

tance from the base to the extremity of the tail. The first primary is short (about 1.1 in. in length from insertion); second 0.8 in. longer; fourth and fifth equal and largest; third rather shorter than seventh.

The tarsi and feet correspond with those of *T. ramphastinus*.

The tail of the single specimen is imperfect, but appears not to differ in form from that of the other species, consisting of ten rectrices, the two outermost of which are half an inch shorter than the medial.

Mr. Osbert Salvin suggests that the specimen may be a female of a more gaudily coloured male; and there are some points in its character, particularly the nearly obsolete grey pectoral band, only showing on each side of the breast, which lead me to think that the opinion may be correct. At present the specimen is unique; but I trust that Dr. A. von Frantzius (who, I believe, is still resident at San José) will before long obtain further examples of this singular bird, and let us know whether there is any distinction between the sexes.

XXXI.—*A Fortnight amongst the Sea-birds of British Honduras.*

By OSBERT SALVIN, M.A., F.L.S., &c.

AT daybreak of the 26th of April, 1862, I reached Belize from Vera Paz, by way of Peten and the Belize river; and finding no schooner in the harbour ready to sail for Yzabal, I seized the opportunity offered for collecting the sea-birds frequenting that part of the coast. It was no easy matter to gather reliable information respecting the haunts of the several species; so after a few short cruises in the neighbourhood, to Spanish Cay, St. George's Cay, Hick's Cay, &c., during which I obtained but a solitary species of Tern and an immature Man-of-war Bird (*Fregata aquila*), I saw at once that, if I wanted to succeed, it would be necessary to look up the birds in their breeding-haunts, and that the further I went, the greater would be my chance of finding them. After some delay, I made arrangements with one Sam Miller, a coloured Creole of Belize, the owner of a small schooner, the 'Mary Ann,' to take me to Lighthouse Reef and Glover's Reef, the outermost atolls of the

coast, and wherever else I might want to go. We were to be away about a fortnight, part of which time was to be spent on one of the islands on Glover's Reef, where Sam's father lived, owning the cocoa-nuts that grew there. Sam found employment for his schooner in carrying these nuts to Belize. Their value varies: at the time of my visit they were worth 11 dollars per 1000. They are usually exported in the mahogany-vessels, being packed in the vacant spaces between the logs.

I was fortunate in securing the companionship of an American gentleman, Mr. R., then resident in Belize, who joined the expedition, being desirous of initiation in the mysteries of bird-skinning. We had to lay in a small stock of provisions, as fish and cocoa-nuts are all that the Cays produce; this done, we went on board on the afternoon of the 7th of May, and set sail.

Leaving the 'Mary Ann' to make her way with a strong easterly sea breeze towards English Cay, it would be as well to note the positions and forms of the coral-reefs which line the coast. The main features of these reefs are as follows. The Barrier Reef extends along the shore from Ambergris Cay to Ranguana Cay, its most southern point; this last Cay is twenty-five miles from the coast, so that the reef, instead of running more or less parallel to the shore, forms an angle with it, enclosing a long lagoon, which, as well as the reef itself, is studded with numerous groups of Cays. Nearly due east of Belize, outside the Barrier Reef, and separated from it by a deep channel, lies the atol Turneff, within the encircling reef of which several lagoons are included. Eastward of Turneff, and fifteen miles from it, is another atol—Lighthouse Reef, so called from the lighthouse on Half-moon Cay, one of a group of four Cays at its southern end, the names of the other three being Hat Cay, Long Cay, and Saddle Cay: this last is within the atol. The whole group is also called Southern Four Cays, two more Cays at its northern extremity being distinguished as Northern Two Cays. Half-moon Cay is the pilot-station.

A third detached atol lies twenty miles to the southward of Lighthouse Reef, on the eastern margin of which four Cays are situated, viz. Long Cay, Middle Cay, S.W. Cay, and S.W. of all Cay. The rest of the reef consists of a line of breakers,

a stranded log or spit of sand every here and there appearing above water.

