
PART IV.

THE BIRDS OF BERMUDA.

BY

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THE BIRDS OF BERMUDA.

INTRODUCTION.

It was with considerable diffidence, notwithstanding the very flattering nature of the invitation sent to me, that I consented to appear a third time in print on the avi-fauna of the Bermudas, and I trust that a knowledge of this fact may go far to excuse my presumption in ranging myself among the learned professors and men of science who contribute to this work, and also the numerous short-comings in my particular department. I was puzzled for a long time how to begin my task, finally deciding to present, as a brief history of the Birds of the Bermudas, my original notes published in the "Field" newspaper in 1875, and in the "Zoologist" in 1877, thoroughly revised and brought up to date, with the addition of the synonymy and measurements of each species taken from the highest American and European authorities.

I fear a long introduction will be considered out of place in a work like this, but, as it may possibly prove of interest to any naturalist contemplating a visit to the islands, I have ventured to rewrite a large portion of my original preface, as follows:

In March, 1874, when ordered to the Bermudas to complete my tour of foreign service, I made diligent and most anxious inquiries about the birds likely to be found there, and I must say the answers I got from brother officers and others who were familiar with the islands were anything but satisfactory in an ornithological point of view. I was informed that birds were few and far between, with the exception of one or two common resident species, and a casual flock of plovers or waders in the autumn months. My ardor cooled to zero abruptly. I looked forward to the red, blue, black, and white birds of my informants, and the uncertain and erratic Plover, with a sigh of despair! Should I take a gun at all, to lie idle in the damp corrosive climate to which I was bound?

However, on board the good ship *Severn*—a hired transport, which conveyed the company of Royal Engineers, to which I then belonged, across the Atlantic—I found some officers of H. M. Fifty-third Regiment

returning to Bermuda from leave in England, one of whom (Captain Rooke) was a great sportsman, and had shot and collected some birds during his previous residence in the "beautiful isle of the sea." His account was decidedly reassuring. He spoke of twenty or more species, and delighted my ears with the magic words—"Teal" and "Snipe." I was thankful then that my trusty 16-bore was lying snug and safe in my cabin, ready to add to the Bermuda lists when called upon.

We left Gibraltar on the 12th, but did not land in Bermuda till March 30, owing to a pleasant head-wind and somewhat limited powers of locomotion. My note-book was started next day—our first on shore—and was religiously kept up from that time till June 3, 1875, when I left again for English soil.

Situated in latitude $32^{\circ} 15'$ north, and longitude $64^{\circ} 51'$ west, 600 miles or more from the great North American continent, and exposed to the full force of ever-varying gales, the long, narrow group of islands known as the "Bermudas" offer a harbor of refuge to many a weary, storm-beaten migrant on its passage north or south, and in consequence we find a great many genera of the North American avi-fauna represented in the visiting list. On this subject my friend, Mr. J. Matthew Jones, of the Middle Temple, editor of "The Naturalist in Bermuda" (1859), remarks: "That the Bermudas afford an excellent position from whence to observe the annual migration of many species of the feathered tribes of America cannot be doubted. Equidistant, or nearly so, from the shores of Nova Scotia, the United States, and the West Indian archipelago, they present, as it were, a casual resting-place to many birds while traversing the broad expanse of ocean which forms the eastern limit of their great line of flight."

Some species, as the American Golden Plover, American Snipe, Sora Rail, Night Hawk, Yellowshanks, &c., seldom fail to appear every autumn, and may be set down as regular visitors, probably from the fact that their line of migration is direct from the northeastern coasts of the continent to the West Indies and tropical South America; but, as will presently be seen, the great bulk of the recorded species are irregular or accidental visitors, whose migratory journeys are less ambitious, and who are blown off the mainland by unfavorable winds. That fresh species will from time to time be added to the present list is more than probable; in fact, it is *possible* that the whole migratory avi-fauna of North America may eventually be recorded as Bermudian. When such diminutive flyers as the Ruby-throated Humming-bird, *Trochilus colu-*

bris, and the Blue Yellow-backed Warbler, *Parula americana*, can find their way across 600 miles of water in safety, where is the line to be drawn?

With the exception of a solitary example of the European Skylark, *Alda arvensis*, and two of the European Snipe, *Gallinago media*, the whole of the birds recorded in the Bermuda list are included in that of North America, and no species has as yet been discovered peculiar to the islands. This, if we accept the theory of the comparatively recent "Æolian" formation of the group, is not to be wondered at. At one time I actually had great hopes of establishing a real 'Mudian species, as I several times observed a small brown bird, remarkably shy and mouse-like in its habits, among the dense rushes and scrub of the larger swamps, and this I could not refer to any known North American form. I had a good view of one, too, close to me, one Sunday afternoon (*of course* it was a Sunday, when I had no gun with me), and carefully took stock of the little fellow; but as I never succeeded in procuring a specimen, I must perforce leave the question undecided, in the hope that some one may be more fortunate in this respect than myself.

Rejecting doubtful occurrences, one hundred and eighty-one species are known to have occurred in the Bermudas up to June 3, 1875. Since then five more have been added, making a total of one hundred and eighty-six species entitled to a place in the list of Bermudian birds. During the fourteen months I resided there, no less than seventy-nine species were recorded, sixty-eight of these by myself personally. I was only able to obtain specimens of sixty-one of these, but that, of course, far exceeded my original expectations. The winter of 1874-'75 was not exactly a favorable one for a collector, few violent storms occurring at critical times to drive the birds to the strange and unexpected shelter in mid-ocean. I worked hard—as hard, that is to say, as my multifarious duties as an engineer officer would permit—but many things are against the study of ornithology in the Bermudas. In the first place, the peculiar elongated shape of the group of islands, and the long distances between the various swamps and "likely" places, to say nothing of the indifferent character of the roads, render it no easy task to "register" even a particular district in the course of an afternoon. The climate, too, except when the wind is from the north in winter time, is warm and damp, and much against a long struggle through the sage bush and scrubby cedars which clothe the hills, or over the rough, steel-pointed rocks of the shore. Then there is such an extent of cedar forest,

dotted here and there with patches of highly-cultivated garden, that it is hard to find birds, or, when found, to follow them up. Mosquitoes are frightfully large and ferocious in summer and autumn, especially in and around the ponds and swamps. Many a time have I lost a long-expected shot by having to brush the little torments in dozens from my nose and eyes. And as to believing a word the good-natured colored people tell you about the extraordinary birds they see, it is simply impossible.

But, in spite of these drawbacks, I enjoyed my ornithological labors vastly, and look back with pleasure not only to the successful stalk or lucky snap-shot which occasionally rewarded my exertions, but also to the numerous instructive hours I passed, field-glass in hand, in the deepest recesses of the swamps or on the open shore, watching the agile *Mniotilta varia* and the comical *Totanus solitarius*, or listening to the loud musical "chip" of *Seiurus noveboracensis*, and the harsh, grating cry of the Phaëtons.

In the following notes I have largely availed myself of those of Colonel Wedderburn (late Forty-second Highlanders) and Mr. Hurdis (formerly controller of customs in the islands), which have already been given to the public in a little work, entitled "The Naturalist in Bermuda," to which I have before alluded; also of the collection of birds formed, during the last twenty-five years, by Mr. Bartram, of Stocks Point, near St. George's. I trust I may be held excused for the constant references to these sources of information, both by the gentlemen named and by the indulgent ornithological reader. Colonel Wedderburn and Mr. Hurdis compiled their valuable notes long before my time, as may be inferred from the date of the book mentioned (1859); and since their departure no one, except my friend Mr. J. M. Jones, appears to have kept any record of the bird-life of the islands—more's the pity. With Mr. Bartram, now an elderly man, I struck up a great friendship, and I spent many an afternoon poring over his birds. He has about one hundred and twelve species, all collected and set up by himself, and a carefully kept note-book relating to their capture. His collection is the only one of any note in the islands and contains numerous unique examples of rare stragglers. An old soldier, settling at the expiration of his service on the picturesque promontory of Stocks Point, where he still resides, Mr. Bartram has added the study of natural science to that of farming; and, in addition to producing the best arrow-root in the place, he has a turn at geology, conchology, ornithology, and several

other "ologies;" writes on scientific subjects to the local papers; and smokes his pipe in his museum, monarch of all he surveys—a commendable example to the British army.

These, however, are not the only assistants, past or present, that I met with. My friend Colonel Bland, Royal Engineers, an excellent ornithologist, though he was too much engrossed with the cares of the royal engineer's office to accompany me in many of my excursions, helped me much in my identifications, which his knowledge of Canadian forms greatly aided; while Mr. J. M. Jones, besides placing his note-book at my disposal, was always ready with a suggestion or kind word of encouragement. Lieutenant Denison, Royal Engineers, my companion in many a bird-hunt in days gone by, arrived in Bermuda in January, 1875—too late, unfortunately, to take much part in my labors. On him has devolved the task of checking and auditing my accounts, of remedying numerous deficiencies, and of supplying much additional information collected during his eighteen months' residence in Bermuda.

In conclusion I may add that my friend Mr. J. L. Hurdis has kindly sent me his valuable MS. notes on birds made during his long sojourn in the islands; that Mr. Bartram has written me most interesting and graphic letters on recent ornithological occurrences; and that our worthy editor has never for a moment relaxed his energetic co-operation with me in the work I have undertaken.

S. G. P.

DECEMBER, 1878.

ORDER PASSERES.

Sub-order OSCINES.

Family TURDIDÆ.

Sub-family TURDINÆ.

Genus TURDUS, Linn.

1. *Turdus migratorius*, Linn. American Robin; Red-breasted Thrush.

Turdus migratorius, Linn., Forst., Vieil., Wils., Bp., Nutt., Aud., and of authors generally.

Merula migratoria, Sw. & Rich.

Turdus canadensis, Brisson.

Length, 9.75; wing, 5.43; tail, 4.75; tarsus, 1.75.

Hab.—Continent of North America and portions of Mexico. West Indies rarely. Accidental in Europe. (Coues.)

By no means common, but occasionally arrives singly or in small flocks, both on northward and southward migrations, especially the former. Specimens were obtained in February and March, 1850, and in March, 1855. One was sent to Mr. J. M. Jones on November 24, 1871, when several others were seen. I saw one near Hungry Bay on October 29, 1874. Mr. Bartram obtained one at Stocks Point about the same time, and Lieutenant Denison, Royal Engineers, records one shot in Devonshire Swamp on the 27th November, 1875; these last-named occurrences establishing beyond doubt the autumnal appearance of the species, which had not been recorded in former years. Like many other migrants, the Robin would seem to modify its habits considerably on finding itself in a strange country, and to become shy and retiring in disposition. The bird I saw took up its quarters in a thick mangrove swamp, and remained there, or in some tall thick cedars hard by, for several days. An intelligent colored boy in charge of cattle on an adjoining meadow, who really *does* know how to describe a bird, saw it frequently, and told me it was very wild and hard to get near. This is very unlike the Robin I have met with in Canada and the United States. It is a thousand pities that this fine bird cannot be persuaded

to stay and breed in Bermuda, and to add its music to that of the common resident species. Colonel Wedderburn mentions (*Nat. in B.*, p. 27) that a portion of a small flock of unfortunates, which made their appearance in February, 1850, was spared, with the hope that they might be tempted to remain; but they all disappeared in a few weeks' time, not leaving a single straggler.

2. *Turdus mustelinus*, Gm. Wood Thrush.

Turdus mustelinus, Gm., Lath., Vieil., Bp., Nutt., Aud., and of modern authors.

Merula mustelina, Rich.

Turdus melodus, Wils., *Turdus densus*, Bp., *Hylocichla mustelina*, Bd.

Length, 8.10; wing, 4.25; tail, 3.05; tarsus, 1.26.

Hab.—United States, east of Missouri Plains, south to Guatemala, Cuba, Honduras, Bermuda. (B. B. and R.)

Only one appearance of this species is on record, viz, in the autumn of 1849—a season also memorable in Bermuda annals for an extraordinary invasion of Swallows and Cuckoos, which took place throughout the islands. Both Colonel Wedderburn and Mr. Hurdis obtained specimens of this Thrush, but Mr. Bartram was not so fortunate.

3. *Turdus swainsoni*, Cab. Olive-backed Thrush.

Turdus minor, Gm., Vieil., Bp.

Turdus solitarius, Wils. *Merula wilsoni*?, Sw. & Pich.

Turdus olivaceus, Gir. *Merula olivacea*, Brewer.

Turdus swainsoni, Cab., and of modern authors.

Turdus minimus, Lafresnaye, Bryant, Lawr.

Length, 7; wing, 4.15; tail, 3.10; tarsus, 1.10.

Hab.—The whole of North America, excepting, perhaps, the southwestern United States, south to Central America, New Granada, Ecuador, and Cuba. Greenland, Europe and Siberia (accidental). (Coes.)

This species also visited Bermuda in small numbers during the productive autumn of 1849, when a few were obtained. It has since occurred, at long intervals, in the autumn. Mr. Bartram's collection contains three specimens of various dates. On April 20, 1875, I shot a fine male in Smith's Marsh, the first recorded instance of its vernal appearance. The stomach contained four or five white grubs, and some fragments of marsh plants. One was brought to Lieutenant Denison, Royal Engineers, on the 22d September, 1875, and another (a male) killed by a boy with a stick in Devonshire Swamp, on the 19th February, 1876.

Sub-family MIMINÆ.

Genus MIMUS, Boie.

4. *Mimus carolinensis*, (Linn.) Gray. Cat-bird.*Muscicapa carolinensis*, Linn.*Turdus carolinensis*, Licht.*Orpheus carolinensis*, Aud.*Mimus carolinensis*, Gray, Bd., and of modern authors.*Galeoscoptes carolinensis*, Cab., Bd., Sumich., Scl., Stev.*Felivox carolinensis*, Bp.*Turdus felivox*, Vieil., Bp., Nutt., Aud.*Orpheus felivox*, Sw. & Rich., Aud.*Mimus felivox*, Bp.*Turdus lividus*, Wils.

Length, 8.85; wing, 3.65; tail, 4; tarsus, 1.5.

Hab.—United States, north to Red River and Saskatchewan; west to the Columbia, to Utah, Wyoming, and Colorado; south to Panama, Mexico, Cuba. Resident in Southern States (Cones).

Locally termed "Blackbird." Resident and abundant; its harsh, mewing cry may be heard all the year round, relieved in spring by a weak but commendable roundelay. After a shower of rain in May or June the marshes appear literally alive with these sprightly birds, and a most agreeable concert takes place among the males, prolonged till dusk should the weather continue fine. On ordinary occasions during spring time they sing a good deal, but rain seems to delight them beyond measure. They are at most times remarkably bold birds, and follow an intruder through the swamp or cedar grove, perching close to him and scolding most unmusically; but when a pair have a nest they are far more suspicious, and silently leave the neighborhood of their home. The hen bird sits very close on her eggs, but when disturbed darts rapidly away, returning as quickly and noiselessly when danger is past. Nidification commences about the end of March and again at the end of May, two broods being reared. The nest is a large clumsy structure, built of dry grasses, weeds, and twigs, lined with small rootlets. It is very often ornamented externally with rags, bits of paper, skeleton leaves, &c., according to the quaint fancy of the architect. The usual site is in a cedar branch or lemon tree, at from three to eight feet from the ground; but occasionally an ambitious pair will go a few feet higher. Eggs deep blue, with a greenish tinge, .92 in. by .68 in., usually four in number. Among the numerous nests I examined I found a considerable proportion to contain one egg much shorter and rounder than

the other three. In one case this egg was almost a perfect sphere. There being but few grapes or wild fruit grown in Bermuda to attract these mischievous birds, they are not looked upon with the same disfavor as in the United States. Mr. Hurdie mentions two instances of the occurrence of this species in mottled plumage, and I was told of one being seen, while I was there, with a good deal of white about it.

Family SAXICOLIDÆ.

Genus SAXICOLA, Bechst.

5. *Saxicola œnanthe*, Bechst. Wheatear.

Motacilla œnanthe, Linn.

Saxicola œnanthe, Bechst., and authors generally.

Saxicola œnanthoides, Vig., Cass.

Length, 6; wing, 3.45; tail, 2.50; tarsus, 1.05.

Hab.—An Old World species (Europe, North Africa, and Asia). Abundant in Greenland. Found probably as an autumnal migrant in Labrador, Canada, Nova Scotia, &c. Very occasional in the Eastern States: Long Island. (B. B. & R.)

This bird, a waif and a stray from Europe, via Greenland, to the American continent, has actually found its way to these remote islands. One was shot by an officer of the garrison, near the light-house, on October 5, 1846; the tail, unfortunately, was the only portion preserved, but this was sent to the late Mr. Yarrell, who confirmed its identity. Another was seen frequently by Colonel Drummond and Colonel Wedderburn, near St. George's, in March, 1850, but baffled all their attempts to obtain it. Whether these two examples came direct from Greenland, or were blown off the American coast, is an inscrutable mystery. No others have since been recorded.

Genus SIALIA, Sw.

6. *Sialia sialis* (Linn.) Hald. Eastern Bluebird.

Motacilla sialis, Linn.

Sylvia sialis, Lath., Vieil., Wils.

Saxicola sialis, Bp.

Ampelis sialis, Nutt.

Sialia sialis, Hald. and modern authors.

Sialia wilsoni, Sw., Aud.

Erythaca (Sialia) Wilsoni, Sw. & Rich.

Length, 6.75; wing, 4.00; tail, 2.90.

Hab.—Eastern faunal area of temperate North America, north to 48°; west to Western Kansas (to Colorado, Holden) and Lower Missouri region; Bermuda, Cuba. (Coues.)

The Bluebird is one of the resident species, and is very common. It is also migratory, arriving in small flocks after heavy gales in the winter months. Colonel Wedderburn observed them in large flocks at Ireland Island on January 5, 1848; and my friend Mr. J. M. Jones records their appearance in smaller bands in the Novembers of 1866 and 1871. I have frequently noticed a sudden increase in the numbers of this species in the winter, but the visitors appear to leave again in the early spring, taking with them doubtless some of their 'Mudian brethren, for no perceptible accession of strength is apparent during the ensuing summer, and, as will presently be seen in a quotation from Mr. Hurdis' notes, so many occasionally take their departure as to cause a perceptible diminution in the numbers of the resident birds.

Mr. Bartram, an excellent authority, inclines to the belief that they do not migrate, but merely collect into flocks for the winter, but with all due deference to him I think the following account by Mr. Hurdis is sufficient to prove their migratory habits in the islands. "Although this beautiful and familiar bird appears to be a permanent resident in the Bermudas, vast flights of them sometimes arrive from the American coast. This was particularly the case as observed by Colonel Wedderburn in the winter months of 1848. In December, 1849, I fell in with a large flock of these birds in Paget Parish. There was an appearance of wildness and vigor about them which convinced me they were strangers. A small party of eight or ten birds of a different species was observed in the midst of these Bluebirds, moving with the flock from place to place. I contrived to get within range of the small party and brought down one specimen, which proved to be a Cedar Waxwing (*A. cedrorum*), in beautiful plumage, but wanting the waxen appendages to the secondaries. It was, consequently, a young bird of that year. Now the Cedar Waxwing is a rare visitant in the Bermudas and is never known to breed there. These Cedar-birds, then, must have arrived recently in these islands, and in all probability had traversed the ocean in company with the flock of Bluebirds they were associating with.

"There is reason to believe that numbers of the native Bluebirds leave the Bermudas with these large migratory flocks, thereby causing, as in the summer of 1851, a comparative scarcity of that bird; indeed, but for this supposed movement, it would be difficult to account for the annual increase of the native birds.

This is, to my mind, the most delightful of birds, and certainly the flower of the limited flock of Bermuda residents; its brilliant plumage,

vivacious manners, and pleasant warble render it an object of interest to all; while its confiding and fearless nature in the breeding season, and the number of noxious insects it destroys, cause it to be strictly protected throughout the islands. The male bird in spring, when the sun's rays illumine his dazzling blue plumage, is perfectly lovely; he flashes across the road like a ray of azure light, and seems actually to blaze with intense color from among the sombre foliage of the cedars. His spouse is far more sober in her attire; but she too puts on nuptial attire and looks uncommonly smart in April and May, when she acquires an unusually vivid blue, and much suffusion of reddish brown about the head. I accidentally shot one in this plumage one afternoon, thinking it was a stranger, so much did it differ from the ordinary female. They breed twice, and, I believe, in some cases thrice; I have seen fresh eggs on April 4, and as late as June 19. Eggs four or five, delicate pale blue, unspotted, .85 inch by .68 inch. Nest of grasses and bents, in all manner of places. I have found them commonly in holes in old quarries or road-side cuttings; also in crevices of walls; in rocks, even when some little distance from the shore; in holes in trees; on the branches of trees; in stove and water-pipes; in calabashes, boxes, &c., hung up for them in the verandas of houses; in the folds of a canvas awning outside the door of one of the officers' quarters at Prospect Camp; and in several other curious situations. The female sits close, and I have caught her on the nest. The young are strikingly spotted until their first molt. The males sing much in the early morning in spring, both stationary and on the wing, and continue their song, though with diminished ardor, till an hour or so before sunset. A warm, sunny day in winter, however, is the time to hear them in perfection, when a favorite cedar grove will resound with their combined melody, each songster perched on the very topmost twig of a tall cedar. The song is merely a short, but sweet, wild little stave, sounding to me not unlike that of the Blue Thrush (*Monticola cyaneus*), as I used to hear it from the heights, far away above my head, on the rock of Gibraltar. The call-note is a soft twitter; but they have also a loud double note, "cher-wee," reminding one forcibly of that of an *Ægialitis*. Attempts are made frequently to bring up young birds from the nest, but they rarely succeed. A few live ones are to be seen in captivity, presumably adults captured by birdlime or in traps; but as a cage bird it is a failure. It occasionally drives the Red Bird (*Cardinalis virginianus*) from its nest, even after eggs have been laid, and uses it as a foundation for its own.

This is somewhat extraordinary, when one considers the formidable bill of the victim; but the Blue Bird is a determined little fellow, and fortune favors the bold. A great number of "crawlers"—long scaly grubs, with no end of legs—are destroyed by these useful birds, who will sit patiently watching for them on a convenient twig, swooping down on the first comer and bearing him off in triumph. They will also dart into the air after passing insects much like a Flycatcher, returning each time to their starting-point. They are very bold in pursuit of prey when they have young to feed, but always visit their nest with extreme caution should an observer be near.

Family PARIDÆ.

Sub-family SITTINÆ.

Genus SITTA, Linn.

7. *Sitta canadensis*, Linn. Red-bellied Nuthatch.

Sitta canadensis, Linn., Gm., Lath., Bp., Nutt., Aud., Bd., and other modern authors.

Sitta varia, Wils.

"*Sitta stulta* Vieill.", (Bp.)

Length, about $4\frac{1}{2}$ inches; wing, $2\frac{2}{3}$.

Hab.—North America, at large in wooded regions, but rather northerly (to 66° or farther); south, however, to the Mexican border. (Coues.)

One specimen only has been taken in Bermuda; this is in Mr. Bart-ram's collection, and was shot by himself near his house at Stocks Point.

Family CERTHIADÆ.

Sub-family CERTHIINÆ.

Genus CERTHIA, Linn.

8. *Certhia familiaris*, Linn. Brown Creeper.

Certhia familiaris, Linn. and of authors—Vieil., Wils., Aud., &c.

Certhia americana, Bp., Nutt., Bd., &c., and nearly all local writers of eastern United States.

Certhia mexicana, Gloger and Reich., &c. (A variety.)

Length, 5.50; wing, 2.60; tail, 2.90.

Hab.—Europe, North America at large, Mexico (var.). (Coues.)

Certhia familiaris, Brown Creeper.—A male bird of this species was shot by Bendall, an old soldier of the Fifty-third regiment, out of three or four seen in Devonshire Swamp, on November 24, 1876.

Family MOTACILLIDÆ.

Sub-family ANTHINÆ:

Genus ANTHUS, Bechst.

9. *Anthus ludovicianus*, (Gm.) Licht. American Pipit.*Alauda ludoviciana*, Gm., Lath.*Anthus ludovicianus*, Licht., Bp., Aud., Giraud, and modern authors.*Alauda rubra*, Gm.*Anthus rubens*, Merr.*Alauda pennsylvanica*, Briss.*Anthus pennsylvanicus*, "Zander". (Naum.)*Alauda rufa*, Wils.*Anthus spinoletta*, Bp., Nutt., Aud.*Anthus aquaticus*, Sw. & Rich., Aud.*Anthus pipicus*, Aud., Bp.*Anthus reinhardtii*, Holböll.*Anthus hypogæus*, Bp.

Length, 6.50; wing, 3.45; tail, 2.95.

Hab.—Whole of North America; Mexico; Guatemala; Bermuda; Greenland; accidental in Europe. (Coues.)*Anthus ludovicianus*, Brown Lark; Pipit.—Colonel Wedderburn has a specimen in his possession, shot by Mr. Fozard on November 26, 1848. There are two others in Mr. Bartram's collection, shot by himself near St. George's.

Family ALAUDIDÆ.

Sub-family ALAUDINÆ.

Genus OTOCORYS, Bp.

10. *Otocorys alpestris*, Bp. Shore Lark, Horned Lark.*Alauda alpestris*, Forster., Linn., Gm., Lath., Wils., Bp., Nutt., Aud., and of earlier authors generally.*Eremophila alpestris*, Boie.*Phileremos alpestris*, Brehm., Bp., Keys. & Blas.*Otocorys alpestris*, Bp., Gray, Cab.*Alauda cornuta*, Wils., Sw. & Rich.*Eremophila cornuta*, Boie, Bd., and recent American authors.*Phileremos cornutus*, Bp.*Otocorys cornuta*, Cab.

Length, 7.75; wing, 4.50; tail, 3.25; bill above, .52. (Bd.)

Hab.—Everywhere on the prairies and desert plains of North America; Atlantic States in winter; Bermuda; Europe; Asia.*Obs.*—Var. *chrysolema*, from southwest Territories of North America and southward to New Granada. Var. *leucolema* resident on the dry interior plains from Iowa and Minnesota westward.

Three examples are recorded by Colonel Wedderburn: two at St. George's, October 25, 1849, and one at Spanish Point, February 27, 1850. In Mr. Bartram's collection are three specimens. I shot a fine male on the north shore, close to the old lunatic asylum, on January 29, 1875. It fell into the sea, in the middle of a huge mass of gulf weed, through which I had to swim some distance for it. Fortunately, I was not observed, or I might have found myself an inmate of the adjacent building. Lieutenant Denison, Royal Engineers, obtained two specimens, after my departure, in January, 1876.

Genus ALAUDA, Linn.

11. *Alauda arvensis*, Linn. European Skylark.

Alauda arvensis, Linn.

Alauda italica, Gm.

Alauda vulgaris, Leach.

Alauda montana, Brehm.

Alauda cantarella, Bp.

Alauda dulcivox, Hodgs.

Alauda japonica, *pekinensis*, *intermedia*, Swinhoe.

Length, 7.25; wing, 4.50.

Hab.—Europe generally; Asia; Madeira; Bermuda (accidental); Egypt and N. Africa.

Mr. Hurdis shot the only example of this well-known bird on June 12, 1850. It had no appearance of being an escaped cage bird, and I do not see why a strong gale should not have driven it even to such a distance from its ordinary line of flight. Professor Newton, in his fourth edition of Yarrell's "British Birds," alludes to this specimen in describing the geographical distribution of the species, but seems inclined to doubt its being a genuine wild bird. It is worthy of remark that this unfortunate bird was described to Mr. Hurdis by a "coloured" lad as being "less than a pigeon, and of a light-green colour about the neck"; also as making a "curious noise" in the air, and as not knowing apparently "how to get down again," finally "tumbling down like a stone." This is a fair sample of the information one may expect in Bermuda.

Family SYLVICOLIDÆ.

Subfamily SYLVICOLINÆ.

Genus MNIOTILTA, Vieill.

12. *Mniotilta varia*, (Linn.) Vieil. Black and White Creeping Warbler.*Motacilla varia*, Linn.*Certhia varia*, Vieil., Aud.*Mniotilta varia*, Vieil., Bp., Ord., Aud., and of later writers.*Sylvia varia*, Bp.*Sylvicola varia*, Rich.*Certhia maculata*, Wils.*Mniotilta borealis*, Nutt.*M. varia* var. *longirostris*, Bd.

Length, 5 inches; wing, 2.85; tail, 2.25.

Hab.—Eastern North America, north to fur countries in summer; south to Mexico, Central America, and West Indies; west to Kansas and Missouri as high as Fort Pierre (Hayden); Bermuda (Cones).

In October, 1849, one example of this neat little warbler was shot at St. George's, and two or three more seen between that town and Hamilton. One was obtained at Ireland Island on October 27, 1852. Mr. J. M. Jones shot one in Devonshire Marsh in January, 1871. I found them quite common in the autumn of 1874 and winter succeeding it, and obtained several specimens, chiefly in the tall cedars of Devonshire Swamp and around Hungry Bay. This bird was one of my especial favorites, and I used to sit for hours watching its quick and graceful motions, and its dexterity in capturing insects. Its mode of "registering" branch after branch, commencing at the bottom and ending at the outermost twigs, is very like that of the Titmice.

Mr. Bartram informs me that he shot a specimen in good plumage on the 4th May, 1878. This must have been a spring visitor on its northward journey, I imagine.

Genus PARULA, Bp.

13. *Parula americana*, (Linn.) Bp. Blue Yellow-backed Warbler.*Parus americanus*, Linn.*Motacilla americana*, Gm.*Sylvia americana*, Lath., Ord.*Sylvicola americana* Ord. Woodh.*Parula americana*, Bp., Gosse, Bd., Hayd., and late writers.*Ficedula ludoviciana*, Briss.*Motacilla ludoviciana*, Gm.*Motacilla eques*, Boddaert.*Sylvia torquata*, Vieil.*Sylvia pusilla*, Wils.*Sylvicola pusilla*, Sw.

Length, 4.75; wing, 2.34; tail, 1.90.

Hab.—Eastern North America, south to Guatemala, north to Nova Scotia, west to Missouri, Mexico, West Indies, Greenland (Coues).

This diminutive bird seems hardly fitted for a journey of 600 miles across the ocean. Nevertheless, five examples are on record, viz, one shot by Canon Tristram at Ireland Island, on April 21, 1849; one found by Mr. Hurdis in 1853, in a collection of Bermuda skins sent to him for examination; two others seen by myself, one being shot near Devonshire Swamp on October 19, 1874. My bird proved to be a male in brilliant plumage; the other, probably a female, escaped. The two were fluttering and creeping about at the extreme end of a large cedar branch, like a veritable *Parus*. Mr. Bartram shot one near his house on the 26th March, 1878.

Genus PROTONOTARIA, Bd.

14. *Protonotaria citraea*, (Bodd.) Bd. Prothonotary Warbler.

Motacilla citraea, Bodd.

Mniotilla citraea, Gray.

Protonotaria citraea, Bd. and later authors.

Helminthophaga citraea, Cab.

Motacilla protonotarius, Gm.

Sylvia protonotarius, Lath., Vieil., Wils., Bp., Nutt., Aud.

Vermivora protonotarius, Bp., Woodh., Hoy.

Helinaia protonotarius, Aud.

Helmitherus protonotarius, Bp.

Length, 5.40; wing, 2.90; tail, 2.25.

Hab.—South Atlantic and Gulf States to Maryland and Pennsylvania, and even Maine, Ohio, Illinois, Kentucky, Kansas, Missouri, Cuba, Panama (Coues).

I had the pleasure of examining and identifying a specimen of this handsome warbler, the only one yet obtained, in Mr. Bartram's collection. It was presented to him by Mr. Hyland, jr., of Saint George's, who shot it, near that town, out of a small flock of the species, in the autumn of 1874, and had just been preserved when I saw it.

Genus DENDROICA, Gray.

15. *Dendroica aestiva*, (Gm.) Bd. Blue-eyed Yellow Warbler; Summer Warbler.

Motacilla aestiva, Gm.

Sylvia aestiva, Lath., Vieil., Aud., Nutt.

Sylvicola aestiva, Sw. & Rich., Aud., Woodh., Hoy.

Dendroica aestiva, Bd., Coues and late writers.

Sylvia carolinensis, Lath.

Sylvia flava, Vieil.
Sylvia citrinella, Wils.
Sylvia childreni, Aud.
Sylvia rathbonia, Aud.

Length, 5.25; wing, 2.66; tail, 2.25.

Hab.—Whole of North America through Mexico and Central America into South America; West Indies (represented by several insular forms apparently not specifically distinct) (Coues).

