

basi imâ et crisso cinnamomescenti-albis : alis fusco-nigricantibus, tectricibus majoribus albido, remigibus cinnamomeo extûs marginatis : rostro et pedibus nigro-fuscis : long. totâ 7·0, alæ 3·6, caudæ 2·7, tarsi 1-2, rostri à rictu ·8.

♀ supra cinnamomea, interscapulio obscuriore, uropygio dilutior, subtûs sordidè alba : alis caudâque nigricanti-fuscis, illis cinnamomescenti-albo limbatis, hujus basi latè cinnamomeâ.

Hab. in Saharâ Algeriensi, arbusta frequentans.

Obs. Forsan *Dromolæa isabellina* Loehii, sed cum *Saxicold isabellinâ* Rüppellii et Temminckii minimè cœqualis.

8. SAXICOLA HALOPHILA, Tristram.

Suprà cinnamomea, superciliis et dorso postico purè albis : lateribus capitis et alis nigricantibus ; his sordido albo angustè marginatis : caudâ albâ, rectricum lateraliū fasciâ latâ terminali et duabus mediis ferè omninò fusco-nigris : subtûs alba, gutture et pectore cinereo adumbratis : rostro et pedibus nigris : long. totâ 5·5, alæ 3·5, caudæ 2·4, tarsi 1·0, rostri à rictu 0·6.

♀ mari similis, sed coloribus paullò dilutioribus, et lateribus capitis præcipuè minùs nigris.

Hab. in Saharâ Algeriensi, loca salifera frequentans.

9. SAXICOLA HOMOCHROA, Tristram.

Pallidè cinnamomea, subtûs dilutior : caudâ nigrâ : ventre uropygio et crisso cum basi caudæ albis : alis nigricanti-fuscis sordido albo omninò limbatis : rostro et pedibus nigricanti-fuscis : long. totâ 5·5, alæ 3·5, caudæ 2·5, tarsi ·95, rostri à rictu 0·6.

Hab. in Saharâ Tunitanâ.

VI.—*Observations on the Birds of St. Croix, West Indies, made, between February 20th and August 6th 1857 by ALFRED NEWTON, and, between March 4th and September 28th 1858 by EDWARD NEWTON. (Part I.)*

THE Danish Island of Saint Croix, or, as it is often called, Santa Cruz, lies between 64° 40' and 64° 59' longitude West of Greenwich, and in lat. 17° 45' North, about forty miles nearly due South from St. Thomas, and eighty miles East by South of Porto Rico. It is about twenty miles in its greatest length, which lies almost due east and west, with a breadth varying from one to four

miles. It was discovered by Columbus on his second voyage, in 1493; and the name bestowed on it by the "grand Admiral" is still the one most frequently used in conversation. It is supposed to have been first settled by the English and Dutch about 1625, and for the next five-and-twenty years was, like all the adjacent islands, the scene of constant bloodshed. In 1650 the Spaniards made a descent upon it from Porto Rico, and completely destroyed the rising plantations, but in their turn were very shortly afterwards expelled by the French, who proceeded to found a colony there. The settlement proved to be very unhealthy: three governors in succession and two-thirds of the colonists died the first year; and, as it was deemed, and no doubt rightly so, that the insalubrity was caused by the dense and aged forests which covered the island, the survivors determined to burn them down. Accordingly, having set fire to them, they retreated to their ships and witnessed the conflagration, only returning when the fire had burnt itself out*. Since this, the island has had a high reputation for healthiness.

That the simultaneous and sudden destruction by fire of all the woods in an island like this would have a marked and lasting effect upon its Fauna, no one can doubt; and one of its results may probably be traced in a fact ascertained by Herr Apothek Riise of St. Thomas, that in St. Croix there occur the "dead" shells of about a dozen species of terrestrial Mollusks, of which he has never found a single example inhabited by the living animal, though they are undoubtedly recent and not fossil forms. It is difficult to account for the extinction of so many species, unless it may be presumed that the changes brought about in the island by so great a fire, rendered it unsuitable for their longer habitation. It is fair to suppose that the Birds were affected, in at least some degree, like the Mollusks; particularly when we observe that, though St. Croix lies some way removed from the chain of the neighbouring islands, no one species is to be found there which is peculiar to it alone—the case with nearly all the West Indian islands, whose ornithology has been investigated, being the reverse,—and further when we discover, that

* Abridged from 'An Historical Account of St. Thomas, W. I., with notices of St. Croix and St. John's.' By John P. Knox. New York, 1852.

there hardly occurs there a single representative of those genera which are most typical of the birds of the Antilles as distinguished from those of either of the neighbouring continents.

