TROCHILUS COLUBRIS, Linn.

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Ruby-throated Humming-bird.

- Trochilus Colubris*, Linn. Syst. Nat., tom. i. p. 191.—Ib. Gen. Hist., vol. iv. p. 344.—Bonap. Syn. Birds of U. States, p. 98.—Wils. Am. Orn., vol. ii. p. 26. pl. 10. figs. 3, 4.—Vieill. Ency. Méth. Orn., part ii. p. 569.—Jard. Nat. Lib. Humming-birds, vol. i. p. 85. pl. 5.—Reichenb. Aufz. der Col., p. 12.—Audub. Birds of Am., vol. i. pl. xlvii.—Ib. Orn. Bio., vol. i. p. 248.—Sagra, Voy. de Cuba, pl. 21. fig. 1.—Swains. and Rich. Faun. Bor. Am. part ii. Birds, pp. xxvi, xxxvi, 323.
- The Red-throated Humming-bird*, Edw. Nat. Hist. &c., vol. i. p. 38. pl. 38.
- Red-throated Honey-sucker*, Penn. Arct. Zool., vol. ii. p. 176.
- Mellisuga Carolinensis gutture rubro*, Briss. Orn., tom. iii. p. 716. pl. xxxvi. figs. 5, 6.
- *colubris*, Steph. Cont. of Shaw, Gen. Zool., vol. xiv. p. 247.
- Le Rubis*, Buff. Hist. Nat. des Ois., tom. vi. p. 13.—Vieill. Ois. Dor., tom. i. pp. 66, 69, 70. pls. 31, 32, 33.—Vieill. Ois. de l'Am., tom. i. pls. 31, 32.
- L'Oiseau-mouche à gosier doré*, Vieill. Ois. Dor., tom. i. p. 89. pl. 46.
- Ornismya Colubris*, Less. Hist. Nat. des Ois.-mou., pp. xvj. 151. pls. 48, 48*.—Ib. Les Troch., p. 1. pl. i.—Ib. Ind. Gen. et Syn. des Ois. du Gen. *Trochilus*, p. xxxiv.
- Mellisuga colubris*, Gray and Mitch. Gen. of Birds, vol. i. p. 113, *Mellisuga*, p. 82.
- The Humming-bird*, Catesb. Nat. Hist. of Car. &c., vol. i. p. 65. pl. 65.
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ALTHOUGH every species of Humming-bird inhabits either the great continent of America or the islands immediately adjacent, the subject of the present memoir is the only one usually seen in a state of nature by those travellers who wend their way across the Atlantic to the western world.

It was on the 21st of May, 1857, that my earnest day-thoughts and not unfrequent night-dreams of thirty years were realized by the sight of a living Humming-bird. To describe my feelings on the occasion would be no easy task; I leave them then to the imagination of my readers rather than make the attempt. In like manner I shall not give any narration of my own respecting this beautiful little bird, about which so much has been written by Wilson, Audubon, and others, but adopt the fairer course of giving copious extracts from the eloquent writings of those authors, and content myself with affording some additional information respecting the range of the species, its disposition in a state of captivity, &c. Second only to the gratification of seeing this Humming-bird in a state of nature was the pleasure I derived from a successful attempt to bring living examples to this country; unfortunately, their existence here was of short duration, but they lived long enough to prove that if other attempts be made, they will be rewarded with success. I have repeatedly stated in the present work, that many of the members of this family are migratory, while others are stationary, and some are restricted to exceedingly limited areas. The *Trochilus Colubris* is pre-eminently a migratory species, a great portion of its life being spent in passing from north to south, and *vice versa*. Its range may be said to extend over nearly forty degrees of latitude, or from ten to fifty degrees north, on the eastern side of the American continent; I have received it in abundance from Guatemala, Mexico, Texas, the United States, and Canada, in which latter country Dr. Richardson observed it on the plains of the Saskatchewan, and Mr. Drummond found it breeding on the banks of the Elk River. The months in which the United States are favoured with its presence are May, June, July, August and September; it arrives in the Southern States as early as March, and as the season advances, gradually passes on towards the central and northern portions of the country, including Canada and even some parts of the Hudson's Bay territory. It breeds in all the above-mentioned countries, and frequently raises two broods a year. About the middle of September the great southern migration commences, and the bird winters in the more genial and warmer countries of Mexico and Guatemala. This then is all that it is necessary to say respecting its migration, unless it be to add, that I believe its movement to and from either country is very gradual, and that it is probably performed in the broad open daytime only, and not by night, as has been suspected by Audubon. The period of my visit to America being somewhat early in the season, my attempts to discover a living "Hummer" in the neighbourhood of New York during the second week in May were futile, and it was not until I arrived at the more southern city of Philadelphia that my wish was gratified by the sight of a single male in the celebrated Bartram's garden, whither I was conducted by my friend Mr. W. M. L. Baily, from whom I also received many other kind attentions.

