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BIRDS OF BRITISH GUIANA.—C. CHUBB.

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THE BIRDS

OF

BRITISH GUIANA,

BASED ON THE COLLECTION OF
FREDERICK VAVASOUR McCONNELL,
CAMFIELD PLACE, HATFIELD, HERTS.

BY

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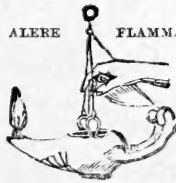
VOL. II.

P. SLUD



LONDON:
BERNARD QUARITCH, 11 GRAFTON STREET, W.
1921.

ALERE FLAMMAM.



PRINTED BY TAYLOR AND FRANCIS,
RED LION COURT, FLEET STREET, LONDON.

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INTRODUCTION.

THE Itinerary of the Expedition to Mount Roraima in 1898, in the present volume, has been written by Mr. J. J. Quelch, who accompanied the late Mr. F. V. McConnell on that occasion.

During the progress of this work the following genera, species, and subspecific forms have been described, many of which have been published elsewhere, but all of them have been referred to in the present volume:—*Pseudoconophaga*, p. 4; *Mackenziana*, p. 7; *Frederickena*, p. 8; *Sakesphorus*, p. 14; *Poliolæma*, p. 35; *Dichropogon*, p. 66; *Stictomyrmornis*, p. 70; *Dendrocinclopa*, p. 119; *Microcochlearus*, p. 159; *Vavasouria*, p. 319; *Microphila*, p. 436; *Duncanula*, p. 440; *Cercomacra cinerascens immaculata*, p. 45; *C. tyrannina saturator*, p. 46; *Grallaria regulus roraimæ*, p. 80; *Hylopezus macularia macconnelli*, p. 84; *Grallaricula nana kukenamensis*, p. 86; *Lochmias nematura castanonota*, p. 89; *Sclerurus mexicanus macconnelli*, p. 92; *Synallaxis macconnelli*, p. 95; *S. albigularis josephinae*, p. 96; *Automolus turdinus macconnelli*, p. 103; *Philydor erythrocerus guianensis*, p. 107; *Dendrocinclopa longicauda guianensis*, p. 120; *Rhynchocyclus sulphurescens examinatus*, p. 149; *R. poliocephalus inquisitor*, p. 150; *R. flaviventris gloriosus*, p. 151; *Microcochlearius josephinae*, p. 160; *Perissotriccus ecaudatus miserabilis*, p. 161; *Atalotriccus griseiceps whitelyanus*, p. 162; *Colopteryx galeatus macconnelli*, p. 163; *Serpophaga helenæ*, p. 169; *Pipromorpha oleaginea macconnelli*, p. 170; *P. oleaginea roraimæ*, p. 172; *Elania flavogaster macconnelli*, p. 186; *E. cristata whitelyi*, p. 189; *Legatus albicollis successor*, p. 194; *Myiodynastes solitarius duncani*, p. 208; *Empidonomus varius parvirostris*, p. 231; *Pachyrhamphus macconnelli*, p. 274; *Atticora fucata roraimæ*, p. 348; *Planesticus fredericki*, p. 381; *P. fumigatus abariensis*, p. 382; *P. arthuri*, p. 385;

Vireo roraimæ, p. 393 ; *Pachysylvia thoracicus abariensis*, p. 395 ;
Notiocorys abariensis, p. 420 ; *Sporophila longipennis*, p. 429 ;
S. gutturalis roraimæ, p. 435 ; *Duncanula duncani*, p. 440 ;
Pseudochloris roraimæ, p. 457 ; *Piranga saira macconnelli*, p. 524 ;
Sturnella magna praticola, p. 572 ; *S. magna monticola*, p. 573.

Mr. H. Grönvold has, as in the previous volume, prepared the original drawing of each of the coloured plates and of the text-figures which have, in the present volume, been reproduced by the Sun Engraving Company.

It is much to be regretted that, owing to the War and its after effects, the publication of the present volume has been so long delayed.

I have pleasure in expressing my best thanks to the following gentlemen for their assistance during the preparation of this volume :—Lord Rothschild, Mr. Percy R. Lowe of the British Museum (Natural History), and Mr. Tom Iredale.

CHARLES CHUBB.

London, November 18th, 1921.

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ITINERARY.

THE second journey to Roraima in August 1898 was specifically undertaken by Mr. McConnell for the biological exploration of the mountain, and more especially of the summit. By the permission of the Directors of the Royal Agricultural and Commercial Society of British Guiana, I was enabled to accompany him as his guest. Unfortunately at the last moment Mr. McConnell found that the time at his disposal for the expedition would be much more limited than he had intended, and we were thus unable to make as detailed researches as had been planned, and as the district, in fact, requires.

From the fragmentary collections made by the various naturalists who have visited Mount Roraima, it is quite clear that really remarkable results await the explorers who, with sufficient time and means, can make a fairly exhaustive examination of the Fauna and Flora of the region generally. For a single naturalist such an undertaking would be probably one of years, thus affording him the opportunity of training, as assistants, native boys in the locality, who are very quick to learn.

An expedition limited in numbers is a comparatively easy one for experienced travellers, as the difficulties of transportation and food-supplies, on a small scale, can in time be met, though they are always found to be much more serious than anticipated, and often prejudicial to the objects in view. In large expeditions these difficulties become so great that the time is likely to be limited, and the results therefore by no means really representative either of the localities or of the various seasons.

In these little known and often trackless parts of the hinterland, the paucity of people is generally so marked, the numbers varying much at different times and even settlements being wholly deserted, that it is unsafe to trust to any great accession of food-supplies. Once it was our experience on the first journey, after waiting a day for fresh supplies at a small settlement, that the quantity gained was actually much less than had been consumed by our own rather large party while waiting. Nor is the question of carriers more easily dealt with: and as, owing to the physical differences between the high sandstone formation and the alluvial coast-lands, aboriginals of the district rather than the ordinary coast-settlers become practically essential as carriers for the success of these expeditions, it may become of first importance—double journeys with a deficiency of carriers involving a very considerable extra waste of time.