The eastern end of St. Croix is comparatively barren, as is the windward side of most of the islands of the West Indian archipelago; and the plantations there have been mostly abandoned, the country being now overgrown with "bush" of a moderate height, consisting chiefly of the "Casha" (*Acacia farnesiana*, W.) with interspersed *Cacti* and *Euphorbiæ*. A chain of low hills rises near the sea, which runs with scarcely any interruption along the north side to the western end, attaining its greatest elevation in what is called Blue Mountain (in humble imitation, probably, of the lofty peak of that name in Jamaica). Most of these hills are clothed with the same kind of bush as the east end, with the exception of the *Cacti*. They slope abruptly to the sea-shore on the north and north-west; but between them and the south side lie those gently undulating plains for the fertility of which the island is so justly celebrated. These are, for the most part, highly cultivated, that part of the land which is fit for growing the Sugar-cane being divided into regular squares or parallelograms, separated from each other by narrow strips called "ranges," just wide enough to allow of the passage of a cart, which gives the country, when viewed from the hills, the appearance of a vast chess-board. But here and there a tall line of Cocoa-nut (*Cocos nucifera*, L.), Mountain-cabbage (*Areca oleracea*, Jacq.), or Thibet Trees (*Acacia lebbek*, W.) breaks the horizon, while dotted about are the different "works" of the sugar estates, with their long rows of buildings, boiling, curing, and megass houses, the mule and cattle pens, and the lofty engine-chimney or windmill, according to the motive power employed. Shaded by towering palms and tamarinds, and embowered amid thickets of oleanders and oranges, stand the hospitable dwellings of the planters and managers, while hard by, almost hidden in a verdant forest of bananas or plantains, lie the more humble houses of the negro village. The southern shore, fringed with the deadly Manchioneel (*Hippomane mancinilla*, L.), is extremely flat, and contains a large lagoon surrounded by a dense grove of Mangroves (*Rhizophora mangle*, L.), under

the arching root-branches of which burrow Land-crabs innumerable. The north-west corner of the Island is very beautiful, and contains the greatest number of forest-trees to be found in the place, though many of them are natives of distant lands. Along the sides of the ravines with which it is intersected, are to be seen in its glory that most stately and magnificent of the palms the Mountain Cabbage, the Mammee (*Mammea americana*, L.), and the Mango (*Mangifera indica*, L.), contrasting their deep emerald leaves with the grey foliage of the Mahogany; the many different species of *Ficus*, with their curious roots sprouting from their trunks and branches; the broad-leaved Bread-fruit (*Artocarpus incisa*, L.); the graceful Turpentine (*Bursera gummiifera*, Jacq.), in appearance recalling the Birch of northern latitudes; while along the margins of the streams that run among the hills are the so-called "gardens," whose chief characteristic is the luxuriant Bananas and Plantains (*Musæ*) waving their wide leaves split into ribands by the wind, and shaped like Chinese banners. Above all, that most striking feature of the West Indian forest, the gigantic Silk-cotton tree (*Eriodendron anfractuosum*, D. C.) extends its grotesquely shapen limbs, affording a friendly harbour to numberless tufts of *Bromeliaceæ*, garlanded with festoons of trailing "vines," and often presenting the curious spectacle of a tree subject at the same time to the influence of all four seasons*.

But our object is now the birds of St. Croix; and we are loth to occupy the attention of our readers with too many prefatory remarks. Let it suffice to say, that we believe that the ornithology of this Island has never previously been investigated, and that we are now far from thinking that the following is anything like a perfect list of the birds which occur there. The fact must especially be taken into consideration, that our observations extended over many of the same months in both years, and that neither of us had much opportunity of examining what additions were made to its *Avi-fauna* by autumnal migrants and winter residents. It is particularly likely that the numbers of *Sylvicolinæ* and *Scolopacidæ* are much understated. When any object was to be gained by specifying which of us was the observer of a fact, we have been careful to word that portion

* See Gosse's 'Naturalist's Sojourn in Jamaica,' pp. 278 and 499.

which relates it in the first person singular, to place it between inverted commas, and to add the proper initials; but in general the date of the year will show who is responsible for the statement. To the notice of those species of which we did not obtain specimens, and concerning the determination of which some doubt may therefore be entertained, there is prefixed a note of interrogation; and those which occur also in the Island of St. Thomas are marked by a dagger.

