of the same breadth; rectum $2\frac{1}{2}$ inches long, and 2 twelfths in width; cloaca globular, $\frac{1}{2}$ inch in diameter. It forms 20 folds.

Trachea 6 inches long, 1 twelfth in breadth; its rings 170, and 4 dimidiate. Bronchi very wide, of 12 rings.

GREEN HERON.

†*ARDEA VIRESCENS*, Linn.

PLATE CCCLXVII.—MALE AND YOUNG.

This species is more generally known than any of our Herons, it being very extensively dispersed in spring, summer, and early autumn. It ranges along our many rivers to great distances from the sea, being common on the Missouri and its branches, from which it spreads to all such localities as are favourable to its habits. To the north of the United States, however, it is very seldom seen, it being of rare occurrence even in Nova Scotia. At the approach of winter it retires to the Floridas and Lower Louisiana, where individuals, however, reside all the year, and many remove southward beyond the limits of our country. I have observed their return in early spring, when arriving in flocks of from twenty to fifty individuals. They would plunge downwards from their elevated line of march, cutting various zigzags, until they would all simultaneously alight on the tops of the trees or bushes of some swampy place, or on the borders of miry ponds. These halts took place pretty regularly about an hour after sun-rise. The day was occupied by them, as well as by some other species, especially the Blue, the Yellow-crowned, and Night Herons, all of which at this period travelled eastward, in resting, cleansing their bodies, and searching for food. When the sun approached the western horizon, they would at once ascend in the air, arrange their lines, and commence their flight, which, I have no doubt, continued all night. You may therefore, good reader, conclude that Herons are not only diurnal birds when feeding, but also able to travel at night when

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1, Male, 2, Female, 3, Young.

Audubon, John James. 1843. "The Least Bittern, *Ardea exilis*, Wils. [Pl. 366]."
The birds of America : from drawings made in the United States and their territories 6, 100–105. <https://doi.org/10.5962/p.319480>.

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