The Female is similar to the male.

The young, after the first moult, are of a light greyish-blue colour on the upper parts, the feathers tipped and banded in an undulating manner with brownish-black; the upper part of the head and the hind neck are of the latter colour, but mottled with white. The quills are as in the adult, the tail grey, with irregular brownish-black markings towards the tips of the feathers. The lower parts are also pale grey, but much lighter than the upper. The bill and feet are black, but the tip of the former has not yet assumed a yellow tint.

THE SOOTY TERN.

+ STERNA FULIGINOSA, *Lath.*

PLATE CCCCXXXII.—MALE.

Early in the afternoon of the 9th of May, 1832, I was standing on the deck of the United States revenue-cutter Marion. The weather was very beautiful, although hot, and a favourable breeze wafted us onwards in our course. Captain ROBERT DAY, who stood near me, on looking toward the south-west, ordered some person to be sent to the top to watch the appearance of land. A young lad was instantly seen ascending the rigging, and not many minutes after he had attained his post, we heard from him the cry of "land." It was the low keys of the Tortugas, toward which we had been steering. No change was made in the course of the "Lady of the Green Mantle," who glided along as if aware of the knowledge possessed by her commander. Now the light-house lantern appeared, like a bright gem glittering in the rays of the sun. Presently the masts and flags of several wreckers shewed us that they were anchored in the small but safe harbour. We sailed on, and our active pilot, who was also the first lieutenant of the Marion, pointed out to me a small island which he said was at this season the resort of thousands of birds, which he described by calling them "Black and White Sea Swallows," and again another islet, equally well stocked with another kind of Sea Swallow, which he added were called Noddies, because they frequently alighted on the yards of vessels at night, and slept there.

Sooty Tern

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

Half Printed & Col^d by J. T. Bowen Phila

He assured me that both species were on their respective breeding-grounds by millions, that the eggs of the first lay on the sand under bushes, at intervals of about a foot, while the nests of the last were placed as thickly on the bushes of their own chosen island. "Before we cast anchor," he added, "you will see them rise in swarms like those of bees when disturbed in their hive, and their cries will deafen you."

You may easily imagine how anxious I was to realize the picture; I expressed a wish to be landed on the island; but the kind officer replied, "My good sir, you will soon be tired of their incessant noise and numbers, and will enjoy the procuring of Boobies much better." After various tacks, we made our way through the curious and extremely dangerous channels leading to the small harbour, where we anchored. As the chain grated the ear, I saw a cloud-like mass arise over the "Bird Key," from which we were only a few hundred yards distant; and in a few minutes the yawl was carrying myself and my assistant ashore. On landing, I felt for a moment as if the birds would raise me from the ground, so thick were they all round, and so quick the motion of their wings. Their cries were indeed deafening, yet not more than half of them took to wing on our arrival, those which rose being chiefly male birds, as we afterwards ascertained. We ran across the naked beach, and as we entered the thick cover before us, and spread in different directions, we might at every step have caught a sitting bird, or one scrambling through the bushes to escape from us. Some of the sailors, who had more than once been there before, had provided themselves with sticks, with which they knocked down the birds as they flew thick around and over them. In less than half an hour, more than a hundred Terns lay dead in a heap, and a number of baskets were filled to the brim with eggs. We then returned on board, and declined disturbing the rest any more that night. My assistant, Mr. H. WARD, of London, skinned upwards of fifty specimens, aided by Captain DAY's servant. The sailors told me that the birds were excellent eating, but on this point I cannot say much in corroboration of their opinion, although I can safely recommend the eggs, for I considered them delicious, in whatever way cooked, and during our stay at the Tortugas we never passed a day without providing ourselves with a good quantity of them.