Though the breeze continued blowing freshly all night, it was too much ahead to enable Sam to make Cay Bokel, a small Cay at the southern end of Turneff; so, after passing out through the channel near English Cay, we had to beat up to the anchorage under the lee of the former island, and it was midnight before we came to anchor. In the mean time Mr. R. and I made ourselves as comfortable for the night as the deck of the schooner would allow, having to change over at every tack. At the first trace of dawn we were glad enough to turn out, and, coffee over (before which one does as little as possible in the tropics), the schooner was again got under weigh, when a tack or two took her through a narrow channel into one of the lagoons of Turneff. Here we just crept along, with scarcely wind enough to fill the sails, but startling the few Pelicans (*Pelecanus fuscus*) that were just waking up and stretching themselves before leaving their roosting-places in the mangrove-trees. Bald-pate Pigeons (*Columba leucocephala*), in small flocks of three and four, flew across the bows just out of shot: otherwise all was quiet, and the prospects of spoils from Turneff were not very promising.

Still Sam said Man-of-war Cay would prove fruitful; so for Man-of-war Cay we steered, the breeze freshening as the morning advanced. Before reaching the Cay in question, we passed into another lagoon, through an opening in the mangroves. A few Shags (*Phalacrocorax floridanus*) now flew round, and I shot several as we came to anchor. There was no lack of birds now; for on our approach a cloud of Man-of-war Birds (*Fregata aquila*) rose and hung over the Cay, like Rooks over a rookery; Shags hurried out of the bushes, their laboured flight contrasting with the apparently effortless hovering of their fellow-colonists (no Eagle flies with the ease of a Man-of-war Bird); and here and there a White Gaulin (*Egretta candidissima*) peered out to see the cause of the commotion. The small canoe or dorey was soon lowered; and taking Joe (Sam's brother) to paddle, we started off for a closer examination. By keeping close to the mangroves on the leeward (W.) side, we were able to reach the Gaulins' nests, which however were

mostly deserted, all the young ones of those still inhabited being able to run out along the branches and make their escape. The nests were composed entirely of sticks, and placed near the end of a horizontal bough. With an eye to dinner, we paddled quietly on, while Joe, spear in hand, kept a sharp look-out for fish, a favourite lurking-place for some species being the tangled roots of the mangroves. The Man-of-war Birds, as well as the Gaulins, showed preference for the leeward side, the former occupying the highest mangroves on the island. Old nests and decayed boughs, accumulated on the oozing mud, had made a patch of ground just under where the nests were. For this we paddled, and, on landing, shot four old birds—two adult males in dark metallic chocolate-brown plumage, and two with white underneath, the adult females; no white-headed immature birds were to be seen. These secured and stowed away in the dorey, we began to scale the trees. Joe climbed the first, and found an egg, of which I entreated him to take all possible care. “Treat him kind,” shouted I. “Don’t be afraid, massa,” replied Joe; but Master Joe, on reaching the bottom of the tree, managed to knock the egg against a branch and broke it to bits. “Quite rotten, sar,” says Joe, by way of apology. Gladly would I have had a rotten egg to blow, or a chipping shell! But, like the spilt milk, there was no help for it; so, after trying to impress more care on the delinquent Joe, I climbed the next tree myself. It was a curious sight, on thrusting one’s head out of the top of a tree, to watch the inhabitants around. Three-fourths of the nests had young birds in them, of various ages: the more advanced were commencing to shoot their scapular feathers; others, younger, looked like puff-balls of pure white; while those which had just escaped from the shell were lying helplessly, as young birds do, on the frail structure of sticks composing their nests. So slight were these, that the young in their earliest infancy must have a perilous time of it. The youngest were guarded by one of the parent-birds, which balanced itself on the edge of the nest. From the unhatched eggs the birds could hardly be prevailed upon to stir. I have several times noticed this reluctance on the part of birds building open nests to leave their eggs exposed to the direct rays of the tropical sun, whereas on cloudy days the same