Conditions of weather, too, have carefully to be considered in relation to these overland journeys. Through heavy flooding in wet seasons many places may become too dangerous or even quite impossible to

cross by ordinary channels—it may be in low-lying valleys or across wide torrential mountain streams, necessitating detours of considerable length from the direct route, and often of considerable difficulty. As a matter of fact, so clearly recognised are the difficulties of such travel in the wet seasons, and so great the drawbacks in the collection and preservation of specimens, that such times are always avoided unless some special object be in view.

Even along the great rivers, expeditions in such seasons are by no means advisable, as will have been seen from the experiences of the first in 1894, as narrated by McConnell in Vol. I. Unfortunately, our party proved then to be much too large in every way as compared with the boatmen obtainable, and the boats were thus undermanned; and as the wet season was exceptionally heavy and long-continued, everything was against us. The banks of the rivers were mostly flooded, and the current extremely rapid; and the whole journey was therefore not only one of excessive labour, continual delays, and great inconvenience, but of frequent danger, especially in the rapids and falls, where at times we narrowly escaped catastrophe. And on reaching the great savannahs, we found that, owing to the floods, the special object for which the trip had been organized—namely, the collection of specimens of the great caiman alligator, and the huge Arapaima fish, and other such characteristic forms—to be quite unattainable at the time. Equally out of question, at that time, were attempts to explore the Kanuku range of the savannah mountains, to procure the practically unknown so-called Warracaba tigers and the materials used by the peaimen (medicine-men) of the Makushi Indian tribe in the preparation of the deadly Urali poison—materials that were wanted for the chemical and physiological determination of the essential constituents, which might be of great use in Medicine. These objects, with others, were accomplished later; but, in the meantime, the expedition to Roraima, which had previously been but a side issue of the trip, dependent on time and the finding of a sufficient number of carriers, became the most practicable feature, though no special preparation had been made for it before starting from the coast.

The long dry weather in the latter part of the year affords in every way the best chances of success in the collection and preparation of specimens of all sorts, as well as for convenience of travelling; and the tendency has been therefore general to make such expeditions at this time. This, in the main, is the explanation of the state of things referred to by Mr. Burkill in his Introduction to the Report on the two Botanical Collections made by us at Roraima (1894, 1898):—

“It is unfortunate that all the plants collected on the upper parts of Roraima have been gathered in the last three months of the year. February brings to Roraima a few bare trees (Appun, ‘Unten den Tropen,’ ii. p. 226); March brings copious Gesnerads into flower, at least at the foot of the mountain (Boddam-Whetham, ‘Roraima;’) and April is a month producing more flowers than November (Siedel, *vide* in Thurn in Trans. Linn. Soc. ser. 2. ii. p. 250); but I am unable to record anything collected above 5,000 feet during these months.” (Trans. Linn. Soc. ser. 2. vi. pt. 1. p. 8.)

The remark may be allowed here that, as of the four great groups of

plants, 50·6, 18·2, 23·8, and 27·3 per cent. respectively of these more or less fragmentary collections proved to be endemic, a rich harvest certainly awaits extended exploration.

Of the Fauna but little is known, except of the Birds, and, even of these there is ground for believing, considering the nature of the country, that much yet remains to be discovered, in spite of the fine collections made by Whitely during his long stay at the mountain, when he was able to carry out the only serious work so far attempted in any branch of its Natural History, and with such excellent results.

For a satisfactory knowledge of the district, detailed examination is essential; and this from the circumstances of the case requires prolonged residence, during which careful attention can be given to the selection and preservation of the miscellaneous material to be obtained from the different parts of the range and during the different seasons. As will be mentioned later, the facilities to-day for such an undertaking are numerous as compared with but even a few years ago, when short expeditions of three or four months presented very considerable difficulties. Hardships of various kinds are necessarily inseparable from all such travel, though a sufficiency of funds may reduce them to a minimum of discomfort.

In planning the second journey, we decided to follow the route by the Mazaruni river, rather than by the Potaro, for two main reasons. In the first place, the land journey promised to be decidedly shorter, judging both by the map and the published accounts; and this was of importance in transporting food and baggage and conserving the strength of the men for the stiff Roraima work. A good deal of the higher journey is done by boat on the Upper Mazaruni and its branches to a point not far distant from the mountain, while the land routes generally across the plateau are laborious in the extreme. In the second place, McConnell was able to arrange with a friendly gold-miner working in the Upper Mazaruni, not far from the first stage of the land journey, to get in touch with the Indians of the inner district, who were to put up houses for permanent camps, to provide woodskins on the upper waterway, and to act as carriers and guides. In both respects, we were counting our chickens before they were hatched, and very likely the difficulties on the Potaro route would have been fewer. To-day with the facilities by steamer, rail, and launch, the Potaro is unquestionably the Roraima route—the quickest, safest, and most convenient.

To make sure of a sufficient number of Indian boatmen, McConnell had made arrangements with Ritchie, a settler in the great savannahs, well known to the people all over the district, to bring down Makushis enough for two large boats, and himself to act as captain of one and to be in general charge of all the arrangements for them. From his familiarity with the people and their language, Ritchie was always of the greatest service, not only on the trip generally and in the bartering and payment for food and labour in the districts passed through, but especially at Roraima, where the Makushis remained contentedly with him among the Arrekunas while we were away on the top. On the former trip, in our absence, they had become so frightened and convinced that the Arrekunas were trying to kill them, that they had

faced the dreaded summit to tell us they were going away if we did not come down; and as it was quite hopeless to argue with them, nor could we maintain them on the top, we had been obliged to abandon our work. Underlying tribal feeling and prejudice are much stronger than may appear ordinarily; and in reality it was a sign of great consideration and attachment that in their fears, which were quite genuine, they had not gone off without more ado, as would be the usual procedure.

Under the circumstances, it was essential to have a boat captain thoroughly familiar with the navigation of the Mazaruni. No sufficiently trained Indian was obtainable, but we were able to engage a quiet black captain, licensed for all the rivers, who not only proved an ideal man for his post, but knew all the best camping-grounds in the best fishing and hunting districts, which considerably simplified the work of the men, with whom he became extremely popular—which was unusual among the two races. Two other experienced black men were members of the crew. They were both huntsmen and collectors from the canals district, and had often worked for McConnell on short trips on the coast.

