

males being as follows:—Wing, 2.96 inches, tail, 3.13; tail-feathers, 2.71; exposed culmen, .57; nostril to tip of bill, .48; gonys, .36; tarsus, .85.

R. costaricensis seems to be an entirely local species, differing from *R. passerinii*, of which species the Museum possesses a large series from various localities, both on the Atlantic and on the Pacific sides of the Cordillera, including Pozo Azul where the two are found in company. Pozo Azul is situated about thirty miles southwest of San José, just at the foot of the hills where the level belt of the Pacific coast begins. For this reason and from the fact that I have not met with the bird in the extensive series of specimens I have examined from the Atlantic region, I am inclined to believe it a species confined to the southwest coast region.

I would here express my thanks to Mr. J. C. Zeledón for kind suggestions in regard to the present paper.

THE BIRDS OF ANDROS ISLAND, BAHAMAS.

BY JOHN I. NORTHROP.

THE ISLAND of Andros is the largest of the Bahama group, being about ninety miles long, and forty or fifty miles across at the widest part. The southern portion is separated from the northern by shallow waters called 'bights'; but these are so filled with cays, as to make it convenient to include all the islands under the general name of Andros.

Like all the others of the group, Andros is entirely of coral formation. The country is described by the natives as either 'coppet', 'pine-yard,' or 'swash.' The first term is applied to the thicket of angiospermous trees and shrubs that occupies the ridge along the eastern coast. In most places, this belt is very narrow, but near the southern end it extends several miles into the interior. Back of the coppet, the land is comparatively level, and is covered by a forest of the Bahama Pine (*Pinus bahamensis*). As one approaches the west coast, the pines become smaller and are mingled with palmettos; finally both cease, and one sees

spread before him thousands of acres of level plain, supporting scarcely any vegetation except countless dwarf mangroves. Here the ground is soft, and in wet weather almost entirely under water; hence the peculiar appropriateness of the local term 'swash.' Such is a brief description of the physical features of Andros. As might naturally be supposed, the coppet proved the best collecting ground for land birds, while the swash, and the lakes it contained, were well stocked with many aquatic species.

Although Andros is the largest of the Bahama Islands, it seems never to have been thoroughly explored by naturalists. The first record of Bahama birds is given by Catesby* who visited Andros. In 1859 and again in 1866 Dr. Bryant made a collecting trip through the Bahamas and published the results in the 'Proceedings' of the Boston Society of Natural History. His two papers are devoted to ornithology and contain several references to Andros. Mr. C. J. Maynard in 1884 spent some time on Andros and has published a few notes on its birds and described some new species.† Mr. Cory has also made an ornithological trip through the Bahamas, during which he visited the eastern coast of Andros. The results of his work are published in a well illustrated volume entitled the 'Birds of the Bahama Islands.' Mr. Ingraham has also visited Andros, but I have been unable to find any notes by him on its avifauna. These, I believe, are the only naturalists who have ever honored Andros with a visit.

As this island is separated from both Florida and Cuba by nearly the same distance (about one hundred and twenty miles) the writer thought that a collection of its birds might prove interesting. It may, however, be well to state that the object of the visit to Andros was not to make a collection of birds, and that lack of time and assistance prevented us from obtaining larger series. Before going to Andros, some time was spent on the island of New Providence, the western end of which is about twenty-five miles from the nearest point of Andros. There a few birds were collected, and these will be referred to in the list that follows. I was accompanied during the trip by Mrs. Northrop, who made notes on the occurrence of the birds, and more particularly on their songs and habits; and many thanks are due her for aid in the preparation of this paper.

*Nat. Hist. Carolina, Florida, and the Bahama Islands.

†American Exchange and Mart and Household Journal, Vol. III.

We reached the northern part of Andros on March 14, 1890, and left the southern end on the 3d of July, during that time sailing almost completely around the island; exploring the majority of the creeks on both the east and west coasts, and passing through the bights in the central part. But the greater portion of the time was spent in the various negro settlements that were scattered along the eastern coast, hence we had ample opportunities for observation, and for obtaining what is probably a quite complete collection of the birds of the island.

Dr. Allen has kindly annotated the list, and thanks are due to him and to his assistant, Mr. Chapman, for aid in determining several of the species.

The collection includes 286 specimens; and in it are represented 12 orders, 27 families, 56 genera, and 74 species. Of these one, that Dr. Allen has done us the honor to name *Icterus northropi*, is new to science; and *Nycticorax nycticorax navius* is new to the Bahamas, while *Geothlypis rostrata* has hitherto been found only on New Providence.

Unless otherwise stated, all the birds mentioned in this paper were actually obtained, and are now in the Museum of the School of Mines, Columbia College. I have added to the usual common names the local names of the birds.

1. *Mimocichla plumbea* (Linn.). BLUE THRASHER.—This Thrush was common in the high coppet near Deep Creek, not far from the south-eastern extremity of the island. Two specimens were also obtained near the northern end, but none were seen in the pines or in the swash on the west side. The bird hops about on the ground or on the lower branches of the trees, its black throat and red legs rendering it quite conspicuous. The stomach of one examined contained fruits. Those shot on June 28 were in condition to breed.

*2. *Galeoscoptes carolinensis* (Linn.). CATBIRD.—The Catbird was very common at Nicol's Town near the northern end of Andros during March and April, and the last specimen was seen at Mastic Point about May 23.