solicitude was not exhibited.) In this Journal (Ibis, 1860, p. 264) I gave a short note of the behaviour of a Humming-bird (*Thaumastura henicura*) on this point, and now I was observing quite a parallel case amongst the Man-of-war Birds and Boobies. The former of these birds are ready enough to take wing at other times on approach of danger; and the inherent sluggishness of a Booby would hardly account for their sitting so closely. Certain is it that, after incubation has made some progress, the solicitude of the parent-bird, in both cases, is exactly in proportion to the age of its offspring; and I should suppose that when the chick is just on the point of hatching (the most critical period), heat, and not cold, would prove most prejudicial to its chance of coming into existence*. With other species this danger is in a measure avoided by covered nests and the choice of shady situations.

Cutting my meditations short (for with my head protruding from the top of a tree and a terrific sun beating on me, I was little disposed for a very long investigation), I gathered a few eggs, and left the Man-of-war Birds to return to their young. We then climbed along the matted mangrove roots to the northern end of the Cay, to look for nests of the Shag. We had not to search far, for on reaching the outer mangrove-bushes we could see them on the outer boughs, some 12 feet from the water. The nests were strongly built of sticks, hollowed considerably inside, and partly lined with freshly picked mangrove-leaves. The birds were laying their eggs, and some nests had in them what appeared to be their full complement of four eggs; other nests had three, two, and one. The boat being now loaded, we returned to the schooner and commenced securing the spoils, skinning the birds and blowing the eggs while we were gradually beating up to an opening in the eastern side of the reef, called the Grand Bogue†. Passing out at this channel we stood across for Lighthouse Reef, and sighted Long Cay before dark.

* When the embryo is still small, we might infer that the albumen with which it is surrounded affords protection against extremes of temperature. This decreases as the embryo increases, necessitating greater care and protection on the part of the parent.

† Evidently a corruption of Boca Grande.

When out on this sort of expedition, sundown is bed-time ; so I had turned in on deck with my blanket, and had had a sound sleep, and was just sensible that we were in smooth water again, when a crunch, and an exclamation from Sam, " High and dry ! " brought me to my feet. We had run into a reef of coral-rocks, and were held fast. The corals were close to the surface, and Sam and the other two lads jumped overboard and commenced operations to get the schooner off. It was an hour before they succeeded, and in the mean time I fell asleep again.

On the morning of the 9th, after passing round the northern end of Long Cay in order to make the passage into the lagoon of the atoll, a tack or two brought us to Saddle Cay—a settlement of Pelicans (*P. fuscus*). Of these there were forty or fifty old and immature birds in about equal numbers ; but on landing we could find no trace of nests in the trees in which they are said to build. Sam said that they built in the months of November and December, and that after the young could fly the old birds pulled the nests down. It was a bold Pelican that first perched upon a tree : a bird less adapted to such a resting-place could hardly be imagined. Yet there they sit on the mangrove-boughs for hours, preening their feathers with their long hooked bills, an amusement they seem to take special delight in, all the time keeping their balance with ease, even when a strong wind tries the security of their footing. Others were resting on a spit of sand that runs out from one end of the small Cay, and on the stranded logs, of which plenty lie scattered along the reefs even of the outermost atolls, being floated out of every stream during the floods of the wet season ; more still were fishing in the shallows. There are few sea-birds more interesting to observe than Pelicans fishing : there is a sort of methodical determination about the way in which they set to work that seems to warrant success ; and I have watched them time after time dart down, seldom failing, on coming to the surface, to bolt the fish they have secured. When a bird does miss, a look of disappointment is ludicrously shown by the dejected way in which it hangs down its bill. Four or five usually rise in company, and flying round to get the requisite impetus and height, with neck drawn in and beak slightly depressed, they suddenly, as it were, stop short in the air,

