

## THE BARN SWALLOW.

+ *HIRUNDO RUSTICA*, Linn.

PLATE XLVIII.—MALE, FEMALE, AND NEST.

The Barn Swallow makes its first appearance at New Orleans from the middle of February to the first of March. They do not arrive in flocks, but apparently in pairs, or a few together, and immediately resort to the places where they have bred before, or where they have been reared. Their progress over the Union depends much on the state of the weather; and I have observed a difference of a whole month, owing to the varying temperature, in their arrival at different places. Thus in Kentucky, Virginia, or Pennsylvania, they now and then do not arrive until the middle of April or the beginning of May. In milder seasons, they reach Massachusetts and the eastern parts of Maine by the 10th of the latter month, when you may rest assured that they are distributed over all the intermediate districts. So hardy does this species seem to be, that I observed it near Eastport in Maine, on the 7th May, 1833, in company with the Republican or Cliff Swallow, pursuing its different avocations, while masses of ice hung from every cliff, and the weather felt cold to me. I saw them in the Gut of Cansso on the 10th of June, and on the Magdeleine Islands on the 13th of the same month. They were occupied in building their nests in the open cupola of a church. Not one, however, was observed in Labrador, although many Sand Martins were seen there. On our return, I found at Newfoundland some of the present species, and of the Cliff Swallow, all of which were migrating southward on the 14th of August, when Fahrenheit's thermometer stood at 41°.

In spring, the Barn Swallow is welcomed by all, for she seldom appears before the final melting of the snows and the commencement of mild weather, and is looked upon as the harbinger of summer. As she never commits depredations on any thing that men consider as their own, every body loves her, and, as the child was taught by his parents, so the man teaches his offspring, to cherish her. About a week after the arrival of this species, and when it has already resorted to its wonted haunts, examined its last year's tenement, or made choice of a place to which it may securely fix its nest, it begins either to build or to deposit its eggs.

The nest is attached to the side of a beam or rafter in a barn or shed, under a bridge, or sometimes even in an old well, or in a sink hole, such as those found in the Kentucky barrens. Whenever the situation is convenient

and affords sufficient room, you find several nests together, and in some instances I have seen seven or eight within a few inches of each other; nay, in some large barns I have counted forty, fifty, or more. The male and the female both betake themselves to the borders of creeks, rivers, ponds, or lakes, where they form small pellets of mud or moist earth, which they carry in their bill to the chosen spot, and place against the wood, the wall, or the rock, as it may chance to be. They dispose of these pellets in regular layers, mixing, especially with the lower, a considerable quantity of long slender grasses, which often dangle for several inches beneath the bottom of the nest. The first layers are short, but the rest gradually increase in length, as the birds proceed upwards with their work, until they reach the top, when the fabric resembles the section of an inverted cone, the length being eight inches, and the greatest diameter six, while that from the wall or other flat surface to the outside of the shell is three and a half, and the latter is fully an inch thick. I have never observed in a newly finished nest, the expansion of the upper layer mentioned by WILSON, although I have frequently seen it in one that has been repaired or enlarged. The average weight of such a nest as I have described is more than two pounds, but there is considerable difference as to size between different nests, some being shorter by two or three inches, and proportionally narrow at the top. These differences depend much on the time the birds have to construct their tenement previous to depositing the eggs. Now and then I have seen some formed at a late period, that were altogether destitute of the intermixture of grass with the mud observed in the nest described above, which was a perfect one, and had occupied the birds seven days in constructing it, during which period they laboured from sunrise until dusk, with an intermission of several hours in the middle of the day. Within the shell of mud is a bed, several inches thick, of slender grasses arranged in a circular form, over which is placed a quantity of large soft feathers. I never saw one of these nests in a chimney, nor have I ever heard of their occurring in such situations, they being usually occupied by the American Swift, which is a more powerful bird, and may perhaps prevent the Barn Swallow from entering. The eggs are from four to six, rather small and elongated, semi-translucent, white, and sparingly spotted all over with reddish-brown. The period of incubation is thirteen days, and both sexes sit, although not for the same length of time, the female performing the greater part of the task. Each provides the other with food on this occasion, and both rest at night beside each other in the nest. In South Carolina, where a few breed, the nest is formed in the beginning of April, and in Kentucky about the first of May.

