immediate cause), and to unusual protracted warmth enlarging the food area and encouraging birds northward.

(*c*) To failure of food independent of sudden severe cold.

(6) That extended protraction of migration southward and the partial passage further south of regular winter and resident species, that are uninfluenced by sudden ice and snow, are due to adjustment in distribution that prevents over-crowding, and not to climatic reasons.

(7) That fixity in destination in the majority of birds is as essential as migration itself, for without it there could be no uniformity of dispersion.

(8) That time, experience, and a high order of intelligence have brought about the adjustment necessitated by the physical conditions.

I have thus presented the facts observed during a long field experience and the conclusions and inferences that have suggested themselves in my endeavor to interpret them.

NOTES ON THE BIRDS OF PORT HENDERSON, JAMAICA, WEST INDIES.

BY GEORGE W. FIELD.[1]

THE beautiful island of Jamaica, though but a little larger in area than the State of Massachusetts, presents many diverse conditions affecting the local distribution of its bird-life. On account of the regularity with which these conditions are maintained, there is a remarkable uniformity in the species and numbers of birds found at any given locality. Chiefly on

[1] [An annotated list of the Birds of Jamaica, by Mr. W. E. D. Scott, was recently published in 'The Auk,' in instalments beginning with the number for October, 1891, and closing with the number for October, 1893. It is but just to Mr. Clark to state that the article here printed was received for publication in March, 1892, and has been unavoidably delayed. As Mr. Scott's observations were made in December, January, February, and March, and Mr. Clark's in May, June, July, and August, the two lists admirably supplement each other.—EDD.]

account of the uniform climatic conditions, and consequently of the unlimited food supply, there are very few extended migrations; and there are many species of birds abundant in one locality which are of exceedingly rare occurrence a few miles away.

During the summer of 1891 it was my good fortune, as a member of the Johns Hopkins Marine Laboratory, to spend about four months in Jamaica, nearly three of which were passed at Port Henderson, near the entrance to Kingston Harbor.

Port Henderson is situated on the coast at the foot of the Salt Pond Hills, a low range commanding the entrance to Kingston Harbor. To the north and northeast extends the Liguanean plain, almost the only extensive level tract of land in the island. About a mile or two distant is the Rio Cobre, along whose banks are extensive marshes and mangrove swamps. Between Port Henderson and this river is a large lagoon or salina, a portion covered with mangroves, and its shallow water swarming with small fish; a favorite resort for Herons, Rails and kindred spirits. Back of this on the fertile farms the land birds are found in abundance. Port Henderson proper is so situated that it is the driest point in Jamaica — so dry that the tropical luxuriance of vegetation to be found a mile or two inland is represented only by a wonderful growth of cacti of many species.

The time at which we were located here (May 26 to Aug. 23) was particularly fitted for observations upon the resident birds. I have not attempted to give a complete list of the birds which may be found here, but refer only to such as came under my observation. It will be noticed that very few migrants had arrived up to the time of my leaving Port Henderson, August 23. After the scientific name I have added the common name of the birds as employed in the negro dialect.

My thanks are due to His Excellency Governor Blake for a license to take birds; to R. Hoepkin and Company, who continually manifested great interest in our work and furnished us with very material aid; and to Mr. Lindell of Congress Park, a man of more than local reputation as a lover of the gun, and the best versed in bird lore of any one in that section, who furnished me much reliable and valuable information; and particularly to Charles B. Taylor, Esq., to whom I am much indebted.

Through his kind attention I was introduced in proper form to the birds of Jamaica. Mr. Taylor is undoubtedly the best informed man in Jamaica upon the native birds, and he is glad to place his fund of information at the disposal of the visiting ornithologist.