When first seen, the bird was engaged in examining the blossoms of a lofty chestnut; but its

restlessness did not permit me to gratify my desire for a lengthened observation, and after vainly waiting for some time in the hope of its returning, I continued my walk under the high trees to another part of the grounds, where I was again gratified by seeing my little friend dart off from within a few feet of me: in this shady retreat it passed from shrub to shrub, now and then perching on some bare twig to rest in a state of quietude, or to preen its wings before again darting off to examine the flowers on the more lofty branches. The almost total absence of Humming-birds around Philadelphia proved to me that I was still too early for them, the lateness of the season of 1857 having retarded their movement, and the regularity of their arrival being evidently dependent upon the state of the trees and consequent supply of food; I therefore determined to proceed farther south to Washington, where, in the gardens of the Capitol, I had the pleasure of meeting with them in great numbers: in lieu, then, of the single individual in Bartram's garden, I was now gratified by the sight of from fifty to sixty on a single tree, and had an ample opportunity of observing these living gems, and of noticing their extraordinary movements and aerial evolutions to my heart's content. They were more amicably disposed than they are usually said to be. Disporting round the reddish flowers of a species of chestnut termed Buck-eye, both males and females were busily engaged in examining the blossoms, ever and anon retiring to some shady branches for the purpose of rest or to plume themselves. To say that these birds, of which several hundreds were to be seen within the area of as many yards, were in this instance not amicably disposed towards each other, would be untrue; a little brush now and then, and an occasional tilting-match between two males, certainly did occur, but the greater number were evidently too much occupied in the search for food to waste time in fighting. I suspect that the pugnacity of the males so graphically described by Wilson principally occurs during the breeding season, when their fury is said to have no bounds. My scientific friend Dr. Baird, who was with me at the time, will, I am sure, confirm what I have said with regard to the numbers seen on this occasion.

Having now observed the bird in a state of nature, my next object was to obtain living examples for more close examination, and through the kindness of Baron Osten-Sacken, the nephew of the great General, a member of the Russian diplomatic corps at Washington, and an excellent entomologist, a specimen was soon procured for me in one of the conservatories of the city, and great was my delight in taking possession of the little captive. A small insect gauze net, about six inches in diameter, distended by a light hoop, was soon manufactured for its reception, and, although sadly buffeted about, the bird, within an hour of its capture, readily took sugar and water from a spoon held in the hand: this boldness led me to hope that it would soon become familiarized with its little domicile. I accordingly suspended it from a button of my coat, and carried it about with me wherever I went, offering it every half-hour a small bottle filled with sugar and water, into which it thrust its long bill through the gauze bag, and pumped up the fluid through its more lengthened tubular tongue. In this way it travelled with me for two days across the Alleghany Mountains, and would doubtless have continued to do well, had I not, at the end of a dusty and tremendously jolting ride, given it a bath to free it from the dirt which had accumulated on its tail and wings during the journey, from the effects of which it sickened and died. In recording my obligations to Baron Osten-Sacken, it must not be supposed that I am unmindful of the attentions rendered me with the same object by every one at Washington, including His Excellency the President, our own minister, Lord Napier, Mr. Russell, and others.