and dash, with outstretched neck, into the water upon the shoal of fish, which has perhaps shifted a little from the spot on which the last descent was made. They rest but a moment on the water—only time enough to bolt the prey, which is done by throwing the bill upwards, thus slightly distending the pouch—a ready bag to receive the fish, before held between the mandibles. There were a good many King-birds (*Tyrannus intrepidus*) amongst the shrubby trees that grow on the Cay; and a pair of Ospreys (*Pandion carolinensis*) seemed to belong to the place, though I saw no trace of their old nest. The gregarious habits of the American Osprey, in contradistinction to the solitary pairs usually seen in Europe, have been upheld as an argument for their specific difference. I believe, in neither case does the rule hold: certainly the Central-American bird, common as it is on these coasts, has nothing gregarious in its habits. Few of the Cays of which I am now writing are without a pair, and yet I observed no instance of more than a single pair frequenting one island. On the other hand, in Europe instances occur in which a large number of Ospreys are found within a very limited district; but perhaps in neither case can the Osprey be called gregarious, in the strict sense of the term.

On nearing Saddle Cay we steered straight for Half-Moon Cay, keeping just inside the reef. There were several old trees, with their branches above water, lying stranded in the shallows, upon which a few Terns were sitting; but I left them, as we had a colony of Boobies (*Sula piscator*) to visit, and specimens to collect, which would occupy the whole of our time. It is useless to accumulate too much work in those hot districts: the specimens collected during the day must be skinned before the next, or they are sure to be lost, and the skinning must be thoroughly done, especially in the case of sea-birds, or the specimen will prove of little value. The making up of the skin is of least importance, and time is often lost by too much attention to extra finish.

The northern end of this Cay, which is long, and shaped as its name implies, is occupied by the pilots, who have their houses scattered about under a grove of cocoa-nuts. There are but few mangroves; but the southern portion, as well as nearly

the whole windward side, is covered by low "bush." A large colony of Boobies (*Sula piscator*) hold entire possession of this portion of the island, every tree having four or five nests in it. By the time we had made acquaintance with some of the pilots, and had taken a "long drink" of cocoa-nut milk (a luxury after the stale water we had had to put up with on board the schooner), it was mid-day; yet we made our way through the trees to search for Boobies' eggs. The sky was clear, and the heat intense, the sea-breeze not yet blowing with any force, and the foliage not being thick enough to afford much shelter from the scorching rays of the sun. The Boobies, too, seemed affected by the heat, and sat panting with open beaks; some, still more overcome, were resting against a branch, with their heads hanging down, and eyes shut. At first I thought these were dead, but, on stirring them up, succeeded in making them open their eyes; I could not, however, prevail upon them to get up; they only screwed their heads about with a sort of expression that seemed to ask me what I meant. Over many of the nests one of the old birds sat, and in the same trees the fully fledged young still remained. The young were of every age, their plumage including every stage, from the white down of the newly hatched chick to the grey dress of the full-grown. In some few, still older, the white dress of the adult was beginning to show itself. The name Booby is most appropriate; I never saw a bird with less idea of getting out of one's way, or caring less for what one did. Walking about under the trees was nothing; they hardly condescended to look down: nor when we stirred them up while taking a "siesta," pulled their tails, poked them off their nests, and fought with them for their eggs, and bullied them in every way, did we succeed in getting up any sort of excitement in the colony. They took everything with the greatest indifference, with a complaisant, grave expression that was laughable to watch. And yet a Booby is no fool at fishing; rare sport they must have of it, flying at the pace they do, and taking such headers. It was too hot to climb to every nest within reach; and, after trying a few, we found that there was always a chance of an egg in a nest upon which, and not near which, an old bird sat. Even in this way, after a long search, we only secured