As is well-known, the fauna of Jamaica has been greatly modified during the past few years through the introduction of the Mongoose, and in this part of the island the animal is found in great numbers. Through its agency, the snakes, notably the yellow boa, until within a few years very common, and also the larger lizards, particularly the iguana, have been almost if not quite exterminated; but the ground nesting birds have been the greatest sufferers; the Quail, the wild Guinea Fowl, and the Limpkin are now very scarce. In this connection it is particularly interesting to note that the Ground Dove has here very quickly changed its nesting habits, and now builds at some distance from the ground upon broken cacti, or on large or broken limbs of low trees, in any spot where a surface large enough for laying the nest is to be found. Attention is also called to the occurrence of *Sterna anæthetus* in Jamaica; of the occurrence of *Spiza americana* in the West Indies; to the peculiar nesting habits of *Cœreba flaveola*, upon which point we may hope to have some interesting notes from Mr. Taylor, and also to the occurrence at Port Henderson of *Mimus hillii*.

It may be of interest, too, to add that on the visit which we made to the summit of Blue Mountain Peak we were unable to find any evidence or informatian that the Jamaican Petrel or 'Blue Mountain Duck' (*Æstrelata jamaicensis*) resorts regularly to this locality, though such is said to be the case.

1. **Colymbus dominicensis** *Linn.* DIVING DAPPER.—Common. Breeds in the bogs along Ferry River. It fights fiercely when captured and the negroes are fond of telling tales of the execution which it can do with its sharp beak.

2. **Podilymbus podiceps** (*Linn.*). DIVING DAPPER.—Not so common as *C. dominicensis*.

3. **Sterna anæthetus** *Scop.*—At the entrance to Kingston Harbor are several cays varying in size from a mere sand bank to islands of an acre or more in area. The larger of these are dignified by names. Between South Cay and Drunkenman Cay there is a small island composed entirely of broken coral rock; in reality it is merely a part of the barrier

reef above water. Close by and to the southeast of this is a larger, sandy cay, with a few broken slabs of loose coral rock, the western end of which is covered with mangroves. Upon the former of these islands we found, June 15, about a dozen pairs of Bridled Terns, evidently breeding, but from the nature of the place we were able to find but a single young bird in the down, for the slabs piled in confusion furnished a labyrinth into which they beat a hasty retreat and from which they were not easily dislodged. Leaving the island we landed on the wooded island last mentioned and here we found three or more pairs breeding. Under a flat rock, supported at one end by another rock, we found the single egg laid as usual on the bare sand; the bird darting out at our approach betrayed the place.

On July 24 we found the rocky island occupied by large numbers of Noddies, a few Bridled Terns, with six or eight Roseate Terns, and what I took to be *S. hirundo* (these birds were shot and are in Mr. Taylor's collection). None of these were breeding.

I found many Bridled Terns on Pelican Cay and on Pigeon Island, two of the cays near Old Harbor. From the latter place, on August 4, I took one egg and one young bird in the down. The locality chosen for the nests was similar to that previously noted. The nests, however, were more readily found on account of the habit which the bird has of roosting close by the nest.

4. **Sterna maxima** *Bodd.*—Common. Did not find the breeding place.

5. **Sterna sandivicensis acuflavida** (*Cabot*).—Common.

6. **Sterna fuliginosa** *Gmel.*—Very common. Breed in vast numbers on Morant, Pedro and many smaller cays, in company with the following.

7. **Anous stolidus** (*Linn.*).—Very common. These, as well as *S. fuliginosa*, are readily killed with sticks and stones, so fearless are they on their breeding grounds.

Soon after arriving in Kingston my attention was attracted by the great quantities of Terns' eggs exposed for sale. Inquiry elicited the information that they were "booby h'eggs, Sir." At that time (May 13) the season is at its height, and schooner loads are brought to Kingston from Morant Cays, thirty miles off the eastern end of the island, and from Pedro Cays, lying to the southward. The eggs sell in the market for about "a bit" (9 cents) per dozen. The great majority of the eggs are those of *Sterna fuliginosa*, but occasionally one can pick out with tolerable certainty the Noddy's eggs (*Anous stolidus*). The right to take eggs from these cays is sold at public auction in Kingston. The natives group all the Terns and smaller Gulls under the term 'Boobies.'

The Noddy and Sooty Terns in small numbers are found in Kingston Harbor after the close of the breeding season.