The next morning Mr. WARD told me that great numbers of the Terns left their island at two o'clock, flew off towards the sea, and returned a little before day, or about four o'clock. This I afterwards observed to be regularly the case, unless there happened to blow a gale, a proof that this species sees as well during the night as by day, when they also go to sea in search of food for themselves and their young. In this respect they differ from the *Sterna stolidus*, which, when overtaken at sea by darkness, even when land

is only a few miles distant, alight on the water, and frequently on the yards of vessels, where, if undisturbed, they sleep until the return of day. It is from this circumstance that they have obtained the name of Noddy, to which in fact they are much better entitled than the present species, which has also been so named, but of which I never observed any to alight on a vessel in which I was for thirty-five days in the Gulf of Mexico, at a time when that bird was as abundant during the day as the other species, of which many were caught at my desire by the sailors.

The present species rarely alights on the water, where it seems incommoded by its long tail; but the other, the *Sterna stolidus*, which, in the shape of its tail, and in some of its habits, shews an affinity to the Petrels, not only frequently alights on the sea, but swims about on floating patches of the *gulf weed*, seizing on the small fry and little crabs that are found among the branches of that plant, or immediately beneath them.

I have often thought, since I became acquainted with the habits of the bird which here occupies our attention, that it differs materially from all the other species of the same genus that occur on our coasts. The *Sterna fuliginosa* never dives headlong and perpendicularly as the smaller species are wont to do, such as *St. Hirundo*, *St. arctica*, *St. minuta*, *St. Dougallii*, or *St. nigra*, but passes over its prey in a curved line, and picks it up. Its action I cannot better compare to that of any other bird than the Night Hawk, while plunging over its female. I have often observed this Tern follow and hover in the wake of a porpoise, while the latter was pursuing its prey, and at the instant when by a sudden dash it frightens and drives toward the surface the fry around it, the Tern as suddenly passes over the spot, and picks up a small fish or two.

Nor is the flight of this Tern characterized by the buoyancy and undecidedness, if I may so speak, of the other species mentioned above, it being as firm and steady as that of the Cayenne Tern, excepting during the movements performed in procuring its food. Like some of the smaller Gulls, this bird not unfrequently hovers close to the water to pick up floating objects, such as small bits of fat pork and greasy substances thrown overboard purposely for making the experiment.

There is a circumstance connected with the habits of the two species of which I now more particularly speak, which, although perhaps somewhat out of place, I cannot refrain from introducing here. It is that the *Sterna stolidus* always forms a nest on trees or bushes, on which that bird alights with as much ease as a Crow or Thrush; whereas the *Sterna fuliginosa* never forms a nest of any sort, but deposits its eggs in a slight cavity which it scoops in the sand under the trees. But, reader, let us return to the Bird Key.

Early the next morning I was put on shore, and remained there until I had completed my observations on the Terns. I paid no attention to their lamentable cries, which were the less piercing that on this occasion I did not molest them in the least. Having seated myself on the shelly sand, which here formed the only soil, I remained almost motionless for several hours, in consequence of which the birds alighted about me, at the distance of only a few yards, so that I could plainly see with what efforts and pains the younger females deposited their eggs. Their bill was open, and their pantings indicated their distress, but after the egg had been expelled, they immediately walked off in an awkward manner, until they reached a place where they could arise without striking the branches of the bushes near them, when they flew away. Here and there, in numerous places within twenty yards of me, females, having their complement of eggs, alighted, and quietly commenced the labour of incubation. Now and then a male bird also settled close by, and immediately disgorged a small fish within the reach of the female. After some curious reciprocal nods of their heads, which were doubtless intended as marks of affection, the caterer would fly off. Several individuals, which had not commenced laying their eggs, I saw scratch the sand with their feet, in the manner of the common fowl, while searching for food. In the course of this operation, they frequently seated themselves in the shallow basin to try how it fitted their form, or find out what was still wanted to ensure their comfort. Not the least semblance of a quarrel did I observe between any two of these interesting creatures; indeed, they all appeared as if happy members of a single family; and as if to gratify my utmost wishes, a few of them went through the process of courtship in my presence. The male birds frequently threw their heads over their back as it were, in the manner of several species of Gulls; they also swelled out their throats, walked round the females, and ended by uttering a soft puffing sound as they caressed them. Then the pair for a moment or two walked round each other, and at length rose on wing and soon disappeared. Such is one of the many sights it has been my good fortune to witness, and by each of them have I been deeply impressed with a sense of the pervading power of the Deity.