A personal servant as cook, and a taxidermist, who was a licensed bird-collector living on the river, completed our party. Both these men were strong and able outside their ordinary duties to take part in the general work of the trip. They were by no means merely passengers in the boats. Ritchie had brought his Indian wife with him, but we knew she would be later perhaps the best carrier, as women are accustomed from early life to do all this kind of heavy work instead of the men.

The expedition which started on August 20th from Bartika, at the junction of the Essequibo and Mazaruni rivers, was thus as carefully planned as McConnell could make it under the circumstances. It was unfortunate that the time at disposal could not allow anything like a commensurate benefit to be reaped from it, rich though its results undoubtedly were.

On the first day we passed through the lower settled part of the river, which was the site of the earliest settlements of the colony, and where there are many interesting places to be seen, such as the little island Kyk-over-al or the Look-out, which was the original capital in early Dutch times, and where the remains of an ancient archway and part of the old fort are still to be found. Immediately below, on the left bank, is the opening of the Kuyuni river, one of the main waterways and gold districts, and the locality where the metal was first obtained in the colony.

Soon one enters a series of small rapids or very heavy water, as the case may be, before reaching the first serious obstruction at the Marshall Falls; and for the next fortnight it was a constant struggle with heavy water and a long series of rapids, cataracts, and falls, often in close succession, until a long stretch of smooth water is reached above Teboco Falls, at the foot of a great bend to the south. Up to this point the general direction is south-westerly, almost directly towards Roraima; but above the narrow U-shaped bend, directly northwards from Teboco, the course is north-westerly, until the Upper

Mazaruni is reached with the great sweep around the Kurubung and Mèrumé Mountains.

Though the long wet season was over, the water was still high and the current swift, but our boats were strongly manned, and we were frequently able to pull up against the rapid water where a weaker crew would have been obliged to haul up with the ropes, which is always a tedious process, causing great delay, especially where the boats have to be lightened of load, as had been the case so frequently on our first journey along the Essequibo.

It was during this time that we thoroughly appreciated the value of our captain, Jacob. His experience had been gained mainly on the gold-mining boats to and from the Puruni river, a branch on the left bank some seven days' journey up, which had been the main mining district in the early days on the Mazaruni fields. His knowledge of the various states of the river and of its channels was complete, and he gauged thoroughly the capacity of the crews, never wearying them out by useless efforts to do an impossible pull against too strong a stream. It was most exciting at times to watch his handling of the boats, taking them from a difficult point across the entire width of a very rapid stream to an open bend on the other bank where there was an easy channel. From rock to rock or small island in front, we would advance by a series of short and rapid spurts, to the slack water behind it. Occasionally, where a gap was too wide, we might have to drop back a little to a point behind in order to make the crossing, again to go forward.

The operation is one often resorted to on a small scale to breast a strong current, but on a wide stretch requires considerable judgment; for, if a gap proves too wide or rapid for the span, the boat must drop back, and catastrophe may wait below in a rocky impassable channel, or at the best considerable distance be lost ere a safe course be reached, with the men literally pumped out and badly flurried. So well did Jacob know the river that he never missed his mark; and it was amusing to see some of the Indians, who could thoroughly appreciate such good work, turn round smiling to Jacob when we were across, shaking their paddles—always eliciting from him the urgent call "Headway!" to keep the boat going. Many of our people were captains and bowmen on the Essequibo and thoroughly understood the tactics.

At one of the dangerous cataracts, we came upon a gold-mining boat with time-expired labourers going down. The water looked ugly, and the captain and bowman were examining it as to whether it was safe to run down paddling or to streak down with the ropes, which, though safer, took more time. On Jacob's word they ran down at once, passing us at a terrific pace and cheering for all they were worth—I suppose at the time and trouble saved, for they are always in such a hurry to get back. We had a long haul up, not far from the middle channel, and grated on rocks most of the time, being heavily laden—so slight is the difference at times in flood between safety and catastrophe!

The great falls of the Kaburi were the most serious obstacle, as they were too high to haul the boats up by ropes; nor were they safe to run coming down, though it has at times been attempted, mostly

accidentally however, when the boat has got too far down in the great suction towards the drop, and always with disaster. A boat-load of men had been drowned some little time previously, the returning labourers, too anxious to get down quickly for the holidays, having persuaded the captain to make the attempt and thus avoid the delay of the laborious haul over the portage at the side.

The roughly crescent-shaped series of falls across the river, with its numerous tree-clad rocky islands, broken channels, and rushing foaming cataracts, presented a very beautiful and striking picture, as is always the case where the rivers are thus broken up by these great dykes. The full effect can only be got, however, where there is a really high point overlooking the whole basin, which was not the case here, where the scene must be taken in sections.

The portage is a rather long and rough path across a rocky island on the right bank, and it took us a long time to empty the boats and haul them over by means of skids to a narrow channel above. However, it gave us the opportunity of a thorough clean out, the boats always accumulating a surprising collection of leaves, twigs, rotten wood, and earth during such trips, and we were able to spread out on the rocks and dry all the things that had got wet or damp in the falls.

As we had a double crew to haul on each boat, it was a fairly simple operation, and we were able to send out a couple of Indian huntsmen. There was too much water about, they reported later, and the bag was small—a powis, maam, and bush-tortoise. The last was almost invariably one of the objects brought in, and they were much appreciated in pepper-pot. On the return journey, with low water, half-a-dozen men brought back a heavy bag of bush-hog, wood-deer, accouri, powis, maam, marudi, and tortoise, the district being a really good one for game.

We had splendid bathing, diving and swimming in a large pool on this island, into which the water rushed down a narrow channel. When we passed on our return, it was quite a shock to see that the bottom of the pool, which was nearly dried up, was but a mass of sharp pinnacles of rock; and it seemed almost beyond belief that we could have dived head first and played about without injury or even touching one of them. It gave us quite a nasty feeling at the moment, though we realised that it was the height of the water in the first instance that had saved us; still we certainly would not have dived in so joyously had we had any idea that these sharp pinnacles lay below, hidden by the dark dye-coloured water.