four rotten eggs. A few Man-of-war Birds breed in the same trees, nearly all of which had eggs. This Booby makes a nest very like the Man-of-war Bird, *i. e.* of twigs rather untidily laid together in a convenient fork in the top of a tree. I could not easily calculate the number of birds in this colony, but there were certainly several thousands. Returning to the cocoa-nut grove, we rested a short time to cool down, and then looked quietly about for small birds, as I had seen several species round the houses. Amongst them I was delighted to find the *Melanoptila glabrirostris*, Scl., a rare and curious form of Mocking-bird, with a uniform glossy blue-black plumage. I had been looking out for it everywhere in Vera Paz, knowing that the first specimens had been obtained in Honduras, but in vain. Besides its rarity, the doubt with which Dr. Sclater referred it to this section of the *Turdidæ* made it a doubly interesting discovery, and I consequently watched it with greater eagerness. It is, I believe, rightly placed, as the habits of the bird agree well with the Mock-bird of the district (which also occurs on the Cays), not only in its actions and flight, but in its sweet though short song. I was too early to obtain its eggs, but a pilot assured me they were blue, which was corroborated by Sam. It goes by the name of the "Georgy Bird" amongst the Creoles. I could only hear of its occurring on the outer Cays, viz. those of Lighthouse and Glover's Reefs. I found, too, another bird new to me (*Dendræca vieillotii*, Cassin), belonging to the American Warblers. It resembles the common *D. æstiva*, but differs in having a chestnut throat. Two Humming-Birds occur, *Lampornis prevosti* and *Amazillia cinnamomea*; two species of Tyrants, *Tyrannus intrepidus* and *Elainea subpagana*, and the Bald-pate Pigeon (*Columba leucocephala*). I also shot *Euspiza americana*.

They say that these outer Cays, at the time of the autumn migration, swarm with small birds, which stay to rest on their passage. A large Lizard (*Iguana*, sp. ?) abounds on this Cay: one or two may be seen in almost every tree, basking on the branches, or making their escape by scrambling from bough to bough. Small Lizards (*Anolis*, sp.), too, peer at one round the cocoa-nut trees, and, waiting a moment to extend their highly

coloured throat-pouches, vanish behind the tree as one approaches too close. The whole afternoon was taken up with skinning a series of the different plumages of the Booby and the few small birds I had secured; but just before sunset I again walked round the island to watch the Boobies returning to roost from their fishing-grounds. They came trooping back in flocks of twenty or thirty, the greater portion from windward, and flying at a dashing pace. They did not settle at once, but kept sailing round and round till after sunset. While watching them, I recognized a single immature bird of the common species (*Sula fiber*), its browner throat enabling me to detect it. I saw no others there, but afterwards at sea several flew round the schooner. Having pretty well finished the day's work, we slung our hammocks in the rigging, and slept soundly till dawn.

May 10th.—Remembering the Terns we had left the previous day about the old snags on the reef, I returned in the schooner to Saddle Cay, shooting a specimen of *Thalasseus acufavidus* by the way. At Saddle Cay we found a fresh arrival of Terns and Laughing Gulls (*Larus atricilla*). The former all belonged to a second species of Sooty Tern (*Haliplana panaya*). No time had been lost by the Terns, for on searching the Cay we found four eggs had already been laid. A little sand was scratched away for a nest, under such shelter as the bushes that grew nearest the beach afforded. This *Haliplana* is known to the Creoles as the "Rocky Bird." It is a very graceful species, though its flight is rather heavy for a Tern, not having the same dash about it that so strikes one on watching its congener *H. fuliginosa*. The eggs are rather less ruddy and smaller than those of the commoner species, but similar in other respects.

There was nothing more to be done now at Lighthouse Reef beyond replenishing our stock of wood and water, which occupied the remainder of the afternoon. Fresh water, such as it is, may always be obtained on these Cays by digging a hole in the sand some distance from the beach, and then burying a tub with the ends knocked out to keep the sides of the hole from falling in. In the course of a few hours water filters through, which at first has but a slightly brackish flavour. This increases as the water stands, till it becomes too strongly impregnated with salt to

drink. The tub is then removed, and buried in another hole. During the dry season, the few people who live on the Cays have no other supply. Of wood we could always find enough from the broken spars, boards, and logs thrown up on the beach.

