THE REDDISH EGRET.

†Ardea rufescens, *Gmel.*

PLATE CCCLXXI.—Adult and Young.

While sailing towards the Florida Keys, my mind was agitated with anticipations of the delight I should experience in exploring a region whose productions were very imperfectly known. Often did I think of the Heron named after Titian Peale, by my learned friend the Prince of Musignano. Mr. Peale had procured only a single specimen, and in the winter season, but whether or not the species was abundant on the Keys of Florida remained to be discovered. No sooner had I been landed and formed an acquaintance with Mr. Egan the pilot, who was well acquainted with the haunts of many of the birds of those islands, than I asked him respecting the various Herons which might be found there or on the shores of the mainland. Before answering me, he counted his fingers slowly, and then said that he could recollect only "twelve sorts;" "but," added he, "these birds change their colours so curiously, that it is past wonder with me to believe that any one man could know them without watching them as I have done for many years." I then inquired if I was in good time to procure all the sorts which he knew. He answered in the affirmative; but felt some doubt as to my procuring the eggs of one kind at least, which breed earlier than the rest, and was pure white from the shell, and the largest of all. Thinking the species to which he alluded might be the *Ardea alba* of Linnæus, I asked if it had long thread-like feathers over the tail during the breeding season. "Oh no, Sir," said he, "it never has; it is as tall as yourself, and when you see some on the wing, you will be pleased, for their wings are as large as those of the Brown Pelican. The one I guess you mean, mostly goes farther to the eastward to breed, along with a very small one, also always white, with the feathers over the tail as you say, and curled upwards. These are the only three sorts that are white." I begged him to describe the colours of the others, which he did so well that I recognised ten species in all; but the large white one, and another of a grey and purple colour, were unknown to me, and I told him so, stating at the same time how anxious I was to procure them if possible. "If possible! nothing in the world can be more easy, for if they have no eggs left, they have young

ones enough to load your schooner. I can take you straight to their breeding place."

You may suppose, reader, how my spirits were raised by this intelligence, and how surprised I was that PEALE's Egret was not in the number of the Florida Herons. We speedily embarked in Mr. THRUSTON's boat, spread our sails to the breeze, and passed several keys, on which we procured two young birds of the large white species, which I saw at once was unknown to me. As we approached the next island, I saw twenty or thirty pairs of Herons, some of which were pure white, others of a light blue colour, but so much larger than the Blue Heron, *Ardea cœrulea*, that I asked the pilot what they were, when he answered, "the very fellows I want to shew you, and you may soon see them close enough, as you and I will shoot a few by way of amusement." Before half an hour had elapsed, more than a dozen were lying at my feet. Some of them were as white as driven snow, the rest of a delicate purplish tint, inclining to grey on the back and wings, with heads and necks of a curious reddish colour. Males and females there were, but they were all of one species, for my companion assured me that "this sort bred before they turned to their natural colours," by which he meant before attaining their full plumage at the age of three years. Well, the immature birds were the very same as the individual to which, as the representative of a new species, the name of Peale's Egret had been given. This I saw at once, for so good is the representation of it in the fourth volume of BONAPARTE's American Ornithology, that from the mere recollection of it I was enabled to recognise the bird at once. You may imagine the pleasure I felt, as well as that which I experienced on becoming better acquainted with this species, which I found in many places both with eggs and with young.

The Reddish Egret is a constant resident on the Florida Keys, to which it is so partial at all seasons that it never leaves them. Some individuals are seen as far east as Cape Florida, and westward along the Gulf of Mexico. Whether it may ever betake itself to fresh water I cannot say, but I never found one in such a situation. It is a more plump bird for its size than most other Herons, and in this respect resembles the Night Heron and the Yellow-crowned species, but possesses all the gracefulness of the tribe to which it belongs. In walking it lifts its feet high, and proceeds at a quiet pace, but sometimes briskly; it alights with ease on trees, and walks well on the larger branches. It rarely feeds from the edges of the water, but resorts to the shallows of the extensive mud or sand flats, so numerous about the keys. There, twenty or thirty, sometimes as many as a hundred, may be seen wading up to the heel (or knee-joint as it is usually called) in pursuit of prey, or standing in silence awaiting the approach of an animal on which it

feeds, when it strikes it, and immediately swallows it, if not too large; but if so, it carries it to the shore, beats it, and tears it to pieces, rarely, however, using its feet for that purpose, and certainly never employing its pectinated claws, which no Heron that I know of ever uses for any other object than that of scratching its head, or perhaps of securing its steps on rocky bottoms. These birds remain on the flats thus employed, until the advance of the tide forces them to the land.