1. [?] AMERICAN OSPREY. *Pandion carolinensis*, Bp. *Falco haliaëtus*, ptm., L.; Aud. pl. 81.

We have both seen on various occasions what we fully believe to have been this species. It probably appears in the island at all times excepting the breeding season.

2. DUCK FALCON. *Falco anatum*, Bp.; *F. peregrinus*, Wils. pl. 76.

The sternum and other bones of a bird which had been wounded in the autumn of 1856 and kept alive for some time, are now in our possession; and we have no doubt as to this being the species to which they belong.

“I saw a Falcon, probably of this species, March 17th, 1858.”
—E. N.

+ 3. AMERICAN KESTREL. *Tinnunculus sparverius*, Vieill. *Falco sparverius*, L.: F. B. A. ii. pl. 24: Aud. pl. 42. “Killie-killie.”

This bird is common over the whole island, and may almost always be seen hanging in the wind at a considerable height from the ground, in the manner of its European congener (*T. alaudarius*, Gray), or passing rapidly from tree to tree in its graceful flight, uttering, as it goes, its plaintive cry. It seems to breed most commonly on the old windmills dismantled since the almost general introduction of steam-power. A male, killed May 2nd, 1857, had in its stomach the remains of a full-sized house-lizard (*Anolis*, sp.?). Another male, shot April 2nd, 1858, was carrying in its claws a mouse or small rat, which, dropping into a thick bush, was lost. All the specimens obtained by us were very brightly coloured; but assuredly there is no specific difference between them and those from North America. Indi-

viduals vary very greatly in the size of their bills. Specimens from St. Croix are in the Norfolk and Norwich Museum. A female, killed March 12th, 1857, had the skin of the chin of a bright straw-colour plainly showing through the feathers. The name by which this bird is known in the island sounds like a good imitation of its cry.

"May 6th, 1858.—On sending a negro up a Thibet Tree (*Acacia lebbek*, W.) to examine a hole, in which I had been told a young Owl had been found last year, out flew a female 'Killie-killie,' and perched immediately on a tree close by. In the hole were three eggs, laid without any nest, as the man informed me. They are very like those of our own Kestrel, but do not seem ever to have the crimson colouring, and are of course very much smaller."—E. N.

4. BARE-LEGGED OWL. *Gymnoglaux nudipes*, Cabanis, Journ. f. Ornith. 1855, p. 466. *Strix nudipes*, Daud., Vieill. (pl.), Shaw et Latham, nec Nilsson & Gould. (Plate I.)

This bird, so scarce in collections, seems to be the only Owl found in the island; and there even, its existence is known but to few. It appears to be very local, and to be confined to the so-called "gardens" by the sides of the streams, which are shaded by thick groves of Mangoes and Mammées, probably because in these places only it finds the shelter and retirement it needs; but it is possible that here it may not be uncommon, as amongst the dense foliage it may easily escape notice.

"A young bird, nearly full-grown, but still covered with down, was sent to me alive on May 30th, 1857, by the manager of the Great Fountain Estate, where it had been taken the previous day, in a hollow tree,—there being no nest or other bird with it. I kept it in a cage until June 23rd, during which time it hardly changed in its appearance, except that the quill-feathers showed themselves. It was peevish in its temper, and showed its displeasure by snapping its bill and uttering guttural sounds. It displayed none of the activity which so distinguishes some of the small Owls of Europe, but would sit, even at night, sulkily dozing on its perch. If a finger were held towards it, it would take no notice until it came within easy reach of its beak or claws, when the approach was resented by a vicious attack. If the



J Wolf, lith

M & N. Hanhart, Imp^t

GYMNOGLAUX NUDIPES

whole hand were introduced with the intention of taking it out of the cage, it would generally fall over backwards, and clutch violently at the intruder with its talons, grasping firmly, and submitting to be thus lifted out. There were times, however, when it evinced a more friendly disposition, and it would then sit patiently on one's finger and endure to have its head stroked. Finding, from trials often repeated, that it showed little taste for birds or insects, I fed it almost entirely on small lizards (*Anolis*, sp. ?). These it invariably swallowed whole, head foremost of course. On offering it a well-grown lizard, it would try to seize it in its beak, as near the head as possible. If it succeeded in getting a good hold, it instantly grasped the body with one foot, and, keeping the animal straight, soon disposed of it ; but if, as often happened, it missed its first aim, the reptile would generally attack the bird, seizing hold of it between the gape and eye with its tiny mouth. A struggle would then take place, the Owl going over on its back and endeavouring with one or both feet to pull off the lizard, the latter seldom giving way except with a mouthful of the former's facial bristles, which in this species are very long even in the young bird. On these occasions, as often as not, the reptile would have the best of the battle, and make his escape. A few days after I received this live bird, an adult, believed to be one of its parents, was shot and sent to me from the same locality. The stomach of this example contained insects only ; its sexual organs were much injured by shot. At the time I believed it to be a male, but am now inclined to change this opinion."—A. N.