A house had been built on the island as a police-station, where gold-miners were searched on returning from the fields in the early days when theft was common. It was now abandoned, and furnished good quarters for the night. Some of the men hung their hammocks beneath, where there was not a high space, but a very heavy draught saturated with moisture from the falls; and one of them—an elderly black man, Pembroke, from the canals--woke in the morning with his face swollen and fearfully contorted, his mouth and nose being twisted almost to his ear on one side. He was a short and very broad built man and rather odd-looking, and this deformity gave him a most peculiar and sinister appearance. The Indians were convulsed with laughter, as

they always are over the comic elements in the misfortunes of others, or even over lack of skill or sign of deficiency in any respect.

The man was certain that the jumbo of one of the men who had been drowned in the falls had done him the injury; and no doubt in his thoughts and fears about the drowned men he may have had some sort of half-dream and waking vision under the discomfort of the drawn swollen face. It was quite impossible to convince him that it was a chill from the sharp cold and saturated draught from the falls, over the one side of the face exposed in the hammock. We dressed the swelling with laudanum and vaseline, put flannel over it and bandaged it for him; but later he appeared with a mass of leaves—which probably were beneficial—over it, and an assortment of wraps that made him a most ludicrous object. He had always called himself McConnell's "Old warrior": he certainly now looked it. It was a long time before the face was all right again.

As illustrating the danger of running or navigating these larger falls, and the necessity of having captains thoroughly familiar with the river in all stages of high and low water, an incident on the return journey may here be mentioned. It was at the Tupaco Falls, which apparently is the same place where McTurk and Boddam-Whetham met with disaster on their return from Roraima in 1878, their boat being swamped and one man drowned, having gone into a channel in ignorance of the fact that the fall below could not be run at that time safely. In approaching these falls Jacob had waited for the second boat, which always followed us, that he might tell Ritchie, who did not know the river, to keep very close behind so as to follow in exactly the same part of the channel, which was very narrow and dangerous, and to swing his boat round from the main channel, just where the first boat would disappear behind a set of large rocks on the left.

The approach was through a long and wide rock-studded piece of water, curving gradually, and passing from mere rapids, through which we glided swiftly, to a strong and rough cataract of very broken water, along which we raced for a time; and then with a call to the bowman from Jacob, and a heavy turn of the huge paddle, which is always tied with rope to the boat where the captain stands up holding the long handle, we were away from what seemed the main current, sharp round some high rocks on the left, and rushing down a long cataract to the left bank below, where at the time a set of wooden crosses marked the graves of some who had been drowned there. The straight current led, by another turn lower down, to a channel that was safe in very high water, but was dangerous in the dry season; and Jacob said that, if Ritchie had not been warned, so rapid was the pace, the boat might have been dashed on the opposite side in attempting to take the unexpected turn of the first boat. This was evidently the point where McTurk and Boddam-Whetham had come to grief.

The mere journey up the rivers does not qualify even a trained captain to run down the falls unless he knows the channels for the seasons, so different may be the state of the water; and frequently the channels taken in going up and down may be even on different sides. A good captain can always judge by looking over a set of falls, and this is often done ordinarily in very dangerous places, even when they are

well known; but it takes time. Frequent accidents, often with heavy loss of life, were met with in the falls generally, mostly through inexperience, until legislation provided that both captains and bowmen were to be licensed for the different rivers—and even among these are the venturesome ones who take unnecessary risks, resulting at times in disaster.

As it will be unnecessary to give later any description of the return through these falls, I might tell here of an exciting incident which will illustrate another aspect of the dangers in these waters. We were running the Itakki Falls, down a long cataract of very rough and heavy water, curving around from left to right, when the large paddle of the bowman of the second boat caught on a rock below the water; and from the half-standing stooping posture in which a bowman places himself when running the falls, with his legs braced against the sides, he was pitched up and forward completely out of the boat. By the merest accident, as he fell, he was able to grip the gunwale with both hands by the fingers, but unfortunately in the very dangerous position between the boat and the rocks of the curve along which we were rushing at a tremendous pace. So narrow was the interspace at times from projecting rocks in front, that it seemed impossible that he could escape from being crushed. His grip must have been like that of a vice, for he was constantly splashed and buffeted by the rough water; and any attempt to haul himself up into the boat must have been disastrous. The man's life lay, of course, in Ritchie's steering, and it was splendid. He had constantly, down the long run, to keep the boat sufficiently out from the rocks at the side of the curve and from those projecting into the channel, both for the safety of the man and of the boat itself, both of these operations usually being very largely a part of the bowman's work by heading off the boat with his long paddle. Ritchie's success again depended on the pace the paddlers could give over the rushing water, and this every man in the boat—all Indians—knew, and they struck with every ounce of their strength to give Ritchie the extra headway on the boat that success required.

We in the first boat had not seen the accident. Running through the cataracts is always exciting, and this one from its great curve and numerous rocks was dangerous. We were spell-bound by it. Jacob's attention, even amid the sound of our quick paddles had been caught, however, by the extra heavy and rapid rattle behind. He had glanced round for an instant, and then his sharp and loud call "Headway!" rang over the boat in so unusual a tone that we glanced back at him, and then we saw. It was horribly fascinating! A human life in our charge, so to speak, in great jeopardy: the boat leaping forward at a tremendous pace towards us; and Ritchie, standing to his great paddle, braced like a figure of energy. Our men probably had glanced back too at the call, so unusual in the midst of a cataract, for our paddles rang out even quicker to give extra pace before the oncoming boat, though the captain's call was as much one to the men behind as to ours.