Mr. Bartram has two specimens in his collection obtained by himself at different dates. Lieutenant Denison, Royal Engineers, has also two, both males, shot in Devonshire Swamp on the 23d November, 1875.

16. *Dendroica virens*, (Gm.) Bd. Black-throated Green Warbler.

Motacilla virens, Gm.
Sylvia virens, Lath., Vieil., Wils., Bp. Nutt., Aud.
Sylvicola virens, Bp., Aud., Woodh., Reinh.
Rhimanphus virens, Cab., Scf.
Mniotilta virens, Gray, Reinh.
Dendroica virens, Bd. and later writers generally.

Length, 5.00; wing, 2.58; tail, 2.30.

Hab.—Eastern United States to Missouri; south to Guatemala; accidental in Greenland and Europe.

Another novelty brought to light in examining Mr. Bartram's birds. He has three examples, one in the obscure plumage of youth, the others in the "fall" or female plumage of the adult.

A recent letter from Mr. Bartram contains the following: "On the 7th of May (1878) I shot a black-throated green Warbler showing a triangular jet-black patch under the chin and throat, length $4\frac{3}{4}$ inches, wing $2\frac{1}{2}$, tail 2."

17. *Dendroica cærulescens*, Bd. Black-throated Blue Warbler.

Motacilla cærulescens, Gm.
Sylvia cærulescens, Lath., Vieil.
Dendroica cærulescens, Bd., Mayn., Coues.
Motacilla canadensis, Linn.
Sylvia canadensis, Lath., Wils., Bp., Nutt., Aud.
Sylvicola canadensis, Sw., Rich., Bp., Aud.
Mniotilta canadensis, Gray.
Dendroica canadensis, Bd., Scf., and other late authors.
Sylvia pusilla, Wils.
Sylvia leucoptera, Wils.
Sylvia sphagnosa, Bp., Nutt., Aud.

Length, 5.50; wing, 2.60; tail, 2.25.

Hab.—Eastern United States to the Missouri. West Indies. (Baird.) Two specimens of this striking-looking Warbler are in the Bartram

collection, shot by Mr. Bartram in a field of arrow-root on his farm not many years since. No others are recorded.

18. *Dendroica coronata*, (Linn.) Gray. Yellow-rump Warbler.

Motacilla coronata, Linn.

Sylvia coronata, Lath., Vieil., Wils., Nutt., Aud.

Sylvicola coronata, Sw. & Rich., Aud.

Dendroica coronata, Gray, Bd., Coes, and late writers generally.

Mniotilta coronata, Gray, Reinh.

Sylvia xanthopygia, Vieil.

Length, 5.65; wing, 3.00; tail, 2.50.

Hab.—North America, excepting southwest Territories; in the Northwest, across the continent, thence south along the Pacific coast to Washington Territory, Colorado, Arctic coast, Greenland, Mexico, Central America, West Indies. (Coes.)

Several examples are recorded in "The Naturalist in Bermuda." Three of these were shot on Somerset Island by Captain Tolcher, Fifty-sixth Regiment, out of a flock of more than a hundred birds. In the Bartram collection are four specimens. It was the commonest species I met with in November and December, 1874, in the course of my evening rambles among the cedar groves of Devonshire parish. Here I obtained a few specimens, and could have shot many more had I wished. They were rather shy, and flew rapidly from tree to tree, with a loud "chip" of alarm, showing the brilliant yellow of the rump plainly. Those I shot were all in winter plumage, the yellow crown concealed by brown feathers.

19. *Dendroica castanea*, (Wils.) Bd. Bay-breasted Warbler.

Sylvia castanea, Wils., Bp., Nutt., Aud.

Sylvicola castanea, Rich., Bp., Aud., Hoy.

Mniotilta castanea, Gray.

Rhimanphus castaneus, Cab.

Dendroica castanea, Bd., Sel. & Salv., Lawr., Mayn., Coes.

Sylvia autumnalis, Wils., Nutt., Aud.

Length, 5.00; wing, 3.05; tail, 2.40.

Hab.—Eastern Provinces of North America to Hudson's Bay; Guatemala, south to Isthmus of Darien. Not recorded from Mexico or West Indies. (B. B. & R.)

A young bird in the Bartram collection is the sole representative of the species. It is in obscure plumage, but shows the buffy tint on the sides of the body so characteristic of the species.

20. *Dendroica maculosa*, (Gm.) Bd. Black and Yellow Warbler.*Motacilla maculosa*, Gm.*Sylvia maculosa*, Lath., Vieil., Aud., Nutt.*Sylvicola maculosa*, Sw. & Rich., Aud., Hoy.*Dendroica maculosa*, Bd., and later authors generally.*Sylvia magnolia*, Wils.

Length, 5.00; wing, 2.50; tail, 2.25.

Hab.—Eastern North America to Fort Simpson; Eastern Mexico to Guatemala and Panama; Bahamas; Cuba (very rare). (B. B. & R.)

Mr. Bartram writes to me: "On the 7th May, 1878, I shot a Magnolia Warbler. * * * This is new to the Bermuda lists."

21. *Dendroica discolor*, (Vieil.) Bd. Prairie Warbler.*Sylvia discolor*, Vieil., Bp., Nutt., Aud.*Sylvicola discolor*, Jard. Rich., Bp., Aud., Gosse.*Mniotilta discolor*, Gray.*Dendroica discolor*, Bd. and later authors.*Sylvia minuta*, Wils.

Length, 4.86; wing, 2.25; tail, 2.10.

Hab.—Eastern United States as far north as Massachusetts, west to Kansas; breeds throughout its range; winters in Florida and abundantly in most of the West Indian islands. Not recorded from Mexico or Central America. (Coues.)

Only one, obtained by Colonel Wedderburn at the dockyard, Ireland Island, on the 3d October, 1848.

22. *Dendroica palmarum*, (Gm.) Bd. Yellow Red-poll Warbler.*Motacilla palmarum*, Gm.*Sylvia palmarum*, Lath., Vieil., Bp.*Dendroica palmarum*, Bd. and later authors.*Sylvia petechia*, Wils., Nutt., Aud.*Sylvicola petechia*, Sw. & Rich., Aud., Hoy.*Sylvicola ruficapilla*, Bp.

Length, 5.00; wing, 2.42; tail, 2.25.

Hab.—Eastern Province of North America to Fort Simpson and Hudson's Bay; Bahamas, Jamaica, Cuba, and Saint Domingo, in winter. Not noted from Mexico or Central America. (B. B. & R.)

Two shot by Colonel Wedderburn in Pembroke Marsh, on December 17, 1847, and December 3, 1848, respectively. Mr. Bartram has two other specimens, obtained by himself.

23. *Dendroica pinus*, (Wils.) Bd. Pine-creeping Warbler.*Sylvia pinus*, Wils., Nutt., Aud.*Sylvicola pinus*, Jard., Rich. & Bp., Aud., Woodh.*Rhimamphus pinus*, Bp.*Dendroica pinus*, Bd. and later authors.*Sylvia rigorsii*, Aud.*Virco rigorsii*, Nutt.

Length, 5.50; wing, 3.00; tail, 2.40.

Hab.—Eastern United States to the Lower Missouri, north to Canada and New Brunswick, but not to Labrador. Not recorded in West Indies, except Bahamas. Bermuda. (Coues.)

Has occurred in considerable numbers. A good many occurred on September 27, 1849, departing again in a few days. Several were captured outside the lantern of the light-house in the dark and rainy night of the 5th September, 1850. On October 15, 1850, Colonel Drummond obtained specimens from a large flock, which he observed coming in from the sea and settling on some trees within the keep at Ireland Island. Mr. Bartram has two specimens, one of which (a male in spring plumage) was shot near his house and brought to him while I was paying him a visit on March 16, 1875. The species would seem, therefore, to visit the islands on both migrations.

Under date 4th February, 1878, Mr. Bartram writes to me: "One dark stormy night last October, a Pine-creeping Warbler flew into the museum; it is now alive and well, and eats bread and milk."

Sub-family GEOTHLYPINÆ.

Genus SEIURUS, Sw.

24. *Seiurus aurocapillus* (Linn.), Sw. Golden-crowned Thrush.

Motacilla aurocapilla, Linn., Gm.

Turdus aurocapillus, Lath., Wils., Nutt., Aud.

Sylvia aurocapilla, Bp.

Seiurus aurocapillus, Sw. & Rich., Aud., Bd., and later authors.

Accentor aurocapillus, Rich.

Enicocichla aurocapilla, Gray.

Henicocichla aurocapilla, Cab. Gundl., Sel.

Turdus coronatus, Vieil.

Length, 6.00; wing, 3.00; tail, 2.40.

Hab.—Eastern Province of North America; west to Platte and Yellowstone, thence to Alaska; winters sparingly in Florida and along the Gulf coast; Mazatlan, West Indies; Mexico; Central America (Coues).

I shot the first recorded specimen on the edge of Devonshire Swamp, on the 19th October, 1874. This brought to light another, shot in the autumn of 1873, and set up in a case with Blue and Red Birds by Gibbs, an old soldier of the Fifty-third Regiment, and an excellent taxidermist, in the service of Lieutenant Johnston, Royal Engineers. I afterwards identified two others, killed a few years ago, in Mr. Bartram's possession. The species was numerous in the autumn of 1874, in and near Devonshire Swamp, and I procured specimens on the 24th October

and on the 12th and 16th December, thus establishing it as a real 'Mudian. I wonder it had hitherto escaped notice; its loud "peeche, peche" is very striking, and drew my attention at once to the presence of something new. It was very shy.

25. *Seiurus noveboracensis*, (Gm.) Nutt. Small-billed Water Thrush.

Motacilla noveboracensis, Gm.

Sylvia noveboracensis, Lath., Vieil., Bp.

Turdus (*Seiurus*) *noveboracensis*, Nutt.

Seiurus noveboracensis, Bp., Aud., Bd., and later authors.

Henicocichla noveboracensis, Cab., Sel., Gundl., Sel. & Salv.

Enicocichla noveboracensis, Gray.

Turdus aquaticus, Wils., Aud.

Seiurus aquaticus, Sw. & Rich.

Sylvia anthoides, Vieil.

Seiurus tenuirostris, Sw., Gamb.

Seiurus gossii, Bp.

Length, 6.15; wing, 3.12; tail, 2.40; bill from rectus, .64.

Hab.—Eastern North America, straggling westward along United States boundary to Montana and Washington Territory; Alaska; Arizona; Mexico; West Indies; Central America; Northern South America (Coues).

One of the commonest but most interesting of autumnal visitors. It appears regularly early in October and a few remain all the winter. Throughout October and November there is hardly a mangrove swamp, great or small, whence its sharp but musical "chip" may not be heard at any time during the day. Early in the morning, especially when an ebbing tide has left bare the quaint tangled roots of the mangroves and their muddy surroundings, it is comparatively easy to approach this wary little bird, but later in the day it requires great caution, and a certain amount of activity, to procure a specimen. To persons out of training, requiring strong exercise, I can confidently recommend a protracted "stalk" after *Seiurus* among the mangrove roots, such as I undertook myself before becoming better acquainted with the habits of the species. These birds wag the tail like a *Motacilla*, as they feed on the edges of the tidal pools, and flit from root to root, uttering at times their loud monotonous cry. While waiting for ducks at daylight in the larger swamps, I have seen them within a few yards of me, in happy ignorance of my presence. Colonel Wedderburn says (Nat. in B., p. 27), "Several times, at Riddle's Bay, I have noticed seemingly a larger species of this bird, but never succeeded in killing any of them." This was perhaps the larger-billed variety (or species), *S. ludovicianus*. I did not meet with any specimens myself.

Genus GEOTHYLPIS, Cab.

26. *Geothlypis trichas*, (Linn.) Cab. Maryland yellow-throat.

- Turdus trichas*, Linn., Gm.
Sylvia trichas, Lath., Vieil., Nutt., Ord, D'Orbig.
Geothlypis trichas, Cab., Bd., and later authors.
Ficedula trichas & *marilandica*, Briss.
Sylvia marilandica, Wils., Bp.
Trichas marilandica, Bp., Ord, Woodh., Hoy.
Trichas personatus, Sw.
Sylvia roscoe, Aud.
Trichas roscoe, Nutt.

Length, 4.40; wing, 2.15; tail, 2.30.

Hab.—North America, from Atlantic to Pacific; Bahamas; Cuba; Jamaica (B. B. & R.).

By no means a frequent visitor, only two specimens being known. The first was shot by Mr. Hurdis in a bushy swamp near the sluice-gates on the 18th October, 1853; the second is in Mr. Bartram's museum, obtained near Stocks Point.

Sub-family SETOPHAGINÆ.

Genus MYIODIOCTES, Aud.

27. *Myiodioctes mitratus*, (Gm.) Aud. Hooded Fly-catching Warbler.

- Motacilla mitrata*, Gm.
Sylvia mitrata, Lath., Vieil., Bp., Nutt., Aud.
Sylvania mitrata, Nutt., Woodh.
Setophaga mitrata, Jard., Gray.
Wilsonia mitrata, Bp., All., Allen.
Myiodioctes mitatus, Aud., Bp., Selater, Bd., and modern authors.
Syloicola mitrata, Maxim.
Myioctonas mitratus, Cab.
Muscicapa cucullata, Wils.
Muscicapa selbyi, Aud., Nutt.

Length, 5.00; wing, 2.75; tail, 2.55.

Hab.—Eastern Province of United States, rather southern; Bermuda; Cuba; Jamaica; Eastern Mexico; Honduras; and Guatemala to Panama R. R.; Orizaba; Yucatan (B. B. & R.).

A male shot at Ireland Island by Mr. Abbott, Twentieth Regiment, on March 30, 1847. A female was seen but not obtained.

Genus SETOPHAGA, Sw.

28. *Setophaga ruticilla*, (Linn.) Sw. American Redstart.

- Muscicapa ruticilla*, Linn., Gm., Vieil., Wils., Aud.
Setophaga ruticilla, Sw., Sw. & Rich., and modern authors.
Sylvania ruticilla, Nutt.
Motacilla flavicauda, Gm.

Length, 5.25; wing, 2.50; tail, 2.45.

Hab.—Chiefly Eastern North America, north to Fort Simpson, west to Utah, south through Mexico and Central America to Ecuador; West Indies (Coues).

Two in Mr. Bartram's possession, shot by him near his house some few years since. No others are on record.

Family TANAGRIDÆ.

Sub-family TANAGRINÆ.

Genus PYRANGA, Vieil.

29. *Pyrranga rubra* (Linn.) Vieil. Scarlet Tanager.

Tanagra rubra, Linn., Gm., Wils., Bp., Nutt., Aud.

Pyrranga rubra, Vieil., Sw. & Rich., Jard., Bp., Aud., Gir., and modern authors.

Phœnisoma rubra, Sw.

Phœnicosoma rubra, Cab.

Pyrranga erythromelas, Vieil.

Length, 7.40; wing, 4.00; tail, 3.00.

Hab.—Eastern Province of North America, north to Winnepig. In winter, south to Ecuador, Bogota, Cuba, Jamaica, Costa Rica, Vera Cruz. (B. B. & R.)

This handsome bird has visited the Bermudas on its vernal migration on several occasions. Two or three examples were obtained in April, 1850; four were seen, and one shot, in May, 1851. Mr. Bartram has several specimens, male and female, and obtained a splendid male near his house early in May, 1875. One was seen and nearly captured after an exciting hunt by Lieutenant Denison, R. E., at Somerset, on April 25, 1875. Mr. J. M. Jones informs me that a male was shot on the edge of the lagoon at Ireland Island on May 6, 1869; also that another frequented a garden in Smith's Parish for several days at the beginning of May, 1875. The female is such an obscure-looking bird that she doubtless often escapes the notice invariably accorded to her brilliant partner. There is no recorded instance of the occurrence of this species on its southward journey. Captain Rooke, Fifty-third Regiment, and I saw what we took to be a female Scarlet Tanager on October 17, 1874, near Basden's Pond, but we could not get a shot to confirm our suspicion.

30. *Pyrranga æstiva*, (Gm.) Vieil. Summer Red-bird.

Muscicapa rubra, Linn.

Tanagra æstiva, Gm., Wils., Bp., Nutt., Aud.

Pyrranga æstiva, Vieil., Bp., Lins., Woodh., ScL., and of late writers.

Length, 7.20; wing, 3.75; tail, 3.00.

Hab.—Eastern Province United States, north to about 40°, west to borders of the plains. In winter, south through the whole of Middle America (except the Pacific coast) as far as Ecuador and Peru, Cuba, Jamaica. (B. B. & R.)

The same remarks apply to this species, with reference to its visits to the islands, as to the preceding. It appears to have been especially numerous in April, 1850, when a female was shot on the 9th; a beautiful male, by Colonel Wedderburn, at Peniston's Pond, on the 19th; two by the same gentleman, at Harris's Bay, on the 20th; and several others. Mr. Bartram has a male and two females, one of the latter killed a year or two since. On the 29th of April, 1875, I shot a fine female in Smith's Marsh; it was in wonderful condition, the body being literally coated with layers of orange-colored fat. The stomach was full of the remains of the Bermuda wasp—a most unpalatable-looking morsel. Wilson alludes to the insectivorous habits of this species.

Family HIRUNDINIDÆ.

Sub-family HIRUNDININÆ.

Genus HIRUNDO, Linn.

31. *Hirundo horreorum*, Barton. Barn Swallow.

Hirundo rufa, Vieil., Bp., Nutt., Woodh., Cass., Cab., Brewer.

Hirundo horreorum, Barton, Bd., and of late writers.

Hirundo americana, Wils., Sw. & Rich., Lemb.

Hirundo rustica, Ord., Gir., Jones.

Length, 6.90; wing, 5.00; tail, 4.50.

Hab.—North and Middle America, north to Alaska; Greenland; West Indies. (Coes.)

I shall take the liberty of quoting from the "Naturalist in Bermuda," to illustrate the uncertain appearance of the swallow tribe in the islands. Mr. Hurdis says (p. 68): "I can with safety affirm that from October, 1840, to September 12, 1846, not a swallow of any description came under my observation, though I believe they were sufficiently common in the September of the former year." Colonel Wedderburn says of this species (p. 34): "Rarely seen in April and May, but sometimes numerous in August and September. I have seen it as early as August 1, in the year 1848, at Hamilton, and they were numerous on that day at Hungry Bay and Riddle's Bay. This species was very numerous in the great flight of swallows in September, 1849." A few swallows, probably of this species, appeared in August, 1874, but I was away at the time.

From April 30 to May 11, 1875, there were not a few visitors, and several specimens were obtained. Five of these birds frequented the grassy slopes in the vicinity of Warwick Camp, while I was going through the annual course of musketry there with my company. They disappeared on May 11, without my having been able to procure a specimen.

32. *Hirundo bicolor*, Vieil. White-bellied Swallow.

Hirundo bicolor, Vieil., Bp., Aud., Nutt., Gir., and most writers.

Chelidon bicolor, Less., Bp.

Tachycineta bicolor, Cab., Gundl., Sumich., Allen, Coues.

Herse bicolor, Bp.

Petrochelidon bicolor, Sel., Sel. & Salv.

Hirundo viridis, Wils.

Length, 6.25; wing, 5.00; tail, 2.65.

Hab.—Whole United States, and north to Slave Lake, south to Guatemala; Bermuda; Cuba, common in winter; breeds on table-lands of Mexico; accidental in England.

This Swallow visited the Bermudas in the great flight of September, 1846, when it appeared in considerable numbers. Lieutenant Denison obtained one, shot at St. George's in September, 1875.

Genus COTYLE, Boie.

33. *Cotyle riparia*, (Linn.) Boie. Bank Swallow.

Hirundo riparia, Linn., Gm., Lath., Wils., Bp., Sw. & Rich., Nutt., Aud., Gir., and of earlier authors generally.

Cotyle riparia, Boie, Bp., Woodh., Cass., Cab., and of nearly all late writers.

Hirundo cinerea, Vieil.

Length, 4.75; wing, 4.00; tail, 2.00.

Hab.—Europe; the whole of North America; Bermuda; Cuba; Jamaica; winters from the southern coast southward; not common on the Pacific side; Brazil. (Coues.)

Identical with the European bird. Two specimens were shot by Captain Lye, in September, 1846; and a few seen near Hamilton on August 8, 1847.

Genus PROGNE, Boie.

34. *Progne purpurea*, (Linn.) Boie. Purple Martin.

Hirundo subis, Linn.

Progne subis, Bd., Coues, Sumich., Steph.

Hirundo purpurea, Linn., Gm., Lath., Wils., Bp., Aud., Nutt., Gir.

Progne purpurea, Boie, Bp., Woodh., and later writers.

Hirundo violacea, Gm.

Hirundo carulca, Vieil.

Hirundo versicolor, Vieil.

Hirundo ludoviciana, Cur.

Length 7.50; wing, 6.00; tail, 3.40.

Hab.—United States and British Provinces, north to Canada and the Saskatchewan; Mexico; Cuba(?); accidental in Great Britain. (Coes.)

This fine bird, a straggler to the British lists, has only appeared on one occasion, during the "entrada" of September, 1849, when it was numerous.

Family AMPELIDÆ.

Sub-family AMPELINÆ.

Genus AMPELIS, Linn.

35. *Ampelis cedrorum*, Vieil. Cedar-bird.

Ampelis garrulus, var β , Linn.

Bombycilla cedrorum, Vieil, Cab.

Ampelis cedrorum, ScL., Bd., and late writers.

Bombycilla carolinensis, Briss., Bp., Aud., Nutt., Gir.

Ampelis carolinensis, Gosse, Bp.

Ampelis americana, Wils.

Bombycilla americana, Sw. & Rich.

Length, 7.25; wing, 4.05; tail, 2.60.

Hab.—North America generally, up to 54° north; Mexico and Central America; Bermuda; Jamaica; Cuba. (Coes.)

Occurs rarely, both on its autumnal and vernal flights. Three were shot out of a flock of about thirty, near Hungry Bay, on October 10, 1847; four on December 17 following, one of which had a few of the brilliant wax-like tips to the secondaries; two out of a flock of twelve in December, 1849; one seen on January 5, 1850; one shot on the 6th and another on the 10th April, 1850; one on December 2, 1851. In addition to these Mr. Bartram has three specimens, obtained at different dates. I did not myself meet with the species, or hear of its occurrence, during my stay. Two were shot out of a flock of five on the 11th, and a third on the 22d September, 1875, in Devonshire Swamp, by Lieutenant Festing, Twentieth Regiment. A male bird of this species was obtained near Prospect, on November 24, 1875.

Family VIREONIDÆ.

Sub-family VIREONINÆ.

Genus VIREO, Vieil.

36. *Vireo noveboracensis*, (Gm.) Bp. White-eyed Vireo.

Muscicapa noveboracensis, Gm.

Vireo noveboracensis, Bp., Nutt., Aud., Gir., Cass., and later writers.

Vireo musicus, Vieil.

Muscicapa cantatrix, Wils.

Length, 4.90; wing, 2.40; tail, 2.20.

Hab.—United States west to base of Rocky Mountains; south to Guatemala; Very rare in Cuba. Abundant and resident in the Bermudas. (B. B. & R.)

The smallest and one of the commonest resident Bermuda birds, familiar to all through its sprightly ways, loud song, and astounding impudence. It is termed locally, "chick-of-the-village," or, "chick-choo-willie," from its note. This is, however, very variable, and hardly any two birds give it the same rendering. One has a prefatory "chick," in addition; another tacks the extra "chick" on at the end of his version; while others cut it short, or jumble it all up together at random. One particular variety is "ginger-beer-quick," a call very much adapted to the climate of Bermuda. In short, there is no end to the variations; and a stranger might well imagine, as I did myself at first, that there was more than one species present. It was some little time before I settled the matter to my own satisfaction by careful observation of every "chick" I heard singing, as I expected to meet with *V. gilvus* or *V. belli* among the numerous musicians. The color of the iris increased my difficulty, as I found it to be brownish, brownish-gray, or gray—rarely white, as stated by authors. I presume it is only fully adult birds that show the real white iris; young birds have it decidedly brownish, and I have seen a female sitting on eggs with an undeniable brownish-gray "cast" in her bright little eye. It would be a waste of time and valuable space to describe the pretty pensile nest of this species, so familiar to all ornithologists. I have found it usually from three to twelve feet above the ground, in cedars, mangroves, Bermuda "holly," pomegranate, and lemon trees, but most commonly in cedars. I never met with more than *three* eggs or young in one nest in the islands; authors assign four or five to the genus. The eggs average .71 inch by .52 inch, white, with a few dark-brown or black dots; some are entirely white. The young at first have the yellow of the wing bars and forehead very pale and dingy. This is a sad little torment to the collector. It comes hissing and scolding within a foot of one's head, puffing itself out with malignant fury. I have touched one with my gun in the thick bushes before it would budge an inch. And when one is on the *qui vive* for rarities among the big cedars, the little wretches will come from all parts to irritate and deceive one, playing all sorts of antics on the topmost branches, apparently imitating the movements of a *Dendroëca* or other *Sylvicolida*, in order to induce one to waste a charge on them. Several times they succeeded with me; and on one occasion,

the bird having lodged at the top of a very ugly-looking tree, I tore my hands and clothes to pieces in my anxiety to secure the supposed prize. But in spite of this I have a great regard for the cheerful, restless little fellows, whose presence does so much to relieve the monotony of the everlasting cedars. They are very dexterous in catching insects among the foliage, their manner of feeding seeming to be intermediate between that of a Flycatcher and a Warbler. You can hear the "snip" of their mandibles as they secure their prey for a considerable distance. I have seen one catching flies off the back of a cow, jumping vigorously at them from the ground, and "snipping" them off neatly as they buzzed round the recumbent animal. Mr. Hurdis says (Nat. in B., p. 71): "In September it delights to feed on the small white berries of the sweet-scented *Tournefortia*, and it is also fond of the small fiery capsicum, known by the name of 'bird-pepper,' the pods of which it plucks and swallows entire." It is on record that the newly-fledged young of this species have been found entangled in the meshes of the web of the "silk" spider *Epëira clavipes*. These webs are of great size and strength, extending for many feet between adjoining cedars, and the number of them among the woods in summer and autumn is almost incredible. In all my rambles, however, I never met with an instance of poor little *Vireo* having walked into *Epëira's* parlor.

Genus VIREOSYLVA, Bonap.

37. *Vireosylva olivacea*, (Linn.), Bp. Red-eyed Vireo.

Muscicapa olivacea, Linn., Wils.

Lanius olivaceus, Licht.

Vireo olivaceus, Vieil., Bp., Sw., Aud., Bd.

Vireosylva olivacea, Bp., Reinh., Sch., and late writers.

Vireo virescens, Vieil., Gray.

Vireo bogotensis, Bryant, Lawr.

Length, 6.33; wing, ♂, 3.33; tail, 2.50.

Hab.—Whole of Eastern North America, west to base of Rocky Mountains, south to Panama and Bogota; very rare in Cuba, only West Indian locality; accidental in England; Trinidad. (B. B. & R.)

The first recorded specimen was brought to me in the flesh on the 14th October, 1874. It had just been captured in the officers' quarters at Prospect Camp. In March, 1875, I identified three specimens in Mr. Bartram's collection, shot by himself at different times near Stocks Point. Mr. Bartram informs me that he shot one on the 13th October, 1878.

Family LANIIDÆ.

Sub-family LANIINÆ.

Genus COLLURIO, Bd.

38. *Collurio borealis*, (Vieil.) Bd. Great Northern Shrike.

Lanius borealis, Vieil., Sw. & Rich., Aud., Gir., Cass., &c.

Lanius excubitor, Forst., Wils., Aud.

Collyrio borealis, Bd., Cooper & Suck., Coues & Prent., Hayd., Dall & Bann.

Collurio borealis, Bd., Coues, Cooper, &c.

Lanius septentrionalis, sp., Cass., Murray.

Collyrio chemungensis, Gregg.

Length, 9.85; wing, 4.50; tail, 4.80.

Hab.—North America, in winter south to about 35°; Alleghanies, breeding; Bermuda. (Coues.)

Not a great many have occurred, though it would appear to visit the islands on both migrations. One was shot by Dr. Cole, Twentieth Regiment, on October 31, 1846; one by Mr. Hurdie, January 23, 1847; another by Colonel Wedderburn, near Harris Bay, March 12, 1850; and a fourth by Mr. J. M. Jones, on the "Model" farm, Smith's parish, in January, 1872. Besides these, there are three specimens in Mr. Bartram's collection. Most of these above-mentioned examples were in immature plumage. One in Lieutenant Denison's collection was shot near the garrison instructor's house, at Prospect, on the 1st January, 1876.

It is strange that the other North American species, *C. ludovicianus*, of more southerly distribution on the continent than *C. borealis*, should not have been observed in Bermuda.

Family FRINGILLIDÆ.

Sub-family COCCOTHAUSTINÆ.

Genus LOXIA, Linn.

39. *Loxia curvirostra* var. *americana*, (Wils.) Coues. American Red Crossbill.

Loxia curvirostra, Forster, Bp., Nutt., Aud., Gir., Trippe.

Loxia curvirostra var. *americana*, Coues, B. B. and R.

Curvirostra americana, Wils., Bd., Coop. & Suck., and most later U. S. authorities.

Loxia americana, Bp., Newb., Lawr., Finsch.

Length, 6.00; wing, 3.30; tail, 2.25.

Bull. Nat. Mus. No. 25—13

Hab.—North America generally, coming southward in winter. Resident in the Alleghany and Rocky Mountains. (B. B. & R.)

Of this species Colonel Wedderburn says: "A specimen of this bird was captured in the dockyard at Ireland Island, January 20, 1850, and got quite tame, and lived for several days in my room; but poisoned itself by eating part of a composite candle, which it had cut nearly in half with its strong bill during the night. I shot three specimens near Mr. Ewing's house, April 5, 1850, and saw a small flock on several occasions near Pitt's Bay, but they were so shy I could not get near them. They disappeared early in May." Mr. Bartram has several specimens. On November 17, 1874, three were observed on some cedar trees at Prospect Camp. Two males were shot among some sage bushes, near the shore at Warwick, by Gibbs, on the 25th of that month; and another male was obtained at Prospect about the same time. These may have been the trio originally seen. The stomachs of the two Warwick birds, on examination by myself, proved to be crammed with small green caterpillars, and contained no trace of seeds. The insectivorous nature of the Crossbill is not mentioned by Wilson; it is alluded to by Dr. Saxby in the "Birds of Shetland." This species must visit Bermuda both going and returning.

40. *Loxia leucoptera*, Gm. White-winged Crossbill.

Loxia leucoptera, Gm., Bp., Sw. & Rich., Nutt., Aud., Gir., Gould, Lawr., Finsch, B. B. & R.

Currirostra leucoptera, Wils., Bd., and many U. S. authors.

Loxia falceirostra, Lath.

Crucirostra leucoptera, Brehme.

Length, 6.25; wing, 3.50; tail, 2.60.

Hab.—Northern parts of North America generally; Greenland; England (accidental). (B. B. & R.)

A less frequent visitor than the preceding, on its northward journey only. A fine male was killed on May 11, 1852, by a boy who had another in his possession; date unknown. An officer of the Fifty-sixth Regiment shot one, a female, at Somerset, in March, 1852. Mr. Bartram has obtained a pair, male and female. This bird has occurred several times in Great Britain, and it is somewhat remarkable that the preceding species, *C. americana*, has not yet paid us a visit. I expect it will find its way across the Atlantic some day, and share the fate of every unfortunate straggler to our inhospitable shores.

Genus ÆGIOTHUS, Cab.

41. *Ægiothus linaria*, (Linn.) Cab. Red-poll Linnet.*Fringilla linaria*, Linn., Gm., Wils., Tomm., Bp., Nutt., Aud.*Passer linaria*, Pall.*Linota linaria*, Bp., Holb.*Ægiothus linarius*, Cab., Bd., Coues, and late writers.*Linaria minor*, Sw. & Rich., Aud., Gir., Trippe.*Fringilla borealis*, Vieil.*Ægiothus fuscescens*, Coues, Elliot.

Length, 5.50; wing, 3.10; tail, 2.70.

Hab.—The typical form in North America from Atlantic to Pacific, ranging irregularly southward in flocks in winter to the Middle States (sometimes a little beyond), and corresponding latitudes in the West. No late record of breeding in the United States. (Coues.)

Only recorded previously in 1847 and 1850. Two were obtained, February 8 and October 11, in the former year. In March, 1850, flocks of this bird appeared in the neighborhood of St. George's, and several specimens were obtained there and elsewhere throughout the islands. A goodly number visited the islands in small flocks in January, 1875; these were very tame at first, but soon became shy. Specimens were obtained during the month at all parts of the islands.