3. *Mimus polyglottos* (Linn.).—Locally known as Brown Thrasher and Mocking Bird. My specimens were all collected near the northern end of Andros, the first on March 25, the last on April 16. They were quite common about our house at Nicol's Town, and their song could be heard at almost any hour of the day. It was loud and varied, each syllable usually being repeated three times. It often sounded as if they

*The star prefixed to a number indicates that the species was observed by Mr. Scott at the Dry Tortugas. See beyond p. 69.

were trying to decline the familiar '*hic, hæc, hoc*' after a fashion of their own, and we imagined we could plainly distinguish '*hujus, hujus, hujus,*' '*huic, huic, huic,*' '*his, his, his,*' given with great emphasis. While on the western coast in June, we noticed what was undoubtedly one of these Mockingbirds, perched on the top of a palmetto. He was singing, apparently with all his heart, and attracted our attention by springing up into the air a few feet, then dropping to his perch again. This he repeated three times, singing all the while; we afterwards saw another bird go through the same performance.

The stomachs of the specimens examined contained the remains of the fruit of the gum elemi (*Bursera gummifera*), white ants, and pieces of snail shells.

[The three specimens referred to this species are indistinguishable from *M. polyglottos* of the Carolinas or Florida. They are hence very unlike the small form of *Mimus* from Inagua, recognized by Mr. Sharpe as *M. elegans*.—J. A. A.]

4. *Mimus gundlachi* (*Caban.*).—This was more common than the species above described, as we found it wherever we landed. Its song is louder, clearer, and more varied than that of *M. polyglottos*. Its food consists of fruits of various kinds, but in the stomach of one specimen some small bones were found, probably those of an *Anolus*. The ovaries of a specimen shot on May 15 were much enlarged. The inhabitants of Andros do not distinguish between these two species, calling both either Brown Thrushes or Mockingbirds.

[The series of seven specimens presents a wide range of variation in both size and color. In the largest specimen the wing measures 4.73 inches, the tail 5.33; in the smallest specimen the wing measures 4.23, the tail 4.60. In one specimen the cheeks, sides of the throat and the lower throat are thickly and heavily spotted, and the streaks on the flanks are very broad. In another the cheeks and sides of the throat are scantily barred and the lower throat is without spots. The other specimens are variously intermediate between these. The difference in size may be in part sexual.—J. A. A.]

5. *Poliophtila cærulea cæsiogaster* (*Ridgw.*). BLUE-GRAY GNAT-CATCHER.—This species was very common in the low shrubs that grew in the pine-yard. It was a most confiding little bird, and would sit within a few feet of you, twitching its head from side to side and uttering its low, wheezy little song, apparently always very well pleased with its own efforts.

*6. *Compsothlypis americana* (*Linn.*). PARULA WARBLER.—This Warbler was collected in the northern part of Andros on March 26 and April 19. It was only seen in two localities, and was not common.

*7. *Mniotilta varia* (*Linn.*). BLACK-AND-WHITE WARBLER.—First seen at Nicol's Town on March 17. In a week or two they became quite numerous about the house, but none were seen after the end of April. The three specimens procured were all males. Their stomachs contained the remains of beetles.

*8. *Dendroica tigrina* (*Gmel.*). CAPE MAY WARBLER.—This species was not common. Specimens were collected on March 22, and on April 20, two on the northeast coast, one near the west side.

9. *Dendroica petechia* (*Linn.*). ANTILLEAN YELLOW WARBLER.—But a single specimen, a female, was obtained near Mangrove Key on June 24.

*10. *Dendroica cærulescens* (*Gmel.*). BLACK-THROATED BLUE WARBLER.—One specimen was brought to us in Nicol's Town, April 11; others were collected on April 19 at Red Bays on the northwestern end of Andros. They were quite common about the house for a few days, but none were seen after the above date.

*11. *Dendroica striata* (*Forst.*). BLACKPOLL WARBLER.—The specimens were all obtained at Conch Sound on May 19 and 20, although it was seen a little farther south on May 23, and even a day or two later.

12. *Dendroica vigorsii* (*Aud.*). PINE WARBLER.—This bird was one of the most common species in the pine-yard. The five specimens collected all proved to be females. The stomachs of those examined contained insects and small fruits.

13. *Dendroica discolor* (*Vieill.*). PRAIRIE WARBLER.—This was by far the most common of the migratory Warblers. It was collected on the northern end of Andros from March 22 to April 12, and a few were seen during the latter part of April.

*14. *Dendroica palmarum* (*Gmel.*). PALM WARBLER.—A single specimen, a female, was shot at Mastic Point, May 2; it was hopping about on the ground under the small mangroves.

*15. *Seiurus aurocapillus* (*Linn.*). OVENBIRD.—This species was collected in several localities on the northern end of the island. At Red Bays on the west side it was quite common, and the natives knew the bird well under the name of the 'ground walker'. All whom we questioned on the subject were certain that the bird remained throughout the year, and some said that they had seen its nest.* A specimen was collected by the writer on New Providence during January, and the last time that we observed it was in the first week of May. The stomachs of those examined contained the remains of insects.

[Four specimens taken on Andros Island, near the end of April, probably represent a local resident form, differing slightly from the North American stock in having the bill rather larger, the crown patch deeper orange, and the black lines bordering it and the black streaks below slightly heavier. Should these differences prove tolerably constant, they are too slight to render it desirable to designate the form in nomenclature.

—J. A. A.]