8. **Larus atricilla** *Linn.*—Common. Usually a few individuals were seen in the flocks of Terns. A single pair was found breeding on Lime Cay, June 5.

9. **Fregata aquila** (*Linn.*). MAN-O'-WAR BIRD.—Common, and very tame. On several occasions I saw them fishing for themselves: 10

diving like *P. fuscus* but swooping down into the school of small fish. They are particularly fond of dead fish and they can be caught on a line with a hook baited with a small fish. At Port Henderson they had a habit of flying in to roost on a small island back of Fort Augusta, late in the afternoon again flying out to sea, to roost on the outer cays. Usually the stiff southeast breeze drifted many of them over towards the wharf, and by taking a station there several could be shot on a favorable afternoon.

Early morning visits to Drunkenman Cay found the mangroves literally loaded down with them. But I found no traces of nesting.

I can only counsel the visitor not to be beguiled to visit Deadman Cay, Old Harbor, by reports that the Man-o'-War Bird is nesting there. We visited them with a very reliable man who had taken eggs there repeatedly, "a plenty, Sir, a plenty of them."

10. **Guara alba** (*Linn.*).—Mr. Jennings of Old Harbor tells me that there is a rookery of *Guara alba* in a mangrove swamp between Goat Island and Wreck Bay, "not too far" from the shore.

11. **Guara rubra** (*Linn.*).—Reported by the fisherman as not uncommon in the swamps after heavy weather from the southward. They sell in Kingston for 2 s. per pair. During my four months' residence at Port Henderson I did not see an Ibis of either species.

12. **Ardea herodias** *Linn.* CRANE.—Not uncommon. Most often seen on the shores of Hunt Bay.

13. **Ardea egretta** *Gmel.* WHITE GANLIN.—Common. Nest on an island in that portion of the mangrove swamp called 'the flashes.' Eggs taken June 25.

14. **Ardea candidissima** *Gmel.* WHITE GANLIN.—Common. Breeds as above.

15. **Ardea cærulea** *Linn.* BLUE GANLIN.—Very common; with *A. tricolor ruficollis* it constitutes the great majority of the Herons. Breeds as above. Eggs taken June 3 to July 8.

16. **Ardea virescens** *Linn.* CRAB-CATCHER.—Common, though by no means so numerous as the foregoing. Breeds on the mangroves.

17. **Ardea tricolor ruficollis** (*Gosse*). BLUE GANLIN.—Excels all the other Herons in numbers. Breeds in 'the flashes.' Breeding season, June and July. July 8, young in nest nearly fledged. Young of the year shot July 15.

18. **Nycticorax violaceus** (*Linn.*). QUOK.—Common. Breeds in company with the other Herons. Eggs taken June 12.

19. **Nycticorax nycticorax nævius** (*Bodd.*). QUOK.—Not common.

20. **Ardetta exilis** (*Gmel.*). CRAB-CATCHER; TORTOISE-SHELL BIRD.—Not common. May be found running over the mangrove roots; I have never seen the Least Bittern wading in the water pursuing the fish after the manner of the other Herons, but it clings to the roots projecting from the water and from these darts his bill at the small fish and crabs. Nest in the mangrove swamp. Eggs taken May 29.

The Herons, in the order of their relative abundance, would stand as follows: *A. tricolor*, *A. cærulea*, *A. egretta*, *A. candidissima*, *Nycticorax*

violaceus, *Ardea herodias*, *A. virescens*, *Ardetta exilis*, *N. nycticorax nævius*.

21. **Aramus giganteus** (*Bonap.*). CLUCKING-HEN.—No longer common about Port Henderson. Within a very few years it was found abundantly in the dark woods and logwood swamps, between the Rio Cobre and Ferry River. The mongoose is said to be responsible for its rapid disappearance. It was much esteemed as food by the natives.