Genus CHRYSOMITRIS, Boie.

42. *Chrysomitris pinus*, (Wils.) Bp. Pine Linnet.*Fringilla pinus*, Wils., Bp., Nutt., Aud.*Linaria pinus*, Aud., Gir.*Chrysomitris pinus*, Bp., Bd., Coop. & Luck., and later writers.*Chrysomitris macroptera*, Dubus., Bp.

Length, 4.75; wing, 3.00; tail, 2.20.

Hab.—North America from Atlantic to Pacific; Vera Cruz, plateau and alpine region. (B. B. & R.)

Two specimens in Mr. Bartram's collection are the only ones on record. They were obtained near Stocks Point.

Genus PLECTROPHANES, Meyer.

43. *Plectrophanes nivalis*, (Linn.) Meyer. Snow Bunting.*Emberiza nivalis*, Linn., Forster, Gm., Lath., Wils., Bp., Nutt., Aud.*Emberiza (Plectrophanes) nivalis*, Bp., Sw. & Rich.*Plectrophanes nivalis*, Meyer, and authors generally.*Emberiza montana*, Gm., Lath.*Emberiza mustelina*, Gm.*Emberiza glacialis*, Lath.

Length, 6.75; wing, 4.35; tail, 3.05.

Hab.—Arctic America and Greenland, and corresponding latitudes in the Old World; irregularly southward in winter in the United States to about 35° in roving flocks. (Coues.)

This is a pretty constant visitor, seldom failing to make its appearance, in large or small numbers, in December or January. They were particularly numerous in 1850. I am credibly informed that of late years they have been seen in considerable numbers feeding on the parade ground and round about the stables, like sparrows, at Prospect Camp. One was seen there in December, 1874. Three, of which I procured one, frequented the Walsingham end of the Causeway in January, 1875. Others were seen at St. George's and elsewhere about the same time. This bird has not appeared in spring.

Genus PASSER, Briss.

44. *Passer domesticus*, Deg. & Gerbe. European House Sparrow.

Fringilla domestica, Linn.

Pyrgita domestica, Cuv.

Passer domesticus, Deg. & Gerbe, and European authors generally.

Length, 6.00; wing, 2.85; tail, 2.50.

Hab.—Europe; Asia; North Africa; Madeira.

Some few years ago a number of these birds were imported from New York (where they are now numerous), and turned out at St. George's; but many of them subsequently disappeared, probably victims to the cats which swarm in all parts of the islands. The remainder, however, appear to be flourishing, and in the spring of 1875 there were several nests in the new barracks above the town. A second importation, from New York also, took place in September, 1874, about fifty birds being liberated in the vicinity of Hamilton. These soon scattered in all directions, but about a dozen took up their quarters in the garden of the court-house at Hamilton, and could be seen there daily during the winter following. I have no doubt they will increase and multiply after their manner, and in time become as much a nuisance as they are now a curiosity. I certainly question the propriety of introducing these quarrelsome birds (for the sake of the war they wage on the insect tribe during the breeding season *only*) into the aristocratic society of the Blue and Red Birds, which they will infallibly drive, in course of time, out of the town gardens and inclosures altogether.

NOTE.—I may here mention that I observed a single specimen of the European Goldfinch, *Carduelis elegans*, near Harrington Sound, in April, 1875; it was very wild, and I could not get near it, but I imagine it

must have been an escaped prisoner. This species is reported to have occurred in Massachusetts (Allen, Am. Nat. iii., p. 635), but the same explanation doubtless applies.

Sub-family SPIZELLINÆ.

Genus PASSERCULUS, Bp.

45. *Passerculus savanna*, (Wils.) Bp. Savanna Sparrow.

Fringilla savanna, Wils., Nutt., Aud.

Linaria savanna, Rich.

Emberiza savanna, Aud., Gir.

Passerculus savanna, Bp., Cab., Bd., and later writers generally.

Ammodromus savanna, Gray.

Passerculus alaudinus, Bp., Bd., Heerm., Coues, Dress., Elliot, &c.

Zonotrichia alaudina, Finsch.

Length, 5.50; wing, 2.70; tail, 2.10.

Hab.—Eastern North America to the Missouri plains, and northwest to Alaska; Cuba (winter). (B. B. & R.) Mexico. (Coues.)

Only two on record. Colonel Wedderburn killed one in Pembroke Marsh, April 11, 1850; I shot one at Shelly Bay Marsh on January 29, 1875.

Genus POCOETES, Bd.

46. *Poocetes gramineus*, (Gm.) Bd. Bay-winged Bunting.

Fringilla graminea, Gm., Bp., Aud., Nutt.

Emberiza graminea, Wils., Aud., Maxim., Trippe.

Zonotrichia graminea, Bp., Newb., Heerm.

Poocetes gramineus, Bd., Hayd., B. B. & R.

Poocetes gramineus, Coues, and later authors generally.

Length, 6.25; wing, 3.10; tail, 2.50.

Hab.—United States, from Atlantic to Pacific, north to the Saskatchewan at least; winters in countless multitudes in the Southern States. (Coues.)

One shot by Captain McLeod at St. George's, October 25, 1849. Lieutenant Denison fell in with a small party of these birds, and shot one of them at Whale Bay on the 9th of September, 1876.

Genus COTURNICULUS, Bp.

47. *Coturniculus henslowi*, (Aud.) Bp. Henslow's Bunting.

Emberiza henslowi, Aud., Gir.

Fringilla henslowi, Nutt.

Coturniculus henslowi, Bp., Bd., and late U. S. authors.

Ammodromus henslowi, Gray.

Length, 5.25; wing, 2.15; tail, 2.15.

Hab.—Eastern United States as far north as Massachusetts; westward to the Loup Fork of Platte. (B. B. & R.)

“Mr. Hurdis shot one specimen out of a small flock of these birds in Pembroke Marsh, on December 2, 1850. They had frequented the dense reeds and rushes for a fortnight previously.” (Nat. in B., p. 30.)

Genus MELOSPIZA, Bd.

48. *Melospiza palustris*, (Wils.) Bd. Swamp Sparrow.

Fringilla georgiana, (Lath., ?), Nutt.
Fringilla palustris, Wils., Bp., Aud.
Fringilla (Spiza) palustris, Bp.
Passerculus palustris, Bp.
Ammodromus palustris, Aud., Gir., Putn., Trippe.
Melospiza palustris, Bd., and later authors.
Helospiza palustris, Bd., Allen.

Length, 5.75; wing, 2.40; tail,

Hab.—Eastern North America, from the Atlantic to the Missouri; north to Fort Simpson. (B. B. & R.)

A solitary example was obtained in Pembroke Marsh on December 3, 1849. I saw a bird in the Shelley Bay marshes in January, 1875, which I am almost certain belonged to this species, but I could not get a shot.

Genus JUNCO, Wagler.

49. *Junco hyemalis*, (Linn.) Selater. Eastern Snow-bird.

Fringilla hyemalis, Linn., Bp., Lw. & Rich., Aud., Maxim.
Emberiza hyematis, Linn., Lath.
Struthus hyemalis, Bp., Woodh.
Nipheca hyemalis, Aud., Gir., Putn., Trippe.
Junco hyemalis, Sel., Bd., and later writers.
Fringilla hudsonia, Forster, Gm., Wils.
Fringilla nivalis, Wils., Nutt.

Length, 6.25; wing, about 3.00.

Hab.—Eastern United States to the Missouri, and as far west as Black Hills; stragglers at Fort Whipple, Arizona, and mountains of Colorado. (B. B. & R.)

Two in the collection of Mr. Bartram were shot by him at Stocks Point.

Sub-family PASSERELLINÆ.

Genus PASSERELLA, Sw.

50. *Passerella iliaca*, (Merr.) Sw. Fox Sparrow.

Fringilla iliaca, Merr., Gm., Bp., Nutt., Aud., Putn., Trippe.
Fringilla (Zonotrichia) iliaca, Sw. & Rich.
Passerella iliaca, Sw., Bp., Bd., and late writers.
Fringilla rufa, Wils., Licht.
Fringilla ferruginea, Wils.
Passerella obscura, Verr.

Length, 7.50; wing, 3.50; tail, 2.90.

Hab.—Eastern province of North America, north 68° and Yukon; breeds from British Provinces northward; winters in Middle States sparingly, in the Southern States very abundantly; Western United States only to the edge of the central plains; accidental in California. (Coes.)

Only one yet obtained; shot by Mr. Bartram in a bush near his house a few years since.

Sub-family SPIZINÆ.

Genus GONIAPHEA, Bowditch.

51. *Goniaphea ludoviciana*, (Linn.) Bowd. Rose-breasted Grosbeak.

Loxia ludoviciana, Linn., Wils.

Fringilla ludoviciana, Bp., Nutt., Aud.

Guiraca ludoviciana, Sw., Bp., Bd., and late writers.

Coccothraustes (Guiraca) ludoviciana, Sw. & Rich.

Goniaphea ludoviciana, Bowd., Allen, Coes.

Coccororus ludovicianus, Aud., Putn., Gir., Maxim., Trippe.

Hedymeles ludovicianus, Cab., Sclater., Lawr., Allen, B. B. & R.

Coccothraustes rubricollis, Vieil.

Loxia rosea, Wils.

Loxia obscura, Gm., Lath.

Fringilla punicea, Gm., Lath.

Length, 8.50; wing, 4.15.

Hab.—Eastern Province of North America, north to Labrador and the Saskatchewan; breeds from the Middle States northward; winters in Mexico and Central America; south to Ecuador; Cuba. (Coes.)

A female bird of this species was shot by Colonel Drummond on the 9th October, 1849, near St. George's, and a fine male by Mr. Hurdis on the 15th April, 1850. Mr. Bartram has four specimens, one of which is a male in immature plumage. A female was caught by a cat in the town of Hamilton on the 16th October, 1874. This species appears to visit Bermuda twice.

Genus CYANOSPIZA, Bd.

52. *Cyanospiza cyanea*, (Linn.) Bd. Indigo Bird.

Tanagra cyanea, Linn.

Emberiza cyanea, Gm.

Fringilla cyanea, Wils., Bp., Nutt., Aud.

Passerina cyanea, "Vieil," Gray.

Spiza cyanea, Bp., Aud., Gir., Woodh., Putn., Sel., Russ.

Cyanospiza cyanea, Bd., Sel. & Salv., Sel., and late author

Cyanoloxia cyanea, Bp.

Length, 5.75; wing, nearly 3.00.

Hab.—Eastern United States to the Missouri; south to Guatemala; Oaxaca; Cordova; Guatemala; Cuba; Costa Rica; Vera Cruz (B. B. & R.).

I had the pleasure of introducing this species into the Bermuda lists, the first specimen being a female shot near Devonshire Church, on January 14, 1875. In March following I examined an immature male, shot by Mr. Bartram on the 1st of that month, and also unearthed two dingy female specimens in his collection, killed some years previously. I obtained a female in Devonshire Marsh on the 8th, a young male on the 11th, and another on the 22d of March, and one or two others were subsequently procured in the same locality. There appeared to have been a regular "entrada" of them, and it was remarkable how pertinaciously they stuck to certain cedar groves round about Devonshire Church. I saw many others, and watched the changes of plumage of the male birds with great interest. By the end of April they had acquired the rich blue livery of the adult, and rivalled the Blue Bird in brilliancy of coloring. Lieutenant Tallents, of the Twentieth Regiment, shot a splendid specimen on April 29. This was the last we saw, and I imagine they all departed shortly afterwards, though we fondly hoped they might stay to breed. I found them easily approached at first, but when once disturbed they flew very rapidly away in the thick cedars. Their call-note was a loud, harsh "chee" or "tzee."

Genus CARDINALIS, Bp.

53. *Cardinalis virginianus*, (Briss.) Bp. Red-bird; Cardinal Grosbeak.

Coccothraustes virginianus, Briss.

Cardinalis virginianus, Bp., Woodh., Bd., Maxim., and late authors.

Loxia cardinalis, Linn., Gm., Lath., Wils.

Coccothraustes cardinalis, Vieil.

Fringilla cardinalis, Bp., Nutt., Aud.

Pitylus cardinalis, Aud., Gir., Hoy.

Length, 8.50; wing, 4.00; tail, 4.50.

Hab.—More southern portions of the United States to the Missouri. Probably along the valley of Rio Grande to the Rocky Mountains. (B. B. & R.)

The well-known Red Bird of Bermuda is an abundant resident throughout the islands, everywhere conspicuous by its brilliant plumage and loud but not unmusical song. This bird is a general favorite with all classes, and in great esteem as a cage-bird. Formerly considerable numbers were caught by the "colored" boys in the neat trap depicted in "The Naturalist in Bermuda"—an introduction, as I am informed, by Mr. J. M. Jones, from Somersetshire, and not a 'Mudian invention. Fortunately, however, there are now stringent local laws for the protection of the resident birds, and these traps are seldom seen. I have tried in

vain to bring up the young from the nest. The Red Bird breeds twice a year in Bermuda. Fresh eggs have been found as early as the 1st April, and I find in my notes that I saw young birds just able to fly on the 19th; but these are exceptional cases. As a rule, the two clutches of eggs are deposited about April 10 and May 30, respectively. The eggs are three to five in number, averaging 1.00 inch x .73 inch. They vary much in size and markings, but are usually greenish white, irregularly marked with few purplish and many amber blotches. The nest is bulky, built of twigs and roots, lined with dry grasses. This lining alone serves to distinguish some of the nests from those of the Cat Bird, which they much resemble; they are usually at a greater elevation, however, and are never ornamented with rags or paper. The parent birds are extremely solicitous in bringing up their offspring, and attend them assiduously long after they are able to fly, betraying their anxiety by much "tick-tick-"ing, flirting of tails, and raising of crests. To see a fine old paterfamilias in all the glory of his rich vermilion garments, tail and crest in air, now on a post, now on an oleander or cedar bough, all the while uttering his sharp "tick" of alarm, while the more sober-colored mother is ministering to the appetites of the children, is a great treat, and will ever be associated in my memory with the hot sun, the white houses, dark cedars, and fragrant sage-bushes of Bermuda. The young resemble the female, being ashy-brown, paler below, with evident traces of the red on the crest, wings, tail, and under parts. I have mentioned the "tick," or call-note of this species. The song is exceedingly variable, consisting of a series of musical whistles. There is also a strange "whir-r-r-r," like a large bird suddenly rising on the wing, which is very peculiar. A most remarkable fact is that the notes are changed according to season. Mr. J. M. Jones called my attention to this too late, unfortunately, for me to make any lengthened study of the changes; but I heard sufficient to satisfy myself of their occurrence. Thus, in December and January nearly every songster I listened to was "way-too-"ing at the top of his voice, and I occasionally heard the peculiar "whir-r-r-r." Later on "way-too" became less frequent, being replaced by the monotonous "tew, tew," and other notes. A more careful and lengthened series of observations would be of considerable interest. In spring the Red Bird commences to sing at daybreak, considerably before the Blue Bird. A wounded Red Bird can give the unwary collector a most painful nip with his strong beak. In spite, however, of his strength,

he allows himself to be driven ignominiously from his nest by the smaller Blue Bird, as already mentioned. The skin of this species is remarkably delicate, almost resembling tissue-paper. The rich vermilion plumage soon fades when exposed to light.

In proof of the migratory nature of this species Mr. Bartram writes to me, on the 27th of April, 1878, as follows: "Captain Tupper, of the barque *Continental*, belonging to the State of Maine, put in here in distress on a voyage from Brunswick, Ga., on or about the 12th of this month. He tells me that one of our Red Birds came on board his ship and was caught 350 miles to the westward of Bermuda; the wind had been eastward for some days; they also caught a Sandpiper the same day, and they were both confined together in a basket; but, as they could not live together without fighting, they were turned adrift and allowed to go their way."

Family ICTERIDÆ.

Sub-family AGELAINÆ.

Genus DOLICHONYX, Sw.

54. *Dolichonyx oryzivorus*, (Linn.) Sw. Bob-o-link; Rice-bird.

Emberiza oryzivora, Linn., Gm., Lath., Wils.

Passerina oryzivora, Vieil.

Dolichonyx oryzivorus, Sw., Bp., Aud., Gould, Gir., and late authors.

Icterus agripennis, Bp., Nutt., Aud.

Dolichonyx agripennis, Rich.

Length, 7.70; wing, 3.83; tail, 3.15.

Hab.—Eastern North America, north to Saskatchewan, west to Rocky Mountains and somewhat beyond; Utah, Nevada, Wyoming; south to Bolivia, La Plata, &c., Galapagos, West Indies, Central and South America. (Coates.)

Mr. Hurdis says of this bird: "The Rice Bird is not known to visit the Bermudas on its vernal flight, although in September and October it seldom fails of being found there, generally in small flocks, and on one occasion in considerable numbers. They frequent the marshes, where the ripe panicles of seed from the reeds and sedge offer an ample abundance of their favorite food." And Colonel Wedderburn remarks: "During some years this bird is not uncommon, but always found in winter plumage. They are so extremely fat that it is almost impossible to preserve them." I have little to add to the above notes, except that one of Mr. Bartram's specimens is a male in imperfect summer plumage.

I never met with the species myself, but they were familiar to many of my friends. They did not visit the Bermudas in the autumn of 1874, but were numerous in September, 1875.

Genus *MOLOTHRUS*, Sw.

55. *Molothrus pecoris*, (Gm.) Sw. Cow-bird; Cow Blackbird.

Fringilla pecoris, Gm., Lath., Licht., Sabine.

Emberiza pecoris, Wils.

Passerina pecoris, Vieil.

Icterus pecoris, Bp., Nutt., Aud.

Molothrus pecoris, Sw. & Rich., Bp., Aud., Gir., Bd., Trippe, and of writers generally.

Molobrus pecoris, Sundevall.

Molothrus ates, Gray.

Fringilla ambigua, Nutt.

Length, 8.00; wing, 4.42; tail, 3.40.

Hab.—Throughout temperate North America, north to 68°; winters in great numbers in the Southern States. (Coues.)

In Mr. Bartram's collection there is one example of this singular bird, which takes the place of our European Cuckoo in North America, building no nest, but depositing its eggs by stealth in the nests of Warblers, Vireos, Sparrows, &c. This solitary specimen is a male. It was shot at Stocks Point by Mr. Bartram.

Sub-family *ICTERINÆ*.

Genus *ICTERUS*, Auct.

56. *Icterus baltimore*, (Linn.) Daud. Baltimore Oriole; Golden Robin.

Oriolus baltimore, Linn., Gm., Wils.

Icterus baltimore, Daud., Bp., Nutt., Aud., Bp., and of late writers generally.

Yphantis baltimore, Vieil., Bp., Woodh.

Hyphantis baltimore, Cab., Lawr.

Icterus baltimorensis, Bp., Sel. & Salv., Coues, Trippe.

Length, 7.50; wing, 3.75.

Hab.—United States east of Rocky Mountains, north regularly to British Provinces; passes to Mexico and Central America; Cuba (Coues).

“Captain Tolcher, Fifty-sixth Regiment, shot one of these birds early in October, 1854, at Somerset. Mr. Hurdis found it amongst his collection of skins on the 20th of the same month, when Captain Tolcher assured him that Mr. Harford, of his regiment, had killed another specimen about the same time, which, from being very much mutilated, he had unfortunately thrown away.” (Nat. in B., p. 27.) A third example, a male in splendid plumage, is in my own collection. I shot it near Hungry Bay on April 28, 1875. The bill and feet of this bird were bright livid blue.

Family CORVIDÆ.

Sub-family CORVINÆ.

Genus CORVUS, Linn.

57. *Corvus americanus*, Aud. American common Crow.

Corvus corone, Wils., Bp., Sw. & Rich., Nutt.

Corvus americanus, Aud., Bp., Nutt., Maxim., Gir., and of authors generally.

Length, 19.00 to 20.00; wing, 13.00 to 13.50; tail, about 8.00.

Hab.—Temperate North America, excepting, probably, most of the high central plains and the Southern Rocky Mountains, where the Raven abounds (Coues). Bermuda (resident).

The early history of this bird, so far as the Bermudas are concerned, is somewhat obscure. In Smith's "History of Virginia" (to which colony Bermuda at one time belonged), date 1623, Crows are mentioned as being numerous in the islands. Colonel Wedderburn says, however (Nat. in B., p. 33): "A few of these birds are generally to be seen between the light-house and Hamilton. I have never found their nests, but they are known to have bred, as a few young Crows were observed near Warwick Church during the first week of April, 1849. It is supposed that they were introduced from Nova Scotia some few years ago." Mr. Hurdis did not, apparently, find the species numerous, for he says (Nat. in B., p. 66): "In August, 1854, eleven of these Crows were observed associating together at Gibbs Hill by the late Colonel Oakley, Fifty-sixth Regiment. This was double the number which had hitherto frequented those parts, and arose, doubtless, from the young of that season." It is somewhat difficult to reconcile the above evidence. Can the species, once numerous, have become extinct, and have then been introduced again? This is possible, but I am inclined to the belief that there have been Crows, more or less, in Bermuda since 1623, their wary nature and their partiality for the dense cedar groves causing them to have been but little noticed. However it may be, they are numerous now; so much so that a price has been set on their devoted heads by a recent enactment—half-a-crown a bird, and sixpence an egg. That this is a wise and necessary measure is universally conceded, as they do much damage in the breeding season by destroying young poultry, and the eggs and young of the other resident birds. As is well known, this species is gregarious, except during the actual time of breeding. As soon as the young are well able to fly the scattered families consort

together. I have seen as many as sixteen in one flock in June. Three or four are commonly seen together in winter, when they frequent the rocky shores in search of shell-fish, &c. At the approach of the breeding season they separate into pairs, and select the most retired cedar groves for their nesting places, the same couple resorting to a particular spot for many years if undisturbed. The nest is a bulky structure of sticks and cedar bark, warmly lined with the latter material and with goats' hair; it is usually in a wide fork, against the trunk, and never very high up. Eggs, usually four, exactly like those of our European Crows. I have found as many as half a dozen nests, in various stages of dilapidation, in the same clump of trees—the work, doubtless, of the same pair. They seem invariably to build a fresh one every year. Only one brood appears to be raised, leaving the nest about the end of May. The earliest nest I heard of was one containing four fresh eggs on April 3, 1875. Lieutenant Denison and I found five young birds in one nest, two of which were somewhat less advanced in feathering than the remainder; and, as we were mobbed all the time we were at the nest by four old Crows, we came to the conclusion that the nest must be common to both pairs; rather an odd thing when one considers the solitary breeding habits of the species. Mr. Bartram has a specimen measuring $21\frac{1}{2}$ inches in length, which we at first thought must be a Raven, *C. corax*, particularly as it did not mix with the other crows, and was shot on a small island it frequented; but subsequent examination inclined me to believe that it was only an unusually large bird, perhaps a little stretched in stuffing. Ordinary specimens measure 18 to 20 inches.

Suborder CLAMATORES.

Family TYRANNIDÆ.

Sub-family TYRANNINÆ.

Genus TYRANNUS, Cuv.

58. *Tyrannus carolinensis*, (Gm.) Temm. King-bird; Bee-Martin.

Lanius tyrannus, Linn., Gm., Lath.

Lanius tyrannus, var. *carolinensis et ludovicianus*, Gm., Lath.

Tyrannus carolinensis, Temm., Cab., Bd., and later writers.

Muscicapa rex, Bart.

Muscicapa tyrannus, Wils., Bp., Nutt., Aud.

Tyrannus pipiri, Vieil., Cab., ScL., Gundl., Coues, ScL. & Salv.

Tyrannus intrepidus, Vieil., Sw., Sw. & Rich., Bp., Woodh., ScL.

Muscicapa animosa, Licht.

Tyrannus leucogaster, Stephens.

Tyrannus vieillotii, Sw.

Length, 8.50; wing, 4.65; tail, 3.70.

Hab.—North America at large, north to 57° or farther, west to Rocky Mountains, beyond which only observed in Washington and Oregon Territories and British Columbia; winters on extreme southern border, and thence into Mexico, Central and South America to Peru; Cuba. (Coes.)

Recorded as very numerous in all the swamps in 1850, but not mentioned as occurring at other times, though Mr. Bartram has one or two specimens of a later date. It would appear to be only a spring visitant. A considerable number appeared in April, 1875, a small band of these attaching themselves to the Devonshire and Hungry Bay district, where several specimens, male and female, were obtained. These were all immature, or rather in winter plumage, with the flame-colored head-patch concealed by black tips to the feathers. Lieutenant Denison observed several at Hungry Bay on the 22d September, 1875, but was unfortunately unable to procure a specimen and thus establish the fact of the species visiting Bermuda on its southward journey.

59. *Tyrannus dominicensis*, Rich. Grey King-bird.

Tyrannus dominicensis, Briss., Rich., Bd.

Lanius tyrannus, var. β *dominicensis*, Gm.

Muscicapa dominicensis, Aud.

Melittarchus dominicensis, Cab.

Tyrannus griseus, Vieil., Sw., Bp., Scl.

Tyrannus matutinus, Vieil.

Length, 8.00; wing, 4.65; tail, 4.00.

Hab.—South Carolina coast, accidental; Florida Keys and West Indies; Nicaragua; New Granada; Cuba; Jamaica. (B. B. & R.)

Only three specimens are on record, viz., one obtained by Colonel Wedderburn in Mr. Hurdis's garden on March 30, 1850, and two others on St. David's Island on April 15, 1850.

Genus *CONTOPUS*, Cab.

60. *Contopus borealis*, (Sw.) Bd. Olive-sided Flycatcher.

Tyrannus borealis, Sw.

Myiobius borealis, Gray.

Contopus borealis, Bd., and later authors.

Sayornis borealis, Wheat.

Pyrocephalus (Contopus) borealis, Gray.

Muscicapa inornata, Coop. & Nutt., Nutt.

Muscicapa cooperi, Nutt. Aud., Putn.

Tyrannus cooperi, Bp., Nutt., Reinch.

Tyrannula cooperi, Bp.

Contopus cooperi, Cab.

Contopus mesoleucus, Scl., Sumih.

Length, 7.50; wing, 4.33; tail, 3.30.

Hab.—Entire temperate North America; Mexico; Greenland; rare in Middle and Southern Atlantic States; South to Central America. (Coues.)

Mr. Bartram has one, shot by himself on his farm not many years since.

61. *Contopus virens*, (Linn.) Cab. Wood Pe-wee.

Muscicapa virens, Linn., Gm., Lath., Licht., Bp., Nutt, Aud.

Tyrannula virens, Bp., Woodh.

Myiobius virens, Gray.

Tyrannus virens, Nutt.

Myiarchus virens, Cab., ScL.

Contopus virens, Cab., ScL., ScL. & Salv., Bd., and modern authors.

Pyrocephalus (Contopus) virens, Gray.

Muscicapa guerula, Vieil.

Muscicapa rapax, Wils.

Length, 6.15; wing, 3.50; tail, 3.05.

Hab.—Eastern North America to the borders of the high central plains. Guatemala (?), Mexico, Costa Rica, Texas, Vera Cruz. (B. B. & R.)

A single example was obtained by Mr. Hurdiss on April 30, 1852.

Genus EMPIDONAX, Cab.

62. *Empidonax traillii*, (Aud.) Bd. Traill's Flycatcher.

Muscicapa traillii, Aud.

Tyrannula trailli, Rich., Bp., Woodh.

Tyrannus traillii, Nutt.

Myiobius traillii, Gray.

Empidonax traillii, Bd., Cab., ScL., and late writers.

Empidonax pusillus, var. *traillii*, B. B. & R.

Length, nearly 6.00; wing, 2.90; tail, 2.60.

Hab.—Eastern United States and British Provinces, west to the central plains, whence to the Pacific replaced by var. *pusillus*; south to New Granada. (Coues.)

One specimen is in Mr. Bartram's collection, shot at Stocks Point.

Order PICARIÆ.

Sub-order CYPSELLI.

Family CAPRIMULGIDÆ.

Sub-family CAPRIMULGINÆ.

Genus CHORDEILES, Sw.

63. *Chordeiles virginianus*, (Gm.) Bp. Night-Hawk.

Caprimulgus virginianus, Briss. (in part), Gm. Lath., Bp., Aud., Nutt.

Caprimulgus (Chordeiles) virginianus, Sw. & Rich.

Chordeiles virginianus, Bp., Aud., Gir., Woodh., Cass., Brewer, Newb., Scl., Salv., Coues.

Caprimulgus popetue, Vieil., Bp.

Chordeiles popetue Bd., Heerm., Coop. & Suck., Lawr., Hayd., Allen, Coop., Aiken.

Caprimulgus americanus, Wils.

Length, 9.50; wing, 8.20.

Hab.—Entire temperate North and Middle America, north to Hudson's Bay Cuba and Jamaica, migratory; Bahamas; south to Brazil. (Coues.)

I cannot do better than quote from "The Naturalist in Bermuda" the following: "These curious birds are sometimes very common in April, and also in September and October, on their migration north and south. The marsh below Government House was their great resort, when, just as it was getting dusk, they would appear one by one, and soon be skimming about in all directions, uttering every now and then a sharp whirring sort of cry. They double and rush about in a most wonderful manner, frequently depressing first one side, then the other. Although flying close together, they seem to try and keep apart, each having seemingly its own hunting ground" (Wedderburn). "When this bird visits the islands of Bermuda from the north, it invariably appears between the 20th of September and the 11th of October, and on its vernal flight from the south, arrives with wonderful precision between the 23d and 30th of April" (Hurdis). Individuals of this species were observed by officers of Prospect Garrison on February 20 and 28, 1875. It would almost seem probable that these wintered in Bermuda; but the question requires further investigation. They are occasionally picked up dead or in a dying condition. One was found dead in the streets of St. George's on the 26th April, 1875, and a live one was brought to me the same day. The stomachs of several I examined

in October, 1874, contained numbers of the highly-perfumed "green bug," *Rhaphigaster prasinus*, so obnoxious to delicate olfactory nerves. For this good service alone the poor birds should be religiously protected during their short visits.

Family CYPSELIDÆ.

Sub-family CHÆTURINÆ.

Genus CHÆTURA, Steph.

64. *Chætura pelagica*, (Linn.) Bd. Chimney Swift.

Hirundo pelagica, Linn.

Chætura pelagica, B. B. & R.

Hirundo pelasgia, Linn., Vieil., Wils.

Cypselus pelasgius, Bp., Nutt., Aud., De Kay, Maxim.

Chætura pelasgia, Steph., Bp., Aud., Bd., and authors generally.

Acanthylis pelasgia, Temm., Woodh., Brewer.

Length, 5.25; wing, 5.10; tail, 2.15.

Hab.—Eastern United States and British Provinces. (Cones.)

One was shot on the 13th September, 1849. On the 24th of that month Mr. Hurdis noticed several, left behind after the great flight of the Swallow tribe, already alluded to, had taken its departure. Mr. Bartram obtained one in September, 1874, during my residence in the islands, but I did not meet with the species myself.

Family TROCHILIDÆ.

Genus TROCHILUS, Linn.

65. *Trochilus colubris*, Linn. Ruby-throated Humming-bird.

Trochilus colubris, Linn., Lath., Vieil., Wils., Jard., Bp., Sw. & Rich., Nutt., Aud. Gir., and later authors.

Mellisuga colubris, Steph., Gray, Woodh.

Cyanthus colubris, Jard.

Trochilus aureigaster, Lawr.

Length, 3.25; wing, 1.60; tail, 1.25.

Hab.—North America, east of Rocky Mountains, north to 57° at least, south to Brazil; Cuba; winters in Florida (S). (Cones.)

I found the history of this bird's occurrence in Bermuda in a very unsatisfactory state. Colonel Wedderburn writes: "There is a tradition that the Humming Bird visited the islands of Bermuda in considerable numbers about thirty years ago; but of late years they have not been noticed till the 26th April, 1852, when Mr. Hurdis wrote to me, saying that Mr. John Darrell (son of the attorney-general, now chief justice, of those islands) had seen a Humming Bird under the windows of his father's

house, where it was busily employed entering the large white bell-shaped flowers of the giant *Stramonium*, its tail only at times being visible. Another was seen about the same time, and within about 2 miles of the same place, by a Miss Watson, in her brother's garden." Referring to the above, Mr. Hurdis says: "My endeavors to ascertain the truth of the tradition alluded to by Colonel Wedderburn ended in disappointment. The bird seen by Mr. Darrell was described to me as greenish in color, with the tail—the only part visible at times—tipped with white. I need not observe that this characteristic appertains to the female." I was, therefore, much pleased to establish its occurrence beyond a doubt, when going through Mr. Bartram's collection with him. He has a genuine female specimen, shot with powdered rice by himself close to his house, his attention having been called to the diminutive stranger by one of his laborers, who thought it was a large moth. Two others were seen at the same time, but not obtained. How these little birds got to Bermuda is a marvel. They have powerful wings for their size, calculated to keep up that humming vibratory motion necessary for their mode of feeding; but one would think that such a long flight across the sea would induce weariness in so small a frame, and leave them at the mercy of the winds and waves.