16. *Geothlypis rostrata* *Bryant*. NASSAU YELLOWTHROAT.—This species is new to the island, all the specimens previously known being from the neighboring island of New Providence. The first we saw was brought to us by a boy at Nicol's Town, March 21. It was afterwards seen at Red

*Cory states that it is migratory.—Birds of Bahamas, p. 71.

Bays, Conch Sound, and later at Mangrove Key on June 25. It frequents the thick underbrush of the coppet, and was always seen quite close to the ground. *G. trichas* was also collected, but the difference between the two birds was very noticeable, *G. rostrata* being considerably larger and much lighter in color. Its song was also louder and sweeter.

[The single specimen, male, is nearer *G. rostrata*, than any other of the described forms, differing from it in its much shorter and slenderer bill, with the crown of a deeper and more bluish gray. Mr. Ridgway, who has examined the specimen, says: "Intermediate between type of *G. rostrata* and *G. tanneri*; bill entirely like the latter; color above brighter olive-green than in either." While doubtless representing a well-marked local race, it seems hardly worth while to give it a name on the basis of a single specimen.—J. A. A.]

* 17. *Geothlypis trichas* (Linn.). MARYLAND YELLOWTHROAT.—This species was seen on both the east and the west side of Andros from April 12 to 19, but there is no note of its appearance later. Of the five specimens collected, four were males. It is interesting to note that Dr. Bryant states that of a flock of birds flying past his vessel in the harbor of Grassy Creek, in the southern part of the island, on April 20, 1859, all were males.

* 18. *Setophaga ruticilla* (Linn.).—AMERICAN REDSTART.—This Warbler was first seen at Nicol's Town on April 10, and the last specimen was taken May 20; one was seen a month later, however, on the west coast.

Since this paper was written an interesting article by Mr. W. E. D. Scott has appeared in 'The Auk' * on the 'Birds Observed at the Dry Tortugas, Florida, during parts of March and April.' As I was collecting on Andros during the same time, I thought it would be interesting to note the species common to both places and have hence prefixed an asterisk to those mentioned in Mr. Scott's paper. A reference to his paper will show that he secured many Warblers that I did not, and a comparison of his dates with mine shows that with the exception of *Mniotilta varia*, *Dendroica tigrina*, *D. caerulescens*, and *Geothlypis trichas*, the birds were observed later in Andros than at the Dry Tortugas. The commonest Warbler at the latter place was *D. palmarum* of which I only secured one specimen, and no more were seen, while *D. discolor*, the commonest Warbler in Andros, was "not uncommon" with Mr. Scott. I doubt, however, if any inference of importance can be drawn from these facts.

In regard to the occurrence of the Warblers above-mentioned it may be worth while to state that they appeared in 'waves.' The most noticeable of these was on April 18. We had been at Red Bays on the west side for a week, and had seen very few birds about,— but a bird wave must have arrived during the night of the 18th, for the next day the grove about the house was full of birds,— the Black-throated Blue, the Blue Yellow-back, the Redstart, Black-and-white Warbler, and *Vireo altilloquus barbatulus* were seen here for the first time, and in considerable numbers.

* Vol. VII, p. 301.

19. *Cœreba bahamensis* (Reich.). BAHAMA HONEY-CREEPER. 'BANANA BIRD.'—Common throughout the island except in the swashes. The state of the generative organs of those taken near the end of March indicated that the birds were nearly ready to breed.

* 20. *Calichelidon cyaneoviridis* (Bryant). BAHAMA SWALLOW.—This beautiful Swallow was first seen on New Providence and was afterwards found to be abundant on Andros, particularly in the clearings. They generally flew quite close to the ground. Dr. Bryant in the 'Proceedings' of the Boston Society of Natural History, Vol. VII, page 111, says that of those collected by him up to April 28, the genital organs exhibited no appearance of excitement. On April 15 I collected a male with the testes much enlarged. The people told me that the Swallow breeds on the island, building under the rocky ledges; but we were not fortunate enough to find a nest.

21. *Vireo crassirostris* Bryant. LARGE-BILLED VIREO.—COMMON at most places on the island, and its cheery little song was almost constantly heard from the bushes and low trees that the bird frequents. On May 24 the generative organs of the male were enlarged.

[The four specimens seem distinctly referable to *V. crassirostris*.—J. A. A.]

* 22. *Vireo altiloquus barbatulus* (Cab.). BLACK-WHISKERED VIREO.—The first specimen of this bird was seen at Red Bays on the western side of the island, about April 18. On our return to the east coast we found it common, and later noted it as quite abundant at all our stopping places; and its song, so well described by Dr. Bryant as "*whip Tom Kelly, phew,*" was one of the most common notes of the coppet. Dr. Bryant says that the seven specimens collected by him were all males, and thinks that the females "had not arrived by the 13th of May." As I collected the first female on May 24, having previously shot two males, this surmise is probably correct. The genital organs were noted as being enlarged from May 10 to June 5, when the last specimen was shot. Some of the birds were mated and apparently ready to breed.

23. *Spindalis zena* (Linn.).—This bird, called by the natives 'Tom James' Bird' and 'Robin Redbreast,' was very common in the coppet and the pines. It is one of the most conspicuous birds of the island, as well as one of the tamest, being quite often caught by the children. They seemed to be particularly fond of the fruit of the gum elemi (*Bursera gummifera*) and of the ripe figs. About May 20 the genital organs were enlarged.