It was like a hard grip off one's heart when we reached smooth water below and the Indian was drawn into the boat by two of the others, safe. He was quiet and trembling, but he at once turned to get

another large paddle such as he had lost, spares being always carried. We all seemed more excited than he by the incident. And then we were all looking at Ritchie and his men, and some of us cheered, for they had not only saved the man, but themselves also, from a terrible death, though we had not at first realised what the full catastrophe might easily have been; and we had been spared witnessing such an event while utterly unable to render any help. I had wondered that no one during the run had gone forward to help the man in; but they knew this would have been suicidal, as, without a bowman in such a dangerous fall, every man's paddle was required, the only hope for the safety of the boat itself, apart from the man's life, lying in the extra speed they could give it, and thus enable the captain to hold it on a course as far out as possible from the irregular rocky curve. Luckily there was no sudden turn to take as there was at Tupaco, as then nothing could have saved them without the bowman, who, with his long paddle, would heave the head of the boat round, away from the rocks and the boiling cauldron of waters, as the captain swings round from the stern. The very rapid paddling by the men amid these rushing waters is always a surprise, and seems unnecessary to a novice, but there may be submerged rocks, cross-currents, whirlpools, and sudden turns in the channel, and speed beyond that of the waters is the great security for the steerage; and for this the captain always calls at the head of a fall "Headway!" or "Give-way!" while the men pull themselves together for the effort. It may seem tame to write about, it is a very different thing to go through the experience.

All along the river in these falls and above, the country is covered with primeval forests, filled with magnificent timber, hard woods, furniture woods, and others, adapted for all sorts of purposes, awaiting their application to general industry when the colony has been developed. Here and there some trees stood out as huge giants, while others were striking with their yellow or red flowers, or their young foliage of shades of the same tints, having from a distance the same floral effect. As our object was Roraima we were not making general collections of either plants or animals, but at one breakfast camp some specimens of *Henriquezia Jenmani*, then unknown to us, were gathered, after much climbing in surrounding trees to get at the flowers. It was altogether gorgeous amid the general green. Very brilliant, too, were many of the creepers, in great masses occasionally, one especially very much like the golden Allamanda, if not identical; and equally striking were many of the bromeliads and orchids and other small epiphytes.

Animal life was very varied. Monkeys and bats were the commonest mammals met with—the former chiefly represented by the red howler (*Myctes*), more frequently heard than seen; and now and then a sloth was to be detected hanging among the climbing plants, high up. Blood-sucking bats were frequent pests—colony-doctors, the men call them.

Birds were plentiful; and, indeed, the Mazaruni district is a very fine field for collectors, as shown by the work of Whitely and the brothers Cozier—one of whom was our taxidermist,—who contributed very largely to the McConnell collection. Macaws and parrots, bill-birds, woodpeckers, hawks, kingfishers, herons, ibises, trogons, jacamars, barbets, swallows,

tanagers, cotingas, shrikes, tree-creepers, icterids, goatsuckers, humming-birds, etc., could have been obtained very easily. The notes of the bell-birds were frequent, and at times the loud long-drawn "qua-a-ah" of the calf-bird (*Gymnocephalus*) or the "Ka-ka-kah" of the bultata (*Ibycter*) came almost as a surprise. Not less striking was the loud "Ha-ha-ha," down the octave, of the large goatsucker (*Nyctibius*) at night, or the equally vociferous "han-na-qua" of *Ortalis* in the morning, though to some this cry is more like the inquiry "What-o'clock," which would be pertinent. The most common of all, however, was the shrill and piercing "pe-pe-pe-yo" of the greenheart-birds (*Lathria*), so characteristic of the Guiana forests. Game birds were also numerous, for the huntsmen always brought out some one or other kind, and sometimes several. While camp was being made, and even at breakfast-time, huntsmen were usually sent out to see what could be got.

Reptiles were not much in evidence, except the common large green *Iguana*—the flesh and eggs of which are so greatly prized by many—and some little whip snakes; but these mostly have to be looked for, as is the case also with the *Batrachia*, though from their varied cries at night the frogs must be very numerous. The large tree-frog with the loud "honk-honk" notes, and the paddler frog were the most noticeable, the former being at times quite a nuisance overhead in the camp. So much are the sounds of the paddlers like the stroke and rattle of the paddles on a boat, that it is difficult at times when they are distant not to ascribe them to that cause. The perai (*Serrasalmo*) and some siluroids were the commonest fishes.

Insects were, of course, the most dominant of the Invertebrates, spiders also being numerous; and it is noteworthy that the largest specimens of the black scorpion and of *Mygale* have been taken in the Upper Mazaruni district. Lime being practically absent from the country, shells are not well represented. A few apple-snails (*Ampullaria*), on which some of the hawks and herons so delight to feed, and *Melanias* especially, are generally to be seen about the rapids on the shallow flats or among the rocks. The large blue morpho butterflies, and swallow-tails and yellow Pierids, of several species, were often to be seen, as well on the river as on the banks, and many of them also in the forests, with numbers of other kinds, of which the Heliconiids and the Satyrids were perhaps the most plentiful and interesting. In fact, all the great groups of insects were well represented; and the fireflies and cicadas came under frequent notice—the latter being very noisy at our camps with their loud screeching whistle, which was also very frequently to be heard during the day. So loud are these notes at times, and so much like a distant railway-whistle, that it seems almost incredible for them to be produced by these comparatively small creatures.

Near the head of the falls we had quite a successful hunt—too much so, as it proved. At one of the breakfast-camps the men saw fresh tracks of a large herd of bush-hog, the kairuni or larger peccary as it turned out, and they came upon them after some time and apparently pursued them for miles as the herd broke up into smaller sets in different directions. It was not till late in the afternoon that the hunters began straggling in with their loads, and to judge from their accounts they

must have shot more than fifteen peccaries, some far in, which they could not bring. We did not get them all, though some of the men went back along the tracks. A camp had already been made for the night, and all hands became busy cleaning the meat and preparing it for the "babracot," which is a framework of green wood with four uprights, on which the meat is partly smoked and roasted, the process being repeated day by day to keep the flesh, until it is thoroughly dried and preserved. The camp was lively that night, and grandly illuminated by the number of fires under the different babracots required for the large quantity of meat; and groups of men squatted round with bits of flesh being roasted on long sticks.

Unfortunately, when an abundance of fresh meat is obtained, it is quite impossible to prevent the Indians over-eating. While a big meal is being cooked, bit after bit of partly roasted flesh is consumed; and above all is the delight of the later feast on the tit-bits, the liver, kidneys, heart, mesenteries, etc., all cut up and packed into the cleaned maw, which is then roasted on the babracot. It is seldom left, however, to be thoroughly cooked, being largely eaten before morning: and then it is no wonder that diarrhoea is the order of the day, with heavy calls on the Epsom salts and the medicine-box. One rather elderly man, Adam, was so ill that it was weeks before he was quite strong again. Whenever I accosted him, it was his usual lament: "Ehnehbeh ooré" (I am ill), though at the very first it had been "Assamanta ooré" (I am going to die). Luckily, Ritchie was able to control the consumption of the dried meat, which was looked upon as ours, and it lasted a few days.