Family ALCEDINIDÆ.

Genus CERYLE, Boie.

66. *Ceryle alcyon*, (Linn.) Boie. Belted Kingfisher.

Alcedo alcyon, Linn., Gm., Lath., Vieil., Wils., Bp., Sw. & Rich., Aud., Nutt., Gir., Maxim., Trippe.

Ceryle alcyon, Boie., Bp., Gray, and authors generally.

Ispida alcyon, Sw.

Megaceryle alcyon, Reich.

Chlorosceryle alcyon, ScL.

Alcedo ludoviciana, Gm.

Length of adult, 12.75; wing, 6.00.

Hab.—Over the waters of all North and Middle America and many of the West Indian Islands; resident or imperfectly migratory, being in the north forced away by the freezing of the waters; accidental in Ireland. (Coes.)

"These birds arrive regularly about the middle of September, and are to be found in all the mangrove swamps, creeks, and ponds in the islands. Many remain during the winter, but they all disappear about the middle of April" (Nat. in B., p. 33). I have seen these birds as late as the 26th

April, and at one time thought they must occasionally remain to breed; but after much careful watching, in which I was assisted by my friends, I came to the conclusion that they all depart, sooner or later, to breed on the North American continent. Hungry Bay is a favorite resort of these fine birds. I have seen six or seven there together, chasing one another, darting at the little fish in the pools, and uttering their harsh, rattling cry. They affect the same hunting grounds, especially those birds that remain for the winter, and day after day, as one drives past the creeks and sheltered bays, one sees the same solemn-looking individual on the accustomed rock or cedar-borgh, one eye on the fish in the water below, the other on the passers by.

Sub-order CUCULI.

Family CUCULIDÆ.

Sub-family COCCYGINÆ.

Genus COCCYZUS, Bp.

67. *Coccyzus erythrophthalmus*, (Wils.) Bp. Black-billed Cuckoo.

Cuculus erythrophthalmus, Wils., Steph., Hart.

Coccyzus erythrophthalmus, Bp., Aud., Gir., Gray, and later writers.

Piaya erythrophthalma, Less.

Erythrophrys erythrophthalmus, Bp.

Coccygus erythrophthalmus, Cab., Bd., Hayd., Lawr., B. B. & R.

Coccyzus dominicus, Nutt.

Length, about 12.00; wing, 5.00; tail, 6.50.

Hab.—North America to Rocky Mountains; north to Labrador; south through Mexico and Central America to the Valley of the Amazon; Cuba, rarely; no other Antillean record; said to winter in Florida; accidental in Europe. (Cones.)

The first example recorded was shot by Gibbs early in October, 1874, at the same time as a number of the succeeding species, *C. americanus*, from which its smaller bill, less white on the tips of the tail-feathers, and red ring round the eye, at once distinguish it. Mr. Bartram also obtained a specimen that autumn, and I found two others in his collection, labeled *C. americanus*. I saw one near Devonshire Bay on the 19th April, 1875, and one (probably the same) was brought to me on the 30th of that month from Hungry Bay. Lieutenant Hopegood, of the Ninety-seventh Regiment, shot one of a pair in a potato-field near Devonshire Bay on the 8th May, 1875. I imagine this species has occurred more frequently than the records tend to show, not having been distinguished from its larger-billed congener.

68. *Coccyzus americanus*, (Linn.) Bp. Yellow-billed Cuckoo.*Cuculus dominicensis*, Briss. *Cuculus dominicus*, Linn., Lath., Gm.*Coccygus dominicus*, Bd.*Piaya dominica*, Gray.*Cuculus carolinensis*, Briss., Wils.*Erythrophrys carolinensis*, Sw.*Cuculus americanus*, Linn., Gm., Lath., Steph., Hart.*Coccyzus americanus*, Bp., Nutt., Aud., and later authors.*Piaya americana*, Less.*Erythrophrys americanus*, Bp.*Coccygus americanus*, Cab., Bd., Hayd., Coop., Allen, Trippe, B. B. & R.*Coccyzus pyrrhopterus*, Vieil.*Cuculus cinerosus*, Temm.*Coccyzus bairdii*, Scl., Gray.

Length, 12.00; wing, 5.95; tail, 6.35.

Hab.—Eastern United States, to the Missouri plains, California and Nevada, Jamaica, Porto Rico, Costa Rica, Lower Rio Grande. Accidental in Europe, (B. B. & R., Coues.)

A few specimens only are recorded previous to the 9th October, 1849, when an extraordinary invasion took place. Thousands of these birds suddenly appeared in all parts of the islands, most of them departing as suddenly the next day. A few were seen in April, 1852. They were numerous from the 12th to the 15th of October, 1874, and a few remained behind for some time. I shot one near Devonshire Bay, in a potato-field, on the 7th November; its stomach (like that of other specimens examined) was full of green caterpillars collected from the leaves of the potatoes. I was very angry with myself for having killed the poor bird when doing such good service.

Sub-order PICI.

Family PICIDÆ.

Sub-family PICINÆ.

Genus SPHYRAPICUS, Baird.

69. *Sphyrapicus varius*, (Linn.) Bd. Yellow-bellied Woodpecker.*Picus varius*, Linn., Gm., Lath., Vieil., Wils., Bp., Wagl., Nutt., Less., Aud., Gray, Reich., Maxim., Scl., Reinh., Sund.*Picus (Dendrocopus) varius*, Sw. & Rich.*Pilumnus varius*, Bp.*Sphyrapicus varius*, Bd., Malh., Cones, and most late writers.*Sphyropicus varius*, Scl. & Salv., Scl., B. B. & R.*Picus (Sphyrapicus) varius*, Gray.*Picus atrothorax*, Less.

Length, 8.25; wing, 4.75; tail, 3.30.

Hab.—The typical form in Eastern North America, north, to 61° at least south to Guatemala, Mexico, Cuba, Bahamas, Greenland. (Coues.)

Of this species Colonel Wedderburn says: "In general not very common. I first saw it in December, 1847 again in November, 1848; and in April 1850, a great many suddenly appeared, several of which I shot. Many of the palmetto trees are bored by this bird. It breeds in Mr. Ballinghall's garden every year, and I should think that a few also breed in holes in the large trees at Brackish Pond, and in some of the other large swamps." Three examples occurred during my stay, but I could not ascertain whether they bred or not in 1875. I don't think they did so in Brackish Pond, where I kept a careful watch for them. Mr. Bartram has about a dozen specimens, scarcely two of which are alike, so variable is the plumage of the species. They are all in immature dress, with the crimson patches more or less replaced by mottled gray, but all possess the characteristic "yellowness" which distinguishes the bird from nearly all the other American *Picidæ*.

Genus COLAPTES, Sw.

70. *Colaptes auratus*, (Linn.) Sw. Golden-winged Woodpecker; Flicker.

Cuculus auratus, Linn.

Picus auratus. Linn, Forst., Vieil., Wils., Bp., Nutt., Aud.

Colaptes auratus, Sw., Sw. & Rich., Bp., Bd., and most authors.

Geopicus auratus, Mall.

Length, 12.50; wing 6.00.

Hab.—Eastern North America to the slopes and foot-hills of the Rocky Mountains, where in many localities it becomes mixed with *C. mexicanus*; Alaska; Greenland. Accidental in Europe. (Coues.)

The only specimens ever obtained were shot by officers of the Sixty-first Regiment in Devonshire Marsh, as my friend Mr. J. M. Jones informed me. One or two were shot in 1871, I think, but no others are on record.

Order RAPTORES.

Family STRIGIDÆ.

Sub-family STRIGINÆ.

Genus OTUS, Cuv.

71. *Otus vulgaris* var. *wilsonianus*, (Less.) Allen. American Long-eared Owl.

Otus americanus. sp., Kaup., Maxon, Allen.

Strix peregrinator, Bartr.

Asio peregrinator, Strickland.

Strix otus, Wils., Bp., Nutt., Aud. Peal.

Strix (Asio) otus, Sw. & Rich.

Otus wilsonianus, Less., Cass., Brew., Bd., Cooper, Coues, Hayd.

Otus vulgaris, Jard., Aud., Gir.

Otus vulgaris americanus, Schl.

Otus vulgaris var. *wilsonianus*, Allen, Coues, B. B. & R.

Female: Length, about 15.00; wing, 11 to 11½; tail, 6.

Male, rather smaller.

Hab.—Whole of the temperate North America? (B. B. & R.)

This near ally of our European *O. vulgaris* has occurred frequently, but irregularly, during the winter months, generally on the highest part of the islands, near the light-house. One in Mr. Bartram's collection was caught alive at Mount Langton a few years ago. This bird did not, to my knowledge, visit Bermuda during the year 1874-'75.

Genus BRACHYOTUS, Gould.

72. *Brachyotus palustris*, (Bechst.) Gould. Short-eared Owl.

Strix brachyotus, Gm., Lath., Daud., Bechst., Shaw, Temm., Mey., Vieil., Roux, Brewer, Yarr., Penn., Morris, Wils., Bp., Nutt., Aud.

Otus brachyotus, Aud., Jard., Gir., Cass., Reinh., Allen, Boie, Steph., Naum., Eyt., Schl., Gray, Cuv., Less., Sw., Bp., Selby, Mont., Kaup.

Asio brachyotus, Macgill, Strickl.

Ulula brachyotus, Macgill.

Strix accipitrina, Pall., Gm., Daud.

Asio ulula, Less.

Otus ulula, Cuv.

Strix palustris, Bechst., Lath., Shaw, Mey.

Otus palustris, DeKay, Gould, Brehm.

Brachyotus palustris, Bp., Coues, Gould.

Strix brachyura, Nilss.

Strix caspia, Shaw.

Brachyotus galapagoensis, Gould.

Otus galapagoensis, Darw., Bp., Gray.

Asio galapagoensis, Strickl.

Female: Length, about 15 inches; wing, 12; tail, 6.

Male rather smaller.

Hab.—Europe, Asia, Greenland, America, West Indies. (Coues.)

Not so frequent a visitor as the preceding; but, like it, appearing in the autumn and winter months, and usually seen on the south side, near the light-house. The attraction presented by that part of the islands would appear to consist of a plentiful supply of mice, which inhabit the sandy scrub-covered hills near the shore. Mr. Bartram has two specimens of this Owl, and I obtained two myself during my stay—one at the Sand Hills, and another in Warwick Swamp.

Sub-family SYRNINÆ.

Genus SYRNIUM, Sav.

73. *Syrnium nebulosum*, (Forst.) (Boie). Barred Owl.

Strix nebulosa, Forst., Gm., Lath., Daud., Vieil., Wils., Jard., Bp., Sw. & Rich., Nutt., Aud., DeKay.

Syrnium nebulosum, Boie, Gray, Gould, Aud., Cass., and later United States authors.

Ulula nebulosa, Steph., Cuv., Less., Bp., Schl.

Strix chichictli, Gm.

Strix varius, Bart.

Strix fernandica, Shaw.

Length, about 20.00; wing, 13.00 to 14.00; tail, 9.00.

Sexes nearly of the same size.

Hab.—North America, east of the Rocky Mountains, chiefly United States. (Coates.)

Mr. Hurdie observed one of these birds on the 2d April, 1851.

Genus NYCTALE, Brehm.

74. *Nyctale acadica* (Gm.) Bp. Saw-whet Owl.

Strix acadica, Gm., Daud., Vieil., Bp., Sw. & Rich., Jard., Nutt., Aud., DeKay.
Nyctale acadica, Bp., Gray, Kaup, Strickl., Cass., Brewer, Sel., and later authors.

Nyctala acadica, Gray.

Scotophilus acadicus, Sw.

Noctua acadica, Rich.

Ulula acadica, Aud., Putn., Schl.

Strix acadensis, Lath., Shaw.

Strix albifrons, Shaw., Lath.

Bubo albifrons, Vieil.

Scops albifrons, Steph.

Nyctala albifrons, Cass., Coates, Coop., Verr.

Nyctala albifrons, Gray.

Strix phalaenoides, Daud., Lath., Vieil., Shaw.

Athene wilsoni, Boie.

Total length, $7\frac{1}{2}$ to 8 inches; wing, $5\frac{1}{2}$; tail, $2\frac{3}{4}$ to 3.

Sexes nearly the same size.

Hab.—Temperate North America from Atlantic to Pacific, chiefly, however, northern United States and adjoining British territory ranging southward in woody, mountainous regions into Mexico. Oaxaca. (Coates.)

A rare straggler. Colonel Wedderburn's notes contain all the information we possess. He says (Nat. in B. p. 25): "Only one specimen, found on the 12th January, 1849, sitting inside the muzzle of one of the guns at Ireland Island by an artilleryman. It is to be hoped that the

said gunner has more nerve when working a gun than he displayed on finding the little bird, being afraid to catch it, as, he said, 'it glow'ed at him.' It was caught by a man of the Forty-second, and lived in my room for several days, getting quite tame. At night it always became restless, and finally killed itself against the wires of the cage. Mr. Harry Tucker saw another some short time afterwards, in a cave on the south shore."

Sub-family NYCTEININÆ.

Genus NYCTEA, Steph.

75. *Nyctea scandiaca*, (Linn.) Newton. Snowy Owl.

Strix scandiaca, Linn.

Nyctea scandiaca, Newt., Dress.

Nyctea scandiaca, var *arctica*, Ridg., B. B. & R.

Strix nyctea, Linn., Briss., Brünn., Forst., Gm., Lath., Daud., Vieil., Pall., Wils., Bp., Temm., Nutt., Aud., &c.

Noctua nyctea, Cuv., Boie., Less., Brehm., Schl.

Surnia nyctea, Selby, Gould, Jard., Keys. & Blas., Aud., Gir., Putn., Kaup.

Syrnia nyctea, Macgil., Jard., Watt.

Strix nivea, Thumb., Daud.

Noctua nivea, Brehm.

Nyctea nivea, Gray, Bp., Cass., Brewer, Bd., and many later authors.

Strix bubo, var. *albus*, Daud.

Strix candida, Lath.

Nyctia candida, Sw.

Strix erminea, Shaw.

Total length, 24 to 27 inches; wing, 16 to 17; tail, 10.

Hab.—Northern regions of both continents, migrating southward in winter. Resident in Canada, Bermuda, South Carolina, Kentucky. (Baird.)

Colonel Wedderburn observes (Nat. in B., p. 25): Lieutenant Fayrer, royal navy, shot two specimens at Boss's Cove in the autumn of 1843. Another, a fine female specimen, was shot by a person named Llewellyn, at Ireland Island, on the 29th November, 1853. This bird was only wounded, and when examined by Mr. Hurdis, on the 13th December following, appeared lively and well. When being fed, it frequently erected a little tuft of feathers on each side of the head, so as to resemble small horns. Two frequented the islands in the autumn of 1875; one of these was shot by Lieutenant Tallents, Twentieth Regiment, the other escaped, though it remained two months or more.

Genus *SURNIA*, Duméril.76. *Surnia ulula*, var. *hudsonia*, (Gm.) Coues. American Hawk Owl.*Strix freti hudsonis*, Briss.*Strix hudsonia*, Gm., Wils, Shaw, Vieil.*Surnia hudsonia*, James.*Surnia ulula* var. *hudsonia*, Coues.*Strix canadensis*, Briss., Shaw.*Strix funerea*, Sw. & Rich., Aud., Bp., Brewer, Peab.*Surnia ulula*, Cass., Gray, Lord, Kaup, Dall & Baun., Mayn.

Female: Length, 16 to 17 inches; wing, 9; tail, 7.

Male: Rather smaller.

Hab.—Arctic America, south in winter into Northern United States. Wisconsin, Massachusetts, Dakota, and Montana. (B. B. & R.)

A single specimen was "seen by Col. Drummond, at St. George's, quite close to him, on a Sunday afternoon, otherwise it would have been shot" (Nat. in B., p. 55).

Family FALCONIDÆ.

Sub-family MILVINÆ.

Genus *CIRCUS*, Lacépède.77. *Circus cyaneus*, var. *hudsonius*, (Linn.) Schl. Marsh Hawk; American Harrier.*Falco hudsonius*, Linn., Gm., Lath., Daud.*Circus hudsonius*, Vieil, Cass., Heerm., Strickl., Coues, **Blakist.***Circus cyaneus hudsonius*, Schl.*Circus cyaneus*, var. *hudsonius*, Coues, Gray.*Strigiceps hudsonius*, Bp.*Falco spadiceus*, Gm., Forst.*Falco uliginosus*, Gm., Lath., Daud., Wils., Sab.*Circus uliginosus*, Keil., DeKay, Max.*Strigiceps uliginosus*, Bp. Kaup.*Falco cyaneus*, Aud., Bp.*Circus cyaneus*, Bp., Jard., Sw. & Rich., Aud., Brewer, Nutt., Gir., Gray.Female: Length, 19 to 21; wing, $15\frac{1}{2}$; tail, 10.Male: Length, 16 to 18; wing, $14\frac{1}{2}$; tail, $8\frac{1}{2}$ to 9.*Hab.*—Entire continent of North America; south to Panama, Cuba, Bahamas. (B. B. & R.)

This species is occasionally seen in Bermuda in the autumn. One was shot by Mr. Pooley, Twentieth Regiment, in 1845, and one by Mr. Hurdis in December, 1851. Mr. Bartram has a male and two female specimens. As might have been expected, he was somewhat unwilling to believe that they were of the same species. A female was picked up dead in Warwick Parish in November, 1874, by a "colored" boy, who showed it to me too late for preservation, unfortunately.

Subfamily ACCIPITRINÆ.

Genus ACCIPITER, Briss.

78. *Accipiter fuscus*, (Gm.) Gray. Sharp-shinned Hawk.

Falco fuscus, Gm., Lath., Daud., Bp., Nutt., Aud., Brewer.

Accipiter fuscus, Bp., Cass., Bd., Sel., and most late authors.

Astur fuscus, Aud., DeKay, Gir.

Nisus fuscus, Kaup., Finsch., B. B. & R.

Falco dubius, Gm., Lath., Daud.

Accipiter striatus, Vieil.

Falco velox, Wils., Bp.

Accipiter velox, Vig., Steph.

Falco pennsylvanicus, Wils.

Nisus pennsylvanicus, Cuv.

Accipiter pennsylvanicus, Vig., Steph., Sw. & Rich., Jard., Sw.

Sparvius lineatus, Vieil.

Accipiter ardosiacus, Vieil.

Female: Length, 12 to 14; wing, $7\frac{1}{2}$ to 8; tail, $6\frac{1}{2}$ to 7.

Male: Length, 10 to 11; wing, 6 to $6\frac{1}{2}$; tail, 5 to $5\frac{1}{2}$.

Hab.—The whole of North America; south to Panama. Bahamas.
(B. B. & R.)

Colonel Wedderburn has a specimen in his collection, shot near Peniston's Pond on the 23d February, 1853, and Mr. Bartram has another, shot by himself near Stock's Point.

Genus ASTUR, Lacépède.

79. *Astur atricapillus*, (Wils.) Jard. American Goshawk.

Falco atricapillus, Wils., Wag, Nutt.

Hierofalco atricapillus, Cuv.

Sparvius atricapillus, Vieil.

Astur atricapillus, Jard. & Selby, Bp., Kaup., Cass., and late authors.

Falco palumbarius, Bp., Aud.

Accipiter palumbarius, Sw. & Rich.

Astur palumbarius, Aud., Gir.

Astur palumbarius, var. *atricapillus*, Ridg., B. B. & R.

Falco regalis, Temm.

Dadalion pictum, Less.

Female: Length, 22 to 24; wing, about 14; tail, $10\frac{1}{2}$ to 11.

Male: Length about 20; wing, $12\frac{1}{2}$; tail, $9\frac{1}{2}$.

Hab.—North America, chiefly in the northwestern portions. (Baird.)

I examined two specimens in Mr. Bartram's collection, the only ones that have occurred. One is a fine adult, shot on Somerset Island some twelve years since; the other is in immature plumage, with the close barring of the under parts only just commencing to appear on the thighs.

Sub-family FALCONINÆ.

Genus FALCO, Linn.

80. *Falco communis*, Gm. Peregrine Falcon; Duck-Hawk.

Falco communis, Gm., Lath., Daud., Savi., Wils., Less., Schl., Bp.

Falco peregrinus, Ord., Sab., Rich., Bp., James, Woodh., Gir., Gray.

Falco orientalis, Gm., Lath., Daud.

Falco melanogenys, Gould, Gray, Bp., Kaup, Strickl.

Falco anatum, Bp., Gosse, Cass., Brewer, Bd., Cab., Newt., Allen, Coues, Dall & Banu. Coop., and most late American writers.

Falco nigriceps, Cass., Strickl., Coop. & Suck., Gray, Coop.

Length, 18 to 20 inches; wing, 14 to 15; tail, 7 to 8.

Hab.—Nearly cosmopolitan, var. *communis* from most parts of the Old World, var. *melanogenys* from Australia and Java, var. *anatum* generally distributed in America. (Coues.)

This bird, which Bonaparte separated from the European "*communis*" or "*peregrinus*," under the name "*anatum*," has now been restored, on the authority of Schlegel and other distinguished ornithologists, to its original position. It is a rare visitor to Bermuda. One was killed in 1846 by Dr. Cole, Twentieth Regiment. Another was wounded and taken alive by a colored man on the 1st February, 1850, and presented to Mr. Hurdis, who kept it for several months. A third was also captured, after a revolving gale, at the doekyard. I never saw this grand bird alive while I was quartered in the islands, but I examined a specimen in Mr. Bartram's collection, and another, in the flesh, shot by Lieutenant Tallents, Twentieth Regiment, at Penniston's Pond, on the 10th October, 1874. Mr. Bartram informs me that a pair were shot by a man named Hollis in October, 1875; the male was killed, but the female, being only winged, was kept alive by Mr. Bartram till the end of March, 1877.

81. *Falco columbarius*, Linn. Pigeon Hawk.

Falco columbarius, Linn., Forst., Gm., Lath., Daud., Cuv., Wils., Jard., Brewer, Bp., Nutt., Less., Sw. & Rich., Sw., Aud., Gir., Coop. & Suck., Coop., Ridg., Allen, Cones.

Falco (Hypotriorchis) columbarius, of many authors, Cass.

Tinnunculus columbarius, Vieil.

Nisus columbarius, Cuv.

Astur columbarius, Boie.

Hypotriorchis columbarius, Gray, Bp., Woodh., Cass., Brewer, Heerm., Dress., Cones, Dall & Baun., Lawr.

Esalon columbarius, Kaup, Gray.

Falco (Esalon) lithofalco, var. *columbarius*, Ridg., B. B. & R.

Falco intermixtus, Daud., Lath.

Falco temerarius, Aud., Nutt.

Length: Female, 12 to 14; male, 10 to 11 inches. Wing: female, 8 to 9; male, $7\frac{1}{2}$ to 8. Tail: female, 5 to $5\frac{1}{2}$; male, 5.

Hab.—Temperate North America, Mexico, Central America, Northern South America, Cuba, Jamaica, Bermuda, Ecuador, Venezuela.

A frequent visitor, always in the autumn and winter months. Hardly a year passes without a few stragglers appearing. I saw one flying over Devonshire Swamp on the 2d November, and obtained a beautiful male from the same place on the 3d December, 1874.

Sub-genus TINNUNCULUS, Vieil.

82. *Falco sparverius*, Linn. American Sparrow-Hawk.

Falco sparverius, Linn, Gm., Lath., Daud., Wils., Cuv., Jard., Brewer, Bp., Sw. & Rich., Nutt., Aud., Vieil., and late authors.

Falco (Tinnunculus) sparverius, of some authors, Ridg., B. B. & R.

Tinnunculus sparverius, Vieil, Gray, Bp., Cass, Coues, and many authors.

Cerchæus sparverius, Boie, Bp.

Pacilonis sparverius, Kaup.

Length, 11 to 12; wing, 7 to $7\frac{1}{2}$; tail, 5 to $5\frac{1}{2}$.

Hab.—The whole of North America and southward (Coues).

Only one recorded, shot near the Sluice Ponds on the 9th December, 1853, while in the act of pouncing on some chickens (Nat. in B., p. 24).

Sub-family BUTEONINÆ.

Genus BUTEO, Cuv.

83. *Buteo borealis*, (Gm.) Vieil. Eastern Red-tailed Buzzard; Hen-Hawk.

Buteo borealis, Gm., Lath., Daud., Wils., Sabine, Bp., Wagl., Nutt., Aud.

Buteo borealis, Vieil, Sw. & Rich., Vig., Less., Jard., Brewer, Bp., Aud., Gosse, Cass., and late authors.

Astur borealis, Cuv., Sw.

Pæciloternis borealis, Kaup.

Buteo (Craxirex) borealis, Gray.

Falco leverianus, Gm., Lath, Daud., Shaw, Wils.

Falco jamaicensis, Gm.

Buteo ferrugineicaudus, Vieil, Cuv.

Accipiter ruficaudus, Vieil.

Buteo fulvus, Vieil.

Buteo americanus, Vieil.

Female: Length, 22 to 24; wing, 15 to 16; tail, $8\frac{1}{2}$. Male: Length, 19 to 21; wing, 14; tail, $7\frac{1}{2}$ to 8.

Hab.—Whole of North America, Mexico, Cuba, Jamaica (Coues).

Mr. Bartram has one specimen, an adult, with fine chestnut tail, shot at Baylis's Bay, about twelve years ago, by a man named Hollis, who is still residing in the islands, the same who shot the two Peregrine

Falcons alluded to in the notes on that species. About the same time a nest of this buzzard containing young is said to have been found in the cliffs of Harrington Sound, but what became of this nest and its occupants history saith not. I see no reason to doubt the story, especially as it is corroborated by an authentic specimen of the bird; but I unfortunately did not see the man Hollis, as I meant to have done. Large hawks are mentioned as common in Bermuda by the old historians, and this species may have once been resident and numerous. The high cliffs on the north side of Harrington Sound offer great attractions to raptorial birds, in default of large timber, for nesting, and this species is known to breed in Jamaica (Gosse, B. of Jamaica, p. 14).

Genus ARCHIBUTEO, Brehm.

84. *Archibuteo lagopus*, var. *sancti-johannis*. (Gm.) Ridg. American Rough-legged Buzzard.

Falco Sancti-Johannis, Penn., Gm., Lath., Daud., Shaw, Bp., Aud., Gir.

Butes Sancti-Johannis, Jard., Nutt., De Kay.

Butaïtes Sancti-Johannis, Cuv., Bp.

Archibuteo Sancti-Johannis, Gray, Bp., Cass., Kaup., Strickl., Brewer.

Falco spadiceus, Gm., Latti, Daud.

Butes spadiceus, Vieil.

Falco lagopus, Wils., Brewer, Bp., Aud.

Buteo lagopus, Rich., Aud., Jard., Nutt.

Archibuteo lagopus, Cass., Brewer, Coop. & Luck., Cones.

Falco niger, Wils., Lath.

Buteo niger, Steph., Vig., Cuv.

Buteo ater, Vieil.

Female: Length, 22 to 24; wing, 17 to 17½; tail, 9.

Male: Length, 20 to 22; wing, 16 to 16½; tail, 8 to 8½.

Hab.—Typical *lagopus*, European. Var. *Sancti-Johannis*, in North America at large, rather northerly; the melanotic condition chiefly observed in the Middle Atlantic States, New England, and northward (Cones).

A dingy old specimen in Mr. Bartram's possession, covered with dust and cobwebs, and with all the quills and tail-feathers nibbled off short by rats, appears to belong here. Its measurements and fully-feathered tarsi are, I think, unmistakable. The bird was originally dubbed an "Eagle." It was shot near Prospect Camp by a medical gentleman, who gave it to Mr. Bartram.

Sub-family AQUILINÆ.

Genus PANDION, Savigny.

85. *Pandion haliaëtus*, (Linn.) Cuv. Osprey.

Aquila haliaëtus, Briss., Mey., Jen.

Falco haliaëtus, Linn., Gm., Lath., Daud., Shaw, Temm., Wils., Bp., Nutt., Aud., Gir., Naum.

Accipiter haliaëtus, Pall.

Pandion haliaëtus, Cuv., Less., Steph., Sw., Kaup, Eyton, Bp., Keys & Blas., Schl., Gray, Strickl., Coues, and of authors.

Falco arundinaceus, cayanensis, carolinensis, Gm., Daud.

Pandion carolinensis, Bp., De Kay, Strickl., Cass., Brewer, Heerm., Coop. & Suck., Lord, Coues, Dall & Bann., Coop., and most late U. S. authors.

Pandion haliaëtus, var. *carolinensis*, Ridg., B. B. & R.

Pandion fluvialis, Savi., Less., Vieil., Degl., Roux, Baill., Puch.

Pandion americanus, Vieil., Sw., Vig.

Pandion indicus, Hodges.

Pandion leucocephalus, Gould, Gray, Bp., Strickl.

Pandion haliaëtus, var. *leucocephalus*, Ridg., B. B. & R.

Female: Length about 25 inches; wing, 21; tail, 10½.

Male rather smaller.

Hab.—Cosmopolitan. American and Australian, respectively, under the names of *P. carolinensis* and *P. leucocephalus*, have been currently regarded as distinct races or species (Coues).

The movements of this cosmopolitan species in Bermuda are somewhat mysterious. In 1874 I saw the first on April 22; in 1875, one was observed on the 17th of that month. During May they are often to be seen, especially about the Great Sound, along the south shore, and at Peniston's Pond, but whether these are old or young birds I cannot say, as I religiously abstained from shooting one. During the summer months I lost sight of them, though I believe they were occasionally observed, but in autumn I met with one or two specimens. On May 2, 1875, I watched for some time two of these fine birds circling over Devoushire Swamp. This gave rise to the question, "Do they breed here?" I took eggs in Southern Spain, slightly incubated, on March 29; and there being but little difference of latitude between the two places, it would be only natural to suppose that if they were going to nest in Bermuda they would have arrived earlier. Probably, therefore, they are young birds from early nests on the mainland. They are said by Newton to be found on the island of St. Croix at all times except during the breeding season, and the same remark doubtless applies to Bermuda. I could hear nothing of nests in former years. I must leave the question to be solved by future visitors to the islands.

Genus HALIAËTUS, Savigny.

86. *Haliaetus leucocephalus*, (Linn.) Sav. White-headed Eagle; Bald Eagle.

Aquila leucocephalus, Briss., Vieil., Pall., Sw.

Falco leucocephalus, Linn., Gm., Lath., Shaw, Wils., Bp., Nutt., Aud., Brewer.

Haliaëtus leucocephalus, Savig., Cuv., Less., Steph., Bp., Aud., Gir., Gray, Cass., Brewer, and of authors generally.

Aquila (haliaëtus) leucocephalus, Sw. & Rich.

Falco pygargus, Daud.

Falco ossifragus, Wils.

Falco washingtonii, Aud., Nutt., Brewer, James.

Haliaëtus washingtonii, Bp., Aud., Cass.

Female: Length, 35 to 40; wing, 23 to 25; tail, 14 to 15.

Male: Length, 30 to 34; wing, 20 to 22; tail, 13 to 14.

Hab.—The whole of North America; Greenland (Coues).

This fine bird was seen by Mr. Hurdis, in Hamilton Harbor, on the 8th June, 1853, and an undoubted adult example was frequently observed in Pembroke Marsh and other places between the 2d and 11th March, 1854. Mr. Bartram informs me that he came upon one perched on an old turret of the Castle, at the entrance of Castle Harbor, on the 1st May, 1877. He at first thought it was an osprey, but soon noticed the white head and neck of the Eagle. He had no gun with him at the time. Again, on the 10th October, 1878, he was told of a strange bird on a tree near his house, and on proceeding to the spot "it flew past me quite low, and slow, not more than twenty or thirty yards from me, and I was so much occupied in taking stock of it that I never once thought of pulling the trigger until it was out of reach. Its head and neck were clear white; all the other parts dark-brown." In a subsequent paragraph of his letter he adds: "I have just (14th October, 1878) got word that one of my gunners was after the Eagle on Long-bird Island this afternoon, but a carriage came along and scared it away. I hope that some of us will get a chance yet." As I have not since heard from Mr. Bartram, I am unable to state anything definite regarding the capture of the bold stranger, and the White-headed Eagle must still be included in the Bermuda lists as "seen but not obtained." Nevertheless, the evidence is so very strong and clear that I have not hesitated to give a place to the species in this work.