* 24. *Piranga rubra* (Linn.). SUMMER Tanager.—A single specimen, a male, was taken at Red Bays, April 19. We showed it to some of the natives, but they had never seen any like it. As its color would render it conspicuous, we may infer that it was not a regular visitor, but, as stated by Cory in his 'Birds of the West Indies,' p. 85, is only accidental in the Bahamas.

25. *Loxigilla violacea* (Linn.). VIOLET GROSBEAK.—KNOWN by the natives as the 'Spanish Paroquet,' and quite abundant both in the coppet

and the pines. The males vary much in color, some being a brilliant black, while others are only dusky; this difference is more apparent in living than in dead specimens. Both sexes also vary in size. Some of these birds were brought to us alive by the negro children, and I soon learned by experience that they not only were pugnacious but could inflict quite a painful bite with their strong beaks. The generative organs of a male collected May 30 were considerably enlarged.

26. *Euetheia bicolor* (Linn.). GRASSQUIT.—Very common both in the pine-yard and in the coppet, and the most abundant species of land bird on the island. They were very tame and allowed one to approach within a few feet, and while we were at Nicol's Town, several of them flew through the house at various times. They seemed to vary a great deal, some of the males having the head and breast black, while others were much lighter with only the throat and chin black, more like the average female; in these the under mandible were also much lighter. They seemed to have mated even in April, as they were usually seen hopping about in pairs.

27. *Icterus northropi* Allen. NORTHROP'S ORIOLE. — (See Pl. I.) Description and notes of this bird were published in the last number of this periodical (Vol. VII, p. 343).

28. *Agelaius phœniceus bryanti* Ridgw. BAHAMAN REDWINGED BLACKBIRD.—This bird was found generally distributed over the island, and was the presiding genius of its creeks and swashes. On the west coast especially his flute-like 'okralee' was the most familiar note. The birds were usually in small flocks, but there always seemed to be a great preponderance of males. Beyond doubt, however, the latter knew that their plainly dressed mates were near, much oftener than we, for a number of times we saw one half raise his wings so as to expose his brilliant epaulets, and sing with all his heart, fluttering his wings at every note. On two occasions while visiting a large mangrove near Mastic Point, we remained until after sunset and watched the Redwings fly out to roost there. The mangrove, about two miles from shore, was very large, and accommodated hundreds of feathered guests nightly. There were Man-o'-war Birds, White-headed Pigeons, and Louisiana Herons, but the most numerous as well as the noisiest lodgers were the Redwinged Blackbirds. They began to arrive about five o'clock, flying in from the mainland by twos and threes, or sometimes singly, until at last the portion of the mangrove that they occupied was seemingly alive with them. There must have been several hundred, males, females and young, and they kept up a constant chorus of hoarse chirps, screams and gurgling 'okralees' until quite a while after the sun had set.

29. *Pitangus bahamensis* Bryant. BAHAMA KINGBIRD. 'FIGHTER.'—Not uncommon in many parts of the island. I have nothing to add to Dr. Bryant's account of its habits,* except that in the stomach of one some fruits of the gum elemi were found, showing that its diet was not entirely insectivorous.

* Proc. Boston Soc. Nat. Hist., Vol. VII, p. 108.

30. *Blacicus bahamensis* (Bryant). BAHAMAN WOOD PEWEE.—This small species, of which Dr. Bryant says he only saw three specimens, all in the month of March, we found common on the island, not only in the coppet, but also in the pine-yard, and even occasionally in the swashes. At one of our stopping places two or three were always to be seen flying about near the house. They were very fearless, and several times flew so close as to touch us. One seemed to be particularly tame and would fly in at the door or window or about our heads with perfect unconcern. He had several favorite perches about the house, on one or another of which he was to be found at any time of day, cocking his little head from side to side, in wait for unwary flies.

31. *Myiarchus lucaysiensis* Bryant. RUFOUS-TAILED FLYCATCHER.—Not as abundant as the preceding species, but quite often noted, especially in the northern part of the island. Seven specimens were collected, all of which were males.

[The series of seven specimens agrees with one of Bryant's original specimens in the Lawrence Collection at the American Museum of Natural History, and differs from a small series of *M. sagræ* in being much larger, with the bill narrower, and in lacking the strong yellow suffusion of the lower abdomen, crissum and axillaries, which in *M. lucaysiensis* are either nearly pure white or only faintly tinged with pale yellow. It is apparently a strongly marked form.—J. A. A.]

*32. *Tyrannus dominicensis* Gmel. GRAY KINGBIRD. 'FIGHTER'.—Quite common on the island, but most abundant near the coast. On May 31 we found a nest of this species in a small mangrove between tide marks. We had often seen similar nests before, but could not be certain what bird had made them. The nest was composed of small sticks rather compactly arranged. It was about nine inches in diameter and four or five inches in depth. In the centre was the cup, about three inches in diameter and two or three deep, very neatly lined with the fibre from some palm, probably from the spathe of the cocoanut palm. While examining the nest, the old birds flew from the shore and swooped over us, apparently much agitated. There were no eggs. On June 19 another nest was found in a mangrove on the west side of the island. This time I shot both birds and secured the nest and the one egg it contained. The latter was ovate in shape, 1.94 inches long, and .70 wide; white with a few small brownish and lavender spots and blotches, mostly near the larger end. It is stated that in Jamaica the nest of this bird "is seldom found in any other tree than that of the palm kind."* In Florida, however, it builds in the same situations as in the Bahamas. We found it a rather quiet bird, although it has been described as noisy. Once we saw it attack a Buzzard, and persistently drive it away.

