

The lachrymal duct passes obliquely inwards from the anterior corner of the eye, and enters the nasal cavity by an aperture $\frac{1}{2}$ twelfth in diameter, near its anterior margin.

In the cloaca was found a solid calculus, half an inch in diameter, of an irregular form, white within, externally pale yellowish-brown, and marked with grooves impressed by the action of the sphincter ani.

The digestive and respiratory organs of the American Gannet are thus precisely similar to those of the European. In external form, proportions, and colours, there are no appreciable differences. The young in all stages are similar. The flight, voice, general habits, and all other circumstances, are the same. What, then, shall we say to those who have pretended that the American bird differs from the European? Merely this, compare the two, outside and inside, shew us differences, and then we shall judge if they be sufficient to indicate different species; but until you have done this, do not imagine that a mere "*Sula Americana* Nob.," is enough to satisfy the world on this or any similar point.

THE BOOBY GANNET.

+*SULA FUSCA*, Linn.

PLATE CCCCXXVI.—MALE.

As the Marion was nearing the curious islets of the Tortugas, one of the birds that more particularly attracted my notice was of this species. The nearer we approached the land, the more numerous did they become, and I felt delighted with the hope that ere many days should elapse, I should have an opportunity of studying their habits. As night drew her sombre curtain over the face of nature, some of these birds alighted on the top-yard of our bark, and I observed ever afterwards that they manifested a propensity to roost at as great a height as possible above the surrounding objects, making choice of the tops of bushes, or even upright poles, and disputing with each other the privilege. The first that was shot at, was approached with considerable difficulty: it had alighted on the prong of a tree which had floated and been fastened to the bottom of a rocky shallow at some distance from

shore; the water was about four feet deep and quite rough; sharks we well knew were abundant around us; but the desire to procure the bird was too strong to be overcome by such obstacles. In an instant, the pilot and myself were over the sides of the boat, and onward we proceeded with our guns cocked and ready. The yawl was well manned, and its crew awaiting the result. After we had struggled through the turbulent waters about a hundred yards, my companion raised his gun and fired; but away flew the bird with a broken leg, and we saw no more of it that day. Next day, however, at the same hour, the Booby was seen perched on the same prong, where, after resting about three hours, it made off to the open sea, doubtless in search of food.

About eight miles to the north-east of the Tortugas lighthouse, lies a small sand-bar a few acres in extent, called Booby Island, on account of the number of birds of this species that resort to it during the breeding-season, and to it we accordingly went. We found it not more than a few feet above the surface of the water, but covered with Boobies, which lay basking in the sunshine, and pluming themselves. Our attempt to land on the island before the birds should fly off, proved futile, for before we were within fifty yards of it, they had all betaken themselves to flight, and were dispersing in various directions. We landed, however, distributed ourselves in different parts, and sent the boat to some distance, the pilot assuring us that the birds would return. And so it happened. As they approached, we laid ourselves as flat as possible in the sand, and although none of them alighted, we attained our object, for in a couple of hours we procured thirty individuals of both sexes and of different ages, finding little difficulty in bringing them down as they flew over us at a moderate height. The wounded birds that fell on the ground made immediately for the water, moving with more ease than I had expected from the accounts usually given of the awkward motions of these birds on the land. Those which reached the water swam off with great buoyancy, and with such rapidity, that it took much rowing to secure some of them, while most of those that fell directly into the sea with only a wing broken, escaped. The island was covered with their dung, the odour of which extended to a considerable distance leeward. In the evening of the same day we landed on another island, named after the Noddy, and thickly covered with bushes and low trees, to which thousands of that species of Tern resort for the purpose of breeding. There also we found a great number of Boobies. They were perched on the top branches of the trees, on which they had nests, and here again we obtained as many as we desired. They flew close over our heads, eyeing us with dismay but in silence; indeed, not one of these birds ever emitted a cry, except at the moment when they rose from their perches or from the sand. Their note

is harsh and guttural, somewhat like that of a strangled pig, and resembling the syllables *hork, hork*.