22. **Rallus longirostris caribæus** (*Ridgw.*). MANGRO'-HEN.—Very common in the mangrove swamp. Their strident voices may be heard in every direction in the early morning. Exceedingly wary and difficult to see. Its nests are readily found; usually near the edge of the swamp, in the center of a small isolated clump of bushes. The nest, about a foot in diameter, is a collection of short, small, dead mangrove twigs resting in the center of the bush and is built up about six to twelve inches above the water. The nesting season is at its height in June. The eggs are collected by the negroes and are esteemed a delicacy equal to 'Booby h'eggs.' The breeding season is rather prolonged, a few eggs being still to be found Aug. 15.

23. **Gallinula galeata** (*Licht.*). RED-HEAD COOT.—June 6, I shot young birds nearly full grown. A female shot on the same day had eggs nearly ready for depositing. An exploration of 'the bog' (the Caymanas bog on Ferry River) disclosed only empty nests.

These birds breed in suitable places along Ferry River. I had planned to make another trip to the above mentioned bog about June 18, but about June 10 the long delayed 'May rains' set in and the entire region was soon under water. A combination of circumstances prevented me from making the second visit.

In this locality *Ionornis martinica*, 'Plantain Coot,' as well as *Porzana jamaicensis*, are said to breed.

24. **Fulica americana** *Gmel.* WHITE-HEAD COOT; BALD-HEAD COOT.—A common resident in Jamaica, but much more abundant as a winter resident.

25. **Himantopus mexicanus** (*Müll.*). RED-LEGS.—Common, in flocks. No evidence of their nesting at this time at this locality.

26. **Macrorhamphus griseus** (*Gmel.*). GUINEA-HEN PLOVER.—Appeared in small flocks August 2.

27. **Tringa minutilla** *Vieill.*—May 29, numerous small flocks seen. June 10, saw a flock made up of *T. minutilla* and *C. arenaria*, bound north. Aug. 2, large flocks of Least Sandpipers, returning from the north. From these dates it will be noticed that the interval between the departure of the last stragglers, and the return of the advanced guard from the north is remarkably brief.

28. **Calidris arenaria** (*Linn.*).—Flocks of Sanderlings seen in company with Least Sandpipers, June 10.

29. **Totanus melanoleucus** (*Gmel.*).—June 1, a few stragglers on the northern migration.

30. **Totanus flavipes** (*Gmel.*). GUINEA-HEN PLOVER.—Small flocks appeared August 2.

31. **Actitis macularia** (*Linn.*).—Resident, but not common.

32. **Charadrius squatarola** (*Linn.*). GRAY PLOVER.—A single bird seen June 1.

33. **Ægialitis wilsonia** (*Ord*).—Common. Breeds on the sandy cays and salinas (low saline plains along the coast).

34. **Arenaria interpres** (*Linn.*).—June 12 shot two in immature plumage.

35. **Colinus virginianus** (*Linn.*). QUAIL.—One of the many birds which are being rapidly exterminated by the mongoose. Formerly abundant, it has become very scarce in the last two or three years. A few flocks may still be found in St. Andrew's Parish.

36. **Columba leucocephala** (*Linn.*). BALD-PATE.—Very common. A prime favorite with sportsmen and natives. Breeds in the mangrove swamps. On June 6 I found many nests with young, while several contained newly laid eggs. The young are taken in numbers from the nests by the negroes and reared in confinement. Nearly every hut appeared to have several pairs of squabs, which were being raised on rice and fruit of the cactus, — a style of dry nursing upon which they seemed to thrive very well.

Aug. 4, at Pelican Cay, we found them nesting in considerable numbers. The close season was off July 25, and on the island we found four or five men hidden in the bushes shooting the Pigeons as they came to feed the young in the nests. A great number are thus killed, and at the close of the day the accessible nests are rifled of the young birds. At Pigeon Island we were told that the Pigeons bred in myriads; but we found no trace of an unusual number. Whatever the place may have been in the past, there remained nothing remarkable as a Pigeon rookery. There were many nests on the southern side of the island; of those examined four contained eggs, while there were many with young birds.

From these and other observations it would seem desirable for the preservation of one of the finest game birds of Jamaica that the close season should be extended to August 10 or 15 at least.