Mr. Bartram writes, under date 9th December, 1878, that this fortunate bird made good his escape after all. (S. G. R.)

Family CATHARTIDÆ.

Genus CATHARTES, Ill.

87. *Cathartes aura*, (Linn.) Ill. Turkey-buzzard.

Vultur aura, Linn., Gm., Lath., Bartr., Vieil., Wils., Licht., Aud., Darwin, Wagl.

Cathartes aura, Ill., Cuv., Vig., Less., Bp., Jard., Sw. & Rich., Nutt., Sw., Aud., d'Orbig., and authors generally.

Catharista aura, Vieil., Gray.

Percnopterus aura, Steph.

Rhinogryphus aura, Ridg., B. B. & R.

Vultur aura β , Lath.

Vultur iota, Molina, Gm., Daud.

Cathartes iota, Auct.

Length, 30; wing, 23; tail, 12.

Hab.—All of North America, except the Arctic Regions (Baird).

A male of this ill-favored species appeared during the yellow-fever epidemic of 1853. Was its coming accidental, or did some marvelous instinct lead it there? It was shot in the latter part of November, and subsequently examined by Mr. Hurdis.

Order COLUMBÆ.

Family COLUMBIDÆ.

Sub-family COLUMBINÆ.

Genus ECTOPISTES, Sw.

88. *Ectopistes migratoria*, (Linn.) Sw. Passenger Pigeon.

Columba canadensis, Linn., Gm.

Columba migratoria, Linn., Gm., Forst., Wils., Bp., Nutt., Aud.

Ectopistes migratoria, Sw., Bp., Reich., Aud., and late writers.

Peristera migratoria, Schl.

Length, 17; wing, 8.50; tail, 8.40.

Hab.—The greater part of North America, but scarcely west of Rocky Mountains; Cuba; accidental in Europe (Coues).

Colonel Wedderburn records that one was seen by Dr. Cole; but no date is given. Mr. Bartram shot one as he lay on a sofa in his museum with "broken-bone" fever, on October 24, 1863; it was sitting on a tree close to his house. My friend Mr. J. M. Jones was informed by Mr. J. H. Trott that, previous to 1831, small parties of these birds were resident in the islands, breeding in the caves at Walsingham, and along

the south shore; but I am inclined to think, with all deference to the authority given, that these must have been escaped "Blue Rocks" from dove-cotes in the islands.

Subfamily ZENAIDINÆ.

Genus ZENAIDURA, Bp.

89. *Zenaidura carolinensis*, (Linn.) Bp. Carolina Dove.

Columba carolinensis, Linn., Gm., Lath., Wils., Bp., Nutt., Aud.

Ectopistes carolinensis, Rich., Bp., Aud., Heerm.

Zenaidura carolinensis, Bp., Bd., Sel., Coop. & Luck., Hayd., Coues, Dress., Allen, Lawr., Coop.

Perissura carolinensis, Cab.

Peristera carolinensis, Schl.

Columba marginata, Linn., Gm., Wag.

Ectopistes marginata, Gray.

Zenaidura marginellus, Bp.

Length, 12.85; wing, 5.75; tail, 6.70.

Hab.—United States, from Atlantic to Pacific; Canada West; Cuba; south to Panama (Cones).

Specimens are recorded in *The Naturalist* in Bermuda. One was shot by Captain Harvey on March 20, 1850, and another was taken alive at Spanish Point on October 30, 1854. I saw one at the Sand Hills on November 5, 1874. A small flock frequented the fields near Whale Bay all through the winter of 1874-75, and specimens were obtained, one by Lieutenant Hussey, Royal Engineer, on February 11, 1875. I hear from Lieutenant Denison that two were seen as late as June 20, 1875. Can they have remained to breed? These pretty birds are fond of associating with the next species, feeding with them on the newly-turned fields, conspicuous, when the flock is disturbed, by their larger size and long tails. Their flight is very strong and rapid.

Genus CHAMÆPELIA, Sw.

90. *Chamæpelina passerina*, (Linn.) Sw. Ground Dove.

Columba passerina, Linn., Lath., Wils., Wag., Aud., Lund.

Columba (Goura) passerina, Bp., Nutt.

Chamæpelina passerina, Sw.

Chamæpelina passerina, Bp., Gosse, Bd., Sel., Cab., Lawr., Coop.

Chamæpelina granatina, Bp.

Chamæpelina albivita, Bp.

Length, 6.30; wing, 3.50; tail, 2.80.

Hab.—South Atlantic and Gulf coasts; accidental near Washington; Lower California, West Indies, New Granada, Venezuela, Bermuda (Baird).

Resident and abundant. It nests twice, laying two white eggs, .85 inch by .64 inch, in a small, flimsy construction of twigs and cedar bark, generally placed on the bushy horizontal bough of a cedar tree, from eight feet to twenty feet above the ground. The earliest eggs I saw were on April 4, the latest on June 27; but there are instances of its breeding even in the winter months. When disturbed from its nest it falls like a stone to the ground, where it commences to flutter about, as if in the agonies of death, to deceive the intruder. Should the latter be taken in by the good acting of the poor little bird, and attempt to seize her, she shuffles away along the ground just out of reach, farther and farther from her nest, and when she thinks her home is safe, away she dashes into the trees with a joyful "whir-r-r-r" of relief. My terrier used to be completely "sold" in this way, and had many an exciting but fruitless chase after the little doves. The "colored" people have an absurd superstition about this bird, and say that when it utters its "coo-oo" (this is an extraordinarily loud and sonorous call for so small a bird, and can be heard a long distance), it is scratching up the ground for somebody's grave! The habits and mode of feeding of the species are too well known to need description. The male is larger, and has the sides of the neck and the under parts of a much warmer purplish red than the female.

Order GALLINÆ.

Family PERDICIDÆ.

Sub-family ORTYGINÆ.

Genus ORTYX, Steph.

91. *Ortyx virginianus*, (Linn.) Bp. Virginian Partridge or Quail.

Tetrao virginianus, Linn., Gm.

Perdix virginiana, Lath., Wils., Bp., Aud.

Ortyx virginianus, Jard., Bp., Aud., Gould, Bd., and late authors.

Tetrao marilandicus, Linn., Gm.

Perdix marilandica, Lath.

Perdix borealis, Vieil.

Ortyx borealis, Steph., Jard., & Selby.

Ortyx castaneus, Gould.

Length, 10.00; wing, 4.70; tail, 2.85.

Hab.—Eastern United States to the high central plains (Baird).

This bird (known to English sportsmen as a comparatively recent introduction, under the name of Virginian "Colin") is the gamebird of Bermuda; but whether it originally found its way there from the Amer-

ican continent without the agency of man is doubtful. It is not mentioned by the old historians. It is certain, however, that, though common some few years previous to 1840, it became extinct in the islands from that year till 1858 or 1859, when, thanks to the enterprise of Mr. Richard Darrell, an importation took place from the United States. Several pairs were turned out, and these, increasing rapidly, soon spread over the islands to such an extent that the species may now once more be considered common. The manners and customs of this handsome bird are too well known for me to venture on details. From my notes, however, I extract the following, which may prove of interest: It is extremely prolific. Mr. Samuel Harvey told me of a nest near his garden containing eighteen eggs, every one of which hatched off; there are seldom less than twelve eggs in a nest; they sit in the cedar trees on wet days, and during the mid-day heat, roosting there at night. When once flushed they are very hard to put up a second time, even with good dogs, being able, according to popular superstition, to conceal their scent at will: they run rapidly, and squat closely in the thick sage-bush, the strong smell of which is calculated to puzzle a dog. Their call note is triple, "hoo-woo-wooit," the "hoo" indistinct and audible for a short distance only. I don't think "Bob White," the familiar American name, fairly represents the call; it is too sharp and well defined. These birds are fond of the ripe berries of the sage and cedar; the latter give the flesh a decidedly unpleasant aromatic flavor. They also eat the sweet potatoes in small pieces. Great numbers of the young are destroyed by the swarm of cats which infest the islands. An old "colored" lady once accosted a gallant officer of the Fifty-third Regiment, who was beating some likely ground near her cottage, and asked him what he was looking for. "Partridges!" cried she, with a sneer on her sable features, "I don't want a gun to get them. Why! my cat brings me in one every morning!" Cats, however, are not the only foes to be dreaded. The "colored" sportsmen take the eggs and eat them, while a white "sportsman" resident on the islands was once overheard to say, "It's all very well for the officers; they get lots of practice—can shoot Partridges at any time—but the only time I can get them is when they have nests, and I can kill the old birds." No wonder the poor birds are kept down, and increase with lamentable slowness. If it were not that they are so hard to put up and shoot in a workmanlike manner (two brace being quite a "bag" in one day), their extermination would be a matter of a few years only.

Order GRALLATORES.

Sub-order LIMICOLÆ.

Family CHARADRIIDÆ.

Sub-family CHARADRIINÆ.

Genus SQUATAROLA, Cuv.

92. *Squatarola helvetica*, (Linn.) Brehm. Black-bellied Plover; Gray Plover.*Tringa helvetica*, Linn., Forst.*Squatarola helvetica*, Brehm., Bp., Gray, and of most late authors.*Vanellus helveticus*, Vieil.*Charadrius helveticus*, Licht., Bp., Nutt., Aud.*Tringa varia*, Linn.*Charadrius varius*, Finsch & Hartl.*Pluvialis varius*, Schl., Degl. & Gerbe.*Tringa squatarola*, Linn.*Charadrius squatarola*, Naum.*Vanellus squatarola*, Schl.*Vanellus melanogaster*, Bech., Temm., Sab., Rich., Sw. & Rich.*Squatarola australis*, Bp.

Length, 11.50; wing, 7.50; tail, 3.00.

Hab.—Nearly cosmopolitan.

Unlike the next species, this is by no means a frequent visitor to the Bermudas. One was killed and another seen by Colonel Wedderburn at Mangrove Bay in September, 1848. I shot one on the beach below the Sand-hills on the 5th, and another near Warwick Camp on the 13th November, 1874. Both these birds were alone.

Genus CHARADRIUS, Linn.

93. *Charadrius fulvus*, var. *virginicus*, (Bork.) Coues. American Golden Plover.*Charadrius dominicus*, Müller, Cass.*Charadrius pluvialis*, Wils., Sab., Bp., Sw. & Rich., Nutt., Aud.*Charadrius pluvialis*, var. *virginicus*, Ridg.*Charadrius virginicus*, Bork., Licht., Bd., Coop. & Luck., Hayd., Dress., Reinh., Stev., Snow, Trippe, and of nearly all late local lists.*Pluvialis virginicus*, Bp.*Charadrius marmoratus*, Wag., Aud., Putn.*Pluvialis fulvus americanus*, Schl.*Charadrius fulvus*, var. *virginicus*, Coues.

Length, 9.50; wing, 7.00; tail, 2.50.

Hab.—All of North America; Greenland; accidental in Europe. (Coues.)

Dr. Coues is of opinion that the American bird cannot be specifically separated from the Asiatic *C. fulvus* (an undoubted specimen of which has been recently obtained in the Prybilov Islands). It can always be distinguished from our European *C. plumialis* by its gray axillaries. An excellent account of the appearances of this species in Bermuda is given by Mr. Hurdis (Nat. in B., pp. 71-77), who goes carefully and thoroughly into the question of its wonderful migrations. Colonel Wedderburn says (p. 36): "During some years large flocks of these birds pass over the islands in the months of September and October; but, unless in stormy weather, they do not alight in any great numbers. I have seen it as early as the 21st August, 1847, at Ireland Island; again, on the 25th July, 1848, at Hamilton. The latter was a single bird sitting on the road close to the house in which I lived, but by the time I got out it was gone. On the 9th March, 1852, one was shot in beautiful plumage, on the north shore; and this is the only instance of its appearing in spring." Numbers appeared in September, 1874, frequenting the grassy slopes of the north shore—their favorite haunt—and even the parade grounds, during the continuance of a three days' revolving gale. Many were shot, all in the mottled dress which procured for the species the specific name "*marmoratus*." Small flocks continued to arrive at intervals during the autumn, remaining only a few days in each case. I obtained specimens on the 14th and 23d November in complete winter dress. The arrival of the Golden Plover in August or September is the beginning of the shooting season in Bermuda, and is eagerly looked for by the British officer, who forgets all the heat and discomfort of the summer in the pleasure of once again handling his gun and cartridges. And a nicely-cooked Golden Plover for breakfast is by no means to be despised, as those who have been trifling with tough fowls and doubtful eggs for months can well testify. The note of this species differs from that of *C. plumialis*; it sounds like "wee-o-wee," sharply but clearly pronounced.

Genus ÆGIALITIS, Boie.

94. *Ægialitis vociferus*, (Linn.) Bp. Kildeer Plover.

Charadrius vociferus, Linn., Gm., Lath., Wils., Bp., Sw. & Rich., Nutt., Aud. Schl., and of earlier authors generally.

Ægialitis vociferus, Bp., Cab., Sel., Coop. & Suck., Dress., Lawr., and of most later writers.

Oxyechus vociferus, Reich.

Charadrius torquatus, Linn.

Charadrius jamaicensis, Gm.

Length, about 9.50; wing, 6.50; tail, 3.50.

Hab.—All of temperate North America; West Indies; Central and South America in winter; accidental in Europe. (Coes.)

The latest of the southward migrants, but regular in its visits. First seen about the middle of November, in small flocks, which remain till February, attaching themselves principally to the grassy bottoms and moist places on the south side. Persons living on this side hear their sweet wild note all night. A few remain till March or even later.

95. *Ægialitis semipalmatus*, (Bp.) Cab. Semipalmated or Ring Plover.

Tringa hiaticula, Wils.

Charadrius hiaticula, Ord., Sab., Rich.

Charadrius (Ægialitis) hiaticula var. *semipalmatus*, Ridg.

Charadrius semipalmatus, Bp., Kaup., Wagl., Sw. & Rich., Nutt., Aud., Schl., Gray.

Ægialitis semipalmatus, Bp., Cab., Bd., Coop. & Suck., Coes, Dress., Dall & Bann., Mayn., Allen.

Ægialeus semipalmatus, Reich., Allen.

Length, about 7.00; wing, 4.75; tail, 2.25.

Hab.—Continent of North America, breeding chiefly in higher latitudes, wintering from our southern border to Brazil. (Coes.)

Arrives in small numbers early in August, with the annual invading army of Stints and Sandpipers, remaining till October, and frequenting the sandy bays on the south shore, also the muddy edges of Peniston's Pond.

96. *Ægialitis melodus*, (Ord.) Bp. Piping Plover.

Charadrius hiaticula, Var., Wils.

Charadrius melodus, Ord., Bp., Nutt., Aud., Schl., Gray, Finsch.

Charadrius (Ægialitis) melodus, Ridg.

Ægialitis melodus, Bp., Cab., Bd., Bryant, Sel., and late authors.

Ægialeus melodus, Allen.

Charadrius okeni, Wagl.

Length, about 7.00; wing, 4½; tail, 2.

Hab.—Eastern coast of North America, Cuba, Bahama, Jamaica. (Coes.)

Rare. Colonel Wedderburn shot one at Mangrove Bay in September, 1848, and two were seen on a rocky island in Hamilton Harbor in September, 1850. Mr. Bartram has one specimen. Not observed in 1874.

Family HÆMATOPODIDÆ.

Genus STREPSILAS, Ill.

97. *Strepsilas interpres*, (Linn.) Ill. Turnstone.

Tringa interpres, Linn., Gm., Lath., Wils.

Strepsilas interpres, Ill., Leach, Steph., Bp., Sw. & Rich., Nutt., Eyt., Keys. & Blas., Schl., Aud., and authors generally.

Cinclus interpres, Gray.

Tringa morinella, Linn., Gm.

Streptilas collaris, Temm., Brehm., Sab., Rich.

Charadrius cinclus, Pall.

Length, 9; wing, 6; tail, $2\frac{1}{2}$.

Hab.—Sea-coast of nearly all countries, less frequent in the interior. (Coues.)

This cosmopolitan species is a frequent visitor. It has been shot as early as the 3d August. I obtained two on the 23d December, 1874, but it probably remains all the winter.

Family RECURVIROSTRIDÆ.

Genus HIMANTOPUS, Briss.

98. *Himantopus nigricollis*, Vieil. Black-necked Stilt.

Charadrius mexicanus, Müller, Cass.

Himantopus mexicanus, Ord., Max., Wagl., Bp.

Charadrius himantopus, Lath.

Recurvirostra himantopus, Wils.

Himantopus nigricollis, Vieil., Bp., Nutt., Aud., and most authors.

Hypsiates nigricollis, Cab.

Length, 14; wing, $8\frac{1}{2}$ to 9; tail, 3.

Hab.—From United States generally, Mexico, part of West Indies, Central America, and South America to Peru and Brazil. (Coues.)

The American representative of our *H. melanopterus*. Only one has occurred, shot at Warwick Pond on the 3d June, 1853, by Mr. Hinson, and sent to Mr. Hurdis.

Family PHALAROPODIDÆ.

Genus LOBIPES, Cuv.

99. *Lobipes hyperboreus*, (Linn.) Cuv. Northern Phalarope.

Tringa hyperborea, Linn., Brünn., Fabr., Gm.

Phalaropus hyperboreus, Lath., Temm., Sab., Bp., Nutt., Aud., Bd., Salv., Coop. & Snek., Lawr., Allen, Schl.

Lobipes hyperboreus, Cuv., Steph., Brehm, Jen., Eyt., Bp., Aud., Gir., Coues, Dall. & Bann., Ridg.

Tringa lobata, Linn.

Tringa fusca, Gm.,

Phalaropus fuscus, Lath.

Phalaropus ruficollis, Pall.

Phalaropus cinerascens, Pall.

Phalaropus cinereus, Mey. & Wolf., Keys. & Blas., Schl., Finsch.

Length, about 7; wing, $4\frac{1}{2}$; tail, $2\frac{1}{4}$.

Hab.—Northern hemisphere, penetrating to very high latitudes to breed; migratory sometimes into the tropics in winter. (Coues.)

One found dead, floating in Riddle's Bay, March 21, 1848, sent to Rev. H. B. Tristram. A female, partly in ruddy plumage, killed with a stick in Hamilton Harbor on the following day, and a third example captured on the edge of Devonshire Swamp by Mr. Hurdis on the 8th March, 1852. "It is remarkable that all the specimens were obtained without the aid of a gun" (Hurdis).

Family SCOLOPACIDÆ.

Sub-family SCOLOPACINÆ.

Genus PHILOHELA, G. R. Gray.

100. *Philohela minor*, (Gm.) Gray. American Woodcock.

Scolopax minor, Gm., Lath., Wils., Bp., Aud.

Rusticola minor, Vieil., Bp.

Rusticola (Microptera) minor, Nutt.

Philohela minor, Gray, Bd., and of most late authors.

Microptera americana, Aud., Gir.

Length, about 11; wing, $5\frac{1}{4}$; tail, $2\frac{1}{4}$.

Hab.—Eastern United States and British Provinces, north to Nova Scotia and Canada, northwest to Fort Rice, Dakota; west to Kansas and Nebraska. (Coes.)

"A single specimen was shot near Hamilton in October, 1842, and one was supposed to have been seen at Hungry Bay a few years afterwards by Mr. Fozard" (Nat. in B., p. 42).

Genus GALLINAGO, Leach.

101. *Gallinago wilsonii*, (Temm.) Bp. American or Wilson's Snipe.

Scolopax gallinago, Wils.

Scolopax wilsonii, Temm., Bp., Sw. & Rich., Nutt., Aud., Gir., Trippe, and of many earlier authors.

Gallinago wilsonii, Bp., Sel., Bd., Salv., and later authors.

Gallinago gallinaria var. *wilsoni*, Ridg.

Gallinago brehmii, Bp.

Scolopax delicatula, Ord.

Scolopax drummondii, Sw. & Rich., Nutt., Aud.

Gallinago drummondii, Bp.

Scolopax douglasii, Sw. & Rich., Nutt.

Length, about $10\frac{1}{2}$; wing, 5; tail, $2\frac{1}{4}$.

Hab.—The whole of North America, southward to South America; Mexico; West Indies. (Coes) Bermuda.

Usually makes its first appearance at the beginning of October, a straggler or two remaining till January, and occurs also in March, April, and May in limited numbers on its northward journey. It has been seen as early as the 13th September (Hurdis). It seems rather a

farce to talk of the snipe-shooting in Bermuda; but occasionally large flights come in, and really fair bags are made, such as six or nine couple a-day to two guns. Pembroke Marsh is the great place for them, and a few usually take up their quarters in Devonshire Swamp. They are very good eating at first, but soon become rank from feeding in the brackish mud. They lie closer than our European snipe, and a dog is a *sine quâ non* in the thick scrub-grown marshes. Their note is very similar, but they differ somewhat in plumage, especially in having sixteen tail-feathers instead of fourteen like our bird.

102. *Gallinago media*, Leach. European Snipe; Common Snipe.

Scolopax gallinago, Linn., Gm., Briss.

Gallinago media, Leach.

Gallinago scolopacina, Bp., Naum., Gould.

Gallinago unicolorata, Hodgs.

Gallinago brehmi, Kaup, Jard.

Gallinago delamotti, Bail.

Gallinago subini, Vig., Gould.

We have Colonel Wedderburn's authority for the occurrence of this bird in Bermuda. He says (Nat. in B., p. 43): "I shot one of this species on the 24th December, 1847. It precisely answered to the description of the *S. gallinago* and had but fourteen tail-feathers. I shot another specimen also with fourteen tail-feathers on the 29th December, 1847. Both these birds I got in Pembroke Marsh, and there cannot be the least doubt about the bird and the propriety of adding it to the Bermuda list."

Genus MACRORHAMPHUS, Leach.

103. *Macrorhamphus griseus*, (Gm.) Leach. Red-breasted Snipe; Grey Snipe.

Scolopax grisea, Gm., Lath., Temm., Flem., Jen., Schl.

Scolopax (Macrorhamphus) grisea, Bp., Nutt.

Macrorhamphus griseus, Leach, Steph., Eyt., Keys. & Blas., Gray, Bp., Bd.,

Coop. & Suck., Salv., and late authors.

Limosa grisea, Schl.

Scolopax noveboracensis, Gm., Lath., Wils., Sw. & Rich., And., Gir.

Totanus noveboracensis, Sabine.

Macrorhamphus scolopaceus, Lawr., Bd., Elliot, Coues, Dall & Bann.

Length, 10; wing, $5\frac{3}{4}$; tail, $2\frac{1}{4}$.

Hab.—The whole of North America, Greenland, Mexico, West Indies, Central America. Much of South America, Brazil, Chili. Of frequent casual occurrence in Europe. (Coues.)

One "shot by Captain Orde on the 29th September, 1847, at Harris's Bay; another was killed by Mr. C. Fozard on the 21st August, 1848"

(Nat. in B., p. 43). A third was obtained on Pearl Island on September 10, 1874, by Captain Kirkwood, Fifty-third Regiment. This specimen was preserved by Captain Rooke, who kindly presented it to me. Three were shot at Peniston's Pond on the 17th September, 1875, by Lieutenant Festing, Twentieth Regiment, and examined by Lieutenant Denison, Royal Engineers.

Genus MICROPALAMA, Bd.

104. *Micropalama himantopus*, (Bp.) Bd. Stilt Sandpiper.

Tringa himantopus, Bp., Less., Sw. & Rich., Aud., Gir., Schl.

Tringa (Hemipalama) himantopus, Bp., Nutt.

Hemipalama himantopus, Bp., DeKay.

Micropalama himantopus, Bd., Salv., Coues, Lawr., Sel., Dress., Sel. & Salv., Allen, and later authors.

Ereunetes himantopus, Sund.

Micropalama himantopus, Gray.

Hemipalama multistriata, Gray, Pelz.

Tringa (Hemipalama) auduboni, Nutt.

Length, $8\frac{1}{2}$ to 9; wing, $5\frac{1}{4}$; tail, $2\frac{1}{4}$; tarsus, $1\frac{3}{4}$.

Hab.—North America generally; not observed west of Rocky Mountains; rare in the United States. West Indies; Central America; most of South America. (Coues.)

Colonel Wedderburn killed two, one of which he unfortunately lost, in the beginning of August, 1848. Lieutenant Denison, Royal Engineers, records another, shot by Lieutenant Festing, Twentieth Regiment, at Peniston's Pond, early in September, 1875.

Genus EREUNETES, Illiger.

105. *Ereunetes pusillus*, (Linn.) Cass. Semipalmated Sandpiper.

Tringa pusilla, Linn., Gm., Lath., Schl.

Ereunetes pusillus, Cass., Coues, and most late U. S. authors.

Ereunetes petrificatus, Ill., Cass., Hayd., Trippe, Snow.

Tringa semipalmata, Wils., Vieil., Sw. & Rich., Aud., Gir., **Newb.**

Tringa (Hemipalama) semipalmata, Bp.

Tringa (Heteropoda) semipalmata, Nutt.

Heteropoda semipalmata, Bp., DeKay, Gray.

Ereunetes semipalmata, Cab., Bp.

Pelidna brissoni, Less.

Heteropoda mauri, Bp., Gundl.

Hemipalama minor, Lemb.

Ereunetes occidentalis, Lawr.

Length, $6\frac{1}{2}$; wing, $3\frac{3}{4}$; tail, $1\frac{3}{4}$.

Hab.—The whole of North, Central, and most of South America. (Coues.)

A regular visitor, arriving about the 1st August, or a few days earlier, and found in small flocks in the sandy bays, and on the margins of the open brackish ponds throughout the islands. They do not remain long.

Genus TRINGA, Linn.

106. *Tringa minutilla*, Vieil. Least Sandpiper; American Stint.

Tringa minutilla, Vieil., Gray, Sh. & Dress., Cones, Fusch.

Actodromus minutilla, Bp.

Actodromas minutilla, Cones, Dress., Lawr., Allen, Verr., Newton, Dall & Bann., Mayn., Ridg.

Tringa pusilla, Wils., Ord., Brewer, Bp., Sw. & Rich., Aud., Gir.

Pelidna pusilla, Bp., Gosse.

Tringa wilsoni, Nutt., Bd., Coop. & Suck., Cass., Trippe.

Actodromus wilsoni, Bp.

Tringa nana, Licht.

Length, $5\frac{1}{2}$ to 6; wing, $3\frac{1}{2}$ to $3\frac{3}{4}$; tail, $1\frac{3}{4}$.

Hab.—North, Central, and South America and West Indies; accidental in Europe. (Coues.)

Arrives about the same time, and frequents the same localities, as the preceding species. I shot one as late as the 23d December, probably a straggler left behind. I also obtained a solitary example on its northward flight on the 29th April, 1875, at Peniston's Pond.

107. *Tringa maculata*, Vieil. Pectoral Sandpiper. "Jack Snipe."

Tringa maculata, Vieil., Wheat., Schl., Blas., Dress., Sund., Hart., Cones, Schl. & Salv.

Tringa (Actodromas) maculata, Cass., Ridg.

Actodromas maculata, Cones, Allen, Verr., Lawr., Coop., Mayn.

Pelidna pectoralis, Bp., Cass.

Tringa pectoralis, Say, Bp., Nutt., Gm., Eyt., Keys. & Blas., Aud., Temm., Gir., DeKay, Schl., Gray, Meyer, Reinh., Sund.

Tringa dominicensis, Degl.

Length, 9; wing, $5\frac{1}{2}$; tail, $2\frac{1}{2}$.

Hab.—North, Central, and South America, West Indies, Greenland, Europe. (Coues.)

Not uncommon in September and October. The first I met with was feeding with a small flock of Semipalmated Sandpipers at Peniston's Pond, on August 3, 1874. It was tolerably abundant till towards the end of October, being usually found singly. Colonel Wedderburn says of this species (Nat. in B., p. 44): "On the 9th October, 1849, they appeared suddenly in thousands, particularly at St. George's, after a heavy gale of wind; the parade ground at that place was swarming with them, and I think Colonel Drummond killed some thirty or forty couple before breakfast; but, with the exception of a few stragglers, they were all gone by the following day."

108. *Tringa fuscicollis*, Vieil. Bonaparte's or White-rumped Sandpiper.

Tringa fuscicollis, Vieil., Dress.

Tringa cinclus, var., Say.

Tringa schinzii, Bp., Nutt., Sw. & Rich., Aud., Eyt., Gray, Gir., DeKay.

Pelidna schinzii, Bp.

Tringa bonapartii, Schl., Gray, Coues, Sel. & Salv.

Actodromas (Heteropygia) bonapartii, Coues.

Actodromas bonapartii, Coues, Allen, Lawr., Verr., Mayn.

Tringa melanotos, Blas.

Actodromus melanotos, Bp.

Pelidna melanotos, Degl.-Gerbe., Bp.

Tringa dorsalis, Licht.

Length, $7\frac{1}{2}$; wing, 4.7; tail, 1.8.

Hab.—North America, east of Rocky Mountains; not observed in Alaska (where, however, its occurrence may be anticipated). Breeds in the far north. Migratory through United States in the Eastern Province. Winters in the Southern States, Greenland, West Indies, Central and South America. Accidental in Europe. (Coues.)

This bird did not occur in the autumn of 1874, to my knowledge. It is recorded by Colonel Wedderburn, and is, I believe, sufficiently numerous at times, especially in the Great Sound and Castle Harbor.

109. *Tringa maritima*, Brünn. Purple Sandpiper.

Tringa maritima, Brünn., Gm., Lath., Vieil., Temm., Less., Sab., Rich., Sw. & Rich., Bp., Nutt., Naum., Aud., Keys. & Blas., Schinz, Schl., Gir., and many later authors.

Tringa (Arquatella) maritima, Bd., Gray, Ridg.

Arquatella maritima, Coues, Verr., Allen, Lawr., Mayn.

Pelidna maritima, Bp.

Totanus maritimus, Steph.

(?) *Tringa striata*, Linn., Gm., Fab., Lath., Flem.

Tringa undata, Brünn., Gm., Lath., Vieil.

Tringa nigricans, Mont., Leach, Brehm.

Trynga arquatella, Pall.

Tringa canadensis, Lath., Vieil.

Tringa littoralis, Brehm.

Length, 8 to 9; wing, 5; tail, $2\frac{1}{2}$.

Hab.—North America, northerly and chiefly coastwise, south to the Middle States in winter, Great Lakes. Greenland, Europe, Asia. (Coues.)

One was seen by Colonel Wedderburn at the entrance to St. George's Harbor.

Genus CALIDRIS, Cuv.

110. *Calidris arenaria*, (Linn.) Ill. Sanderling.

Tringa arenaria, Linn., Schl., Aud.

Calidris arenaria, Ill., Leach, Temm., Licht., Bp., Flem., Brehm., Sw. & Rich., Nutt., Naum., and authors generally.

Charadrius calidris, Linn., Wils.

Charadrius rubidus, Gm., Wils.

Arenaria vulgaris, Bechst., Temm., Steph.

Trynga tridactyla, Pall.

Calidris tringoides, Vieil.

Calidris americana, Brehm.

Length, $7\frac{3}{4}$ to 8; wing, 5; tail, 2.

Hab.—Sea-coasts of nearly all countries. (Coues.)

Generally to be found in the autumn months, especially on the sandy beach below the sand-hills, where I obtained specimens in November, 1874. One of these I lost temporarily, and on recovering it the next day I found that not only the body, but the webs and *shafts* of the feathers had been devoured by a swarm of voracious ants.

Sub-family TOTANINÆ.

Genus LIMOSA, Briss.

111. *Limosa hudsonica*, (Lath.) Sw. Hudsonian Godwit.

Scolopax alba et candida, Linn.

Scolopax lapponica, var. β , Gm.

Scolopax hudsonica, Lath.

Limosa hudsonica, Sw. & Rich., Nutt., Aud., Bp., Gir., Bd., Sel., Cab., Sel. & Salv., and later authors.

Limosa melanura, Bp., not of authors.

Limosa ogocephala, Bp., not of authors.

Limosa australis, Gray.

Length, 15; wing, 8; tail, 3.

Hab.—Northern and Eastern North America; West Indies; South America; not noted west of Rocky Mountains; rare along Atlantic. (Coues.)

A specimen of this bird in Mr. Bartram's collection was shot near the Causeway at St. George's in the autumn of 1875.

Genus SYMPHEMIA, Rafin.

112. *Symphemia semipalmata*, (Gm.) Hartl. Willet.

Scolopax semipalmata, Gm., Lath., Wils.

Totanus semipalmatus, Temm., Bp., Sw. & Rich., Aud., Gir., Coues.

Totanus (Catoptrophorus) semipalmatus, Bp., Nutt.