The flight of this Heron is more elevated and regular than that of the smaller species. During the love season, it is peculiarly graceful and elegant, especially when one unmated male is pursuing another, a female being in sight. They pass through the air with celerity, turn and cut about in curious curves and zigzags, the stronger bird frequently erecting its beautiful crest, and uttering its note, at the moment when it expects to give its rival a thrust. When these aërial combats take place between old and immature birds, their different colours form a striking contrast, extremely pleasing to the beholder. While travelling to and from their feeding grounds, or from one key to another, they propel themselves by easy, well-sustained, and regular flappings of their extended wings, the neck reposing on the shoulders, the legs stretched out behind like a rudder, while their beautiful thready trains float in the breeze. On approaching a landing place, they seldom fail to perform a few circumvolutions, in order to see that all around is quiet, for they are more shy and wary than the smaller Herons, and almost as suspicious as the two larger species, *Ardea occidentalis*, and *A. Herodias;* and this becomes apparent as soon as they discontinue the feeding of their young, when you find it extremely difficult to approach them. After this period I rarely shot one, unless I happened to come upon it unawares, or while it was passing over me when among the mangroves.

About the beginning of April, these Herons begin to pair. The males chase each other on the ground, as well as in the air, and on returning to their chosen females erect their crest and plumes, swell out their necks, pass and repass before them, and emit hollow rough sounds, which it is impossible for me to describe. It is curious to see a party of twenty or thirty on a sand-bar, presenting as they do a mixture of colours from pure white to the full hues of the old birds of either sex; and still more curious perhaps it is to see a purple male paying his addresses to a white female, while at hand a white male is caressing a purple female, and not far off are a pair of white, and another of purple birds. Nay, reader, until I had witnessed these remarkable circumstances, I felt some distrust respecting the statement of the worthy pilot. I am even now doubtful if all the young breed the first spring after their birth, and am more inclined to think that they do not, on account of the large flocks of white birds of this species which during the

breeding time kept apart from those that had nests, but which on examination were not found to be barren birds, although they had the crests and pendent feathers less elongated than those white individuals that were actually breeding.

By the middle of April, they construct their nests, which they place for the most part on the south-western sides of the mangroves immediately bordering the keys, never on the trees at a distance from the water, and rarely very close together. Some are placed on the top branches, others a foot or two above the highest tide-mark; many of them are annually repaired, perhaps all that stand the winter gales. The nest, which is quite flat, is large for the size of the bird, and is formed of dry sticks, interspersed with grass and leaves. The eggs are three, average an inch and three quarters in length, one and three-eighths in breadth, have an elliptical form, and a smooth shell, of a uniform rather pale sea-green colour. They afford excellent eating. Both sexes incubate, but I did not ascertain the time required for hatching.

The young while yet naked are of a dark colour, there being only a few scanty tufts of long soft down on the head and other parts; but when the feathers begin to sprout they become white. Being abundantly and carefully fed, at first by regurgitation, they grow fast, and soon become noisy. When about a month old, they are fed less frequently, and the fish is merely dropt before them, or into their open throats; soon after they sit upright on the nest, with their legs extended forward, or crawl about on the branches, as all other Herons are wont to do. They are now sensible of danger, and when a boat is heard coming towards them they hide among the branches, making towards the interior of the keys, where it is extremely difficult to follow them. On one occasion, when I was desirous of procuring some of them alive, to take to Charleston, it took more than an hour to catch eight or nine of them, for they moved so fast and stealthily through the mangroves, always making for the closest and most tangled parts, that a man was obliged to keep his eyes constantly on a single individual, which it was very difficult to do, on account of the number of birds crossing each other in every direction. They do not fly until they are six or seven weeks old, and even then do not venture beyond the island on which they have been reared. In captivity, those which we had procured fed freely, and soon became tolerably docile. They were supplied with pieces of green turtle and other species of the tribe, and some of them reached Charleston in good health. One continued alive for nearly two years with my friend the Rev. John Bachman. It was allowed to walk in the garden and poultry-yard, and ate an enormous quantity of small fish and all sorts of garbage, contenting itself, when better food was scarce, with the entrails of fowls, and even fed freely