"A male of this species was brought to me from the Great Fountain Estate on May 11th, 1858, the stomach of which contained the remains of several beetles. On September 1st, I received a young bird which had been knocked down by a stone on the Estate Allendale ; it was full-grown and feathered, with the exception of a small quantity of nestling-down on the back of its head. I was unable to ascertain the sex. I was told that, at the River and Great Fountain Estates, Owls were generally heard 'bawling' at sunrise ; but I have been to those places at that hour, and listened for them to no purpose."—E. N.

Though there does not seem to be much doubt of this being

the original *Strix nudipes** of Daudin (Tr. d'Orn. ii. 199), yet it must be confessed that the descriptions given of it by Shaw (Gen. Zool. vii. 269) and Latham (Gen. Hist. B. i. 372, which is a vain repetition of Shaw's) are very inaccurate. As, too, Vieillot's plate of this bird (Ois. d'Am. Sept. pl. 16), which is the only one published, does not well represent this species, we are glad to be able to give here, by Mr. J. H. Gurney's liberality, a better figure of it from Mr. Wolf's pencil. The length is more nearly eight than "seven inches," as mentioned by Shaw; and it requires a lively imagination to convert the long mesial streak on each feather of the under parts into a "lyre-shaped spot." Most decidedly, too, the young birds are less "rufous" than the adults; and the belly, instead of being "whiter than in the full-grown bird," is of nearly the same colour as the back. Dr. Cabanis states (*loc. cit.*) that Dr. Gundlach has met with it in Cuba; and the Paris Museum contains specimens sent from Porto Rico by M. Maugé. There is a single bird in the University Museum at Edinburgh. Besides this and our own four examples, now deposited in the fine collection of *Raptores* at Norwich, we know of no others in this country.

In this species the irides are bright hazel, the bill horn-colour, palest at the tip, the legs and toes pale brown, the claws horn-colour. The female bird seems to be more rufous than the male, with the breast and belly not so thickly mottled; but as we have only two specimens which appear to be fully adult to judge from, these distinctions may be the result of age rather than of sex.

5. BARN SWALLOW. *Hirundo horreorum*, Barton (Baird's Rep. B. Pac. R. R. Survey, p. 308). *H. americana*, Wils.

"I observed two individuals of this species for the first time, Sept. 13th, 1858, and I continued to see some almost daily up to my departure from the island on the 28th of that month. They were generally hawking after the manner of our own

* There is, we think, no doubt on this point, Daudin's name being founded on specimens procured by M. Maugé in Porto Rico, which are now in the Paris Museum, where we have had an opportunity of examining them.—ED.

familiar bird (*H. rustica*, L.), and, I think, could hardly be distinguished from it on the wing. On one occasion I saw several hundreds flying over a lagoon, intending probably to pass the night in the thick mangroves on its margin. From what I could learn, they do not winter in the island, nor are they seen there on their passage northwards in spring.”—E. N.

6. BELTED KINGFISHER. *Ceryle alcyon* (Linn.): Aud. pl. 77: Yarrell’s Brit. B. 3rd edit. ii. p. 236.

Apparently a winter visitant, leaving the island late in April. It chiefly frequents the Mangrove-swamps and the mouths of the small streams, but sometimes fishes nearly half a mile out at sea. Its loud call has been well likened to the noise made by springing a watchman’s rattle.

“The stomach of one I skinned contained shells of crabs.”—A. N.

“I saw what I believe to have been a bird of this species on my passage home in October 1858, in lat. 26° 17' N., long 57° 28' W. It flew round the steamer several times within gunshot; and I could clearly make out the dark belt across the breast.”—E. N.

The maritime habit of this species makes the occurrence of two examples in Ireland, as recorded by Mr. Thompson (B. Irel. i. 373), less surprising than might otherwise appear.

† 7. BLACK-AND-YELLOW CREEPER. *Certhiola flaveola* (Linn.) (?) “Sugar Bird.”