33. *Chordeiles minor* Cab. CUBAN NIGHTHAWK.—Quite abundant; sometimes a dozen or more were seen flying about in the dusk. It is called 'Piramidig' by the natives, on account of its cry which to us, how-

*Baird, Brewer and Ridgway, N. A. Birds, Vol. II, p. 322.

ever, sounded more like '*Pir-ra-me-quick-quick.*' Those procured were shot in the daytime, on the western side of Andros, on June 17. They were sitting motionless on the hot, dry plain, and did not fly until we were within a very few feet of them. Even when disturbed they would alight again very shortly, and crouch close to the ground as before.

*34. *Antrostomus carolinensis* (Gmel.). CHUCK-WILL'S-WIDOW.— Three specimens were taken, two of which were disturbed in the woods during the daytime, and the other shot at dusk. Upon examining the stomach of the first one I shot, I found, amid an indistinguishable mass of brownish matter, a small bone, about half an inch long, that looked like the leg of a small bird. The next one examined contained in its stomach the partially digested remains of an entire Hummingbird, enough of which was preserved to identify it beyond doubt as *Sporadinus ricordi*. "The remains of a small bird are said to have been found within the stomach of one of this species."* One collected on May 15 contained remains of beetles and winged ants in its stomach. The testes were much enlarged, being about half an inch in length, but I am not sure that the bird breeds on the island.

35. *Doricha evelynæ* (Bourc.). BAHAMA WOODSTAR. — Well distributed over both New Providence and Andros, and as common in the pines as in the coppet. They are both curious and pugnacious, for one day we watched one chase a *Dendroica discolor* off a tree, and follow it some little distance, and while walking through the woods one of these birds would often alight close by or hover over our heads, as if examining us, and they flew through the house a number of times. They seemed to alight on the branches quite as frequently as other birds, and we often watched them perch and preen their feathers. Their little silvery trill was a quite common note in the pines, and for a while we thought it the song of some bird in the distance until we caught sight of the tiny songster almost above our heads. They do not always confine their attention to flowers, for one day a *Doricha*, after fluttering about the basket of flowers in my hand, made a dart at a good-sized spider in a web close by, and to our surprise demolished it and was off again in a moment. Of the numbers that we saw at New Providence, none were adult males, and of those collected on Andros there was a large preponderance of females.

On one occasion we had the good fortune to see a male who was evidently displaying his charms. The female was perched on a branch of a low shrub and before her the male was performing. His wings were vibrating rapidly in the usual manner, and thus supported in the air he swung rapidly to and fro, at the same time rising and falling, a movement very difficult to describe but almost exactly like that of a ball suspended by an elastic thread that stretches and contracts as the ball swings back and forth. This exceedingly graceful movement was executed through a small arc for a few minutes, and then was suddenly changed. The male expanded his tail, showing the cinnamon of the webs, and then

* Baird, Brewer and Ridgway, N. A. Birds, Vol. II, p. 413.

threw himself rapidly and almost violently from side to side in an almost horizontal line. During this latter part of the display a rustling sound was produced, probably by the vibrations of the wings, and a few short sharp notes were uttered. He then darted suddenly at the female who all the while had been sitting apparently unconcerned, seemed almost to touch her with his bill, and then flew rapidly away. Shortly afterward the female left, flying in another direction. During all of the display the two birds were facing each other and not more than six or eight inches apart, and the gorget and tail of the male were exposed to their fullest advantage.

36. *Sporadinus ricordi* Gerv. RICORD'S HUMMINGBIRD. — This was abundant on Andros, where all my specimens were obtained, none being seen on New Providence. Curiously enough, in this species, there seemed to be a great preponderance of males, and out of the seven specimens collected, but one proved to be a female. It may safely be said that most of those we saw were males, as the females are quite different, being smaller and lacking the beautiful blue-green gorget. The ovaries of the bird collected May 16 were not enlarged. It is probable that both *Doricha evelynæ*, and *Sporadinus ricordi* breed on the island; that one of them certainly does was evidenced by a nest that I was shown. It was lined with cotton, and was evidently the nest of a Hummingbird.

37. *Crotophaga ani* Linn. ANI. RAIN CROW. — Frequently seen on both New Providence and Andros, and always in small flocks of three or more. They were not as tame as most of the land birds, being on the contrary quite shy, and it was a difficult matter to get very close to them, as one of the flock was almost certain to espy you, and to notify the others with his loud warning 'wee-eeep,' a note in which the second syllable was much higher than the first, and more prolonged. On one occasion while walking through the woods during a rain, we noticed what looked like a square black board suspended to a pine some distance from the path. On investigation the black object was discovered to be seven *Crotophagas*, sitting in a row on a small dead branch, and crowded as closely together as possible. They were not asleep, however, for when I had approached within thirty or forty feet, a warning note was heard, then another and another, as they one by one took flight.