on moistened corn-meal or mush. It caught insects with great dexterity, and was very gentle and familiar, frequently going into the kitchen, where it was a great favourite. It had acquired a crest and a few of the pendent feathers of the back by the month of January, when about twenty-two months old. One cold night, it was accidentally neglected, and in the morning was found dead, having shared the fate of so many thousands of pet birds in all parts of the world. On being opened, it was found to be a male. Although I have not been able to trace the gradual changes of colour which this species undergoes, I have little doubt that it will be found to attain maturity the third spring after birth.

The Reddish Egret rarely associates with others; nor does it suffer them to nestle on the same island with itself. In this respect, it differs from all other Herons with which I am acquainted; for although the Great White Heron, *A. occidentalis*, has a decided antipathy to the Great Blue Heron, still it now and then allows a few to breed on the north side of its island. The present species is as strictly marine as the Great White Heron; and these are the only two that are so, for all the others feed on fresh-water fishes, not less than on those obtained in salt-water, as well as on other food of various kinds. Like all others, the Reddish Egret loses its ornaments soon after incubation, when old and young mix, and follow their occupations together. When wounded, it strikes with its bill, scratches with its claws, and, throwing itself on its back, emits its rough and harsh notes, keeping all the while its crest erected and expanded, and its feathers swelled out. Its principal food consists of fishes of various sizes, of which it consumes a great number, and of which it finds no difficulty in procuring a sufficiency, as all the waters of those portions of the Floridas that are inhabited by it are very profusely stocked. I was told that, although still plentiful in the Floridas, this species was much more so when the keys were first settled. I was present when a person killed twenty-eight in succession in about an hour, the poor birds hovering above their island in dismay, and unaware of the destructive power of their enemy.

The remarkable circumstance of this bird's changing from white to purple, will no doubt have some tendency to disconcert the systematists, who, it seems, pronounce all the birds which they name Egrets to be always white; but how much more disconcerted must they be when they see that among the Herons peculiarly so named, which they say are always coloured, the largest known to exist in the United States is pure white. It is not at present my intention to say what an Egret is, or what a Heron is; but it can no longer be denied that the presence or absence of a loose crest, floating plume, and a white colour, are insufficient for establishing essential characters separating Egrets from Herons, which in fact display the most intimate connec-

tion, the one group running into the other in an almost imperceptible gradation. Hoping that an account of the extent of the migrations of the species of Heron that occur in the United States, and whose habits I have studied for many years under the most favourable circumstances, may prove acceptable, I now lay one before you, arranging the species according to size, without regard to the rank they hold in systematic works.

1. The Great White Heron. *Ardea occidentalis.* A constant resident on the southern keys of Florida; entirely maritime; never goes farther eastward than Cape Florida, though in winter the younger birds migrate southward, and perhaps pass beyond the extremities of the Gulf of Mexico.

2. The Great Blue Heron. *Ardea Herodias.* A constant resident in the Floridas; migrates throughout the Union, and as far along the Atlantic coast as the southernmost islands of the Gulf of St. Lawrence in summer; breeds in all the districts, and at the approach of winter returns to the Southern States.

3. The White Heron. *Ardea Egretta.* Resident in the Floridas; migrates to the eastward sometimes as far as Massachusetts, and up the Mississippi as far as the city of Natchez; never seen far inland.

4. The Reddish Egret. *Ardea rufescens.* Resident on the Florida Keys; entirely maritime; never seen farther eastward than Cape Florida; the young sometimes remove southward in winter.

5. The American Bittern. *Ardea lentiginosa.* A winter resident in the Floridas; many migrate over the greater part of the Union and beyond its northern limits; never seen in Kentucky; return before winter to the Southern States.

6. The Night Heron. *Ardea Nycticorax.* Resident in the Floridas; migrates eastward as far as Maine, up the Mississippi as high as Memphis; none seen in Kentucky; returns to the Southern States at the approach of winter, and occurs at the distance of a hundred miles inland.