When the young have attained a considerable size, the parents, who feed them with much care and affection, roost in the nearest convenient place.

This species seldom raises more than two broods in the Southern and Middle Districts, and never, I believe, more than one in Maine and farther north. The little ones, when fully fledged, are enticed to fly by their parents, who, shortly after their first essays, lead them to the sides of fields, roads or rivers, where you may see them alight, often not far from each other, on low walls, fence-stakes and rails, or the withered twigs or branches of some convenient tree, generally in the vicinity of a place in which the old birds can easily procure food for them. As the young improve in flying, they are often fed on the wing by the parent birds. On such occasions, when the old and young birds meet, they both rise obliquely in the air, and come close together, when the food is delivered in a moment, and they separate to continue their gambols. In the evening the family retires to the breeding place, to which it usually resorts until the period of their migration.

About the middle of August, the old and young birds form more extensive associations, flying about in loose flocks, which are continually increasing, and alighting in groups on tall trees, churches, court-houses, or barns, where they may be seen for hours pluming and dressing themselves, or removing the small insects which usually infest them. At such times they chirp almost continually, and make sallies of a few hundred yards, returning to the same place. These meetings and rambles often occupy a fortnight, but generally by the 10th of September great flocks have set out for the south, while others are seen arriving from the north. The dawn of a fair morning is the time usually chosen by these birds for their general departure, which I have no reason to believe is prevented by a contrary wind. They are seen moving off without rising far above the tops of the trees or towns over which they pass; and I am of opinion that most of them in large parties usually migrate either along the shores of the Atlantic, or along the course of large streams, such places being most likely to afford suitable retreats at night, when they betake themselves to the reeds and other tall grasses, if it is convenient to do so, although I have witnessed their migration during a fine, clear, quiet evening. Should they meet with a suitable spot, they alight close together, and for awhile twitter loudly, as if to invite approaching flocks or stragglers to join them. In such places I have seen great flocks of this species in East Florida;—and here, reader, I may tell you that the fogs of that latitude seem not unfrequently to bewilder their whole phalanx. One morning, whilst on board the United States Schooner "Spark," lieutenant commandant PIERCEY and the officers directed my attention to some immense flocks of these birds flying only a few feet above the water for nearly an hour, and moving round the vessel as if completely lost. But when the morning is clear, these Swallows rise in a spiral manner from the reeds to

the height of thirty or forty yards, extend their ranks, and continue their course.

I found flocks of Barn Swallows near St. Augustine for several days in succession, until the beginning of December; but after the first frost none were to be seen. These could not have removed many degrees farther south, for want of proper food, and I suspect that numbers of them spend the whole winter along the south coast of the Gulf of Mexico.

The flight of this species is not less interesting than any other of its characteristics. It probably surpasses in speed that of any other species of the feathered tribes, excepting the Humming Bird. In fine calm weather their circuits are performed at a considerable elevation, with a lightness and ease that are truly admirable. They play over the river, the field, or the city with equal grace, and during spring and summer you might imagine their object was to fill the air around them with their cheerful twitterings. When the weather lowers, they move more swiftly in tortuous meanderings over the meadows, and through the streets of the towns; they pass and repass, now close to the pavement, now along the walls of the buildings, here and there snapping an insect as they glide along with a motion so rapid that you can scarcely follow them with the eye. But try:—There she skims against the wind over the ruffled stream; up she shoots, seizes an insect, and wheeling round, sails down the breeze with a rapidity that carries her out of your sight almost in a moment. Noon arrived, and the weather being sultry, round the horse or the cow she passes a thousand times, seizing on each tormenting fly. Now she seems fain to enter the wood, so close along its edge does she pursue her prey; but spying a Crow, a Raven, a Hawk or an Eagle, off she shoots with doubled speed after the marauder, and the next instant is seen lashing, as it were, the object of her anger with admirable dexterity, after which, full of gaiety and pride, the tiny thing returns towards the earth, forming to herself a most tortuous path in the air.