Whether this be really identical with the *Certhia flaveola* of Linnæus, the type of which is usually supposed to be the bird from Jamaica, may very fairly be doubted. But so much confusion seems to exist among naturalists respecting the so-called species of the genus *Certhiola*, that it is very desirable not to make matters worse. And, as the specific value of the differences which exist between the “Sugar-bird” of St. Croix and the “Banana Quit” of Jamaica is by no means certain, it appears best merely to remark upon them, and to abstain from describing the former as distinct from the latter, especially, too, as, after an examination of a tolerably large series of skins from other localities in the British Museum and Mr. P. L. Selater’s

collection, with all the advantage which Prince C. L. Bonaparte's *diagnoses* in the 'Comptes Rendus' (vol. xxxviii. p. 259) afford, it does not seem possible to come to any decided opinion on the subject. The following are some of the principal differences to be observed between the birds from St. Croix and Jamaica :—

ST. CROIX.

Adult male.—Top of head, nape, back and upper wing-coverts dull black. Rump with a small greenish-yellow ill-defined patch. White on outer webs of primaries occupying small space, and almost hidden by wing-coverts, hardly showing, even when the wing is open. Three outer tail-quills on each side tipped with a broad patch of dirty white. Throat lead-grey; broad stripe of black from gape, round the eye and above the ear. Edge of shoulder white or faintly tinged with yellow.

JAMAICA.

Adult male.—Top of head, nape, back and upper wing-coverts deep black. Rump bright canary-yellow, well-defined. White on outer web of primaries occupying a largish space, and forming a distinct patch, even when the wing is closed. Three outer tail-quills on each side tipped with a broad patch of clear white. Throat dull dark grey; narrow line of black from gape, above the eye and ear. Edge of shoulder bright yellow.

The females from both islands appear to be more alike. The young males, even when breeding, have the line over the eye brilliant yellow, and the grey feathers of the chin tipped with yellow. Adult females have the superciliary stripe white, and nearly resemble the males.

The bird from St. Thomas much more nearly resembles that from Jamaica than that from St. Croix, but has a much paler-grey throat.

In Mr. Gosse's pretty figure of this species (Ill. B. Jam. pl. xvi.), he has omitted a very singular and pleasing feature, namely, the prominent pale crimson or bright pink lips at the gape, which, while the bird is alive, form a striking contrast of colour with its plumage. These are brightest in the adult, but are also very conspicuous in the young bird. The colour is very fleeting; and generally by the time the skin is taken off, no traces of it are to be seen. This bird gets its name in St. Croix from its constantly entering the curing-houses at the different works through the barred windows; and managers and overseers give it a bad reputation for stealing sugar from the hogs-heads: but we are inclined to think it is often attracted thither by the swarms of flies, which certainly throng there for the purpose of eating the newly-made *muscorado*. It is a very fami-

liar species, haunting gardens and often entering houses, where, instead of appearing alarmed, as do most other birds under similar circumstances, it preserves great coolness, hopping gravely from one piece of furniture to another, and carefully exploring the surrounding objects, its short squat figure putting one perpetually in mind of the Nuthatches (*Sittæ*), to which group *Certhiola* must have some strong affinities. It generally keeps in pairs, and appears to breed from March to August, building its domed and often pensile nest, which has a small porch or pent-house roof over the entrance, in almost any kind of situation, but most generally at the extremity of a leafy bough. It sometimes seems to lay its eggs, which rarely appear to exceed three in number, before the nest is finished, rather to the discomfiture of the oologist, who delays inserting his finger into the structure while he sees one or both of the birds busy with a tuft of grass or cotton in their bills, until at last, losing patience, he examines the edifice to find the eggs already hatched. These are in shape elongated, and in colour white, blotched, particularly at the larger end, with rusty red. The nest is generally very untidy on the outside; it is composed of coarse grass or bents, with a good sprinkling of cotton without, and feathers in the inside. The birds are also fond of picking up rags and any sorts of odds and ends they can find about the houses, and adding them to the pile.

“I observed an instance in which two broods were reared from the same nest, with only an interval of ten days between the time the young left it and the laying of an egg.”—E. N.

[To be continued.]

VII.—On the Breeding of the Smew, *Mergus albellus*, L.

By JOHN WOLLEY, jun.

THE first year I was in Lapland, 1853, it was important for me to find out the native, that is, the Finnish, names for the birds of the country. Of the ducks generally I soon learned to understand to which species each name referred; but there was one called *Ungilo*, concerning which I was for a long time in the