7. The Yellow-crowned Heron. *Ardea violacea.* A few spend the winter in the Floridas; it rarely migrates farther eastward than New Jersey; proceeds up the Mississippi to Natchez; never goes far inland; the greatest number winter beyond the southern limits of the United States.

8. The Blue Heron. *Ardea cærulea.* Resident in the Floridas; migrates eastward as far as Long Island; proceeds up the Mississippi about a hundred miles above Natchez; never goes far inland.

9. The Louisiana Heron. *Ardea Ludoviciana.* Resident in the Floridas; rarely seen as far east as New Jersey; seldom passes Natchez on the Mississippi; never goes far inland.

10. The White Egret. *Ardea candidissima.* Resident in the Floridas; migrates eastward as far as New York, up the Mississippi as far as Memphis;

never goes far inland; returns to the Southern States as soon as the young are able to travel.

11. The Green Heron. *Ardea virescens.* Resident in the Floridas; disperses over the Union; goes far inland; the greater number return at the approach of winter to the Southern States.

12. The Least Bittern. *Ardea exilis.* Resident in the Floridas; migrates as far as Maine, and throughout the Western Country, far up the Missouri; returns early in autumn to the Southern States.

You will see from the above statement, that the Herons are almost similar to our Pigeons in respect to the extent of their migrations, which must appear the more remarkable on account of their comparative size, *Ardea Herodias* and *A. virescens* corresponding in a great degree to the *Columba migratoria* and *C. carolinensis.*

Ardea rufescens, Gmel. Syst. Nat., vol. i. p. 628.
Peale's Egret Heron, *Ardea Pealii*, Bonap. Amer. Orn., vol. iv. p. 96. Young.
Peale's Egret, Nutt. Man., vol. ii. p. 49. Young.
Reddish Egret, *Ardea rufescens*, Aud. Orn. Biog., vol. iii. p. 411; vol. v. p. 604.

Male, 31, 46.

Resident on the Florida Keys, and in Galveston Bay. Never seen inland. Extremely abundant.

Adult Male.

Bill much longer than the head, straight, compressed, tapering, the mandibles nearly equal in size. Upper mandible with the dorsal line nearly straight, the ridge broad and convex at the base, afterwards very narrow, a groove from the base to near the end, beneath which the sides are convex, the edges thin and sharp, with a notch on each side close to the narrow but obtuse tip. Nostrils basal, linear, longitudinal. Lower mandible with the angle long and extremely narrow, the dorsal line beyond it ascending and very slightly convex, the edges sharp and slightly inflected, the tip very narrow but obtuse.

Head rather small, oblong, compressed. Neck very long and slender. Body slender and compressed. Feet very long; tibia elongated and slender, its lower half bare, covered all round with angular scales; tarsus elongated, slender, compressed, covered anteriorly with numerous large scutella, laterally and behind with angular scales. Toes of moderate length, rather slender, scutella above, reticularly granulate beneath; third toe considerably longer than the fourth, which is in nearly the same proportion longer than the second, the first much shorter, but strong; claws rather small, strong, arched, compressed, obtuse, that of hind toe much larger, the inner edge of that of the third regularly pectinated.

Space between the bill and eye, and around the latter, bare, as is the lower half of the tibia. Plumage soft, generally loose. Feathers of the upper and hind part of the head, and of the neck generally, especially on the sides and at the lower part anteriorly, much elongated, very narrow, loose, with linear compact extremities. The feathers of the back are similar but broader at their base, and those from the middle of the back are so elongated as to extend several inches beyond the tail, forming a train of which the filaments are hair-like and rather stiff. Wings of moderate length; primaries broad, tapering, the inner broadly rounded, with an acumen, as are the very broad secondaries; first quill longest, second almost equal, third and fourth slightly shorter, the rest of the primaries rapidly graduated; the inner secondaries extend to nearly an inch of the tip of the wing, when the latter is closed. Tail very short, slightly rounded, of twelve rather weak rounded feathers.

Bill black on its terminal third, the rest and the bare space on the head pale flesh-colour. Iris white. Legs and feet ultramarine blue, the scutella bluish-black, as are the claws. Feathers of the head and neck light reddish-brown, tinged with lilac, the tips fading to brownish-white. Back and wings dull greyish-blue; the long feathers of the train yellowish towards the tips; all the lower parts are greyish-blue paler than that of the upper.