The Sooty Tern always lays three eggs as its full number, and in no instance, among thousands of the nests which were on the Bird Key, did I find one more when the female was sitting close. I was desirous of ascertaining whether the male and the female incubate alternately; but this I was unable to do, as the birds frequently left their eggs for half an hour or even three quarters at a time, but rarely longer. This circumstance, together with the very slight difference in size and colour between the sexes, was the cause of my failure.

It was curious to observe their actions whenever a large party landed on the island. All those not engaged in incubation would immediately rise in the air and scream aloud; those on the ground would then join them as quickly as they could, and the whole forming a vast mass, with a broad extended front, would as it were charge us, pass over for fifty yards or so, then suddenly wheel round, and again renew their attack. This they would repeat six or eight times in succession. When the sailors, at our desire, all shouted as loud as they could, the phalanx would for an instant become perfectly silent, as if to gather our meaning; but the next moment, like a huge wave breaking on the beach, it would rush forward with deafening noise.

When wounded and seized by the hand, this bird bites severely, and utters a plaintive cry differing from its usual note, which is loud and shrill, resembling the syllables *oo-ee, oo-ee*. Their nests are all scooped near the roots or stems of the bushes, and under the shade of their boughs, in many places within a few inches of each other. There is less difference between their eggs than is commonly seen in those of water birds, both with respect to size and colouring. They generally measure two inches and one-eighth, by one and a half, have a smooth shell, with the ground of a pale cream colour, sparingly marked with various tints of lightish umber, and still lighter marks of purple, which appear as if within the shell. The lieutenant, N. LACOSTE, Esq., informed me that shortly after the young are hatched, they ramble pell-mell over the island, to meet their parents, and be fed by them; that these birds have been known to collect there for the purpose of breeding since the oldest wreckers on that coast can recollect; and that they usually arrive in May, and remain until the beginning of August, when they retire southward to spend the winter months. I could not however obtain a sufficiently accurate description of the different states of plumage which they go through, so as to enable me to describe them in the manner I should wish to do. All that I can say is, that before they take their departure, the young are greyish-brown above, dull white beneath, and have the tail very short.

At Bird Key we found a party of Spanish egggers from Havana. They had already laid in a cargo of about eight tons of the eggs of this Tern and the Noddy. On asking them how many they supposed they had, they answered that they never counted them, even while selling them, but disposed of them at seventy-five cents per gallon; and that one turn to market sometimes produced upwards of two hundred dollars, while it took only a week to sail backwards and forwards and collect their cargo. Some egggers, who now and then come from Key West, sell their eggs at twelve and a half cents the

dozen; but wherever these eggs are carried, they must soon be disposed of and eaten, for they become putrid in a few weeks.

On referring to my journals once more, I find the following remarks with reference to the Sooty Tern. It would appear that at some period not very remote, the Noddy, *Sterna stolidus*, must have had it in contemplation to appropriate to itself its neighbour's domains; as on examination of this island, several thousand nests of that bird were found built on the tops of the bushes, although no birds of the species were about them. It is therefore probable that if such an attempt was made by them, they were defeated and forced to confine themselves to the neighbouring island, where they breed by themselves, although it is only a few miles distant. That such interferences and conflicts now and then occur among different species of birds, has often been observed by other persons, and in several instances by myself, particularly among Herons. In these cases, right or wrong, the stronger party never fails to dislodge the weaker, and keep possession of the disputed ground.

STERNA FULIGINOSA, Bonap. Syn., p. 355.

SOOTY TERN, *Sterna fuliginosa*, Wils. Amer. Orn., vol. viii. p. 145.

SOOTY TERN, Nutt. Man., vol. ii. p. 284.

SOOTY TERN, *Sterna fuliginosa*, Aud. Orn. Biog., vol. iii. p. 263; vol. v. p. 641.

Male, $16\frac{1}{4}$, $34\frac{3}{4}$.

From Texas to the Floridas, in spring. Breeds in immense multitudes on the Tortugas. Migratory.

Adult Male.