Rounding the south end of Half-Moon Cay, the schooner passed out into open water, and Sam steered her straight for Glover's Reef. The wind was light, the water lumpy, and the sun intensely hot as we slowly made our way across. I was glad enough when I detected a white line of breakers far ahead. This was the northern end of the reef, towards a gap in which we steered. Passing through this channel, Sam pointed to the spot where the schooner 'Susan' was wrecked, with 300 filibusters on board, some few years ago, as they were sailing to join Walker on the coast of Honduras, for the purpose of attacking Nicaragua, after passing through that republic. This disaster put an end to the expedition for the time, the shipwrecked adventurers being taken back to New Orleans by a British cruiser. The next attempt upon the same point put an end to Walker's career, when he was taken by the 'Icarus,' handed over to the Honduras authorities, and shot. Sam had many a story to tell about them, how he and his brothers had fished up muskets and sold them in Belize, and how a party of the filibusters whilst living on Middle Cay had shot his mother's pigs with their revolvers, and eaten his father's cocoa-nuts. Once inside the reef, there was not much time for talking, as patches of coral-rock studded the lagoon, and the schooner dashing along under the freshening breeze required careful steering.

Middle Cay now stood before us, and, anchoring under the lee of the island, we went ashore with our hammocks, and took possession of an empty hut built out of the wreck of the 'Susan.' There is little variation in all these Cays, one sees the same repetition of cocoa-nut groves and mangrove-swamps, the latter, when present, being usually in the middle of the island. The cocoa-nut trees have most of them been planted by the occupier of the Cay, the "bush" growing on the sandier portions being cleared for the purpose. It is said that in five years a tree produces its first fruit; and that it lives for sixty or more, if not uprooted by a storm. Cocoa-nut growing seems profit-

able enough, but doubtless has its drawbacks. Fancy undergoing voluntarily a Robinson-Crusoe life for years on an island only large enough to hold yourself and your cocoa-nuts ! Yet it suits a tolerably well-to-do negro admirably ; he has plenty of opportunity "to cock up his toes, to make the time pass." But I must not be hard upon the inhabitants of Middle Cay ; if contentment is a blessing, they were blessed, and they made Mr. R. and myself as comfortable as they could the few days we passed there. Bald-pate Pigeons are common on this Cay, and every evening about sunset I used to bag a few, those not wanted for the collection going as a contribution to the larder. A single Fern (*Acrostichum aureum*) grows on this Cay, the common species of all the lowland swamps of the West Indies. I do not know how many brothers Sam had, in addition to Joe : his big brother Bill, with a bigger schooner than the 'Mary Ann,' was at the Cay, calling for cocoa-nuts. He too worked like Sam with a prospect of a Cay and cocoa-nuts before him. Having to complete his cargo at South-west-of-all Cay, I went with him to visit the colony of Noddies. The distance was short, and all inside the reef. I was prepared to see a good many birds, but nothing approaching the numbers that are there crowded on one small island. Noddies everywhere : Noddies at sea and fishing in the shallows ; Noddies in the cocoa-nuts and mangroves ; Noddies basking by scores on the sands, and flying through the trees by hundreds. There must have been many thousands in all ; and what must the numbers have been when the Sooty Terns flocked to the same island in such numbers that their eggs might be gathered by the basketful ? I had hardly put my foot ashore when I discovered there were two species of *Anous* on the island, the second species being *A. tenuirostris*, and easily recognized. Instead of the cawing note of the common species, the "Piccary Noddy," as the Creoles call it, has a more Tern-like cry, whence, perhaps, its name. The nest of the Noddy is made of sticks—a large loose structure heaped together at the top of a cocoa-nut tree, or on the outer branches of a mangrove. That of the "Piccary Noddy" is small and compact, made of slender twigs, seaweed, and bits of grass, and glued together in every available fork and on every horizontal branch.