37. **Engyptila jamaicensis** (*Linn.*). WHITE-BELLY.—Common. During the breeding season at least it spends much time in the cover of the bushes, traveling over the ground at a very rapid walk in search of food. Its range seems to be more especially confined to the hills.

38. **Zenaida zenaida** (*Bonap.*). PEA DOVE.—Very common. Most abundant about the cultivated sections. Found nesting in June.

39. **Melopelia leucoptera** (*Linn.*). WHITE-WING.—Very common; probably the most abundant of the Columbidæ. Breeds in considerable numbers in the mangrove swamps; the nests are also to be found, though less frequently, on the wooded hills. Was found nesting in June and early July.

40. **Columbigallina passerina** (*Linn.*). GROUND DOVE.—Very common at Port Henderson and vicinity, — much more so than at any other point

which I visited on the island. The nests are placed on the broken tops of the cactus, or in convenient places a short distance from the ground, — a habit probably acquired since the introduction of the mongoose, and a habit which alone can have saved this beautiful little Dove from extermination.

41. **Cathartes aura** (*Linn.*). JOHN CROW.—Very common. The sanitary mainstay of the inhabited sections. A native would almost prefer to kill a man rather than a John Crow. A more suitable name would be King Crow, for he reigns supreme.

I watched carefully, but without success, for *C. atrata*, being very confident that from long familiarity I could recognize his mode of flight.

42. **Strix flammea furcata** (*Temm.*). SCREECH OWL; WHITE OWL.—Common, particularly about the old church belfries and in caves.

43. **Crotophaga ani** (*Linn.*). BLACKBIRD.—Common a short distance from the sea shore. Nesting season, July. Nests rather bulky and placed in the tops of trees. One nest was found containing 20 eggs, apparently laid by several females. The usual number secured were 4 or 5 in a nest.

44. **Saurothera vetula** (*Linn.*). OLD-MAN-BIRD.—Not common. Generally found among the low cashaw bushes and in the thickets. More numerous farther inland.

45. **Coccyzus americanus** (*Linn.*). MAY-BIRD.—Common. May 29 I found a nest with 7 eggs in the mangrove swamp. The nesting season continues until the middle of July. With the exception of *C. ani* it is the most abundant Cuckoo in this locality. Nests most commonly in the cashaw trees.

46. **Coccyzus minor** (*Gmel.*). MAY-BIRD.—Common, though far outnumbered by *C. americana*.

47. **Todus viridis** (*Linn.*). ROBIN-RED-BREAST.—Common. This usually inconspicuous little bird attracts considerable attention when indulging in his outburst of successive plaintive calls, sitting in full view on a dead limb, as if with intention to attract the eye to his delicate green plumage set off by the bright red throat. He is found in greater numbers further inland where the vegetation is more luxuriant and where the cultivated ground ensures an abundance of exposed banks in which it burrows. The burrows usually run straight into the bank for a few inches, then turn at right angles and extend for several feet parallel with the face of the bank. At the end the highly polished white eggs are deposited, usually in April and May.

48. **Centurus radiolatus** (*Wagl.*).—Common. One cannot go through the fields of Guinea grass, in which stand the huge cashaw trees, without being reminded of the apple orchards of the northern United States. He could not fail, too, to be arrested by the cry of this common Woodpecker, so loud in proportion to the size of the bird.

On an early morning walk I was attracted by an amusing incident. A Woodpecker was making the chips fly vigorously digging out a larva from a dead branch. About six feet away sat a 'Loggerhead' (*Pitangus caudifasciatus*). When the Woodpecker finally reached the succulent grub,

and was holding it in his beak, with the enjoyment of anticipation, preparatory to swallowing, the Loggerhead with a scream dashed at the Woodpecker causing him to drop the food. The Woodpecker, however, merely bent his head over and looked regretfully after the falling food, but made no attempt to recover it; the robber quickly dashed down and devoured the morsel. The Woodpecker accepted his ill luck as a matter of course, and philosophically wasted no time over a spilled grub, but went busily to work again. The Loggerhead stationed himself once more near the apparently unconscious worker, and at the proper time attempted to repeat the robbery; but the Woodpecker was on his guard and succeeded in swallowing the insect. This was repeated several times, *Pitangus* evidently finding it more profitable to act as highwayman than to hunt for himself.