After leaving the Turisi Falls, the surrounding country rises a good deal; and down the long stretch south, to the Teboco Falls, views are had of a lofty mountain, shaped like a sugar-loaf, and a high plateau behind, apparently part of the sandstone range in the neighbourhood of the Upper Kuribrong and Potaro rivers. From the long stretch north, after rounding Teboco, as well as along the smooth water above, frequent views are obtained of elevated land, either in front or behind, of which the most striking are the Sororieng Mountains, or the Swallows' Nest, on the left bank, far back. The Mэрumэ Mountains, in which the creek of that name rises, are an extensive series of ranges on the right bank up to the Kurubung Mountains, forming the north-eastern outlier of the great sandstone formation, within the course of the Mazaruni. Across this great range there is a trail from the creek to Roraima, which was travelled by Barrington Brown on his geological survey of the colony, and from his description it must surely be very formidable, some high vertical escarpments having to be tackled by means of bush-ropе ladders. We were bound further up the river, where the range was neither so broad nor so lofty; but parts of it proved to be quite formidable enough.

After entering the Kurubung creek, we reached its branch, the Seroun creek, whence the overland journey started, in just under three weeks from Bartika. We had not, of course, been travelling all the time. Especially during the heavy work in the falls, it is necessary to rest the men on Sundays, which is, besides, the recognised day for washing clothes, overhauling the stores, and cleaning out the boats,

and doing any odd jobs requiring longer time than can be spared on week-days—such as making a sort of bread in empty paraffin-tins. Some little time, too, had been spent in hunting.

The Kurubung is a very winding and interesting creek, with many rocks to be seen, and high peaks and mountains of various and peculiar shapes. The course wound about so much that the same mountain would at times be either in front or behind, or on the right or left. Above the Seroun, the course is broken by the series of the Makrebah Falls, where there is a fine extent of white quartz sand, and where also we found a beautiful diminutive new species of *Utricularia* (*U. concinna*), white with purple points. The surroundings are very beautiful. Birds and butterflies were numerous, and we came upon many sun-bitterns in the short stretches of the windings. These are shy birds, and are quickly disturbed in the open reaches of the river.

Above the landing we found a large and nicely thatched house, which had been put up as McConnell had arranged; but there were no people. No doubt it was quite unreasonable to have expected them to remain here waiting for us; still, somehow, we had hoped to find many in the neighbourhood, because they knew about what time we were coming. It was unfortunate, for instead of taking three days with a large party of extra carriers, whom we could pay off on the other side of the mountains, the trip across took seven days, with double journeys for the men, over mostly a very bad track, where heavy loads could not be carried.

However, there was no help for it, and we began at once to make arrangements for the start. A suitable place was found in the creek for the boats, where they would be sheltered from the sweltering sun, and run no chance of being stranded on the rocks by the falling water in the dry weather. The men were put to getting materials and making the baskets in which loads are carried on the back. This took a day, for the baskets have to be carefully made not to bruise the bare skin, not to project beyond the shoulders at the sides, and while resting on the loins not to project above the head, so that in going through narrow tracks or under branches the man should not be troubled by the basket being caught in any way. Nasty falls are often the result if this happens. The strings by which they are carried, one around the forehead and the other across the chest, have also to be strong and smooth. They are used alternately to relieve the pressure. With the exception of a small part below, such baskets are open at the back to receive the load, which is secured by a string run across from bottom to top, a mat or broad leaves being placed under it if the objects be small. The framework is strong, and has the two corner rods long enough to project below for about three inches, on which the whole may rest when it is let down. The hands are quite free for a gun or cutlass, or for climbing, as was the case in this instance, as it turned out.

In the meantime, we sorted out the stores, so as to leave behind enough for the return journey to Bartika, and for two men who would be left behind to guard the provisions and look after the boats. We were bound to leave two, as the situation was quite isolated; and Adam, who was not yet quite strong after his bout of peccary, and another

Indian were told off. They had a gun and fishing tackle to help add to their store. Had an Indian settlement been close by, where we could leave our things in charge of the chief, or had our friendly miner's camp not been rather far up the Mazaruni, there would have been no difficulty. Of course, the men did not like staying in the place, which to them was surrounded by kenaimas or bad spirits of all sorts; and, besides, the people up here were Akkawoios, and other tribes are mostly considered "bad people." At length, however, their fears were calmed—the gun being their main solace, with plenty of powder to scare away kenaimas, and a lamp and plenty of oil and matches, though they would always keep a good fire going at night.

The first lot of loads were sent off early next morning under charge of Ritchie, who was to select a camp at under half-a-day's distance, sending back a sufficient number of carriers for the remaining loads, while the other men put up a good shelter with the tarpaulins. This was essential, as rain frequently falls in these mountains, even in the height of the dry weather, and in some places it is not an easy matter to get palm leaves for a good roof.

We had remained for the second batch of carriers, to make sure that everything requisite should be sent off, and we had only just left the camp when we came on the "old warrior" leaning on a stick and limping painfully from an apparently badly swollen knee, which was thickly bound up with a mass of leaves and rags and bush-rope. His story was that he had slipped on a difficult part of the rocky track, and had sprained his knee; and, as it was impossible for him to go on, he had taken his time to come back as well as he could. Remembering his face trouble at Kaburi—it was not yet quite all right,—we gave him our sympathy, but it was impossible to do anything then for him, as the medicine-box was above. He assured us that the leaves were the best thing, put on hot, and that there were plenty of "very good" leaves about. Ordinarily we would have looked at the injury, but now we were really pressed for time, as the men had gone on, and we were of course anxious to get over, by good daylight, a trail they had called "very bad." Besides, one of us had to return to the camp to tell the second Makushi—not Adam—to take Pembroke's load and come on with us. We couldn't help wondering how the two men would get on, as neither spoke the other's language; but there was this advantage, that whether prospectors for gold or Indians passed along the creek or trail, one would be able to speak to them.