These latter almost exclusively monopolize the high mangroves on the windward side of the island, while the larger species keeps to the cocoa-nuts. Both were as tame as could be, and cared little for my climbing the trees to investigate their domestic arrangements. The eggs of the "Piccary Noddies" were on the point of hatching, whilst those of the Common Noddy were already hatched. Again reverting to the numbers, in one tree there were over seventy nests. The egg of the Piccary Noddy is nearly the counterpart of that of the common species, only smaller, and perhaps more highly marked; but I saw a larger series of the former. It was hot work, indeed, climbing the trees at midday, and the consumption of young cocoa-nuts was considerable; they form an excellent substitute for brackish water, and are certainly more wholesome. So ended our day at Southwest-of-all Cay; and so much work had accumulated on our hands that we determined to spend the next in working up arrears, as what with a Pelican and Noddies to skin, and eggs to blow, we had enough to do.

Glover's Reef is a favourite haunt for turtle, and, during the season, nets are constantly set to catch them. Immediately on reaching the Cay, Sam had set ten nets, and we now went in the dorey to see the result. The net is usually about forty or fifty yards long, sometimes more, and about four yards deep. It is made with a very open mesh, often more than a foot square. At one end a log is fastened and anchored with a large stone, along the top runs a row of floats, and at the other end a log cut in the form of a turtle. This acts as a decoy. The turtle, on striking the net, rolls itself up in the meshes, and becomes effectually entangled; the two buoys are drawn together, and the fisherman knows from a distance whether he has been successful or not. We had a lucky morning's sport, and secured two turtles. It requires some dexterity to haul such a heavy brute on board so small a craft; but Sam managed matters well, being ready prepared with a "turtle-peg" to spear the animal, should the net be insecurely wound round it. This peg or spear is so arranged that the barb only can pierce the shell. Returning, we visited Long Cay, a resort of Pelicans. Here I found a few pairs of the Lesser Tern (*Sterna antillarum*) just preparing to lay.

I also added another specimen of *Thalasseus regius* to the collection.

One more day at Middle Cay, and we were again under weigh, standing westward for Southern Water Cay and the main reef. A search on two small Cays (Ellen and Curlew Cays) produced a single specimen of *Haliplana fuliginosa* and a Turnstone (*Streptilas interpres*). I also gathered a few more eggs of "Noddy" and "Rocky Bird." Leaving Water Cay, where we had anchored for the night, the schooner was steered along the inside of the reef, towards Cay Glory channel, stopping at "Sawpit Cay" and "Tobacco Cay." On the latter was an old Osprey's nest in a dead tree, which looked as if it had been occupied for years, a little being added each year, till the pile of sticks was several feet high. A large flock of *Hydrochelidon fissipes* was seen ahead; but before the schooner could reach them they had worked too far to windward, so I jumped into the dorey, paddled off in pursuit, and succeeded in securing several specimens in all stages of plumage.

My original intention had been now to return to Belize; but I had not seen enough. There were the "Curlews" (*Eudocimus albus*), Spoonbills (*Platalea ajaja*), "Gulls" (*Thalasseus acufavidus*), and several other species yet to be met with; so I determined upon another round, and steered again for Cay Bokel and Turneff. On the way, three Boobies (*Sula fiber*) flew round, but out of shot. This species is said to breed on Mauger Cay, at the northern end of Turneff, also in great numbers in some of the Cays of Cape Gracias á Dios. I saw but few of them the whole time I was out. Landing on Turneff, I shot another Turnstone and a Bartram's Sandpiper (*Actiturus bartramius*), but was disappointed at not finding the Lesser Terns breeding on a small Cay which Sam said they formerly frequented. A good supply of fish from the reef, which Sam speared whilst I was shooting, made some amends for the delay, as, our stock of provisions falling short, we had to depend upon Sam's dexterity with the spear.