The nest of the Booby is placed on the top of a bush at a height of from four to ten feet. It is large and flat, formed of a few dry sticks, covered and matted with sea-weeds in great quantity. I have no doubt that they return to the same nest many years in succession, and repair it as occasion requires. In all the nests which I examined, only one egg was found, and as most of the birds were sitting, and some of the eggs had the chick nearly ready for exclusion, it is probable that these birds raise only a single young one, like the Common Gannet or Solan Goose. The egg is of a dull white colour, without spots, and about the size of that of a common hen, but more elongated, being $2\frac{3}{8}$ inches in length, with a diameter of $1\frac{3}{4}$. In some nests they were covered with filth from the parent bird, in the manner of the Florida Cormorant. The young, which had an uncouth appearance, were covered with down; the bill and feet of a deep livid blue or indigo colour. On being touched, they emitted no cry, but turned away their heads at every trial. A great quantity of fish lay beneath the trees in a state of putrefaction, proving how abundantly the young birds were supplied by their parents. Indeed, while we were on Noddy Island, there was a constant succession of birds coming in from the sea with food for their young, consisting chiefly of flying-fish and small mullets, which they disgorged in a half macerated state into the open throats of their offspring. Unfortunately the time afforded me on that coast was not sufficient to enable me to trace the progress of their growth. I observed, however, that none of the birds which were still brown had nests, and that they roosted apart, particularly on Booby Island, where also many barren ones usually resorted, to lie on the sand and bask in the sun.

The flight of the Booby is graceful and extremely protracted. They pass swiftly at a height of from twenty yards to a foot or two from the surface, often following the troughs of the waves to a considerable distance, their wings extended at right angles to the body; then, without any apparent effort, raising themselves and allowing the rolling waters to break beneath them, when they tack about, and sweep along in a contrary direction in search of food, much in the manner of the true Petrels. Now, if you follow an individual, you see that it suddenly stops short, plunges headlong into the water, pierces with its powerful beak and secures a fish, emerges again with inconceivable ease, after a short interval rises on wing, performs a few wide circlings, and makes off toward some shore. At this time its flight is different, being performed by flappings for twenty or thirty paces, with alternate sailings of more than double that space. When overloaded with food,

they alight on the water, where, if undisturbed, they appear to remain for hours at a time, probably until digestion has afforded them relief.

The range to which this species confines itself along our coast, seldom extends beyond Cape Hatteras to the eastward, but they become more and more numerous the farther south we proceed. They breed abundantly on all such islands or keys as are adapted for the purpose, on the southern and western coasts of the Floridas and in the Gulf of Mexico, where I was told they breed on the sand-bars. Their power of wing seems sufficient to enable them to brave the tempest, while during a continuance of fair weather they venture to a great distance seaward, and I have seen them fully 200 miles from land.

The expansibility of the gullet of this species enables it to swallow fishes of considerable size, and on such occasions their mouth seems to spread to an unusual width. In the throats of several individuals that were shot as they were returning to their nests, I found mullets measuring seven or eight inches, that must have weighed fully half a pound. Their body, beneath the skin, is covered with numerous air-cells, which probably assist them in raising or lowering themselves while on wing, and perhaps still more so when on the point of performing the rapid plunge by which they secure their prey.

Their principal enemies during the breeding-season are the American Crow and the Fish Crow, both of which destroy their eggs, and the Turkey Buzzard, which devours their young while yet unfledged. They breed during the month of May, but I have not been able to ascertain if they raise more than one brood in the season. The adult birds chase away those which are yet immature during the period of incubation. It would seem that they take several years in attaining their perfect state.

When procured alive, they feed freely, and may be kept any length of time, provided they are supplied with fish. No other food, however, could I tempt them to swallow, excepting slices of turtle, which after all they did not seem to relish. In no instance did I observe one drinking. Some authors have stated that the Frigate Pelican and the Lestris force the Booby to disgorge its food that they may obtain it; but this I have never witnessed. Like the Common Gannet, they may be secured by fastening a fish to a soft plank, and sinking it a few feet beneath the surface of the water, for if they perceive the bait, which they are likely to do if they pass over it, they plunge headlong upon it, and drive their bill into the wood.

When a Booby has alighted on the spar of a vessel, it is no easy matter to catch it, unless it is much fatigued; but if exhausted and asleep, an expert seaman may occasionally secure one. I was informed that after the breeding-season, these birds roost on trees in company with the Brown Pelican

and a species of Tern, *Sterna stolidus*, and spend their hours of daily rest on the sand-banks. Our pilot, who was a man of great observation, assured me that while at Vera Cruz, he saw the fishermen there go to sea, and return from considerable distances, simply by following the course of the Boobies.