A few days' travelling by way of Ohio and Lake Erie brought me to Canada. At the "Falls" the "Hummers" had but just arrived, and only a few males were to be seen; at Toronto they were still fewer in number. At one P.M. on the 5th of June, when passing down the St. Lawrence, I observed a fine male cross the bows of the vessel from the southern to the northern shore near the Long Sault Rapid; it was evidently migrating. In the garden of G. C. Tunstall, Esq., opposite St. Ann's Rapids, Bout-de-l'Île, near Montreal, rendered classical by Moore's well-known Canadian Boat-song, the Humming-birds on the 8th of June were very abundant, even flitting about the lilac trees which overshadowed the porch at the house where, Mrs. Tunstall informed me, Moore sat and composed his celebrated song; and I feel that I should be wanting in courtesy were I not thus publicly to acknowledge my obligations to this kind lady for permission to shoot two of these little tenants of her garden, which, when informed they were required for a scientific purpose, she readily accorded; but at the same time assured me that on no other account would she have allowed one of these little wanderers to be destroyed, for they were by her both cherished and beloved.

Having accomplished all that I could expect to do, during so short a visit, with regard to observing the *Trochilus Colubris* in a state of nature, a strong desire prompted me to attempt the bringing of living examples across the Atlantic; and upon this desire becoming known to Sidney Augustus Schiefflin, Esq., of Madison Square, New York, that gentleman very obligingly presented me with a pair, male and female, then living in his house, in perfect health, in the finest state of plumage. My greatest anxiety was to get them past the Banks of Newfoundland in safety, where the thermometer frequently falls below the freezing-point. Through the kindness of Captain Shannon, who afforded me every facility, this was achieved, and they reached the shores of England; one of them, however, unfortunately died as we came up the Channel; the other reached London, and lived for two days at my house in Broad Street. During the voyage they were fed with syrup made of sugar and water, with the trifling addition of the yolk of an unboiled egg as a substitute for their animal food.

"The Humming-bird," says Wilson, "makes its first appearance in Georgia, from the south, about the 23rd of March, two weeks earlier than it does in the county of Burke, sixty miles higher up the country towards the interior, and at least five weeks sooner than it reaches this part of Pennsylvania. As it passes on to the northward, as far as the interior of Canada, where it is seen in great numbers, the wonder is excited, how so feebly constructed and delicate a little creature can make its way over such extensive regions of lakes and forests, among so many enemies, all its superiors in strength and magnitude. But its very minuteness, the rapidity of its flight, which almost eludes the eye, and that admirable instinct, reason, or whatever else it may be called, and daring courage which Heaven has implanted in its bosom, are its guides and protectors.

"About the 25th of April, the Humming-bird usually arrives in Pennsylvania, and about the 10th of May begins to build its nest. This is generally fixed on the upper side of a horizontal branch—not among the twigs, but on the body of the branch itself. Yet I have known instances where it was attached by the side to an old moss-grown trunk, and others where it was fastened on a strong rank stalk or weed in the garden, but these cases are rare. In the woods, it very often chooses a white-oak sapling to build on; and in the orchard or garden, selects a pear-tree for that purpose. The branch is seldom more than ten feet from the ground. The nest is about an inch in diameter, and as much in depth. A very complete one is now lying before me, and the materials of which it is composed are as follows:—The outward coat is formed of a small species of bluish-grey lichen that vegetates on old trees and fences, thickly glued on with the saliva of the bird, giving firmness and consistency to the whole, as well as keeping out moisture. Within this are thick-matted layers of the fine wings of certain flying seeds, closely laid together; and, lastly, the downy substance from the great mullein, and from the stalks of the common fern, lines the whole. The base of the nest is continued round the stem of the branch, to which it closely adheres, and, when viewed from below, appears a mere mossy knot or accidental protuberance. The eggs are two, pure white, and of equal thickness at both ends. On a person's approaching their nest, the little proprietors dart around with a humming sound, passing within a few inches of one's head; and should the young be newly hatched, the female will resume her place on the nest, even while you stand within a yard or two of the spot. The precise period of incubation I am unable to give; but the young are in the habit, a short time before they leave the nest, of thrusting their bills into the mouths of their parents, and sucking what they have brought them. I never could perceive that they carried them any animal food, though I think it highly probable that they do. As I have found their nests as late as the 12th of July, I do not doubt but that they frequently, and perhaps usually, raise two broods in the same season.