38. *Saurothera bahamensis* Bryant. GREAT BAHAMA CUCKOO. — The 'Rain Crow,' as the natives call this bird, was said to be abundant, but we got but one mature specimen and two young ones. Dr. Bryant states that they were quite common on New Providence in 1859. They fly about with a weak, wavy motion, and the people told us that they could catch them after a short chase, as they soon grew tired. Our specimens were obtained on the following dates, May 20, May 26, June 13; all on the eastern side of Andros. The one taken on May 20 was a mature female, and the ovaries were enlarged, some of the ova being over one fourth of an inch in diameter. In the stomach were grasshoppers and a small lizard. The stomachs of the others contained the remains of insects. Their bills were soiled, probably from investigating the leaves of the

epiphytic Tillandsias, as these ants found in their stomachs seemed to be of the same species as those inhabiting these plants. The description given by Cory* agrees with the two young specimens, but the adult has a black band near the end of the tail-feathers, which are tipped with dirty white, except the two middle ones. This agrees with the description given by Bryant.†

39. *Coccyzus minor maynardi* (Ridgw.). MAYNARD'S CUCKOO.—This bird, like the last species, was said to be common, but we succeeded in getting but four specimens, and during our stay saw about as many more. Their note was quite frequently heard, however, and usually from the mangroves or near by. The stomachs contained the remains of small insects and grasshoppers. On June 28 the testes were much enlarged (one half inch long).

* 40. *Ceryle alcyon* (Linn.).—BELTED KINGFISHER. Not uncommon on either New Providence or Andros, but no specimen was obtained. One was noted on the west side on April 23, and another on the east side two days later, although Dr. Bryant states that he saw none after April 1. We thought that we saw one May 26, but were not near enough in this instance to be certain.

41. *Dryobates villosus maynardi* Ridgw. BAHAMAN Hairy Woodpecker.—All our specimens were taken on Andros, where the bird was abundant, especially about the clearings.

* 42. *Sphyrapicus varius* (Linn.). YELLOW-BELLIED SAPSUCKER.—A single specimen, a female, was shot near Nassau about February 5.

43. *Strix pratincola* Bonap. AMERICAN BARN OWL.—Although but few of these birds were seen, I judge from what the people said that they are common. One that I shot at Nicol's Town had its home under an overhanging ledge on the precipitous side of a large hole about one hundred feet in diameter, known as the 'ocean hole.' Here in a deep recess, on March 25, we found two young ones not yet able to fly; and near by were the remains of the common rat of the island (*Mus rattus*). As is usual with this species, there was no nest, the birds resting on the ground. Around them for some distance the surface was covered with the rejected food balls, composed of the bones and hair of the rodent above mentioned, and as no other bones were noticed, it is probable that the Owl's principal article of diet was rat.

44. *Speotyto cunicularia dominicensis* Cory. BURROWING OWL.—The specimen doubtfully referred to this subspecies was shot at Nassau in February. Another, presumably of the same subspecies, was seen on the southern part of Andros in June, flying about the low shrubs near the shore, but we were not fortunate enough to get it.

[A single specimen is referred to this form, which it much more resembles than it does the Florida form, being much darker than the latter. —J. A. A.]

* Birds of West Indies, p. 159.

† Proceedings Boston Society Nat. Hist., Vol. IX, p. 280.

* 45. *Falco columbarius* Linn. PIGEON HAWK.—A single specimen, a male, was shot at Mastic Point on Andros on May 2. The bird was rare. A larger Hawk also was seen, but no specimens were obtained.

46. *Cathartes aura* (Linn.).—TURKEY BUZZARD. 'CROW.'—Very common on Andros, but more were seen on New Providence.

47. *Columba leucocephala* Linn. WHITE-CROWNED PIGEON.—Very abundant during the spring and summer. In the evening we often watched them flying from Andros in the direction of New Providence. The people said that they were going to Green Bay, a distance of fifty miles. A female shot on June 28 was almost ready to lay.

48. *Columbigallina passerina* (Linn.).—Called 'Ground Dove' and 'Tobacco Dove' by the natives. Exceedingly common both on Andros and New Providence. They generally fly about in small flocks of three to six, and are very tame.

49. *Zenaida zenaida* (Bonap.). ZENAIDA DOVE.—Not as abundant as the White-crowned Pigeon, but not uncommon in the coppet. They were shy, and were heard much oftener than seen.

50. *Charadrius squatarola* (Linn.).—A pair of Black-bellied Plovers was shot on the shore near Red Bays, Andros, on April 14.

51. *Ægialitis vocifera* (Linn.).—The Killdeer was first seen near Fresh Creek on the first of June, and on the 7th two were shot. They both proved to be males, with the testes enlarged to about .5 inch in diameter. The species was not abundant, and but few were afterward seen.

52. *Ægialitis wilsonia* (Ord). WILSON'S PLOVER.—Abundant and very tame. It was found on almost all the sandy beaches, where it would sometimes run along just ahead of us for nearly half a mile, appearing quite to forget that it could get out of our way by flying. This species is known to breed in the Bahamas.*

53. *Hæmatopus palliatus* (Temm.). AMERICAN OYSTERCATCHER. 'SEA-PIE.'—One of these birds was obtained near Red Bay on April 15. It was feeding on the extensive sand flats at low tide. Later, others were occasionally seen in similar places. It is said to breed in the Bahamas.†

54. *Himantopus mexicanus* (Müll.). BLACK-NECKED STILT.—A flock of these birds was seen in one of the lakes on the west side of Andros on April 21, and a pair were secured. We afterwards found them occasionally in the marshes. On June 17 we saw quite a number of these birds in the swash near Wide Opening. Our man said that this was the kind of place in which they bred, and later we found a nest. It was simply a slight depression in the ground, and contained four ovate eggs of an olive green color, blotched with brown, measuring $1\frac{1}{4}$ to $1\frac{1}{2}$ inches by $1\frac{1}{4}$.