The bills and legs of those which I procured in the brown plumage, and which were from one to two years of age, were dusky-blue. These were undergoing moult on the 14th of May. At a more advanced age, the parts mentioned become paler, and when the bird has arrived at maturity, are as represented in my plate. I observed no external difference between the sexes in the adult birds. The stomach is a long dilatable pouch, thin, and of a yellow colour. The body is muscular, and the flesh, which is of a dark colour, tough, and having a disagreeable smell, is scarcely fit for food.

I am unable to find a good reason for those who have chosen to call these birds *boobies*. Authors, it is true, generally represent them as extremely *stupid*; but to me the word is utterly inapplicable to any bird with which I am acquainted. The Woodcock, too, is said to be stupid, as are many other birds; but my opinion, founded on pretty extensive observation, is, that it is only when birds of any species are unacquainted with man, that they manifest that kind of *ignorance* or *innocence* which he calls *stupidity*, and by which they suffer themselves to be imposed upon. A little acquaintance with him soon enables them to perceive enough of his character to induce them to keep aloof. This I observed in the Booby Gannet, as well as in the Noddy Tern, and in certain species of land birds of which I have already spoken. After my first visit to Booby Island in the Tortugas, the Gannets had already become very shy and wary, and before the Marion sailed away from those peaceful retreats of the wandering sea-birds, the *Boobies* had become so knowing, that the most expert of our party could not get within shot of them.

SULA FUSCA, Bonap. Syn., p. 408.

BOOBY, *Sula fusca*, Nutt. Man., vol. ii. p. 500.

BOOBY GANNET, *Sula fusca*, Aud. Orn. Biog., vol. iii. p. 63.

Male, 31, 49½.

Gulf of Mexico, and as far east as the coast of Georgia. Breeds on the Tortugas Keys, south of Florida. Abundant. Migratory.

Adult Male.

Bill longer than the head, opening beyond the eyes, straight, elongated-conical, broader above than beneath at the base, compressed. Upper mandible with the dorsal line convex at the base, then a little concave, and towards the tip slightly arched, ridge very broad, convex, separated by a seam on each side from the sides, which are nearly perpendicular, edges

sharp, inflected, serrated, tip acute. No external nostrils. Lower mandible prolonged at the base behind the upper, its angle very long, wide at the base, with a bare membrane, very narrow towards the end, dorsal line straight, ascending, sides convex, tip very acute, edges serrated towards the end.

Head rather large; neck rather long and thick; body of moderate bulk, rather elongated; wings long. Feet short, strong, placed rather far behind; tibiae concealed; tarsus very short, rounded before, sharp behind, covered all round with reticular scales; toes all united by membranes; first very short, being about half the length of the second, third and fourth longest and nearly equal, but the claw of the third is much longer than that of the fourth; claws small, compressed, acute, curved, that of the third toe largest, depressed, curved outwards, with a thin pectinated inner edge.

Plumage generally short, close, rather compact, the feathers small and rounded; those on the head very small; loreal and orbital spaces bare, as is that in the angle of the lower mandible, and a short space above the tibio-tarsal joint; wings long, acute, narrow; primaries strong, narrow, tapering rapidly to a rounded point, first and second longest and about equal, the rest rapidly graduated; secondaries short, rather broad, narrowed towards the rounded point. Tail rather long, cuneate, of twelve narrow, tapering feathers.

Bill and naked parts at its base bright yellow, pale flesh-coloured towards the end; a dusky spot before the eye. Iris white. Tarsi, toes, and their connecting webs, pale yellow, claws white. Head, neck all round, upper parts in general, and lower surface of wings, dusky-brown, tinged with grey; the breast, abdomen, and lower tail-coverts, pure white.

Length 31 inches, to end of claws 27, extent of wings $29\frac{1}{4}$; bill along the back $3\frac{1}{2}$, along the edge 5; tarsus $1\frac{8}{12}$, middle toe and claw $3\frac{1}{2}$. Wing from flexure $16\frac{1}{2}$, tail $8\frac{1}{2}$. Weight 3 lbs. $4\frac{1}{2}$ oz.

The Female resembles the male, but is smaller.

The Young, when fledged, are of a greyish-brown colour all over, the breast and abdomen being merely a little lighter than the rest. The bill and claws are dusky, the tarsi and toes with their membranes dull yellow.



C.P.

Booby Gannet.

Male.

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

Engraved & Col^d by J. T. Bowen Philad^a



Audubon, John James. 1844. "The Booby Gannet, *Sula fusca*, Linn. [Pl. 426]."
The birds of America : from drawings made in the United States and their territories 7, 57–62. <https://doi.org/10.5962/p.319538>.

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