Catoptrophorus semipalmatus, Bp., Blas.

Glottis semipalmata, Nilss.

Hodites semipalmata, Kaup.

Symphemia semipalmata, Hartl., Bd., Cab., Sel., Cass., Coop. & Suck., and late authors.

Totanus crassirostris, Vieil.

Symphemia atlantica, Rafinesque.

Length, about 15; wing, $8\frac{1}{4}$; tail, $3\frac{1}{4}$.

Hab.—Temperate North America, north to 56° , but chiefly United

States; resident in the Southern States, West Indies, Central and South America. Accidental in Europe. (Coes.)

One was shot by Colonel Wedderburn on Pearl Island on July 3, 1848; doubtless a young bird driven by stress of weather from the breeding haunts of the species on the North American shores.

Genus GAMBETTA, Kaup.

113. *Gambetta melanoleuca*, (Gm.) Bp. Greater Yellow-shanks; Tattler.

Scolopax melanoleuca, Gm., Lath.

Totanus melanoleucus, Vieil., Licht., Bp., Aud., Coes, Finsch.

Gambetta melanoleuca, Bp., Bd., Coop. & Suck., Coes & Prent., Hayd., Verr.,

Allen, Dress., Lawr., Dall & Bann., Mayn.

Scolopax vociferus, Wils.

Totanus vociferus, Sab., Sw. & Rich., Nutt., Aud., Gir., Putn., Trippe.

Totanus sasashev, Vieil.

Totanus chilensis, Philippi.

Length, about 14; wing, $7\frac{1}{2}$ to 8; tail, $3\frac{1}{4}$ to $3\frac{1}{2}$.

Hab.—The Western Hemisphere; breeds mostly in high latitudes; abundant. (Coes.)

More or less common, arriving early in August, remaining for a month or so. Much in request among the energetic sportsmen who brave the heat and mosquitoes for the sake of a "bag" of "snippets." Its quadruple note, "thew-thew-thew-thew," is very loud and striking. Mr. Hurdie mentions one killed, when on its northward migration, on the 5th June, 1852. Another was shot by Lieutenant Denison on the 27th April, 1875, and one seen at the same time, but not obtained.

114. *Gambetta flavipes*, (Gm.) Bp. Yellow-shanks; Lesser Tell-tale.

Scolopax flavipes, Gm., Lath., Wils.

Totanus flavipes, Vieil., Bp., Sab., Sw. & Rich., Nutt., Aud., Gir., Moschl.,

Putn., Reinh., Yarr., Newton, Trippe, Coes, Ridg.

Gambetta flavipes, Bp., Bd., Coes & Prent., Verr., Allen, Coes, Dress., Lawr.,

Dall & Bann., Mayn., Trippe, Snow.

Totanus fuscocapillus et natator, Vieil.

Length, 10 to $10\frac{1}{2}$; wing, 6 to $6\frac{1}{2}$; tail, $2\frac{1}{2}$.

Hab.—Western Hemisphere; many winter in Southern States; accidental in Europe. (Coes.)

The most conspicuous and noisy of the August arrivals. It has been seen as early as the 13th July, but usually disappears towards the end of September. Considerable numbers fall victims to the gun, as they are not bad eating. If a wounded one falls into the water it is possible to shoot the whole of the flock, as they hover over their unfortunate companion. This murderous proceeding is alluded to, I think, by Wilson. The only instances of the occurrence of this species in the spring

took place in 1875, when I saw one on the 26th, and obtained two at Peniston's Pond on the 29th April. These were, of course, in beautiful plumage.

Genus RHYACOPHILUS, Kaup.

115. *Rhyacophilus solitarius* (Wils.), Cass. Solitary Sandpiper.

Tringa ochropus, var β , Lath.

Tringa solitaria, Wils.

Totanus solitarius, Aud., Gir., Hoy, Schl., Gray, Hart., Cones.

Rhyacophilus solitarius, Cass., Cones & Prent., Hayd., Verr., Allen, Coues, Dress., Lawr., Dall & Bann., Mayn., Stev.

Totanus chloropus, var. *solitarius*, Ridg.

Totanus chloropygius, Vieil., Bp., Sw. & Rich., Wagl., Nutt., Aud.

Rhyacophilus chlorophygius, Bp.

Totanus glareola, Ord.

Totanus macroptera, Spix.

Length, 8 to $8\frac{1}{2}$; wing, $\bar{5}$; tail $2\frac{1}{4}$.

Hab.—Western Hemisphere; accidental in Europe; North to Alaska; winters in Mexico, Central and South America, and West Indies. (Coues.)

I observed one on the 19th July, 1874, but they generally come with the other species in August. They soon betake themselves to the wooded swamps, where they may be found singly or in pairs throughout the autumn. Fresh arrivals sometimes take place in the spring. Their habit of bobbing the head and body when alarmed is very comical.

Genus TRINGOIDES, Bp.

116. *Tringoides macularius*, (Linn.) Gray. Spotted Sandpiper.

Tringa macularia, Linn., Gm., Lath., Wils.

Totanus macularius, Temm., Boie, Flem., Eyt., Brehm, Bp., Nutt., Aud., Gir., Hoy, Trippe.

Actitis macularius, Boie, Naum., Bp., Keys & Blas., Schl., Finseh.

Tringoides macularius, Gray, Bd., Coop. & Suck., Coues, Hayd., Dress., Dall & Bann., Mayn., Allen, Stev., and most late U. S. authors.

Tringites macularius, Sel. & Salv.

Tringa notata, Ill.

Length, $7\frac{1}{2}$ to 8; wing, $4\frac{1}{2}$; tail, 2.

Hab.—North America at large; winters in Southern States and beyond; Central and South America to Brazil; West Indies; casual in Europe. (Coues.)

Flocks of young birds appear early in August, followed soon after by a limited number of adults. They frequent the same places as the other "snippets," and serve to swell the "bag" of the gunner in August and September. A few remain all the winter, and several examples have been observed in spring, presumably strangers on their way north. The

“weet-weet” of this bird, as it skims over the water like the European Common Sandpiper, is very familiar to residents in the islands.

Genus ACTITURUS, Bp.

117. *Actiturus bartramius*, (Wils.) Bp. Bartram's Sandpiper.

Tringa bartramia, Wils., Aud., Gir., Ptn., Trippe.

Tringa (Euliga) bartramia, Nutt.

Totanus bartramius, Temm., Bp., Sw. & Rich., Aud., Hoy.

Actiturus bartramius, Bp., Bd., Cones & Prent., Hayd., Verr., Allen, Coues, Lawr., Sel., Dress., Cab., and late authors.

Tringoides bartramius, Gray, Pelz.

Actitis bartramius, Schl.

Tringa longicauda, Bechs., Naum.

Actiturus longicaudus, Blas.

Bartramius longicaudus, Bp.

Totanus variegatus, Vieil.

Bartramia laticauda, Less.

Length, about 12; wing, 6½; tail, 3½.

Hab.—North America, north to the Yukon; not observed in United States west of the Rocky Mountains; Atlantic coast of Nova Scotia; winters in Mexico, West Indies, Central and South America to Brazil; casual in Europe; Australia. (Coues.)

No early records. One in my collection was shot by Gibbs at Peniston's Pond on September 20, 1874. It was a single bird, and was in company with a flock of small Sandpipers at the time. Lieutenant Denison, Royal Engineers, shot a second specimen in a field near Peniston's Pond on the 18th September, 1875.

Genus NUMENIUS, Linn.

118. *Numenius hudsonicus*, Lath. Hudsonian Curlew.

Scolopax borealis, Gm., Wils.

Numenius borealis, Ord., Brewer.

Numenius hudsonicus, Lath., Bp., Sw. & Rich., Nutt., Aud., Gir., Bd., Reinh., Dress., and late authors generally.

Numenius intermedius, Nutt.

Numenius rufiventris, Vig.

Numenius phaeopus, Cab., Pelz.

Numenius brasiliensis, Maxim.

Length, about 18; wing, 9; tail, 4; bill, 3 to 4.

Hab.—North America; Greenland; Central and South America; no West Indian record; migratory through United States; winters in Southern States and far beyond. (Coues.)

Appears early in August, in limited numbers, and is so wary that very few are ever obtained. Mr. Hurdis says: “In August and September the loud whistle of this Curlew is sometimes heard on the shores of Ber-

muda. It is generally seen alone, and from its wary habits is difficult to approach. Of the four specimens which I examined, one was shot on the 14th August, and the remainder in September. During the dark nights of this season of the year flocks of this Curlew occasionally pass at a low elevation toward the south, disturbing the profound tranquility which reigns by their oft-repeated, clear, whistling note."

119. *Numenius borealis*, (Forst.) Lath. Esquimaux Curlew.

Scolopax borealis, Forst.

Numenius borealis, Lath., Bp., Sw. & Rich., Nutt., Aud., Gir., Bd., Coues, Verr., Allen, Salv., and modern authors generally.

Numenius brevirostris, Licht., Darw., Pelz.

Numenius microrhynchus, Phil. & Landb.

Length, about $13\frac{1}{2}$; wing, $8\frac{1}{4}$; tail, 3; bill, $2\frac{1}{4}$ to $2\frac{1}{2}$.

Hab.—North and Middle America; not recorded west of Rocky Mountains; Alaska; winters in Middle and South America; no West Indian record; accidental in Europe; breeds within the Arctic circle. (Coues.)

Commoner and easier to approach than the preceding. Locally termed "Wood Snipe." A good number accompanied the Golden Plover on their arrival in September, 1874, and several were killed along the north shore. Both species of Curlew remain but a short time. The Esquimaux is easily distinguishable from the Hudsonian Curlew by its smaller size and comparatively short and weak bill.

Sub-order HERODIONES.

Family TANTALIDÆ.

Sub-family IBIDINÆ.

Genus IBIS, Möhring.

120. *Ibis falcinellus*, Bp. Glossy Ibis.

Tantalus mexicanus, Gm., Lath., Ord.

Ibis falcinellus, Bp., Nutt., Aud., Allen, Ridg.

Ibis falcinellus var. *ordii*, Coues.

Ibis ordii, Bp., Bd., Allen, Lawr., Coues, Mayn.

Falcinellus ordii, Bp., Coues.

Length, 25; wing, 12; tail, $4\frac{3}{4}$.

Hab.—United States, southerly, straying north to Massachusetts and Ohio. (Coues.)

An inhabitant of the Southern United States, separated from the European species by Bonaparte in 1838, but now considered identical with it. One example only has occurred in Bermuda, seen by Mr. Hurdis, but not obtained.

Family ARDEIDÆ.

Sub-family ARDEINÆ.

Genus ARDEA, Linn.

121. *Ardea herodias*, Linn. Great Blue Heron.

Ardea herodias, Linn., Gm., Lath., Wils., Temm., Bp., Sw. & Rich., Nutt.,
Aud., Gir., Bd., Sc., Newton, and authors generally.

Ardea hudsonias, Linn., Gm., Lath.

Length, 42; wing, 18½.

Hab.—North America to Hudson's Bay and Sitka; south to Guatemala and Galapagos; West Indies; breeds throughout its range; winters in the south. (Coues.)

Of this fine species Colonel Wedderburn says (Nat. in B., p. 38): "Many of these birds arrive in autumn, and a few remain throughout the year. In 1846 the nest of this bird, containing two eggs, was found amongst the mangrove trees at Hungry Bay. The Rev. H. B. Tristram kept one of these Herons alive in his garden (at the parsonage in Ireland Island), which was once seen to seize a Ground Dove and swallow it entire." I made numerous inquiries, and kept a careful lookout, but was unable to ascertain whether any second instance occurred of the nest being found. Most of the examples obtained or seen during my stay were in immature plumage. A few were always to be seen singly among the islands in the Great Sound and Castle Harbor, being very wary and hard to approach.

122. *Ardea egretta*, (Gm.) Gray. Great White Egret.

Ardea egretta, Gm., Lath., Wils., Nutt., Aud., Coues.

Herodias egretta, Gray, Bd., Coues & Prent., Allen, Coues, Dress., Lawr.,
Mayn.

Herodias alba var. *egretta*, Ridg.

Herodias egretta var. *californica*, Bd.

Ardea leuce, Ill., Licht.

Egretta leuce, Bp.

Herodias leuce, Brehm.

Ardea alba, Bp.

Length, 39; wing, 15½.

Hab.—United States southerly, stragglng northward to Nova Scotia, Massachusetts, Canada West, and Minnesota; West Indies, Mexico, Central and South America. (Coues.)

Two were killed at Hungry Bay in 1840; several were subsequently seen, but not obtained. A colored youth described two of these birds to me as having been seen by him in Warwick Swamp in October, 1874,

adding that he shot one, but it was too much knocked about to keep. These may have belonged to the next species; but, from the size mentioned, I fancy them to be referable here. Mr. Bartram has obtained one specimen. Lieutenant Denison, Royal Engineers, informs me that one was shot in Devonshire Swamp by Captain Hussey, Twentieth Regiment, on the 6th October, 1875, and presented to him.

123. *Ardea candidissima*, Gm. Snowy Heron.

Ardea nivea, Jacq., Lath., Licht.

Egretta nivea, Cab.

Ardea candidissima, Gm., Wils., Bp., Nutt., Aud., Gir., Coues.

Egretta candidissima, Bp., Gosse.

Herodias candidissima, Gray, Gundl.

Garzetta candidissima, Bp., Bd., Cass., Allen, Coues, Sc. & Salv., Dress., Lawr., Mayn., Ridg.

Ardea carolinensis, Ord.

Length, 24; wing, 10.20.

Hab.—United States southerly. North, regularly to Middle States; casually, to Massachusetts and even Nova Scotia. Kansas; Mexico; West Indies; Central and South America to Chili. Resident in Gulf States and farther south.

Two beautiful specimens, in full plumage, were shot by Colonel Wedderburn in April, 1850, and several were seen in September following. Thus it seems that it visits the islands both in spring and autumn at the usual periods of migration. Mr. Bartram has a pair in his collection.

124. *Ardea cærulea*, Linn. Little Blue Heron.

Ardea cærulea, Linn., Gm., Lath., Wils., Ord., Bp., And.

Ardea (Botaurus) cærulea, Bp., Nutt.

Egretta cærulea, Bp., Gosse.

Florida cærulea, Bd.

Herodias cærulea, Gray, Gundl.

Ardea cærulescens, Lath., Licht., Wagl.

Length, 22; wing, 11.

Hab.—South Atlantic and Gulf Coast to Mexico. (Baird.)

Mr. Hurdis says: "Of seven specimens of this heron which came under my observation, four were shot in April and May, and three in September and October; it may therefore be considered both a vernal and autumnal visitor to the Bermudas. Three of the spring specimens were beautiful exemplifications of the change from the white plumage of the young to the rich vinous purple of the adult bird." Several of these examples are alluded to by Colonel Wedderburn in his notes. I do not think the bird visits the islands regularly. I obtained a beau-

tiful male from Hungry Bay on the 4th of May, 1875. It was in company with a white bird, perhaps an immature specimen of the same species.

125. *Ardea virescens*, Linn. Green Heron.

Ardea virescens, Linn., Gm., Lath., Wils., Bp., Wagl., Nutt., Aud., Gir., Sund., Coues.

Ardea (Botaurus) virescens, Bp.

Herodias virescens, Boie, Bp., Gosse.

Egretta virescens, Sw.

Butorides virescens, Bp., Scl., Scl. & Salv., Bd., Newton, and most recent authors.

Ardea ludoviciana, Gm., Lath.

Ardea chloroptera et maculata, Bodd.

Length, 15; wing, $7\frac{1}{2}$.

Hab.—United States generally, breeding throughout and wintering in the south; Canada West; Mexico; West Indies; Central America to Venezuela. (Coues.)

Occurs on both migrations, sometimes in considerable numbers in the spring, frequenting the dense mangroves, and being uncommonly hard to obtain. Lieutenant Denison and I each shot two beautiful specimens in April, 1875.

Genus NYCTIARDEA, Sw.

126. *Nyctiardea grisea* var. *nævia*, (Bodd.) Allen. American Night Heron.

Botaurus nævius, Briss.

Ardea nævia, Bodd.

Nyctiardea nævia, Gray.

Nycticorax nævia, Gray, Scl. & Salv.

Nyctiardea grisea var. *nævia*, Allen, Coues.

Nycticorax griseus, Reinh, Allen.

Ardea hoactli, Gm., Lath.

Ardea gardeni, Gm., Lath.

Nycticorax gardeni, Jard., Sp., Gundl., Scl., Scl. & Salv.

Nyctiardea gardeni, Bd., Coop. & Suck., and many late U. S. authors.

Nyctiardea grisea var. *gardeni*, Ridg.

Ardea nycticorax, Wils., Bp., Aud.

Ardea discors, Nutt.

Nycticorax americanus, Bp., Tsch., Gosse.

Length, about 25; wing, 12.50; tarsus, 3.15; bill, 3.10.

Hab.—United States and British Provinces; breeds abundantly in New England; winters in the South and beyond. Part of West Indies, Mexico, Central America, South America.

Immature birds are not uncommon in the larger mangrove swamps in the autumn and winter, but none have yet been obtained in adult plumage. One examined by Mr. Hurdis, shot on the 9th February,

had the irides bright carmine, and the long filamentous plumes of the occiput beginning to appear. These birds sit motionless among the mangroves, and when disturbed fly into the tops of the thickest trees, whence they are very hard to dislodge. I obtained a few specimens during my stay.

127. *Nyctiardea violacea*, (Linn.) Sw. Yellow-crowned Night Heron.

Ardea violacea, Linn., Gm., Lath., Wils., Bp., Aud.

Ardea (Botaurus) violacea, Bp., Nutt.

Nyctiardea violacea, Sw.

Nycticorax violaceus, Bp.

Nyctherodius violaceus, Reich., Bp., Gundl.

Ardea jamaicensis, Gm.

Ardea cayanensis, Gm.

Ardea sersetacea, Vieil.

Ardea callocephala, Wagl.

Length, 24; wing, 12; tarsus, 3.70; bill, 2.78.

Hab.—South Atlantic and Gulf States. South America. (Baird.)

Unlike its congener, this Heron has occurred in the plumage of the adult. Mr. Bartram has obtained several fine specimens. I obtained two myself, but both were in the spotted garb of youth. There is a great similarity between the young of these two species, but *violacea* may always be distinguished in any plumage, by its longer tarsus and shorter bill. Occurs pretty regularly in small numbers, usually in autumn, but occasionally in spring. One of my specimens was shot as early as the 3d August.

Genus BOTAURUS, Steph.

128. *Botaurus lentiginosus*, (Mont.) Steph. American Bittern.

Botaurus freti-hudsonis, Briss., Degl.

Ardea freti-hudsonis, Schl.

Ardea hudsonias, Merr.

Ardea stellaris var., Forst.

Ardea stellaris var. β .

Botaurus freti-hudsonis, Lath.

Ardea stellaris var. β . *minor*, Gm.

Ardea minor, Wils., Bp., Aud.

Botaurus minor, Boic., Bp., Gundl., Gray, Coues.

Ardea lentiginosa, Mont., Jen., Leach., Temm., Flem., Eyt., Keys. & Blas., Sab., Sw. & Rich., Nutt., Aud., Gir., Trippe.

Botaurus lentiginosus, Steph., Gray, Bd., Coop. & Suck., Coues, Hayd., Cass., Mayn., Dress., Salv., and many recent authors.

Butor lentiginosus, Jard.

Butor americana, Sw.

Ardea mokoko, Vieil., Wagl.

Ardea adspersa, Licht.

Length, 26.50; wing, 11.00; tarsus, 3.60; bill, 2.75.

Hab.—Entire temperate North America up to 58° or 60°; Cuba; south to Guatemala; regularly migratory; accidental in Europe. (Coues.)

A regular visitor in the autumn, and occasionally in March, frequenting the sedgy patches on the edges of the mangrove swamps. Mr. Hurdis says: "The stomach of one, shot in the Pembroke Marshes, contained an eel 6 inches long, a mouse, a dragonfly, a grasshopper, and part of a small golden carp." To show how plentifully they arrive in certain years, I may mention (though a cold shudder passes through me as I do so) that no less than *thirteen* were shot by one officer, who shall be nameless, in the autumn of 1875.

Genus ARDETTA, Gray.

129. *Ardetta exilis*, (Gm.) Gray. Least Bittern.

Ardea exilis, Gm., Lath., Wils., Wagl., Nutt., Aud., Gir., Newb.

Ardea (Ardeola) exilis, Bp.

Ardeola exilis, Bp., Gosse, Hoy.

Butor exilis, Sw.

Ardetta exilis, Gray, Gundl., Bd., Sel., Coues & Prent., Verr., Allen, Coues, Lawr., Dress., Mayn., Salv., Ridg., &c.

Length, 13.00; wing, 4.75; tarsus, 1.60; bill, 1.75.

Hab.—United States and British Provinces; breeds throughout its United States range, wintering in the South, Cuba, Jamaica, Central (and South?) America. (Coues.)

Has occurred both in spring and autumn, but, from its frequenting the thick mangrove swamps and hiding among their tangled roots, has not very often been obtained. Colonel Wedderburn procured several specimens between 1847 and 1850. I shot a female near the Sluice-gates on March 1, 1875, and Lieutenant Denison records one shot at Basden's Pond in December, 1875.

Sub-order ALECTORIDES.

Family RALLIDÆ.

Sub-family RALLINÆ.

Genus RALLUS, Linn.

130. *Rallus virginianus*, Linn. Virginian Rail.

Rallus virginianus, Linn., Gm., Wils., Bp., Nutt., Aud., Gir., Gundl., Bd., Coop. & Suck., Sel. & Salv., Dress., and modern authors.

Aramus (Pardirallus) virginianus, Gray.

Rallus aquaticus var. β , Lath.

Rallus limicola, Vicil.

Length, about 7½; wing, 4; tail, 1½.

Hab.—Entire United States and British Provinces; breeds commonly in New England; winters in Southern States and beyond. South to Guatemala; Cuba. (Coues.)

One was shot by Mr. Hurdis on the 6th November, 1851. He remarks: "This is the only genuine *Rail* met with—a singular circumstance, when we bear in mind that *all* the Gallinules and Crake-Gallinules known to the continent of North America have been obtained in the Bermudas." No other instance of this bird's occurrence is on record.

Genus PORZANA, Vieil.

131. *Porzana carolina*, (Linn.) Cab. Sora Rail; Carolina Rail.

Rallus carolinus, Linn., Gm., Bp., Sw. & Rich., Aud.

Rallus (Crex) carolinus, Bp., Nutt.

Gallinula carolina, Lath., Sab.

Ortygometra carolina, Bp., Aud., Gosse, Gir., Reinh.

Porzana carolina, Bd., Gundl., ScL., Newton, Dress., Hayd., ScL. & Salv.,

Lawr., Sund., and of all late U. S. writers.

Aramides (Mustelirallus) carolina, Gray.

Crex carolina, Hart.

Rallus stolidus, Vieil.

Length, about $8\frac{1}{2}$; wing, $4\frac{1}{4}$; tail, 2.

Hab.—Entire temperate N. A., winters in Southern States and beyond. South to Venezuela. Various West Indian Islands. Greenland. Accidental in Europe. (Coues.)

Visits Bermuda regularly, arriving early in September (one has been shot on the 24th August) and remaining till November, a few lingering on through the winter. On their vernal migration they frequently appear in considerable numbers in March and April. I have seen them as late as the 1st May. An extraordinary large flight visited the islands in October, 1849, departing in a body after a three-weeks' stay. These birds are a great nuisance to the gunner in search of snipe and other denizens of the marshes, as they bother a dog sadly both by their numbers and their skulking habits; and they themselves are not worth powder and shot, except immediately after their arrival.

132. *Porzana noveboracensis*, (Gm.) Cass. Little Yellow Rail.

Fulica noveboracensis, Gm.

Gallinula noveboracensis, Lath.

Ortygometra noveboracensis, Steph., Bp., Aud., Gir., Putn.

Rallus noveboracensis, Bp., Nutt., Sw. & Rich., Aud.

Coturnicops noveboracensis, Bp.

Porzana noveboracensis, Cass., Coues & Prent., Allen, Coues, Dress., ScL. &

Salv., Lawr., Mayu., Ridg.

Aramides (Coturnicops) noveboracensis, Gray.

Perdix hudsonica, Lath.

Rallus ruficollis, Vieil.

Length, about 6; wing, $3\frac{1}{4}$; tail, $1\frac{3}{4}$.

Hab.—Eastern North America, north to Hudson's Bay, but in New England not observed beyond Massachusetts. Apparently nowhere abundant. Winters in Southern States.

Two obtained in Pembroke Marsh by Colonel Wedderburn in October, 1847, but not since recorded.

133. *Porzana jamaicensis*, (Gm.) Cass. Little Black Rail.

Rallus jamaicensis, Gm., Lath., Aud.

Ortygometra jamaicensis, Steph., Bp., Aud., Gosse., Salv.

Creciscus jamaicensis, Cab., Gundl.

Porzana jamaicensis, Cass., Coues & Prent., Sci., Sci. & Salv., Schl., Coues, Ridg.

Aramides (Creciscus) jamaicensis, Gray.

Crex pygmaea, Blackwell.

Ortygometra chilensis, Bp.

Length, about 5; wing, $3\frac{1}{4}$; tail, $1\frac{1}{2}$.

Hab.—South America to Chili. Central America. West Indies. North America to New Jersey and Kansas, rare.

Observed, and also obtained, by Colonel Wedderburn in 1847 and 1848, and by Mr. Hurdis in 1851, always in the autumn.

Genus CREX, Bechst.

134. *Crex pratensis*, Bechst. Land-Rail; Corn-Crake.

Rallus crex, Linn., Degl.

Gallinula crex, Lath.

Crex pratensis, Bechst., Cass., and authors generally.

Length, about 10; wing, $5\frac{1}{2}$; tail, 2.15.

Hab.—Europe; Greenland; Accidental on Atlantic coast of United States. (Baird.)

Colonel Wedderburn shot the only specimen of this European bird ever obtained in Bermuda, on the 25th October, 1847, and sent a notice of its occurrence to "The Zoologist" in 1849. At that time it was probably not known that the species is a straggler to the United States, but laterally several instances of its appearance there have been recorded, so that the fact of its being killed in Bermuda has lost much of the mystery which was originally connected with it.

Sub-family FULICINÆ.

Genus GALLINULA, Briss.

135. *Gallinula galeata*, (Licht.) Bp. Florida Gallinule.

Crex galeata, Licht.

Gallinula galeata, Bp., Nutt., Maxim., Tsch., Gosse, Gundl., Bd., Newton, and most late authors.

Gallinula chloropus, Bp., Aud., Gir.

Gallinula chloropus, var. *galeata*, Hartl. & Finsch, Ridg.

Length, about $12\frac{1}{2}$; wing, $6\frac{3}{4}$; tail, 3.

Hab.—Southern countries of North America; Louisiana, Florida, Texas; South America. Accidental in Middle and Northern States. (Baird.)

Resident, tolerably abundant, breeding in the flags and sedges in the deepest and most inaccessible parts of the marshes. Also migratory, visitors appearing in October. Like the "Sora," this is a sad pest to the snipe-shooter when working the thick places, unless his dog be as steady as old Time.

With regard to the specific distinction between this bird and *G. chloropus* of Europe, it would appear that there is so little difference that "doctors disagree" on the question. I never compared specimens myself, but Mr. Hurdis says, in his MS. notes: "On a careful comparison of British specimens with those shot in the Bermudas the resemblance of the two was so strongly marked that, in my humble opinion, they are identical."

Genus PORPHYRULA, Blyth.

136. *Porphyryla martinica*, (Linn.) Blyth. Purple Gallinule.

Fulica martinica, Linn.

Gallinula martinica, Lath., Bp., Nutt., Aud.

Crex martinica, Licht.

Porphyrio martinica, Gosse, Cab.

Fulica martinicensis, Jacq., Gm.

Ionornis martinicensis, Reich.

Fulica flavirostris, Gm.

Porphyrio tavona, Vieil.

Porphyrio cyanicollis, Vieil.

Gallinula porphyrio, Wils.

Porphyrio americanus, Sw.

Martinico gallinule, Lath.

Length, $12\frac{1}{2}$; wing, 7; tail, 3.

Hab.—Southern States of North America, Louisiana, Florida. Accidental in Middle and Northern United States. (Baird.)

Several were obtained in 1849 and 1850, in the month of April, and one on the 30th May, 1851. Mr. Hurdis's notes contain the following: "On the 22d October, 1851, I shot one of these Gallinules in the olive-green plumage of the young, and as these birds never remain to breed in the Bermudas, this specimen must have found its way over sea. I know of no other instance of the young being met with. In April, 1852, this Gallinule was again observed, and in June, 1853, I examined a specimen preserved by W. Clutterbuck, esq., Fifty-sixth Regiment; date of its occurrence unknown. Its appearance, with one exception, has been vernal."

Mr. Bartram has several specimens. I am almost sure I saw one in Devonshire Swamp in February, 1875. The shy habits and nature of the haunts of this species doubtless prevent many examples being recorded in the visiting list.

Genus *FULICA*, Linn.

137. *Fulica americana*, Gm. American Coot.

Fulica americana, Gm., Lath., Bp., Sw. & Rich., Sab., Nutt., Aud., Bd., Coues, and of all late American writers—Sel., Sel. & Salv., Sund., Reinh., Gosse.

Fulica wilsoni, Steph.

Fulica atra, Wils.

Length, about 14; wing, 7; tail, 2.

Hab.—Entire temperate North America, Alaska, Greenland, Mexico, West Indies, Central America. (Coues.)

A regular visitor in autumn, but never in great numbers. It also occurs on its northward journey, for Mr. Hurdis records one killed at Somerset on the 28th May, 1847, and I watched one close to me at Basden's Pond on the 27th April, 1875.

Order LAMELLIROSTRES.

Family PHŒNICOPTERIDÆ.

Genus PHŒNICOPTERUS, Linn.

138. *Phœnicopterus ruber*, Linn. American Flamingo.

Phœnicopterus ruber, Linn., Gm., Wils., Bp., Nutt., Aud.

Length, 45 inches; wing, 16.50; tarsus, 12; bill, 5.90.

Hab.—Warmer parts of America. Rare on the Florida Keys. (Baird.)

Though never actually obtained in the Bermudas, I think the following interesting account from Mr. Hurdis's MS. notes entitles this fine bird to a place in the island list: "On the 24th September, 1849, being two days after the occurrence of an extraordinary flight of the Swallow tribe, I happened to be skirting the shore of Hungry Bay in search of novelties, when, peering through the roots of the belt of mangrove trees by which the shallow water of the bay is surrounded, a large white, or greenish-white, bird, which I took to be some tall species of Heron, was discovered standing in a very upright position within long shot of me. In the hurry of the moment I unfortunately discharged the barrel of my gun which was loaded with small shot, and the stranger was soon afterwards seen topping the mangroves in an easterly direction.

“Two days afterwards I met Stone, the town constable, who was in pursuit of the tall white bird when I fired at it, and, from being concealed among the mangroves, had a fair opportunity of observing its form and appearance, who confidently asserted that it was ‘no Heron.’ He described the bird as brownish-white in plumage with a very long neck, equally long legs, and a peculiar bill something like a parrot’s. Referring to Wilson’s print of the Wood Ibis (*Tantalus loculator*), he at once said it was too long in the bill and too heavy in the formation of the neck and body for the bird he saw. His eye then caught sight of Wilson’s figure of the Flamingo, which he said was precisely the shape and make of the bird in question, and the form of the bill exactly similar. Now, the only part of the tall stranger concealed from my observation was the head; I have therefore no doubt whatever, judging from Stone’s testimony, and from what I observed myself, that this bird was a Flamingo in the immature greyish-white plumage of the first year. Stone informed me that he followed this Flamingo to Peniston’s Pond, distant about two miles, where he shot at it without success. As the bird was not met with afterwards it no doubt took its departure from the Bermudas.”

Family ANATIDÆ.

Sub-family CYGNINÆ.

Genus CYGNUS, Linn.

139. *Cygnus americanus*, Sharpless. American or Whistling Swan.

Cygnus musicus, Bp., Linsl.

Cygnus bewickii, Sw. & Rich., Nutt.

Cygnus ferus, Nutt.

Cygnus americanus, Sharpless, And., Gir., Coop. & Suck., Bd., Coues & Prent., Coues, Lawr., and authors generally.

Olor americanus, Bp.

Length, 55; wing, 22.00; tarsus, 4.25.

Hab.—Continent of North America; breeding only in the far north; wintering in United States. (Coues.)