We found the track indeed a very bad one, rising very steeply in places for some 1500 feet. In parts it was very wet and slippery, over narrow and rough rocky ledges or ridges, winding over, under, or between huge rocks, mostly hidden by masses of broken debris of all sorts, with very insecure foothold, and covered by creepers and other growths, into which one sank occasionally up to the crutch, wondering if one were going through altogether, as there were at times nasty-looking chasms on either side not far away. But perhaps the worst part was over a sort of meshwork of bare and rough tree-roots, often narrow-edged, from which the soil below had been washed away, or they had grown over the broken rocks. It was no wonder Pembroke had come to grief. The only marvel was how the Indians, with much

heavier loads, had got through so easily, and returned in apparently very good fettle.

It was a great relief when we got through this part up on to the slope of the ridge where the trail was still bad over rocks and tree-roots, but yet not steep. We felt very glad that the earlier part had not come when the light might not be very good; but, as it happened, we soon came upon the camp, which Ritchie had wisely pitched not very far on, considering the nature of the path on the ascent, the double journey for many, and the fact that it was the first day for such loads. It had not rained, but we were wet through with perspiration from the unusual exertion, in which we had at times been creeping or straddling, clinging on, climbing, and hauling ourselves for security.

Now we learnt that almost certainly Pembroke was malingering, and that nothing was the matter with his knee, which had been prepared elaborately to deceive us. Though he had started strongly from the camp in the morning with Gold, his canal companion, he had soon begun to drop behind the Indians, so that the two were by themselves when they reached the really dangerous steep rocky ridges. Here the "old warrior" had stopped and told Gold to go on alone—"me no go bruk me neck pon dem mountain"; and he had waited to come back to camp when we were starting, and there would be the least chance of the knee being examined.

It appeared that, on the journey up, he had been thoroughly fed up and frightened by what the others had told him of the nature of the overland parts, and after Kaburi he had constantly asseverated—"Me no go pon dem mountain." He had been a fine captain in McConnell's various hunting-trips on the coast, and McConnell had only brought him with great reluctance and after much begging that he be allowed to come, in spite of all the descriptions given of the kind of climbing, which evidently the man had either not believed or understood. He had never seen mountains before—now it was quite another thing; and besides he had suffered already, even before he had got to them. It was more than too much!

McConnell was somewhat chagrined at the fraud, though he had been somewhat suspicious at the time. He took the philosophic view, however, that doubtless it was the best thing, as probably we might have had to deal with a real and serious accident, if not here perhaps at some even more inconvenient place; and with the consideration that "he laughs longest who laughs last," he said the man would hardly be proud of himself when he found he did not get even a cent for the trip. As a fact, the lesson was taught for some weeks, but, eventually, after much begging pardon, he was given a few dollars.

It was lucky for us the next day that two Indians, of those who had put up the houses, came along the path. They readily turned back to act as guides and carriers. There were no side trails at the first part, but later there were several that branched off to various parts of the upper river, and we should have been quite at a loss to know which was ours, for the main trail is not necessarily either the widest or the straightest, and we did not even know that ours was the main track. Whenever we passed side-tracks afterwards, our guides at once broke off a small leafy branch and placed it across the opening, which was

a sign to all coming on later—for there are always a good many stragglers, who may be out of sight—that those trails were barred. It might not be always necessary, but it was always done to save mischance.

The path across to the descent to the river was very irregular: sometimes up or down steep ridges, under high forest or quite low open scrub, over rocky ledges and broken debris with or without the very tiresome network of bare roots destitute of soil below, and across creeks or through swamps lined with a rank growth of plants like marantas, cannas, and wild ginger.

On the return journey through this jungle the roar of the jaguar was often heard, the animals being attracted by the hunting-dogs, which the Indians accompanying us held for security on a leash. Our guides told us that our party was too large to be troubled, but with two or three people dogs were sometimes carried off by prowling jaguars, the animals dashing across the path and seizing the dogs, even when led on the string. At night the dogs were never left on the ground, but put high up on rough wooden stages made for them. If they strayed singly they were done for, their security in hunting lying in the fact of there being several of them together, and one is always struck by the number of them usually found about the settlements in a state of semi-starvation, where with fowls and pigs—as on the great savannahs where a few of the latter have been introduced—they will even devour the excrement of the settlement. These large cats seem to have a strong taste for dogs, and they will prowl at night around the large clay-wattled houses on the open savannahs when dogs are within, even clawing the strongly-posted door, made of hard-wood; though one would think they would choose instead to break through the wattling. It may be that the scent of the dogs is much stronger through the interstices of the door.

It is peculiar that while jaguars are thus dangerous to dogs singly or running in single file, three or four experienced dogs hunting together in a group, with loud larking, can always drive them up a tree, if there be one for refuge. This is how a noted jaguar-hunter in Berbice usually secured his object when cattle had been killed or calves carried off from the farms. It was easy then to shoot the beast up the tree.

Where the low open shrubby growths occurred on the rocky parts, Cozier assured us was just the kind of place where the cock-of-the-rocks would have their dancing-ground, and where their nests would be found. He had often seen them on the Merumé Mountains proper. The vegetation varied much from this shrubby character in places to what may more correctly be described as short stunted trees, with thick stems and open short branches, mostly heavy with small epiphytes; and there were many of these amid more shrubby growths. We made search for a short time at a few of these places, both going and coming back, and though we came upon neatly trodden spaces we found no nests. Their season was earlier in the year. In other places where the forest was higher, Cozier and the Indians could quite quickly bring these birds overhead by imitating their sharp cry, "Quank, quank," when they had heard them in the distance; and the birds

would flit about from branch to branch, quite in full view, uttering their cries, evidently unafraid until startled.

Two very interesting specimens—one a very large tarantula (*Mygale*) with a span the size of a soup-plate and the other a very large black scorpion—were obtained accidentally by the men along the trail. In passing under a thick dead branch covered by a mass of epiphytes, one of the men had knocked off quite a lot of the dead stuff with the top of his load, and the tarantula had jumped off on to the basket. The man behind saw it, and they were able to secure it without damage. The scorpion was found almost similarly, though it was in the stuff knocked off on to the ground, which perhaps was lucky.