Length to end of tail 31 inches, to end of wings 32; to end of claws 40; extent of wings 46; wing from flexure $14\frac{1}{2}$; tail $4\frac{1}{2}$; bill along the back 4, along the edge of lower mandible $4\frac{1}{12}$, depth at the base 1; bare part of tibia $4\frac{1}{12}$; tarsus 6; middle toe 3, its claw $\frac{6\frac{1}{2}}{12}$. Weight $1\frac{3}{4}$ lbs.

The Female is precisely similar to the male in colour, but is rather smaller.

Young nearly two years old.

The bill is coloured as in the adult, as is the iris, but the feet are dark olive-green, the soles greenish-yellow. The plumage presents the same form as in the adult, but is entirely pure white.

In this state the bird has been described as a distinct species under the name of Peale's Egret Heron, but must now be restored to its proper species, the adult having been described and figured by Buffon under the name of *Aigrette rousse*, and named by Latham the Reddish Egret.

This species may be distinguished at the first glance from all others that occur in the United States, by the peculiar form of the feathers of the head and neck, which are loose, pendent, and fringe-like, at all seasons, excepting in the young bird before the first moult.

The number of young, as in all other species, much exceeds that of adult or coloured birds; and I have procured them in the proportion of three to one. I carried upwards of fifty specimens of this Heron to Charleston, where, as well as in Philadelphia, New York, and London, I presented some to my friends and to public institutions. I also sent several to my friend

P. J. Selby, Esq. of Twizel, Northumberland, and lately gave a pair to the Museum of the University of Edinburgh. Several specimens, which I presented to His Royal Highness the Duke of Sussex, have been by him given to the British Museum.

In this species a long series of elongated feathers commences at the lower fourth of the neck, on each side above, the intervening space being bare for the breadth of $\frac{1}{2}$ inch; they pass directly down along the back, terminating on the scapulæ, at the distance of $\frac{1}{2}$ inch from its extremity, gradually becoming more elongated, the first being 1 inch 8 twelfths in length, the last 14 inches. These feathers occupy a ridge $\frac{1}{4}$ inch in breadth at its lower part, and ought more peculiarly to be named scapulars, for the feathers so called, which are also elongated and tapering, run across the head of the humerus, close to its articulation. These series are terminated by four large and broad feathers of the ordinary texture. The elongated feathers on the fore part of the neck also form two similar series on each side.

The mouth is as in the preceding species, its width 10 twelfths; the lower mandible dilatable to 1 inch 5 twelfths; the tongue very small, 1 inch 7 twelfths in length, tapering to a fine point, but flattened, and very thin. Œsophagus 18 inches long, 2 inches wide at the commencement, $1\frac{1}{4}$ at the distance of 3 inches, after that uniformly 1 inch; on entering the thorax it enlarges to 1 inch 3 twelfths; and between it and the stomach is a contraction, the breadth of which is 9 twelfths. The stomach is very small, of an irregular roundish form, 1 inch in diameter, compressed; its tendons 8 twelfths in breadth; the pyloric lobe 9 twelfths in length, 7 twelfths in width, being much more elongated than in the other species. The proventricular glands are very small, and form a complete belt $1\frac{1}{4}$ inches in breadth. The inner surface of the stomach is soft and irregularly rugous, as in the other species; that of the pyloric lobe quite smooth. Right lobe of the liver 2 inches 2 twelfths in length, left 2 inches; gall-bladder oblong, $1\frac{1}{4}$ inches long, and 5 twelfths in breadth. Intestine 6 feet long, forming 26 folds; duodenum $2\frac{1}{4}$ twelfths wide; the smallest diameter 1 twelfth; rectum $4\frac{1}{2}$ inches long; its width 3 twelfths; cloaca globular, $1\frac{1}{2}$ inches in diameter; cœcum 2 twelfths long, and of the same width.

Trachea 13 inches long, its breadth uniformly 3 twelfths. It is considerably flattened, which is not the case with the other species. The rings 180, and 4 dimidiate. Bronchial half rings 20 and 18. The muscles as in the other species.

Reddish Egret

1. Adult full Spring Plumage. 2. Young in full Spring Plumage two Years old.

Drawn from Nature by J. J. Audubon F.R.S. F.L.S.

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