One was shot in White’s Marsh, near Hamilton, in 1835 or 1836, as related to Mr. Hurdis by credible witnesses in 1850. It was observed in the marsh for three or four days before it was obtained (by a man named Dunscomb), and was by no means shy or difficult of approach. It was sold, as might have been expected, as an article of food, and realized the sum of \$3. (Hurdis.)

Sub-family ANSERINÆ.

Genus ANSER, Linn.

140. *Anser hyperboreus*, Pall. Snow Goose.

Anser hyperboreus, Pall., Vieil., Steph., Bp., Sw. & Rich., Nutt., Aud., Temm.,
 Gir., Schl., Gray, and most late authors.

Anas hyperboreus, Gm., Lath., Wils., Rich., Temm.

Chen hyperboreus, Boie, Bp., Gosse, Blas., Gundl., Degl. & Gerbe.

Chionochea hyperborea, Reich.

Anas nivalis, Forst.

Anser niveus, Briss., Brehm.

Tadorna nivea, Brehm.

Length, about 30; wing, 16.40.

Hab.—Whole of North America; breeds in higher latitudes, wintering in United States; abundant in the interior and along Pacific coast, rare on the Atlantic; Greenland, transient. Cuba. Rare or casual in Europe. (Coues.)

Colonel Wedderburn's notes contain the following: "On the 19th October, 1848, Mr. Hodgson Smith shot two of these birds, in their young plumage, at Riddle's Bay; but, unfortunately for the ends of science, they furnished the dinner-table instead of the cabinet." Mr. Hurdis adds: "A wing pertaining to one of the specimens mentioned by Major Wedderburn was fortunately saved by Mr. Smith, which removed all doubts as to the species it belonged to. In October, 1849, two 'White Geese' were observed in Mangrove Bay, and on the 9th November, 1851, four dark grey-coloured Geese were seen on the wing near Peniston's Pond. These were doubtless *A. hyperboreus*." I may here remark that the Blue Goose, *A. caerulescens*, much resembles the young of *A. hyperboreus*, and that consequently the birds *seen* may possibly have belonged to the former species.

Genus BERNICLA, Steph.

141. *Bernicla canadensis*, (Linn.) Boie. Canada Goose.

Anas canadensis, Linn., Gm., Forst., Lath., Wils., and all earlier authors.

Anser canadensis, Vieil., Flem., Keys & Blas., Bp., Sw. & Rich., Nutt., Aud.,

Eyt., De Kay, Gosse, Gir., Bd., Maxim., Schl.

Cygnus canadensis, Steph., Eyt., Jen.

Bernicla canadensis, Boie, Gray, Bp., Coop. & Suck., Coues, Verr., Reinh., Dress,
 Dall & Bann., and most late authors.

Branta canadensis, Gray, Bann., Coues.

Bernicla (Leucoblepharon) canadensis, Bd.

Branta (Leucoblepharon) canadensis, Gray.

Anser parvipes, Cass.

Length, 35; wing, 18; tarsus, 3.10.

Hab.—The whole of North America; breeding in United States, as well as further north; accidental in Europe. (Coues.)

Included in the list given in "The Naturalist in Bermuda," but with no information appended. It has been occasionally seen, but rarely obtained, in the islands. It was observed on three occasions during my stay, one being seen on Peniston's Pond in the autumn of 1874, one in the Great Sound on the 10th January, 1875, by the officers of the Fifty-third Regiment as they were leaving the islands on their homeward journey, and a third near Daniel's Head by Lieutenants Denison and Hussey, Royal Engineers, early in February, 1875. A man of colour was seen by these two officers to fire at the last-named bird; but he stupidly let drive at it, with small shot too, at a hundred and twenty yards, instead of paddling much nearer to it, as he might have done. A wild Goose, weighing ten pounds when plucked, was shot in Southampton parish on the 7th January, 1875, and eaten forthwith by the fortunate gunner or his friends. This undoubtedly belonged to the present species, but cannot be definitely recorded.

Sub-family ANATINÆ.

Genus ANAS, Linn.

142. *Anas boschas*, Linn. Mallard.

Anas boschas, Linn., Gm., Lath., Pall., Wils., Boie, Lecht., Bp., Temm., Vig., Aud., Schl., and authors generally.

Anas adunca, Linn., Gm., Jen., Donovan.

Anas domestica, Gm.

Anas (Boschas) domestica, Sw. & Rich., Nutt.

Anas curvirostra, Pall.

Anas freycineti, Bp.

Anas fera, Briss., Leach.

Length, 23; wing, 11; tarsus, 1.70.

Hab.—Nearly cosmopolitan; wild throughout the whole of North America; breeding sparingly in United States as well as further north. Greenland, Cuba, Bahamas, Panama. (Coues.)

A female was shot by an officer of the Fifty-sixth Regiment at Warwick Pond on November 3, 1854. It was in company with some tame ducks, always taking the wing moment any one approached the water (Nat. in B., p. 48). Four—a Mallard and three ducks—were observed in the Great Sound by Lieutenant Hussey, Royal Engineers, on the 23d December, 1874.

143. *Anas obscura*, Gm. Black Duck; Dusky Duck.

Anas obscura, Gm., Lath., Wils., Vieil., Steph., Bp., Nutt., Gray, Aud., Eyt., Gir., Cab., Bd., Coues, Schl., Lawr., and all authors.

Length, 22; wing, nearly 12; tarsus, 1.80.

Hab.—Eastern North America, especially along the Atlantic coast, from Labrador to Texas; Iowa, Kansas, Cuba. (Coes.)

Usually visits Bermuda in small numbers in the autumn, remaining till the end of January or even later. A flock of twenty frequented Harrington Sound and Peniston's Pond from Christmas, 1871, to February 15, 1872 (J. M. Jones). Specimens were obtained by Lieutenant Denison and myself in January, 1875, when there were a good many about. They are always very shy, and when disturbed frequently fly a long way out to sea.

Genus DAFILA, Leach.

144. *Dafila acuta*, (Linn.) Bp. Pintail.

Anas acuta, Linn., Gm., Lath., Temm., Boie, Licht., Less., Flem., Brehm., Wagl., Jen., Keys. & Blas., Degl., Schl., Wils., Bp., Nutt., Aud., Gir.

Dafila acuta, Bp., Gray, Gosse, Reich., Cass., Bd., Cab., ScL., Heerm., Coop. & Suck., Newton, Hayd., Jerd., Coes, and authors generally.

Querquedula acuta, Selby.

Anas sparmannii, Lath.

Anas caudacuta, Pall., Leach.

Dafila caudacuta, Steph., Gar., Eyt.

Querquedula caudacuta, Macgill.

Anas longicauda, Briss., Brehm.

Anas caudata, Brehm.

Dafila acuta, var. *americana*, Bp.

Length, 30; wing, 11; tail, 8.60; tarsus, 1.75.

Hab.—North America and Europe; breeds chiefly in high latitudes; in winter south to Panama; Cuba. (Coes.)

Several specimens were obtained, all in immature plumage, in the winter of 1847-'48. Mr. Bartram has a male in full plumage, shot by himself near St. George's. A female was shot by Gibbs in Smith's Marsh on the 26th October, 1875, as recorded by Lieutenant Denison, Royal Engineers.

Genus CHAULELASMUS, Gray.

145. *Chaulelasmus streperus*, (Linn.) Gray. Gadwall.

Anas strepera, Linn., Gm., Lath., Wils., Temm., Boie, Bp., Steph., Flem., Brehm., Nutt., Aud., Naum., Keys. & Blas., Gir., De Kay, Schl., Degl., Swin., and of most earlier authors.

Anas (Chauliodus) strepera, Sw. & Rich., Gen., Sw.

Chauliodus strepera, Sw., Eyt.

Chaulelasmus streperus, Gray, Bp., Gosse, Reich., Bd., Heerm., Jerd., Coes, Dress., and of authors generally.

Querquedula strepera, Macgill.

Anas strepera americana, Maxim.

Chaulelasmus americana, Bp.

Length, 22; wing, 10.50; tarsus, 1.64.

Hab.—North America generally; Europe, Asia, Africa. (Coues.)

A female Gadwall was captured alive in December, 1849, and was in the possession of Mr. Hurdis till May, 1851, associating with some tame ducks and laying several nests of eggs, none of which, however, proved fertile (Nat. in B., p. 47).

Genus MARECA, Steph.

146. *Mareca americana*, (Gm.) Steph. American Wigeon.

Anas americana, Gm., Lath., Wils., Bp., Nutt., Aud., Gir., Schl., Finsch.

Mareca americana, Steph., Sw. & Rich., Sw., Bp., Eyt., Gray, Gosse, Bd., Cab., Cass., Sel., and late authors generally.

Mareca penelope β , Blas.

Length, 21.75; wing, 11; tarsus, 1.42.

Hab.—North America, south of Guatemala; Cuba. Accidental in Europe. (Coues.)

After a revolving gale in October, 1854, several of these birds were shot and brought for examination to Mr. Hurdis, who obtained one himself in the following month (Nat. in B., p. 49). Two were shot at Devonshire Bay by Corporal Alder, Royal Engineers, in October, 1874.

Genus QUERQUEDULA, Steph.

147. *Querquedula carolinensis*, (Gm.) Steph. Green-winged Teal.

Anas crecca var., Forst.

Anas (Boschas) crecca var., Sw. & Rich., Nutt.

Anas crecca, Wils, Bp., Aud.

Anas carolinensis, Gm., Lath., Aud., Gir., Reinh., Maxim., Trippe.

Querquedula carolinensis, Steph., Eyt., Bp., Gray, Bd., Cass., Sel., Sel. & Salv., Coues.

Nettion carolinensis, Bd., Coop. & Suck., Coues, Hayd., Cab., Sel., Dress., Gunc., and of late American authors.

Anas americana, Vieil.

Length, 14; wing, 7.40; tarsus, 1.14.

Hab.—Whole of North America; Greenland, Mexico, Cuba; south to Honduras. (Coues.)

This is an occasional visitor in autumn. One was shot at Peniston's Pond on October 10, 1874, and a few days later I stalked another in vain at the same place. Captain Rooke, Fifty-third Regiment, shot one in Devonshire Swamp in November, 1874. I am not aware of the occurrence of the European *Q. erecca*, or common Teal, in Bermuda. It occurs as a straggler in North America.

Lieutenant Denison informs me that four examples of *Q. carolinensis* were shot by Lieutenant Tallents, Twentieth Regiment, in the autumn of 1875.

148. *Querquedula discors*, (Linn.) Steph. Blue-winged Teal.

Anas discors, Linn., Gm., Lath., Wils., Vicil., Bp., Wagl., Aud., Gir., DeKay, Trippe, Schl.

Anas (*Boschas*) *discors*, Sw. & Rich., Nutt.

Querquedula discors, Steph., Gray, Bd., Cab., Sel., Sel. & Salv., Dress., Verr., Lawr., Sund., Coues, Dall & Bann., Allen, Trippe.

Cyanopterus discors, Eyt., Bp., Gosse, Blas.

Pterocyanea discors, Bp., Gray, Newb.

Length, 16; wing, 7.10; tarsus, 1.20.

Hab.—North America, chiefly east to Rocky Mountains; to the Pacific Coast in Alaska; West Indies, Mexico, Central and South America to Ecuador. (Coues.)

A frequent visitor on its way south, but rarely seen on its northward journey; most numerous in October. Nine couple were killed in Pembroke Marsh after the gale of the 22d October, 1854, and many more at St. David's Island, where a native sportsman is said to have killed sixteen couple during the gale (Hurdis). I obtained several specimens in October and November, 1874, and saw two, one of which I knocked down, but unfortunately lost, in the mangrove swamp near the Sluice-gates, on April 30, 1875.

Genus SPATULA, Boie.

149. *Spatula clypeata*, (Linn.) Boie. Shoveller.

Anas clypeata, Linn., Scop., Gm., Lath., Ill., Pall., Vieil., Brehm, Licht., Wils., Temm., Bp., and of earlier authors generally.

Spatula clypeata, Boie, Gray, Cass., Bd., Sel., Cab., Coop. & Suck., Hayd., Lawr., Coues, and most late writers.

Spathulea clypeata, Flem.

Rhynchospis clypeata, Leach., Steph., Sp.

Anas rubens, Gm., Lath.

Length, 20; wing, 9.50; tarsus, 1.38.

Hab.—North America, Europe, Asia, Australia, southward to Guatemala, Cuba, Jamaica, Mexico. (Coues.)

"A single female specimen was shot in December, 1844, by Mr. C. B. Fozard" (Nat. in B., p. 47).

Genus AIX, Boie.

150. *Aix sponsa*, (Linn.) Boie. Wood Duck; Summer Duck.

Anas sponsa, Linn., Gm., Lath., Wils., Vieil., Licht., Steph., Bp., Nutt., Aud., Vig., Gir., Keys. & Blas., De Kay, Maxim.

Aix sponsa, Boie, Eyt., Bp., Gray, Gosse, Cab., Bd., Coop. & Suck., Verr., Coues, Hayd., Dress., and most late writers.

Dendronessa sponsa, Sw. & Rich.

Lampronessa sponsa, Wagl.

Cosmonessa sponsa, Reich.

Length, 19; wing, 9.50; tarsus, 1.40.

Hab.—North America, especially United States; breeding throughout in suitable places, and wintering chiefly in the south; Cuba (Coues).

“A female bird of this species was shot by Dr. Cole, Twentieth Regiment, on the 16th December, 1846” (Nat. in B., p. 48).

Sub-family FULIGULINÆ.

Genus FULIGULA, Steph.

151. *Fuligula affinis*, Eyt. Lesser Scaup Duck; Blue-bill.

Anas marila, Forst.

Fuligula marila, Aud.

Fuligula affinis, Eyt., Gosse, Turnb., Coues.

Marila affinis, Bp.

Fulix affinis, Bd., Scl., Lawr., Dress., Salv., Newton, Dall & Bann., Coues & Preut., Verr., Coues, Mayn., Aiken.

Fuligula mariloides, Vig.

Fuligula minor, Gir., Bell.

Length, 16.50; wing, 8; tarsus, 1.34.

Hab.—The whole of North America, and south to Guatemala in winter; part of the West Indies (Coues).

To make matters clear, in treating of this species, I must call in the aid of Dr. Coues, who says, in his “Birds of the Northwest” (p. 574): “Authors are at variance concerning the relationship of the bird to the preceding (*F. marila*), and the question is not yet settled. For myself I am rather inclined to keep the two apart, notwithstanding their very close resemblance, and admitting the probability that intermediate examples may be found. There appears to be something different in their range, the *F. affinis* being the more southerly. Not that it does not in the breeding season reach as high latitudes as the other, but that its autumnal movement is pushed to the West Indies and Central America, where the true *F. marila* is not recorded as occurring. It is improbable that two varieties, if they be really such, should preserve this difference.” Armed with this authority, I think I may safely refer the specimens of the Scaup chronicled in “The Naturalist in Bermuda,” all of which measured only 16 to 16½ inches in length, to this smaller species, *F. affinis*. The length of *F. marila* varies from 19 to 20½ inches. The specimens alluded to are one killed by Mr. C. Abbott, Twentieth Regiment, on the 19th December, 1846, and two others by Colonel Wedderburn, at Warwick Pond, on the 8th January, 1849. Lieutenant Denison, Royal Engineers, shot a female specimen at Tucker’s Town on the 25th February, 1876, measuring 16 inches in length.

152. *Fuligula collaris*, (Don.) Bp. Ring-necked Duck.

Anas collaris, Donovan.

Fuligula collaris, Bp., Gray, Blas., Schl., Degl., Gerbe, Turnb., Coues.

Fulix collaris, Bd., Bryant, Verr., Coues, Salv., Dress., Gundl., Aiken, Trippe, Snow, and of most United States writers.

Marila collaris, Bp.

Anas fuligula, Wils., Temm.

Anas (*Fuligula*) *rufitorques*, Bp.

Anas rufitorques, Ord, Schl.

Fuligula rufitorques, Bp., Sw. & Rich., Nutt., Aud., Eyt., Gir., De Kay, Gosse, Cass., Maxim.

Length, 18; wing, 8; tarsus, 1.28.

Hab.—The whole of North America, breeding far north, wintering in United States and beyond; south to Guatemala; Cuba; Jamaica; accidental in Europe (Coues).

One was captured, and kept for a short time alive, by Mr. Hurdis, on the 13th November, 1850. He was anxious to watch the change of the plumage, but the poor bird fell a victim to a cat (Nat. in B., p. 50).

Genus AYTHYA, Boie.

153. *Aythya vallisneria*, (Wils.) Boie. Canvas-back Duck.

Anas vallisneria, Wils., Dought.

Fuligula vallisneria, Steph., Bp., Sw. & Rich., Nutt., Eyt., Aud., Gir., De Kay, Coues.

Aythya vallisneria, Boie, Bp., Newb., Bd., Coop. & Suck., Dress., Salv., Dall & Bann., and most late writers.

Nyroca vallisneria, Gray, Woodh., Heerm.

Aristonetta vallisneria, Bd.

Anas vallisneriana, Sab.

Length, 20.10; wing, 9.30; tarsus, 1.70.

Hab.—Whole of North America; breeds from Northern States northward; winters from Middle States southward to Guatemala (Coues).

Mr. Hurdis purchased a specimen of this Duck from some boys, by whom it was captured alive in a marsh near James's Cottages, on the 30th October, 1851. It was destroyed by ants soon afterwards. On the 23d November following he observed a very fine specimen in White's Marsh.

Genus CLANGULA, Flem.

154. *Clangula clangion*, Brehm. Golden-eye.

Anas clangula, Linn., Scop., Forst., Gm., Lath., Ill., Wils., Temm., Leach., Vieil., Naum., Schl., Swinh.

Clangula clangula, Boie.

Clangion clangula, Kaup, Keys. & Blas.

Fuligula clangula, Bp., Nutt., Aud., Gir., Degl., Maxim., Finsch.

Bucephala clangula, Coues.

Anas glaucion, Linn., Gm., Lath.

Clangula glaucion, C. L. Brehm, Bp., Gray.

Clangula vulgaris, Flem., Sw. & Rich., Sw., Eyt.

Clangula americana, Bp., Eyt., Gray, Newb.

Bucephala americana, Bd., Coop. & Suck., Verr., Coues, Blak.

Length, 18.75; wing, 8.50; tarsus, 1.50.

Hab.—Whole of North America, Cuba, Europe (Coues); Northern Asia (Dresser).

“A male specimen was shot on the 10th April, 1854, in Pembroke Marshes” (Nat. in B., p. 49). There were several of these Ducks about the islands in the winter of 1874-75, and I succeeded in obtaining two, both males, in immature plumage, at Peniston’s Pond, on the 29th December, 1874, and 5th February following. A flock of seven frequented Shelly Bay Marsh, and were also seen by Lieutenant Hussey in the Great Sound, but I am not sure that any other specimens were procured. Lieutenant Denison records one shot in Devonshire Swamp on 22d January, 1876.

155. *Clangula albeola*, (Linn.) Steph. Buffle-head; Butter-ball.

Anas albeola, Linn., Forst., Gm., Lath., Wils., Schl.

Fuligula albeola, Bp., Nutt., Aud., Gir., De Kay, Schl.

Clangula albeola, Steph., Boie, Sw. & Rich., Jen., Eyt., Bp., Vig., Gray, Bd., Heerm., Reinh., Newton, Hart.

Bucephala albeola, Bd., Coop. & Suck., Dress., Coues, Dall & Bann., Aiken, Coues, and most late writers.

Anas bucephala, Linn., Gm.

Anas rustica, Linn., Gm.

Length, 15; wing, 6.65; tarsus, 1.25.

Hab.—North America; Mexico; Cuba; Greenland; accidental in England (Coues).

One was obtained in Pembroke Marsh in December, 1845, and others have been occasionally observed subsequently. A male was shot by Lieutenant Tallents, Twentieth Regiment, at Peniston’s Pond in November, 1875 (Denison).

Genus CEDEMIA, Flem.

156. *Edemia perspicillata*, (Linn.) Steph. Surf-Scoter.

Anas perspicillata, Linn., Forst., Gm., Lath., Wils., Temm., Vieil., Naum., Schl.

Oidemia perspicillata, Steph., Flem., Sw. & Rich., Gm., Sw., Bp., Keys. & Blas., Gray, Gosse, Cass., Reinh., Newton, Coues, Hart.

Pelionetta perspicillata, Kaup, Reich, Bp., Bd., Coop. & Suck., Coues, Verr., Blak., Lawr., Dall & Bann.

Fuligula perspicillata, Aud., De Kay, Gir., Degl.

Length, about 20; wing, 9.50; tail, 3.6; tarsus, 1.8.

Hab.—North America, coastwise; Jamaica; Europe, rare (Coues).

Two recorded in "The Naturalist in Bermuda"—one killed with a stick in Hamilton Harbor on the 8th January, 1849, and another shot in Pembroke Marsh on the 7th October, 1854. Lieutenant Hussey, Royal Engineers, shot one (a female) on a small pond near the light-house, on the 17th November, 1874, and kindly presented it to me.

Sub-family ERISMATURINÆ.

Genus ERISMATURA, Bp.

157. *Erismatura rubida*, (Wils.) Bp. Ruddy Duck.

Anas rubida, Wils., Sab.

Anas (Fuligula) rubida, Bp.

Fuligula (Oxyura) rubida, Bp.

Fuligula (Gymnura) rubida, Nutt.

Fuligula rubida, Sw. & Rich., Aud., Gir., De Kay, Lemb.

Erismatura rubida, Bp., Eyt., Gray, Bd., Sel., Heerm., Verr., Coues, Gundl., Stev.

Biziura rubida, Schl., Giebel.

Anas jamaicensis, Ord.

Length, 16.00; wing, 5.80; tarsus, 1.26.

Hab.—North America, at large; south to Guatemala, where found breeding at Dueñas; Cuba (Coues).

A young male of this species was shot by Dr. Cole, in a marsh near Hamilton, on the 24th November, 1846.

Sub-family MERGINÆ.

Genus MERGUS, Linn.

158. *Mergus merganser*, Linn. Goosander.

Mergus merganser, Linn., Gm., Lath., Wils., Temm., Bp., Flem., Jen., Sw. & Rich., Nutt., Aud., Gir., Naum., Schl., and authors generally.

Mergus castor, Linn., Gm., Lath., Keys. & Blas., Gray.

Merganser castor, Bp., Macgill.

Merganser castor var. *americanus*, Bp.

Merganser raii, Leach.

Merganser gulo, Steph., Leach.

Mergus americanus, Cass., Bd., Coop. & Suck., Hayd., Dall, Dall & Bann., Snow, Fusch, and of many late United States writers.

Length, 26.50; wing, 11.00; tarsus, 1.84.

Hab.—North America; Asia; Europe (Coues).

Included in Colonel Wedderburn's list as having been seen, but not obtained.

159. *Mergus serrator*, Linn. Red-breasted Merganser.

Mergus serrator, Linn., Gm., Lath., Pall., Ill., Wils., Temm., Boie, Licht.,
Brehm, Bp., Flem., Sw. & Rich., Nutt., Aud., Keys. & Blas., Naum., Gray,
Schl., and nearly all authors.

Merganser serrator, Vieil., Steph., Bp.

Mergus niger, Gm.

Mergus cristatus, Brunn.

Mergus leucomelas, Brehm.

Length, 23.25; wing, 8.60; tarsus, 1.80.

Hab.—Northern hemisphere (Coues).

Mr. Bartram has an undoubted specimen, obtained by him near St. George's.

160. *Mergus cucullatus*, Linn. Hooded Merganser.

Mergus cucullatus, Linn., Gm., Lath., Bp., Sw. & Rich., Nutt., Jen., Aud.,
Eyt., Keys. & Blas., Temm., Gray, Schl., Gir., Cass., Sel., Coues.

Merganser cucullatus, Steph., Bp., Macgill.

Lophodytes cucullatus, Reich., Bp., Bd., Sel., Coop. & Suck., Verr., Coues,
Gundl., Dress., Dall & Bann., Allen, and of many writers.

Length, 17.50; wing, 7.90; tarsus, 1.20.

Hab.—Whole of North America; Europe; Cuba (Coues).

A female was caught near Ireland Island by one of the crew of H. M. S. Scourge, on the 10th of January, 1849, and one was shot near St. George's on the 23d December, 1850. A third example was obtained by Mr. Bartram, and is now in his collection.

Order STEGANOPODES.

Family SULIDÆ.

Genus SULA, Briss.

161. *Sula fiber*, Linn. Booby Gannet.

Pelecanus fiber, Linn.

Pelecanus sula, Linn.

Dysporus sula, Ill., Bp.

Sula brasiliensis, Spix.

Sula fusca, Vieil., Bp., Nutt., Aud.

Length, 31.00; wing, 16.50; tarsus, 1.70; tail, 8.50.

Hab.—Gulf of Mexico; Atlantic coast from Georgia southward (Baird).

Colonel Wedderburn records the occurrence of one of these birds, which flew into one of the barrack-rooms at Fort Catherine on October 3, 1847. Another, in Mr. Bartram's collection, was shot by an officer with a revolver, curiously enough, very near the same fort, and a young bird in Lieutenant Denison's collection was caught alive on the rocks near Fort Cunningham (at no great distance from Fort Catherine) on the 26th September, 1875, living for a short time in confinement.

Family PELECANIDÆ.

Genus PELECANUS, Linn.

162. *Pelecanus fuscus*, Linn. Brown Pelican.*Pelecanus fuscus*, Linn., Bp., Nutt., Aud.*Leptopelicanus fuscus*, Reich.*Oncrocatalus fuscus*, Bp.

Length, 56; wing, 22; bill, 13.50; tarsus, 3; tail, 6.50.

Hab.—From Texas to North Carolina; California coast (Baird).

Two examples are recorded by Colonel Wedderburn, who says (Nat. in B., p. 51): "One of these birds was shot at Hungry Bay, many years ago; and another was killed near St. George's in April, 1850, which was given to me by Colonel Drummond."

Family PHALACROCORACIDÆ.

Genus GRACULUS, Linn.

163. *Graculus dilophus*, (Sw.) Gray. Double-crested Cormorant.*Pelecanus (Carbo) dilophus*, Sw. & Rich.*Carbo dilophus*, Gamb.*Phalacrocorax dilophus*, Nutt., Bp., Aud., Gir., Bd.*Graculus dilophus*, Gray, Bp., Bd., Coop. & Suck., Coues, Allen, Verr., Lawr.,
Dall & Bann., Ridg.*Phalacrocorax floridanus*, Maxim.

Length, 33; wing, 13; tail, 6.75; bill, 2.85; tarsus, 3.50.

Hab.—North America at large, in the interior as well as coastwise (Coues).

Three instances of the occurrence of this species are recorded in "The Naturalist in Bermuda," viz, one shot by Captain Orde, at Pitt's Bay, on the 10th October, 1847; one by Colonel Wedderburn, on Grace's Island, on the 8th February, 1848; and another, mentioned by Mr. Hurdis, which frequented the islands for some little time, but was not obtained. There is a specimen in Mr. Bartram's collection, and another in that of Mr. Lane, of Hamilton. There were several of these birds about the islands in the winter of 1874-'5, but they were so wary that none were obtained. One was repeatedly seen, and once fired at, in the Great Sound; one attached itself to St. George's Harbor; and a pair frequented the "Stag" Rocks, near Shelly Bay, all the winter, conspicuous to the passers-by as they sat in solemn security on their accustomed pinnacle. I tried in vain to obtain one of these, but never got a shot. One of them flew close over my head one morning, but I had not my

gun in my hand at the moment. One was shot, as recorded by Lieutenant Denison, Royal Engineers, at Basden's Pond, in the autumn of 1875.

Family TACHYPETIDÆ.

Genus TACHYPETES, Vieil.

164. *Tachypetes aquilus*, Vieil. Frigate Bird; Man-of-War Bird.

Tachypetes aquilus, Vieil., Bp.

Pelecanus aquilus, Linn., Nutt., Aud., Gamb.

Attagen aquila, Gray.

Length, 41; wing, 25; bill, 5.50; tail, 18; tarsus, .8.

Hab.—Texas to Florida; California (Baird).

Two were obtained at Ireland Island, on the 27th and 30th September, 1848, respectively, by Colonel Wedderburn. One was shot by Captain Clutterbuck, of the fifty-sixth regiment, on September 30, 1852, and another by Captain Tolcher, of the same regiment, on April 2, 1854. Mr. Bartram has three specimens in his collection, obtained by himself. The latest of these he shot in October, 1876, when there was a very strong gale from the northwest, lasting some days, and a great influx of Terns, Frigate-Birds, Ospreys, &c.

Family PHAËTONIDÆ.

Genus PHAËTON, Linn.

165. *Phaëton flavirostris*, Brandt. Yellow-billed Tropic Bird.

Lepturus candidus, Briss., Bp.

Phaëton candidus, Gray.

Phaëton athercus, Bp., Nutt., Aud.

Phaëton flavirostris, Brandt, ScL.

Length, 30; wing, 11; tail, 18.50; bill, 2.05; tarsus, .9.

Hab.—Florida coast (Baird); Cuba; Bermuda.

The geographical distribution of the three known species of Tropic-bird, *P. athercus*, *P. flavirostris*, and *P. rubricauda*, seems not yet well defined, and no doubt their extensive wanderings will render any attempt at precise limitation extremely difficult, certainly until we are in possession of a larger series of observations than at present. *P. flavirostris* (the "Boatswain-bird" or "Long-tail" of the Bermudas) is a familiar and abundant summer visitor to the islands, arriving at the end of February or beginning of March, and departing early in October. An occasional straggler is said to have been seen in Bermudian waters in winter time, presumably an early arrival, or backward young bird

left behind. One was shot as far north as the coast of Nova Scotia, after a violent gale from the south, on the 4th September, 1870. I saw this bird in the Halifax Museum. The excellent accounts of the habits and nidification of this species given by Mr. Hurdis and Colonel Wedderburn have left me but little to say. The single egg, which in coloring is not unlike that of a Kestrel, is deposited in holes in the rocks, always in those which have a flooring of sand, preference being given to steep and overhanging cliffs on the south shore and the islands about Castle Harbor. A few pairs nest on the northern shore, where the cliffs are much lower. Sometimes one can see the sitting bird's long tail-feathers protruding from the nest; while in another case the nest may be so far in, horizontally, that one can only tell there is one by the harsh grating cry of the disturbed occupant. Both male and female sit, fighting vigorously with their formidable bills in defense of their home. The young also show fight; in fact, the species is peculiarly fierce and untamable. Three young ones I kept alive for about two months maintained their savage nature till the last, refusing to feed themselves, striking viciously at any one who approached them, and even at one another. Their flight is peculiar, but graceful, and they never seem tired of their perpetual wheeling and maneuvering. They take beautiful headers, like a Tern or Gannet, in pursuit of small fish. It is rare to meet with a specimen possessing two good long central tail-feathers; one is generally smaller and shorter than the other. Some of these feathers are of a lovely orange-pink. They get rubbed off during incubation, and may be picked up near the breeding places. Two broods are reared, fresh eggs being found as early as the 10th April, and again at the end of June; there are intermediate examples, probably laid by birds whose first nests have been visited by the spoiler. That these birds revisit their breeding stations year after year is, I think, clearly shown by the following circumstance: Mr. Bartram, by way of experiment, slit the two webs of one foot, and cut off one or two claws, of a young bird in a nest near his house. Next year this bird turned up again, and made its nest close to the same spot. This attachment to the family residence is, I fancy, far from unusual with migratory birds. Swallows and other familiar visitors to England are known to possess it in a marked degree. On a calm day the bright greenish blue tint of the Atlantic waters, as they gently rise and fall above the white sands below, is reflected on the glossy white breasts and under parts of the Tropic-birds in a most remarkable manner as

they cruise about, at no great height, along the shores or among the islands. During the breeding season the parent birds "off duty" are to be seen in the neighborhood of their nesting places all the morning till about noon, when the greater part disappear in a rather mysterious manner. I came to the conclusion that they proceed to a considerable distance out to sea, returning at dusk, and this opinion was much strengthened by seeing two old birds sitting on the water one afternoon, at least 100 miles from the Bermuda shores. This was during a voyage from Bermuda to New York, on the 7th August, 1874, when the second "young hopeful" had probably left, or was about to leave, the nest, and therefore does not prove much; but it shows that these strong-winged birds, who would probably do their 100 miles in three hours, or even less, *do* travel to such distances from land long before they have thought of quitting their breeding haunts. In Castle Harbor, where there are a great number of Tropic-birds continually on the wing, and where they are left comparatively undisturbed during the daytime, this disappearance is, or appears to be, on a somewhat smaller scale.

Order LONGIPENNES.

Family LARIDÆ.

Sub-family LARINÆ.