Hat Cay was our next anchorage. It was now the 18th of May, and the dry season and sea-breezes almost at an end. Clouds were hanging over the land, and gathering waterspouts

on all sides indicated a coming change. Sam began to talk ominously of a week or so without being able to stir—a pleasant prospect in so hot a place, and with nothing to do! We drifted in a calm all the morning, but afterwards, by the help of a few flaws, managed to gain the inside of the lagoon; then there was occupation enough. The water being like glass, we could see all that was going on beneath us; and a wonderful sight it was—sea-fans waving to and fro, corals of every form growing in fantastic shapes like trees and bowers, showing here and there a rent through which the water looked dark and blue. We were just on the edge of the reef, at one moment looking on this watery garden, and the next over the coral-wall where the growth stopped, and the depth sank suddenly. Grotesque-looking fish, too, were swimming about, some playing amongst the corals, others darting past, pursuing or pursued. A Shark also would swim round, giving one half a shudder, it looked so close. An hour spent thus was sooner gone than in whistling for the wind, and a ripple on the water veiling the vision beneath made us aware that the sea-breeze was not yet beaten. It came, and, blowing all the harder for the delay, carried us along towards Northern Two Cays at a pace that made up for lost time.

Towards the northern end of the lagoon the channel becomes exceedingly intricate, and, in spite of all Sam's care and one of the boys on the look-out to direct him, we were brought up suddenly against a patch of coral—luckily during a lull, or the 'Mary Ann's' timbers must have started; as it was, she was apparently none the worse, being accustomed to such hard knocks. We had to stop and anchor midway, night coming on before we could thread the channel. The visit to Northern Two Cays proved rather a failure: the "Gulls," as they are called (*Thalasseus acuflavidus*), had not yet assembled. A pair of *Dolichonyx oryzivorus* and a Sanderling (*Calidris arenaria*) were added to the collection, the former being an acquisition—the first specimens I had seen in Central America. Near Cockroach Cay a channel opens into the lagoons of Turneff, some miles to the northward of the Grand Bogue. We steered for this point, and on entering the lagoon passed along between the reef and the

bank of mangroves,—the atol having, as it were, a double reef, the inner covered with trees, the outer broken here and there with a small island. Looking eastward, I noticed a clear light in the sky, and calling Sam's attention to it, he said it was the reflection of the "white water" of Lighthouse Reef. This appearance arises from the white reflection cast by the breakers and the sandy shallows adjoining. On reaching Grassy Cay, Lesser Terns (*Sterna antillarum*) rose in a cloud as the anchor dropped. Our visit was well timed, as above a hundred pairs had assembled to lay. Numbers of nests were already occupied, each containing one, two, or three eggs; they were simply depressions in the sand scratched out by the bird. A few Roseate Terns (*Sterna paradisea*) also frequented the island, as well as the White Ibis (*Eudocimus albus*) and a Ring-Plover (*Ægialitis wilsonianus*), of which I found two nests. On an adjoining Cay were old nests of the large White Egret (*Herodias egretta*); and skulking amongst the mangroves I saw a "Boat-bill" (*Cancroma cochlearia*). We also came upon some nests of the Ibis in the mangroves, but no eggs. One more day took the schooner through the lagoons of Turneff, across the channel to English Cay, and so back to Belize, bringing one of the pleasantest fortnights I ever enjoyed in Central America to an end. A few days more, and I was again bound for the interior; my spoils for Europe.

XXXII. *Notes on certain Central-American Laridæ collected by Mr. Osbert Salvin and Mr. F. Godman.* By ELLIOTT COUES, M.A., M.D.

A COLLECTION of Central American *Laridæ* having been kindly transmitted to me, at the Smithsonian Institution, for examination, by my friend Mr. O. Salvin, I have made the following identification of its species*.

* The collection transmitted to the Smithsonian Institution, which Dr. Coues has been so kind as to name, did not include all the species we collected, nor all the specimens. I selected from the whole such a series as would enable me to identify with accuracy the remainder; and only omitted to send three well-known species, viz. *Chroicocephalus atricilla*,