55. *Symphemia semipalmata* (Gmel.). WILLET.—Commonly known as 'Tell-Bill-Willy.' Very abundant in all the creeks and swashes. The ovaries of those shot on May 31 were much enlarged.

* Cory, Birds of Bahamas, p. 14.

† Bryant, Proc. Bost. Soc. Nat. Hist., VII, p. 121.

*56. *Actitis macularia* (Linn.). SPOTTED SANDPIPER. 'SANDBIRD.'—One specimen, a female, was shot on the west side of the island, April 21, and was the only one seen during our trip. As Cory obtained only three specimens in 1879, it is doubtful if it is a resident.

57. *Rallus coryi* Maynard. BAHAMAN RAIL.—A single specimen from Couch Sound, Andros, April 15. It was shot and skinned by Mr. Alexander Keith, a Scotch gentleman, to whom the writer takes pleasure in acknowledging his indebtedness for this and many other favors, while on Andros. This bird was known as the Marsh Hen, and is said by the people to be common, but we never met with it again. On May 28 a woman brought us three eggs that she said were those of a Marsh Hen. They are ovate to elongate-ovate in shape, and are nearly cream color with chocolate spots and blotches irregularly distributed over the entire surface but much more numerous at the larger end. Mingled with these chocolate spots are others of a lavender gray. The eggs are of the following dimensions: 1.60 × 1.30; 1.70 × 1.22; 1.70 × 1.20 inches.

[A single specimen in fine (unworn) plumage is provisionally referred to *Rallus coryi*. It is, however, about the size of ordinary *R. crepitans*, from which it differs in the gray edgings of the plumage being much broader than in even extreme examples of that form, resulting in a generally grayer effect.—J. A. A.]

58. *Ardea herodias* Linn. GREAT BLUE HERON. 'ARSNICKER.'—Not uncommon.

59. *Ardea rufescens* Gmel. REDDISH EGRET.—Abundant in the swashes. The white phase of this bird was also common; many were seen, and three specimens were collected.

60. *Ardea tricolor ruficollis* (Gosse). LOUISIANA HERON. 'SWITCHING-NECK.'—Two pairs were obtained at Mastic Point in May. They were breeding in a large mangrove, about a mile and a half from the shore. These birds agree with Ridgway's description (Manual N. A. Birds, p. 131) except that the upper part of the throat is not white but rufous mixed with white. These also agree with Cory's description of *A. cyanostris*. But a specimen collected on the western side of Andros answers to Cory's description of *A. leucogastra* var. *leucoprymna*, and differs from the above specimens in the following points. The forehead and crown are much darker, being quite black; the throat has more rufous, and the neck is darker. The nest of the Mastic Point birds was composed of small mangrove sticks, laid so as to make a circular structure nine inches in diameter and three or four deep. There was a slight depression in the top, in which were placed a few sticks, parallel to each other, and on these were four eggs. The latter vary in shape; some being ovate, while others are almost equally pointed at both ends. They are nearly malachite green* in color, but with a slightly bluer tinge. The measurements are as follows: 1.71-1.84 × 1.29-1.34 inches.

*61. *Ardea cærulea* Linn. LITTLE BLUE HERON.—One specimen,

* Ridgway, Nomenclature of Colors.

shot at Stafford Creek May 5. No more were seen, which seems curious, as Dr. Bryant regarded this as the most common species of Heron;* and Cory states that it was abundant during the winter, but no adults were taken by him.† My remarks, however, apply only to Andros, and the bird might be common in other localities.

62. *Ardea bahamensis Brewster*. BAHAMA GREEN HERON.—Locally known by the expressive name of 'Poor Joe.' We found it quite abundant in the creeks and swashes, and at Fresh Creek collected what is very probably the young of this species, hitherto undescribed. The top of the head is clove brown with a slightly greenish gloss, streaked with cinnamon rufous. The rest of the head, front of the neck, and the breast, are white striped and mottled with sepia and bistre. The back and the remainder of the neck are olive, having the feathers edged with cinnamon rufous. The tail is similar to the adult. Lower parts are gray, the feathers being edged with white; and the scapulars and wings are clove brown, the coverts having an elliptical mark of wood brown and being edged with cinnamon rufous; the rest of the wing feathers having a deltoid mark of white at the end. The bill is ochre yellow, darker above, and shading into black near the end of the upper mandible. Legs olive.

*62. *Nycticorax nycticorax nævius (Bodd.)*. 'GOLDEN.'—The Black-crowned Night Heron is new to the Bahamas, and is said by the people to be abundant, although we did not see very many individuals. Two were secured at Conch Sound, March 30.

*64. *Nycticorax violaceus (Linn.)*. YELLOW-CROWNED NIGHT HERON.—About as abundant as the last species. Both the above species of *Nycticorax* are locally known as 'Goldens,' pronounced 'gaulings.'