"The Humming-bird is extremely fond of tubular flowers, and I have often stopt with pleasure to observe his manœuvres among the blossoms of the Trumpet-flower. When arrived before a thicket of these that are full-blown, he poises or suspends himself on wing for the space of two or three seconds, so steadily that his wings become invisible, or only like a mist, and you can plainly distinguish the pupil of his eye looking round with great quickness and circumspection: the glossy golden green of his back, and the fire of his throat, dazzling in the sun, form altogether a most interesting appearance. When he alights, which he frequently does, he always prefers the small dead twigs of a tree or bush, where he dresses and arranges his plumage with great dexterity. His only note is a single chirp, not louder than that of a small cricket or grasshopper, generally uttered while passing from flower to flower, or when engaged in fight with his fellows; for when two males meet at the same bush or flower, a battle instantly takes place, and the combatants ascend in the air, chirping, darting and circling round each other, till the eye is no longer able to follow them. The conqueror, however, generally returns to the place to reap the fruits of his victory. I have seen him attack, and for a few moments tease, the King Bird; and have also seen him, in his turn, assaulted by a Humble-bee, which he soon put to flight. He is one of those few birds that are universally beloved; and amidst the sweet dewy serenity of a summer's morning, his appearance among the arbours of honeysuckles and beds of flowers is truly interesting.

"This little bird is extremely susceptible of cold, and if long deprived of the animating influence of the sunbeams, droops, and soon dies. A very beautiful male was brought to me, which I put into a wire cage, and placed in a retired shaded part of the room. After fluttering about for some time, the weather being uncommonly cool, it clung by the wires, and hung in a seemingly torpid state for a whole forenoon. No motion whatever of the lungs could be perceived on the closest inspection, though at other times this is remarkably observable; the eyes were shut; and, when touched by the finger, it gave no signs of life or motion. I carried it out to the open air and placed it directly in the rays of the sun, in a sheltered situation. In a few seconds, respiration became very apparent; the bird breathed faster and faster, opened its eyes, and began to look about, with as much seeming vivacity as ever. After it had completely recovered, I restored it to liberty, and it flew off to the withered top of a pear-tree, where it sat for some time dressing its disordered plumage, and then shot off like a meteor.

"The flight of the Humming-bird from flower to flower greatly resembles that of a bee, but is so much more rapid, that the latter appears a mere loiterer to him. He poises himself on wing, while he thrusts his long, slender, tubular tongue into the flowers in search of food. He sometimes enters a room by the window, examines the bouquets of flowers, and passes out by the opposite door or window. He has been known to take refuge in a hothouse during the cool nights of autumn, to go regularly out in the morning, and to return as regularly in the evening, for several days together.

"To enumerate all the flowers of which this little bird is fond, would be to repeat the names of half our American flora. From the blossoms of the towering poplar or tulip-tree, through a thousand intermediate flowers, to those of the humble larkspur, he ranges at will, and almost incessantly. Every period of the season produces a fresh multitude of new favourites. Towards the month of September, a plant with a yellow flower grows in great luxuriance along the sides of creeks and rivers, and in low moist situations, to the height of two or three feet, and the flower, which is about the size of a thimble, hangs in the shape of a cap of liberty above a luxuriant growth of green leaves. It is the *Balsamina noli me tangere* of botanists, and is the greatest favourite of the Humming-bird of all our other flowers. In some places where these plants abound, you may see, at one time, ten or twelve Humming-birds darting about, and fighting with and pursuing each other. About the 20th of September they generally retire to the south. I have, indeed, sometimes seen a solitary individual on the 28th and 30th of that month, and sometimes even in October, but these cases are rare. About the beginning of November they pass the southern boundary of the United States into Florida."