On the ground the movements of this Swallow are by no means awkward, although, when compared with those of other birds, they seem rather hampered. It walks by very short steps, and aids itself with its wings. Should it be necessary to remove to the distance of a few yards, it prefers flying. When alighted on a twig, it shews a peculiar tremulous motion of the wings and tail.

The song of our Barn Swallow resembles that of the Chimney Swallow of England so much that I am unable to discern the smallest difference. Both sing on the wing and when alighted, and the common *tweet* which they utter when flying off is precisely the same in both. Their food also is similar; at least that of our bird consists entirely of insects, some being small coleoptera,

the crustaceous parts of which are disgorged in roundish pellets scarcely the size of a small pea.

I have represented a pair of our Barn Swallows in the most perfect spring plumage, together with a nest taken from one of the rafters of a barn in the State of New Jersey, in which there was at least a score of them.

An individual of this species preserved in spirits measured to end of tail  $6\frac{8}{12}$  inches, to end of wings  $6\frac{2}{12}$ ; wing from flexure  $4\frac{10}{12}$ ; tail  $3\frac{1}{4}$ ; extent of wings  $12\frac{9}{12}$ . The roof of the mouth is flat and somewhat transparent; the posterior aperture of the nares oblongo-linear, margined with strong papillæ; the tongue  $3\frac{1}{4}$  twelfths long, triangular, emarginate and papillate at the base, thin, the tip slit and lacerate. The mouth is supplied with numerous mucous crypts; its width is  $5\frac{1}{2}$  twelfths. There is a very narrow flattened salivary gland, similar to that of the Purple Martin, but proportionally smaller. The œsophagus is 2 inches long,  $1\frac{1}{2}$  twelfths in width, simple or without dilatation. The stomach is elliptical,  $7\frac{1}{2}$  twelfths long, 6 twelfths broad, its muscles distinct; the epithelium, as in the other species, tough, with longitudinal rugæ, and of a reddish-brown colour. The intestine is short and wide, its length being  $6\frac{1}{2}$  inches, its breadth from  $2\frac{1}{2}$  twelfths to 2 twelfths. The cœca are 2 twelfths long,  $\frac{1}{3}$  twelfth wide, and placed at the distance of 11 twelfths from the extremity; the rectum is dilated into an oblong cloaca; about 5 twelfths in width.

The trachea is 1 inch  $5\frac{1}{2}$  twelfths long, moderately flattened, from 1 twelfth to  $\frac{3}{4}$  twelfth in breadth; its rings pretty firm, 50 in number, with two dimidiate rings. The muscles are as in the other species; the bronchi are moderate, of about 15 half rings.

BARN SWALLOW, *Hirundo Americana*, Wils. Amer. Orn., vol. v. p. 34.

HIRUNDO AMERICANA, AMERICAN BARN SWALLOW, Swains. & Rich. F. Bor. Amer. vol. ii. p. 329.

HIRUNDO RUFA, Bonap. Syn., p. 64.

BARN SWALLOW, *Hirundo rufa*, Nutt. Man., vol. i. p. 601.

BARN SWALLOW, *Hirundo rustica*, Aud. Orn. Biog., vol. ii. p. 413; vol. v. p. 411.

Tail very deeply forked, the lateral feathers much exceeding the wings. Forehead and throat bright chestnut; upper parts and a band on the fore-neck glossy deep steel-blue; quills and tail brownish-black, glossed with green; the latter with a white spot on the inner web of each of the feathers, except the two middle. Female similar to the male. Young less deeply coloured, the forehead and throat pale red, the band on the fore-neck dusky, tinged with red; lateral tail-feathers not exceeding the wings.

Male, 7, 13. Female,  $6\frac{3}{12}$ ,  $12\frac{9}{12}$ .



*Barn or Chimney Swallow.*



Audubon, John James. 1840. "The Barn Swallow, *Hirundo rustica*, Linn. [Pl. 48]." *The birds of America : from drawings made in the United States and their territories* 1, 181–185. <https://doi.org/10.5962/p.319161>.

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