49. **Nyctibius jamaicensis** (*Gmel.*). PATOO; OWL —Common. Much esteemed as food by the negroes. This enormous Goatsucker may be seen at dusk, perched upon a dead limb, or for many nights in succession he may perch upon the ridge pole of the house. It appears to have favorite resting places. It sits parallel with the limb.

I could get no information as to the nesting habits of this bird; found no one who had ever seen its egg. On the roof of the belfry of the church at Old Harbor I was told there was an "Owl's nest." Examination showed only a few leaves and straws and a quill feather of this bird. There is a possibility that here may have been the nest.

50. **Chordeiles minor** (*Cab.*). GIE-ME-A-BIT.—Common. Deposits its egg (less commonly 2 eggs) on the sand flats and dried bed of the salina. It is named by the negroes, and I am sure they regard it as a most fitting name, but they would be more pleased if the sound could be twisted into 'Gie-me-a-quattie.' Popular superstition has it that any one who picks up the egg from the ground is certain to drop dead. The belief has great weight with the majority, but occasionally one finds a doubter who says he has "picked up the h'egg myself, Sir."

51. **Cypselus phœnicobius** (*Gosse*). RAIN-BIRD.—Very common a short distance inland. Nests in the tops of the cocoanut trees.

52. **Hemiprocne zonaris** (*Shaw*). RAIN-BIRD.—Not common. Aug. 7 saw a large flock flying with great chattering which could be heard some distance.

53. **Lampornis mango** (*Linn.*). DOCTOR-BIRD.—Common. The most common Hummer in this dry section. Resort to the 'dildoes' for food. I have repeatedly seen them catch small insects which were flying about the cactus fruit. They also puncture the ripe cactus fruit and drink the juice.

May 29, they appeared to be breeding in the numerous islands of cactus and cashaw, in the salina. Nests are said to be most commonly placed on dead limbs and at considerable distance from the ground.

54. **Aithurus polytmus** (*Linn.*). DOCTOR-BIRD.—Common a little further inland, where the vegetation is more luxuriant. Young of the year shot July 20.

55. **Mellisuga minima** (*Linn.*). BEE HUMMINGBIRD.—Very common. The Hummingbirds resort in great numbers to the blooming tamarind trees. The Bee Hummers outnumber *A. polytmus* fifty to one, while *L. mango* is rarely seen; he evidently feeding on grosser food.

July 17 I found a nest of *M. minima* in the growth of cashaw, lignum vitæ, and dildoes north of the salina. It is a dainty affair, built of the down of *Tillandsia*, very deeply cupped, and perched upon the upper side of a drooping twig about one-eighth of an inch in diameter, about four feet from the ground. It contained two fresh eggs. Had it not been placed in such a sheltered location, its cobweb moorings must have quickly parted before the daily sea breeze.

56. **Elainea cotta** (*Gosse*).—Rare at Port Henderson. A single specimen was shot by Mr. Taylor.

57. **Myiarchus stolidus** (*Gosse*). TOM-FOOL.—Common, nesting in holes in trees or about the houses. A favorite site is in the top of the bamboo palisades which surround so many of the negro houses. Breeding season, June.

58. **Tyrannus dominicensis** (*Gmel.*). PETCHARY.—Not common at Port Henderson, but found in considerable numbers a short distance inland. Breeds in June.

59. **Pitangus caudifasciatus** (*D'Orb.*).—Very common. Breeds in May and June.

60. **Icterus leucopteryx** (*Wagl.*). BANANA-BIRD.—Common. Nest closely resembles that of the Orchard Oriole, but is larger with thinner walls. Nesting season, June. Young birds in company with the parents seen July 20.