"No sooner," says Audubon, "has the returning sun again introduced the vernal season, and caused millions of plants to expand their leaves and blossoms to his genial beams, than the little Humming-bird is seen advancing on fairy wings, carefully visiting every flower-cup, and, like a curious florist, removing from each the injurious insects that otherwise would, ere long, cause their beauteous petals to droop and decay. Poised in the air, it is observed peeping cautiously and with sparkling eye into their innermost recesses, whilst the ethereal motions of its pinions, so rapid and so light, appear to fan and cool the flower without injuring its fragile texture, and produce a delightful murmuring sound, well adapted for lulling the insects to repose. This is the moment for the Humming-bird to secure them. Its long delicate bill enters the cup of the flower, and the protruded double tongue, delicately sensible, and imbued with a glutinous saliva, touches each insect in succession, and draws it from its lurking place, to be instantly swallowed. All this is done in a moment, and the bird, as it leaves the flower, sips so small a portion of its liquid honey, that the theft, we may suppose, is looked upon with a grateful feeling by the flower, which is thus kindly relieved from the attacks of her destroyers."

"The prairies, the fields, the orchards and gardens, nay, the deepest shades of the forest, are all visited in their turn, and everywhere the little bird meets with pleasure and with food. Its gorgeous throat in beauty and brilliancy baffles all competition. Now it glows with a fiery hue, and again it is changed to the deepest velvet-black. The upper parts of its delicate body are of resplendent changing green; and it throws itself through the air with a swiftness and vivacity hardly conceivable. It moves from one flower to another like a gleam of light, upwards, downwards, to the right, and to the left."

When speaking of their migrations, Audubon states that "they pass through the air in long undulations, raising themselves for some distance at an angle of about 40°, and then falling in a curve; but the smallness of their size precludes the possibility of following them farther than fifty or sixty yards without great difficulty, even with a good glass . . . They do not alight on the ground, but easily settle on twigs and branches, where they move sideways in prettily measured steps, frequently opening and closing their wings, pluming, shaking, and arranging the whole of their apparel with neatness and activity. They are particularly fond of spreading one wing at a time, and passing each of the quill-feathers through their bill in its whole length, when, if the sun be shining, the wing thus plumed is rendered extremely transparent and light. They leave the twig without the least difficulty in an instant, and appear to be possessed of superior powers of vision, making directly towards a Martin or Blue-bird when fifty or sixty yards from them, before they are aware of their approach . . . Their food consists principally of insects, generally of the coleopterous order, these, together with some equally diminutive flies, being commonly found in their stomachs. The first are procured within the flowers, but many of the latter on wing."

The male has the whole of the back, upper part of the neck, flanks, tail-coverts and two middle tail-feathers of a rich golden green; wings and tail purplish brown; under surface of the body white tinged with green; throat ruby-red, changing, according to the position in which it is viewed, from deep black to fiery crimson or burning orange; bill, eyes, legs and feet black.

The female resembles the male in her general plumage, but is destitute of any brilliancy on the throat, and has the tail tipped with white.

The young birds of both sexes during the first season have the tail tipped with white, and the whole of the under surface dull white. The ornamental feathers on the throat of the young males begin to appear in the month of September (Wilson).

The figures represent the two sexes of the size of life.

Gould, John. 1855. "Trochilus colubris, Linn., Ruby-throated Humming-bird. [Pl. 131]." *A monograph of the Trochilidæ, or family of humming-birds* 3, <https://doi.org/10.5962/p.316940>.

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