Bill longer than the head, strong, slender, nearly straight, compressed, very acute. Upper mandible with the dorsal line slightly arched, the ridge broad and convex at the base, narrowed towards the end, the sides convex, the edges sharp and inflected, the tip acute. Nasal groove extended to beyond half the length of the bill, slightly inflected towards the edge; nostrils basal, linear, direct, pervious. Lower mandible with the angle very narrow, acute, extending to a little beyond the middle, the dorsal line straight, the sides convex, the sharp edges inflected, the tip very acute.

Head of moderate size, oblong, compressed; neck of moderate length; body slender; feet very small, wings and tail very long. Tibia bare for a short space; tarsus very short, slender, roundish, covered anteriorly with small scutella, laterally and behind with reticulated rather indistinct scales; toes small, slender, the first very small, the third longest, the fourth nearly as long, the second much shorter, all scutellate above, the anterior united by reticulated webs, having an incurved margin; claws curved, compressed,

acute, that of hind toe smallest, of middle toe by much the largest, and having the inner edge thin and dilated.

Plumage soft, close, blended, very short on the head; the feathers in general broad and rounded. Wings very long, narrow and pointed; primary quills tapering but rounded, the first longest, the rest rapidly graduated; secondary short, broad, rather acute, the inner more tapering. Tail long, very deeply forked, of twelve feathers, of which the outer are tapering, the middle rounded and short.

Bill and feet black. Iris chestnut. Forehead white; lores, upper part of the head, the hind neck and all the upper parts, deep black glossed with blue, excepting the edges of the wings and the lateral tail-feathers, which are white, the latter with the inner web towards the end dusky. All the lower parts and the sides of the neck are pure white.

Length to end of tail $16\frac{1}{4}$ inches, to end of wings $15\frac{3}{8}$, to end of claws $11\frac{1}{2}$; extent of wings $34\frac{3}{4}$; wing from flexure 12; tail to the end $7\frac{3}{4}$, to the fork $3\frac{3}{4}$; bill along the ridge $1\frac{3}{4}$, along the edge of lower mandible $2\frac{5}{12}$; tarsus $\frac{10}{12}$; middle toe $\frac{9\frac{1}{2}}{12}$, its claw $\frac{4}{12}$.

The Female is similar to the male.

Female. The mouth is formed as in the Cayenne Tern; its width $8\frac{1}{2}$ twelfths. Tongue 1 inch 4 twelfths long, emarginate and papillate at the base, very slender, channelled above, horny beneath, tapering to a point. Œsophagus $6\frac{3}{4}$ inches long, 1 inch wide at the commencement, 9 twelfths along the neck, but within the thorax dilated into an enormous sac 1 inch 9 twelfths in width. Stomach exceedingly small, being only $10\frac{1}{2}$ twelfths long, 7 twelfths broad; its muscles very thin, the epithelium strong, longitudinally rugous, and of a bright red colour. The belt of the proventricular glands only 3 twelfths in breadth. The walls of the œsophagus are extremely thin, so as to be membranous and transparent. Lobes of liver 1 inch 9 twelfths, and 1 inch 2 twelfths long; gall-bladder $\frac{1}{2}$ inch long, 3 twelfths broad. Intestine 15 inches long, 3 twelfths broad at the commencement, diminishing to 2 twelfths; cœca 1 inch 2 twelfths long, their greatest width $1\frac{1}{2}$ twelfths, at the base only $\frac{3}{4}$ twelfth; in form and proportion they are thus like those of the genus *Lestris*; their distance from the extremity 2 inches, cloaca globular, 9 twelfths in diameter.

Trachea 4 inches long, from $2\frac{1}{2}$ twelfths to $1\frac{1}{2}$ twelfths in breadth, roundish, the rings 95, unossified. Bronchi very wide, of 28 rings. Muscles as in the other species.

Sooty Tern.

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

Half Printed & Col^d by J. T. Bowen Phila

Audubon, John James. 1844. "The Sooty Tern, *Sterna fuliginosa*, Lath. [Pl. 432]." *The birds of America : from drawings made in the United States and their territories* 7, 90–96. <https://doi.org/10.5962/p.319544>.

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