61. **Quiscalus crassirostris** (*Swains.*). SHINE-EYE.—Common. Resorts in large flocks to the rushes in the low grounds near the mouth of the Rio Cobre at Passage Fort. Breeds also further inland on the estates of Congreve Park and Half-way Tree Pen.

62. **Loxigilla violacea** (*Linn.*). BLACK SPARROW; BLACK BULLFINCH; COCOA-BIRD; JACK-SPARROW.—Not uncommon, prefers the thickets of low cashaw bushes. A nest with two eggs was taken at Mandeville, May 23.

63. **Euetheia bicolor** (*Linn.*). GRASS-BIRD; GRASS-QUIT.—Common. Makes its domed nest among low bushes, or upon the 'dildoes' (cacti). Nesting season, May, June and July.

64. **Spiza americana** (*Gmel.*).—Mr. Lindell of Congreve Park in April, 1889, saw two large flocks of what he supposed were 'Pinks' (*Dolichonyx oryzivorus*). From these he shot many individuals; discovering that they were of some species unknown to him, he made and preserved several skins. One of these he gave to me for identification. It proved to be the Dickcissal. Probably one or more flocks during the migration were driven to the island. There is no evidence that this is a common occurrence; though such may be the case. To Mr. Lindell's knowledge it has not been found there before or since.

65. **Euphonia jamaica** (*Linn.*). BLUE QUIT.—Rare at Port Henderson. A single nest was found, placed in the center of a bunch of Tillandsia; the nicely finished entrance was at the side. The nest was carefully lined with fine grasses.

66. **Spindalis nigricephala** (*Jameson*). SPANISH QUAIL; CASHEW BIRD.—Rare at Port Henderson and vicinity but common in the interior of the island.

67. **Progne dominicensis** (*Gmel.*).—Not common.

68. **Petrochelidon fulva** (*Vieill.*). RAIN-BIRD.—Very common. Breeds in almost all of the caves in which this section abounds. The breeding season begins the last of May and continues through June. June 20 large flocks noted.

69. **Vireo modestus** (*Scl.*). SEWY-SEWY.—Common. Builds an exceedingly thin walled nest of the characteristic Vireo pattern, on low bushes, generally fortified by its position in the center of a patch of *Pinguin*, the serrated edges of whose leaves holds all intruders at bay, unless armed with a machette.

70. **Vireo calidris** (*Linn.*). JOHN-CHE-WIT.—Very common. Nest more bulky than that of *V. olivaceus*. Breeding season June and early July. Young birds in company with the parents seen July 20.

71. **Cœreba flaveola** (*Linn.*). BLACK-BACK; CHIM-CHIM.—Common. A most striking peculiarity is the almost invariable fact that the domed nest of this species is placed close beside the nests of the common yellow-jacket wasp. This would seem to be a protective measure. The nest is usually built near the end of a small limb and not far from the ground. The breeding season is June and early July.

72. **Dendroica petechia** (*Linn.*). CHIM-CHIM.—Common in the mangrove swamp, and also on the wooded cays off the mouth of Kingston Harbor, particularly Lime and Drunkenman Cays. The breeding season begins in May. July 1, we found the young well grown; July 20, they were flying in numbers. August 1, the old birds were moulting, nearly every one being quite destitute of quills in the tail.

73. **Mimus orpheus** (*Linn.*). NIGHTINGALE; ENGLISH NIGHTINGALE.—Very common. Breeding season, June and July.

74. **Mimus hillii** (*March*). SPANISH NIGHTINGALE; FRENCH NIGHTINGALE.—By no means so common as his smaller relative *M. orpheus*, whom he surpasses in size, activity, and power of voice. He is rather a wary bird, and darts from his perch into the thicket at the slightest cause. Its haunts are confined to the Salt Pond hills and low country immediately adjacent.

A nest taken July 12 contained two eggs. The eggs are much larger than those of *M. orpheus*. The spots are smaller and more numerous, while the ground-work is very nearly creamy white with just a trace of the bluish tint. No one could confound them with those of *M. orpheus*. They have a closer resemblance to those of *Harporhynchus rufus*.