Genus LARUS, Linn.

166. *Larus marinus*, Linn. Great Black-backed Gull.

Larus marinus, Linn., Gm., Lath., Temm., Boie, Steph., Flem., Bp., Nutt, Brehm., Jen., Eyt., Aud., Naum., Keys. & Blas., Schl., Gray, Lawr., Coues., Verr., and of other authors.

Dominicanus marinus, Bruch, Bp.

Larus niger, Briss.

Larus nævius, Linn., Gm., Lath.

Larus albus, Müll.

Larus maculatus, Bodd.

Larus maximus, Leach, Brehm.

Length, 30; wing, 18.50; bill, 2.50; tarsus, 3.

Hab.—American and European coasts of the Atlantic; south in winter to Long Island, Great Lakes, and Mississippi (Coues).

Mr. Hurdis mentions an immature example of this Gull, which was captured alive in the Great Sound in December, 1851, and Mr. Bartram has a fine specimen, also in immature plumage, shot by himself near Stocks Point, on the 27th December, 1862.

167. *Larus argentatus*, Gm. Herring Gull.

Larus fuscus, Penn., Mont.

Larus argentatus, Gm., Schl., Gundl., Hartl., Dress., Coues.

Larus marinus, var. β , Lath.

Larus glaucus, Retz., Meyer & W.

Larus cinereus, Leach.

Larus argentatoides, Brehm.

Larus argenteus, Macgill.

Laroides major, *argentatus*, *argenteus*, *argentatoides* et *argentaceus*, Brehm.

Glaucus argentatus, *argentatoides*, Bruch.

Larus marinus, Gundl., Lemb.

Larus smithsonianus, Coues.

Length, 23; wing, 18; tail, 7.50; bill, $2\frac{1}{2}$; tarsus, $2\frac{1}{2}$.

Hab.—Northwest Europe; Baltic; western coasts down to North Africa; Azores; Madeira; Canaries; Greenland; Hudson's Bay; Labrador; down the coast as far as Texas; Cuba; Bermuda. (Saunders.)

These Gulls occur frequently, not regularly, and many specimens have been obtained. One in my collection was shot in Devonshire Bay on the 4th November, and they have been seen as late as the 19th March. They were numerous in the autumn of 1875, and Lieutenant Denison obtained several specimens, all immature.

Larus occidentalis, Aud., has been included in the Bermuda lists by Colonel Wedderburn (Nat. in B., p. 54), but I think the geographical distribution of this species [Pacific Coast of North America (Saunders), (Coues)] precludes all possibility of its having occurred in the islands.

168. *Larus delawarensis*, Ord. Ring-billed Gull.

Larus delawarensis, Ord, Lawr., Coop. & Suck., Coues, Verr., Schl., Allen.

Larus canus, Bp., not of authors.

Larus zonorhynchus, Rich., Nutt., Aud., Gir., Bp., Blas.

Glaucus zonorhynchus, Bruch.

Gavina zonorhyncha, Bp., Bruch.

Gavina bruchii, Bp., Bruch.

Length, 19.75; wing, 14.75; bill, 1.70; tarsus, 2.05.

Hab.—North America; generally throughout the interior as well as coastwise; Cuba (Coues).

Only one on record killed by Colonel Wedderburn, near the Dock-yard, on the 1st January, 1849, during a northwesterly gale.

169. *Larus atricilla*, Linn. Laughing Gull.

Larus atricilla, Linn., Temm., Steph., Flem., Bp., Nutt., Gm., Aud., Keys. & Blas., Gir., Schl., Gray, Pelz., Sund., Sc. & Salv., Coues.

Xema atricilla, Boie, Bp., Cab.

Gavia atricilla, Macgill., Blas.

Chroicocephalus atricilla, Lawr., Sc., Newton, Bryant, Coues, Verr., Allen, Dress., Gundl.

Larus ridibundus, Wils., Léot.

Atricilla catesbyi, Bruch.

Length, 16.50; wing, 13; tail, about 5; bill, 1.75; tarsus, 2.

Hab.—America, from Maine on the east coast down to the mouth of the Amazons and the West Indian Islands; on the west coast, California, Mexico, Guatemala, and as far south as the northern frontier of Peru. (Saunders.)

One seen, flying close past him, by Colonel Wedderburn, at Ireland Island. Mr. Hurdis records that one was taken alive by a fisherman in the winter of 1851-'52, and was confined for some time in a spare room, eventually effecting its escape.

170. *Larus philadelphia*, (Ord.) Gray. Bonaparte's Gull.

Sterna philadelphia, Ord.

Chroicocephalus philadelphia, Lawr., Coop. & Suck., Coues, Verr., Allen, Dall & Bann., Mayn., Newt.

Larus philadelphia, Gray, Hart., Cones, Ridg., Saunders.

Larus philadelphicus, Turnb.

Larus capistratus, Bp.

Larus bonapartei, Rich., Nutt., Aud., Jerd., Schl.

Xema bonapartei, Bp.

Chroicocephalus bonapartei, Bruch.

Gavia bonapartei, Bp., Blas.

Length, 14; wing, 10.25; bill, 1.20; tarsus, 1.40.

Hab.—British North America and Alaska; breeding on the Yukon, and in neighboring localities. In autumn descends as far as California on the west and North Carolina on the east coast; Bermuda. Accidental in the British Islands. (Saunders.)

Three are recorded by Colonel Wedderburn. One was shot by himself on the 27th January, 1849; a second was seen by him on the 15th December, 1849; and another was killed on the 24th February, 1850. Mr. Bartram obtained two specimens in St. George's Harbor in January, 1876.

Genus *RISSA*, Leach.

171. *Rissa tridactyla*, (Linn.) Bp. Kittiwake.

Larus rissa, Linn., Gm., Leach, Flem.

Laroides rissa, Brehm.

Larus riga, Gm., Less.

Larus tridactylus, Linn., Gm., Lath., Retz., Nils., Mey. & Wolf, Temm., Vieil., Brehm., Bp., Sw. & Rieh., Nutt., Aud., Naum., Keys. & Blas., Schl., Gir., Coues.

Gavia tridactyla, Boie.

Cheimonca tridactyla, Kaup.

Laroides tridactyla, Brehm.

Rissa tridactyla, Bp., Gra7, Bruch, Lawr., Coues, Ridg., Verr., Allen, Newt., Dall & Bann., Finsch, Blas., Saunders.

Larus navius, Schaff.

Larus torquatus et *Larus gavia*, Pall.

Rissa brunnichii, Steph. ex Leach.

Rissa cinerea, Eyt.

Laroides minor, Brehm.

Rissa kotzebui, Bp.

Length, about 17; wing, 12.25; bill, 1.45; tarsus, 1.30.

Hab.—Arctic regions of both hemispheres, south in winter on the Atlantic coast to the Middle States. (Coues.)

I cannot do better than quote from Mr. Hurdis' MS. notes, as follows: "There is no part of the world, perhaps, whose shores are so little frequented by Gulls and other sea-birds, as those of the islands of Bermuda.

"During the violent westerly gales of winter, the Kittiwake is probably seen there oftener than any other species, being met with from the 5th January to the 4th April. About a dozen specimens came under my observation."

Most of the examples obtained are in immature plumage.

Genus XEMA, Leach.

172. *Xema sabinii*, (Sabine) Leach. Sabine's Gull; Fork-tailed Gull.

Larus sabinii, Sab., Gm., Wils., Sw. & Rich., Nutt., Aud., Keys. & Blas., Temm., Naum., Schl., Degl., Hart.

Xema sabinii, Leach, Eyt., Bp., Gray, Bruch, Blas., Lawr., Newton, Coues, Dall & Bann., Allen, Saunders.

Gavia sabini, Macgil.

Length, 13.75; wing, 10.75; bill, 1; tarsus, 1.25.

Hab.—Arctic regions of both hemispheres; Spitzbergen; in America, south in winter to New York, and Great Salt Lake, Utah. (Coues.)

Colonel Wedderburn says: "A single specimen was shot by Colonel Drummond, near Saint George's, but the date I do not recollect."

Sub-family STERNINÆ.

Genus STERNA, Linn.

173. *Sterna anglica*, Mont. Gull-billed Tern.

Sterna anglica, Mont., Leach, Temm., Flem., Nutt., Aud., Gir., Schl., Gray, Degl., Maxim., Coues, Ridg., Saunders.

Thalasseus anglicus, Boie.

Viralva anglica, Steph.

Laropsis anglica, Wagl.

Gelochelidon anglica, Bp., Boie., Coues, Salv

Sterna aranea, Wils., Vieil., Bp., Lawr., Coues & Prent., Allen, Dress.

Gelochelidon aranea, Bp.

Sterna macrotarsa, Gould.

Sterna affinis, Horsf.

Gelochelidon palustris, Macgil.

Gelochelidon balthica, *agraria*, *meridionalis*, Brehm.

Length, 13 to 14.50; wing, 11.75 to 12.25; tail, 5.60; bill, 1.40; tarsus, 1.30.

Hab.—Nearly cosmopolitan. In North America, chiefly Eastern United States; not detected on the Pacific side; Patagonia. (Coates).

One only has occurred, taken alive in the Royal Engineer workshops at Boaz Island, on the 29th April, 1875. This bird, which proved to be a female, lived only a short time. It is now in Lieutenant Dennison's collection.

174. *Sterna fluviatilis*, Naum. Common Tern.

Sterna hirundo, Linn. (in part), and most authors.

Larus bicolor, *sterna*, *columbinus*, Scop.

Sterna fluviatilis, Naum., Gray, Sharpe & Dresser.

Sterna senegalensis, Sw., Schl.

Sterna wilsonii, Bp., Gray.

Sterna macrodactyla, et *macroptera*, Blas., Gray.

Sterna dougalli, Layard.

Length, 14.50; wing, 10.50; tail, 6; bill, 1.35; tarsus, 0.80 to 0.85.

Hab.—Throughout temperate Europe, Asia, and America, except Pacific coast. In winter visits Cape of Good Hope. Has been found as far to the southeast as Ceylon, northward as far as Peking. (Saunders.)

These Terns used to visit Bermuda annually and breed in considerable numbers on Gurnet Head Rock and other small islands at the eastern end of the group, but they have now given up their former breeding places and are only occasionally seen in the autumn or winter months, sometimes in considerable numbers. Doubtless the increase in the population of the islands and the continual plundering of their nests have driven them away. They were sufficiently numerous in 1850, but there is no record of their having bred since that date. In 1854 many appeared in Hamilton Harbor (Hurdis), and in October, 1876, during a strong northwest gale, St. George's Harbor was alive with Terns, Mr. Bartram obtaining specimens of the common and black kinds. Not a single Tern of any species, to my knowledge, was seen in the autumn of 1874 and winter following.

175. *Sterna dougalli*, Mont. Roseate Tern.

Sterna paradisea, Keys. & Blas., Schl., Degl., Gray, Bp., Lawr., Coues, Salv., Gundl., Allen, Mayu.

Sterna dougalli, Mont., Leach, Vieil., Temm., Boie, Steph., Flem., Brehm., Nutt., Gm., Eyt., Bp., Aud., Naum., Gir., Cab., Sel. & Salv., Saunders.

Sterna macdougalli, Macgil.

Sterna douglasi, Blas.

Sterna gracilis, Gould.

Length, 14 to 15; wing, 9.25 to 9.75; tail, 7.50; bill, 1.50; tarsus, 0.85.

Hab.—Europe. In North America, from Massachusetts to Florida, thence to Central America. Various West Indian Islands. No United

States record of wintering (Coates). Cape of Good Hope, Natal, Andaman Islands, Ceylon, Malayan Islands, west coast of Australia. (Saunders.)

The same remarks apply, unfortunately, to this species as to the preceding, it being no longer found, except, perhaps, as an autumn straggler, in the islands. At one time it used to breed in considerable numbers on Gurnet Head Rock (sometimes called the Black Rock). Mr. Hurdis says: "On this rock, difficult of access on account of the ocean swell, as many as 40 or 50 of this elegant species of Tern have been observed in the middle of June, and from the circumstance of both eggs and young having been obtained there on the 1st August, I conclude that it must rear two broods in the season."

Both species were called "Redshanks" by the Bermudians.

176. *Sterna fuliginosa*, Gm. Sooty Tern.

Sterna fuliginosa, Gm., Lath., Wils., Bp., Nutt., Aud., Cab., Lawr., Hartl., Dress., Sund., Hart., Saunders.

Sterna (Onychoprion) fuliginosa, Gray.

Sterna (Haliplanes) fuliginosa, Blas.

Sterna (Haliplana) fuliginosa, Coates.

Onychoprion fuliginosa, Wagl., Gould, Sel., Sel. & Salv.

Haliplana fuliginosa, Wagl., Bp., Coates, Salv., Gundl., Lawr., Allen.

Sterna serrata, Forst.

Hydrochelidon fuliginosum, Bp., Gosse.

Sterna guttata, Forst.

Anous Pherminieri, Less.

Sterna gouldii, Reich.

Sterna luctuosa, Phil. & Laudb.

Thalassipora infusata, Gray.

Sterna fuliginosa var. *crissalis*, Bd., apud Lawr.

Length, 16.50; wing, 12; tail, 7 to 7.50; bill, 1.80; tarsus, 1.

Hab.—Throughout the warmer portions of the world (Saunders).

Of rare occurrence. Colonel Wedderburn says: "Dr. Cole shot a specimen of this Tern in October, 1846. During the whole time I was quartered in Bermuda I only saw one of these birds, and that in the year 1848. I was walking on the sand-hills, and saw a bird apparently dead on the ground. I put down my gun, and picked the bird up, and was just putting him carefully in paper when my prize thought fit to come to life and flew away, taking me so much by surprise that I never thought of using my gun. It was a most beautiful specimen, and must have been driven on shore by some heavy gale." Mr. Hurdis records that a third example was found in an exhausted state in Devonshire parish, on the 23d October, 1854, after a severe gale the previous day. Lieutenant Denison, Royal Engineers, received a young male in curi-

ous plumage, caught near Paget Quarry, on the south shore, on the 19th September, 1875.

Genus HYDROCHELIDON, Boie.

177. *Hydrochelidon nigra*, (Linn.) Boie. Black Tern.

Sterna nigra, Linn., Mey. & Wolf, Temm.

Sterna navia, Linn.

Sterna fissipes, Linn., Schl.

Larus merulinus, Scop.

Sterna surinamensis, Gm.

Sterna plumbea, Wils.

Hydrochelidon nigra, Boie.

Viralva nigra, Steph.

Anous plumbea, Steph.

Hydrochelidon fissipes, Gray, Blas., Degl. & Gerbe, ScI. & Salv., Coues.

Hydrochelidon plumbea, Lawr. and other Am. authors.

Pelodes surinamensis, Gray.

Hydrochelidon lariformis, Coues.

"*Sterna casia*, Linn.," Gundl.

Length, 9.25; wing, 8.25; tail, 3.75; bill, 1.10; tarsus, .68.

Hab.—Europe, Palestine, and North Africa to the Nile. Across the continent of North America, visiting West Indies and Spanish Main on the one side, and going as far south as Peru and Chili on the Pacific coast in winter (Saunders).

Mr. Bartram obtained the only recorded example of this Tern in St. George's Harbor in October, 1876, after a severe gale from the north-west. It was in company with many other Terns of various species, but only one other, *S. fluviatilis*, was identified.

Genus ANOUS, Leach.

178. *Anous stolidus* (Linn.), Gray. Noddy Tern.

Sterna stolidus, Linn., Gm., Lath., Less., Bp., Nutt., Aud., Schl., Hart., Maxim.

Megalopterus stolidus, Boie, Bp., Keys. & Blas.

Anous stolidus, Gray, Cab., Lawr., ScI., Coues, ScI. & Salv., Saunders.

Anous niger, Steph., Eyt.

Gavia leucocephs, Sw.

Sterna pileata, Scop.

Anas rousseaui, Hartl.

Anous fuscatus et spadicea, Steph.

Length, 16; wing, 10 to 10.50; tail, 6; bill, 1.75; tarsus, 1.

Hab.—Ranges from the Gulf coast of North America to the shores of Australia, throughout Polynesia, and occurs in fact in all tropical waters. A straggler to the British seas (Saunders).

A solitary example was killed near Ireland Island by Captain Tolcher, Fifth-sixth Regiment, on the 12th September, 1854.

Family PROCELLARIIDÆ.

Sub-family PROCELLARIINÆ.

Genus OCEANITES, Keys. & Blas.

179. *Oceanites oceanicus**, Kuhl. Wilson's Petrel.*Procellaria pelagica*, Wils.*Procellaria oceanica*, Kuhl.*Procellaria wilsoni*, Bp.*Thalassidroma wilsoni*, Bp., Nutt., Aud.*Thalassidroma oceanica* (Kuhl.), Schinz.*Oceanites wilsoni* (Bp.), Keys. & Blas.*Oceanites oceanica* (Kuhl.), Bp.*Oceanites oceanicus* (Kuhl.), Salv.

Length, 7; wing, 5.75; tail, 3; tarsus, 1.3; bill, .65.

Hab.—On both sides of the Atlantic Ocean, and in the Indian Ocean, from the coasts of North America and those of the British Isles down to Kerguelen Land and South Australia, and is by no means uncommon on the ocean off the Azores. (Dresser.)

Colonel Wedderburn says: "I have often seen these birds flying about near the North Rock, and once or twice inside the outer reefs in stormy weather, but never succeeded in shooting any of them." One was shot by Mr. Harford, Fifty-sixth Regiment, some distance from the shore, on the 30th June, 1853. Mr. Bartram's collection contains a specimen, concerning which he writes as follows: "Wilson's Petrel is not such a *rara avis* around the islands as you may be led to think through reading the Naturalist in Bermuda. In May, June, and July there are numbers to be found around the fishing boats a mile or two outside the castle; some days there are ten or twelve flying round, other days none at all. The one that I have was caught by Mr. John Swainson, on St. Catherine's Flat; he was fishing and three or four were flying round the boat and he kept washing in bait; this one came so close that he grabbed it in his hand. At another time it was blowing a strong gale from the north-west, and I saw four so close up to the north shore that the boys threw stones at them. I could have shot them, but if I had I could not have got them." I am not aware that this species has ever been found breeding in Bermuda. I searched in vain for nests, but should not be surprised to hear of them being discovered there some day or other, as the sandy cliffs and débris on the south shore are most suitable for them.

* In a letter dated 9th December, 1878, Mr. Bartram informs me that twelve of these Petrels were seen flying about the inside of the Flats Harbor in the middle of October, 1878 (S. G. R.).

Genus PUFFINUS, Briss.

180. *Puffinus major*, Fab. Greater Shearwater.

Puffinus major, Fab.
Puffinus cinereus, Bp.
Nectris cinerea, Keys. & Blas.
Cymotomus arcticus, Macgil.
Puffinus arcticus, Macgil.
Ardenna major (Fab.), Reich.
Procellaria major (Fab.), Schl.
Puffinus obscurus, Hart.

Length, 19; wing, 12.16; tail, 4.7; tarsus, 2.38; bill, 2.35.

Hab.—Throughout the whole of the Atlantic Ocean, from the coasts of Greenland to the Cape of Good Hope and Tierra del Fuego (Dresser).

Two obtained by Mr. Hurdis, on the 2d June, 1851; one picked up, unable to fly, in the road on the south side of Hamilton Harbor, and another caught alive in the water near the town of Hamilton. The former measured 19.2 inches in length, with an expanse of wings of 44 inches; the latter was an exact duplicate of it, according to Mr. Hurdis; there is no doubt that the birds belonged to this species, and not to the following one.

181. *Puffinus griseus*, (Gm.) Finsch. Sooty Shearwater.

Nectris fuliginosa, Solander.
Procellaria grisea, Gm.
Procellaria fuliginosa, Forst., Kuhl.
Puffinus fuliginosus, Strick.
Puffinus cinereus, Gould.
Nectris fuliginosa, Keys. & Blas.
Puffinus major, Temm.
Procellaria tristis, Forst.
Puffinus tristis (Forst.), Gray.
Nectris amaurosoma, Coues.
Puffinus amaurosoma (Coues), Gray.
Puffinus griseus (Gm.), Finsch.

Length, 16; wing, 11.85; tail, 3.7; tarsus, 2.22.

Hab.—In the Atlantic from the coast of Greenland to the extreme south; in the Pacific from the coast of California down at least to Chili, and off the coast of New Zealand. (Dresser.)

One specimen in Mr. Bartram's collection obtained by himself.

182. *Puffinus anglorum*, Temm. Manx Shearwater.

Procellaria puffinus, Linn.
Procellaria anglorum, Temm.
Puffinus anglorum (Temm.), Boie.
Puffinus arcticus, Faber.
Procellaria yelkouan, Acerbi.
Thalassidroma anglorum (Temm.), Sw.

Nectris puffinus (Linn.), Keys. & Blas.
Nectris obscura, Keys. & Blas.
Cymotomus anglorum (Temm.), Macgil.
Puffinus obscurus, Bp.
Puffinus barolli (Bonelli), Bp.
Puffinus yelkouan (Acerbi), Bp.
Procellaria yelkuan (Acerbi), Schl.
Puffinus yelcuanus (Acerbi), Cones.
Nectris anglorum (Temm.), Rey.
Nectris baroli, Rey.

Length, about 13; wing, 9.3; tail, 3.2; tarsus, 1.9; bill, 1.6.

Hab.—North Atlantic Ocean, not ranging into the Baltic, but in the Mediterranean as far as the Black Sea. On the American coast from Labrador down to New Jersey. (Dresser.)

A specimen in Mr. Bartram's collection, captured while sitting on its solitary egg in a rocky hole on a small island in Castle Harbor, in April, 1864. The egg was unfortunately broken. There is no record of the bird's breeding on any other occasion, nor of any other specimens being obtained; but it is quite possible that it, as well as Wilson's Petrel and other *Procellaride*, may formerly have frequented the islands in numbers, and that an occasional pair may revisit their old haunts. Such birds would, from their habits, be but little noticed by any but fishermen.

183. *Puffinus obscurus*, Gm. Dusky Shearwater; "Cahow;" "Pemblyco."

Procellaria obscura, Gm.
Puffinus obscurus, Lath., Bp., Nutt., Aud.
 " *Puffinus pherminieri*, Less."

Length, about 12; wing, $7\frac{1}{2}$ to 8; tail, $4\frac{1}{4}$; bill, $1\frac{1}{4}$; tarsus, $1\frac{3}{8}$.

Hab.—Tropical regions in Atlantic and Pacific Oceans.

Since Mr. Hurdis, in 1849, identified the "Cahow" or "Cowhow" of the historians of Bermuda with this interesting species, very few observations have been made on the few pairs still frequenting the islands. That the poor "Cahow" has almost ceased to breed there is a melancholy fact. Formerly it was plentiful, and even within the last fifteen years, Mr. Bartram informs me, there were many nests in the isolated rocks, both on the north and south shores. On the north side the bird was formerly called "Pemblyco" or "Pimlico," probably from its call-note, while on the southern shores the name "Cahow" or "Cowhow" was applied to it. I found two nests in 1874, each containing a single young bird, one of which I kept alive for about six weeks, intending to send him to the Zoological Society's Gardens in London; but before I

got an opportunity of doing so the unfortunate bird died. He had become remarkably tame, following me about the house and garden, waddling along awkwardly enough on his tarsi, and uttering a musical "chirrup" the while. He used to sit under the table where I was writing, pecking away at my boots, and apparently extremely happy. I fed him on fish, and gave him a salt-water tub occasionally, which he thoroughly enjoyed. He slept a great deal during the day, and usually got behind an open door—the darkest place he could find—for his "siesta." When I took him from the nest he was nearly able to fly, but still retained the long nestling-down of the young bird, slate-colored on the head and shoulders, light brown on the under parts; the former soon rubbed off, but the latter was more permanent, and was not got rid of for some days. The nests were simple holes in the face of the rock—my bird had barely room to turn round in his. There was no unpleasant smell about the nests or young birds, the peculiar, and to me not disagreeable, odor of the Shearwater tribe being alone distinguishable by its presence. I saw nothing of the old birds, who were in all probability far out at sea at the time. An egg of this species, kindly presented to me by Mr. Bartram, is, of course, pure white; it has a considerable polish, and is about the size of a bantam's, but less elongated in form. Mr. Bartram was good enough also to present me with two skins of the adult bird. He tells me that the statement made by the old historians of Bermuda as to the capture of the "Cahow" at night is no exaggeration; for on visiting an island one night where there were several pairs breeding, he quickly caught half a dozen of them, the stupid things settling on his body as he lay on the ground, and allowing themselves to be taken in his hand! I know of only one instance of a "Cahow" being seen on the wing in the day-time in Bermudian waters: this was in August, 1874, when one was shot crossing Castle Harbor, by Lieutenant Hopegood, Ninety-seventh Regiment; but I believe they are occasionally observed by fishermen on the south side.

With reference to the local names "Cahow" or "Cowhow," and "Pemblyco" or "Pimlico," Mr. Bartram writes to me on the 19th July, 1878: "About twelve months ago I came across an old book called 'A Complete System of Geography,' printed under the name of Herman Moll, &c., September 21, 1747, and the greater part of it professedly taken from a much older work called 'Britannick in America.' After describing Bermuda and its animal, insect, and vegetable productions, it gives the following account of the birds that were found on the islands at that

time (say between 200 and 300 years ago): 'There was a great variety of fowl, both wild and tame, such as Hawks of all sorts, Storks, Herons, Bitterns, Ospreys, Cormorants, Bald-Coots, Moor-Heens, Swans, Teal, Snipes, Ducks, Widgeons, Sparrows, Woodpeckers, and a vast multitude and variety of the smaller kinds, besides Owls, Bats, and other nocturnal birds. Here was likewise formerly a kind of water-fowl, peculiar to those islands, which used to come to land and hatch its young in holes and burrows of the rock like rabbits. They were in great plenty, and were called Cow-koes. They were easily caught, and good to eat, the size of a Sea-mew. Our English made such havock among them they are become scarce. Here is likewise found the Tropic Bird and the "Pemlico." The last is seldom seen in the day-time, and, when it is, it is looked upon as the unwelcome harbinger of a storm.'

"Now my belief is that the Cow-koes of old are lost and gone long ago, and that the Cahow of the present day is neither more nor less than the old and ancient Pemlico. For, in the first place, the Cahow of this day is not nearly so big as a Sea-mew; secondly, the Pemlico has never been lost sight of by the Bermudians, the name having been handed down from father to son from the earliest times to the present day; and, thirdly, the habits of the old Pemlico and the Cahow of to-day correspond to a T—that is, they are seldom seen flying in the day-time, only at night."

Mr. Bartram goes on to say that on making inquiries of the people of Tucker's Town, St. David's, and Bailey's Bay, they knew nothing of the Cahow, but all could tell him of the Pemlico. From the above interesting account and from the strong evidence adduced by Mr. Bartram, I am inclined (with all due deference to Mr. Hurdis) to share his opinion as to the proper local name for *P. obscurus* being Pemblyco or Pemlico, and further to believe that the Cow-koes or Cahows of old were of a larger species, probably Manx Shearwaters (*P. anglorum*). This, after all, is pure conjecture and of doubtful interest to any but Bermudians themselves; still I venture to mention the facts in the hope that some more conclusive historical evidence may be forthcoming.

Puffinus opisthomelas (Coues): Black-vented Shearwater. On the 1st May, 1877, Mr. Bartram obtained a bird sitting on its egg on a rocky islet in Castle Harbor, which, from its measurements and admixture of black feathers with the white of the under tail-coverts, may be referable to the variety or species *P. opisthomelas*; though, as I know nothing of this bird and am ignorant of its synonymy, I have not thought it

advisable to introduce it formally into my list. Moreover, to judge from Dr. O. Finsch's remarks on *P. obscurus* in his paper on the Birds of Ninafou Island, in the Pacific (P. Z. S., 1877, Part IV, pp. 786, 787), it would appear "that the black or white of the under tail-feathers forms no specific character, and even less so the more or less extent of the black along the rectal line."

Mr. Bartram informs me "The Black-vented Shearwater is 15 inches long; wing, 9; tail, $3\frac{1}{8}$; bill, $1\frac{1}{2}$ (not measuring along the curve); tarsus, $1\frac{1}{2}$; middle toe and claw, $1\frac{3}{8}$; under parts white; upper parts black; tail black; sides of the cheek below the eyes black; crissum white, but a black bunch of feathers on each side, lapping over and meeting across the vent; in other respects it is made like the Cahow, only larger; it does not exactly answer to Coues' description, but the black below the eyes is the distinguishing mark, and being a female may account for the difference. The egg is white and measures $2\frac{3}{8}$ by $1\frac{1}{2}$ inches."

To judge from the size of the bird and its egg, I should myself be inclined to consider this specimen a Manx Shearwater (*P. anglorum*), which has been already shown to breed in Bermuda by Mr. Bartram, but I have no means of deciding the question, and am compelled to leave it in its present unsatisfactory state.

Order PYGOPODES.

Family PODICIPIDÆ.

Genus PODICEPS, Lath.

184. *Podiceps cornutus*, Lath. Horned Grebe.

Colymbus auritus, Linn.

Colymbus duplicatus, Müll.

Colymbus cornutus, Gm., Naum.

Podiceps cornutus, Lath., Temm., Boie, Steph., Keys. & Blas., Gray, Schl., Bp., Sw. & Reich., Nutt., Aud., Lawr., Coues, Finsch, Snow, and of authors generally.

Dytes cornutus, Kaup.

Colymbus obscurus, Gm.

Podiceps obscurus, Lath., Leach.

Colymbus caspicus, S. G. Gm., Gm.

Podiceps caspicus, Lath.

Colymbus nigricans, Scop.

Podiceps arcticus, Boie.

Podiceps sclavus, Bp.

Length, 14; wing, 5.75; tarsus, 1.75; bill, .90.

Hab.—North America; Europe; Asia. (Coues.)

One shot by Dr. Cole, on the 24th of November, 1846, is now in the

Rev. H. B. Tristram's collection. One was killed by Captain Tolcher, Fifty-sixth Regiment, near Spanish Point, on the 1st February, 1855; it was in company with three or four others. Mr. Bartram has two specimens of different dates.

Genus *PODILYMBUS*, Less.

185. *Podilymbus podiceps*, (Linn.) Lawr. Pied-billed Grebe; Water-witch; Dabchick.

Colymbus podiceps, Linn., Gm.

Podilymbus podiceps, Lawr., Coop. & Suck., Coues, and of most late U. S. writers.

Sylbeocyclus podiceps, Bp.

Colymbus ludovicianus, Gm.

Podiceps ludovicianus, Lath.

Podiceps carolinensis, Lath., Bp., Sw. & Reich., Nutt., Aud., Gir., Max., and of writers generally.

Sylbeocyclus carolinensis, Bp.

Podilymbus lineatus, Heerm.

Length, about 13; wing, 5; tarsus, 1.50; bill, .75.

Hab.—North, Central, and part of South America; West Indies (Coues).

Three are recorded in "The Naturalist in Bermuda"—two obtained in October, 1849, and one by Major Wedderburn, in February, 1850. Mr. Hurdis once found a perfect skeleton of this bird by the side of a pond. Tolerably abundant in the winter of 1874-'75, especially at Trott's and Basden's Ponds. The way in which these birds can sink under water, without leaving a ripple behind, is truly marvellous, and entitles them fully to the name "Water Witch." They are very shy, but I once surprised one asleep on a flat stone, as much to my astonishment as to the bird's. All the specimens I saw were in immature plumage, wanting the black bar on the bill and the black throat-patch.

Family *ALCIDÆ*.

Genus *MERGULUS*, Ray.

186. *Mergulus alle*, (Linn.) Vieil. Little Auk; Sea-Dove; Dovekie.

Alca alle, Linn.

Mergulus alle, Vieil., Aud.

Uria alle, Temm., Bp., Aud.

Mergulus melanoleucus, Ray.

Alca candida, Brunn.

Alca alce, Gm.

Length, $7\frac{1}{2}$; wing, $4\frac{1}{2}$; tail, $1\frac{1}{4}$.

Hab.—Circumpolar portion of both the Western Palearctic and Eastern Neartic Regions, being driven southward to continental Europe

and the coasts of the United States only by stress of weather; stragglers in some numbers as far south as the Canaries (Dresser).

Mr. Hurdis says: "One of these birds was captured alive on the 28th January, 1850, by a servant of the Rev. J. U. Campbell, at Ireland Island. It was in company with four or five others on a piece of grass-land near that gentleman's house. Unfortunately this specimen was destroyed by a pig before I had an opportunity of seeing it. My information was obtained from Mr. Campbell himself, who had this bird in his possession."