65. *Phœnicopterus ruber Linn.*—A few Flamingoes were seen on the western coast of Andros in April; but later, in June, when the breeding season had commenced, we found them very abundant. A pair were shot on June 18, and they were then ready to lay. We were told that one of their breeding places was near Big Cabbage Creek, and a day was spent in an unsuccessful attempt to find their nests. They were described to us, however, by reliable people, who also stated that the birds sat upon their nests 'like any other bird,' and not with their legs hanging down on either side. The birds are exceedingly shy, and in the open swashes it is difficult to get within shot; for while stealing warily toward them, you are very apt to hear a warning 'gong, gong,' and off flies the entire flock, a streak of flame against the sky. The Flamingoes, when feeding, push their head into the mud under water; and this fact is taken advantage of to secure them. While the head is under water the negro walks rapidly forward, taking about ten steps and then stopping. By that time the bird will probably lift its head and look around. The negro stands motionless and screens his face with a branch of a tree until the Flamingo, apparently satisfied that the new object is inanimate, quietly resumes his

* Proc. Bost. Soc. Nat. Hist., VII, p. 120.

† Birds of the Bahamas, p. 171.

feeding, and the negro advances as before. I was assured by intelligent men that in this way they had sometimes captured the birds alive with their hands. That the bird feeds in the manner described above is well shown by its mouth, which is peculiarly adapted to sifting from the mud any mollusks or crustaceans that might serve as food, and the gape of the bill when opened to its fullest extent is only about half an inch. We were also told that a screen is sometimes built of palm leaves, and behind this the native can easily advance within shot of the flocks. A large number of young birds are yearly destroyed by the people for food. We ate the bodies of those we obtained and found the flavor most delicious. We had for a long time been living practically upon flour and hominy, and this may have made the Flamingo seem better than it really was; nevertheless I think it would bear comparison with any of the much sought after game birds. The stomachs of the pair I obtained contained no fish, but many small shells and much mud.

66. *Dendrocygna arborea* (Linn.). TREE DUCK.—A flock of Ducks was seen in a lake on the west side on April 21, but we could obtain no specimens. A negro who was with us said that they were 'Whistling Ducks' and, as Cory * states that this species was quite abundant on Andros, the negro was probably right. I was told that earlier in the year the Ducks were very numerous on the swashes. The ground about the lake mentioned was pitted with shallow holes about two to four inches in diameter which our man said had been made by the Ducks while feeding, when the place had been covered with water. I also saw a smaller Duck near Wide Opening on June 17. In answer to my questions, I was told that it was a 'Summer Duck'.

* 67. *Fregata aquila* (Linn.). MAN-O'-WAR-BIRD.—A number of these birds had their roosting place in the large mangrove near Mastic Point, already spoken of in connection with the Red-winged Blackbirds. We were told that formerly they used to breed there, but that of late years they had gone farther from the settlement.

* 68. *Pelecanus fuscus* Linn. BROWN PELICAN.—A few seen, and one, a young bird, obtained.

* 69. *Phalacrocorax dilophus floridanus* (Aud.). FLORIDA CORMORANT.—Cory in his 'Birds of the Bahamas' states that this is an abundant species, but in his 'West Indian Birds' says it is accidental in the Bahamas. We often saw it, and on June 16 while sailing through the Northern Bight, found them breeding on a small island known as Cormorant Cay. Here were old and young birds, some not able to leave the nest, but the majority able to walk. Those still in the nest were covered with a soft sooty down, and their gular sacks were pale yellowish white, darker near the bill. The nests were about eighteen inches in diameter, and about one foot in height, roughly constructed of sticks.

* 70. *Anous stolidus* (Linn.). NODDY.—A flock of these birds was seen near Fresh Creek, on June 6. They were occasionally seen afterward.

* Birds of Bahamas, p. 183.

* 71. *Larus atricilla* Linn. LAUGHING GULL.—Abundant. First noted early in April.

* 72. *Sterna maxima* Bodd. ROYAL TERN.—One specimen shot April 14 on Long Sound on the northern coast of Andros. A few more were seen, but the bird was not common.

* 73. *Sterna fuliginosa* Gmel. SOOTY TERN.—Since our return a specimen of this bird has been kindly sent to us by Mr. Alex. Keith of Andros. We saw none of this species while on the island.

74. *Sterna anæthetus* Scop. BRIDLED TERN. — Abundant on a small bay near Fresh Creek, where they breed. The people call this and the preceding species 'egg birds,' and during the season collect and eat their eggs. They were not breeding when we were at Fresh Creek early in June, but they were almost ready to breed.

* 75. *Sterna antillarum*, Less. LEAST TERN.—Abundant off Fresh Creek on a small cay near the larger one occupied by the Bridled Tern; neither, however, seemed to trespass on the ground of the other.

EIGHTH CONGRESS OF THE AMERICAN ORNITHOLOGISTS' UNION.

THE EIGHTH CONGRESS of the American Ornithologists' Union was held in the lecture hall of the United States National Museum, Washington, D. C., Nov. 18-20, 1890, the President, Dr. J. A. Allen, in the chair. There were present twenty Active Members and eighteen Associate Members.

The Secretary's report gave the membership of the Union at the opening of the present congress as 465, constituted as follows: Active Members, 50; Honorary Members, 21; Corresponding Members, 72; Associate Members, 322;—the total increase for the year being 65.

During the year four Honorary Members and two Associate Members have died, and one Associate Member has resigned. The Honorary Members were Dr. Ladislaus Taczanowski of Warsaw, Russia; John Henry Gurney of Northrepps, England; William Kitchen Parker of London, England; and Dr. F. von Krauss of Stuttgart, Württemberg. The Associates were Henry D. Minot, killed in a railroad accident near New Florence, Penn.; and Gideon Mabbett of Rodney, Miss. The resignation was that of Miss Ellen King.

Two Honorary Members were elected, viz., Graf Hans von