These large *Mygale* are the commonly described bird-eating spiders, and many instances are recorded substantiating this feature of their habits. I have never myself observed any instance of this kind in my travels over the length and breadth of the colony, but it was once my experience along the Upper Korentyn river to have proof of a kind not very unlike. While occupying for a night the old thatched mission-house at Apera, attention had been attracted during dinner by the loud fluttering of some large insect high up under the roof. As bats were numerous in the little-frequented quarters, and the district was noted for the depredations of the blood-suckers, a light was kept burning all night, though it was turned down quite low before we retired to the hammocks for sleep. But a few minutes of semi-darkness had passed, however, before there was a heavy flop on the bark floor, and on turning up the light we found a large *Mygale* in full possession of a very large hawk-moth. The fluttering insect had evidently drawn the attention of the spider in its flights against the thatch, and the darkness had given the opportunity for a successful spring. Though much turned about with a stick the captor stuck to his prey, and they both finished their adventure in a large potassium cyanide killing-bottle. It was a surprise to me to find that the large spider was quite undamaged by its fall from the height, which must have been some sixteen feet or more from the roof. The seizure of a poised humming-bird, or of some other small species, would be a much less difficult enterprise.

A quite surprising haunt for these spiders is the hollow in the central crown of leaves of the pine-apple plants, where they protect themselves by a thick web across the top, which appears also to be a sufficient shelter to throw off the rain. On some of the cultivated areas on or near the coast, especially where there is little attempt at clean culture, or in partially abandoned lands in the sandhills, a quite astonishing number of these creatures could at times be obtained. Doubtless the very spiny leaves of the plants provide protection against some common enemy, but I was never able to satisfy myself as to its nature, whether mammal or bird, reptile or batrachian, though the peculiarity of the very hairy covering of the diet would suggest one of the latter, which are much hardier feeders, if the term may be allowed.

Scorpions and centipedes, though not often seen, are common in the forests, as would soon be evident where heavy rains had flooded the forest-floor, driving the occupants of the rocky shelters, and of the dried leaves and debris, off the ground for refuge up the stems of

the small, often close, undergrowth. During such partial floods an astonishing assemblage of insects and arachnids, the latter especially, may be met with clinging together on the leafy tops of the small stems, all apparently too much occupied in securing their safety in the flood than in troubling themselves about attacking each other or about being attacked. A passage through undergrowth under these conditions, *in puris naturalibus*, was once a noteworthy experience on a trip between the Upper Demerara and Essequibo rivers, in the neighbourhood of the Great Falls. On a short journey from camp to the Mabooro Mountain, we had stripped in order to cross a temporarily flooded valley, carrying our clothes aloft to keep them as dry as possible for camping at night; and it was with dread that we saw that, under the heavy forest, the small undergrowths against which we were continually brushing, were thick, above the water, with a clinging mass of scorpions, centipedes, and spiders of all sorts, also the somewhat rare *Phrynus reniformis*, which, under its local name of "ting-ting," has such a bad reputation for its "sting," besides caterpillars, bush-cockroaches, ants, beetles, etc., of all sorts and sizes. Though we had to wade for quite a long distance, none of the party suffered in any way, the insects being all too busy clinging to their perches for their own safety. None of us felt quite happy, however, under the circumstances.

The *Phrynus*, though ordinarily seldom seen, is at times found in quite large numbers in dry and dark disused or unfrequented situations, whether of wood, stone, or earth, and even in the towns, and especially about old cellars and buildings, abandoned mine-shafts and tunnels, or in caves or rocky hollows. Their peculiar aspect, derived from their astonishingly modified appendages, is no doubt responsible for their very bad reputation among the coast people and settlers generally, by whom they are regarded as being even more dangerous than the poisonous snakes, as they are commonly said to "fly at" you. The pair of limbs modified as long tactile organs, and carried horizontally extended, allows them to alight safely from long distances, and this probably explains their reputed habit. Certainly the spines of the long, anterior, prehensile appendages look forbidding enough, but they could only be of any real service to the creature in helping it to seize and secure the small objects on which it would prey. The poison-glands of the gnathites are comparatively small, and from the similarity of the poison in all these organisms could certainly not produce effects even corresponding to those of its larger congeners.

Scorpions and centipedes are very frequently found about the thatch of the houses up country, and in the Indian settlements, especially in the more open sheds, and in those that have been unoccupied for some time. Projecting pegs, or nails, high up on the posts, on which clothes may be hung, are favourite perches for scorpions, especially at night; and I have occasionally been stung by them on the fingers while taking off a garment from such pegs. Luckily such specimens have always been rather small ones; and beyond the sharp pain at the time before the application of ammonia, and a slight swelling of the glands of the shoulder, there was little real discomfort. Cases are not uncommon, however, where the stings of probably large specimens have resulted in serious illness, with high fever, greatly swollen glands, and much

nervous collapse and injury, if not in death; though most likely shock on a weak heart, and diseased organs, were main contributory causes in the generality of fatal cases.

Very common objects also in similar situations are the gecko lizards, commonly known as "wood-slaves." It was seldom that we found them with their proper tapering tails. In the larger specimens, these had usually been lost by some sort of injury, and had been replaced by the more or less swollen turnip-shaped enlargement that always follows the damage, and which gives them so strange, if not repulsive, an appearance. Among the labourers and people generally on the coast, these lizards are much dreaded, as they are said to poison the flesh and cause leprosy if they happen to alight on, and become attached to, the body, as may occasionally take place when they have been knocked out of the thatch or otherwise driven from their hiding-places. The clinging on of the little harmless reptiles (harmless in this sense only, for they can bite sharply like most lizards, if they are of any great size) is of course due to the flattened sucker-like skin of the fingers and toes—hence their zoological name, *Platydaetylus*; and the little creatures cling on thus tightly to what they clasp, being unable to do otherwise. Nothing can shake the belief of the ignorant people that it is due to their venomous nature, and in any case it will be asseverated that they give leprosy, which probably is associated with the peculiar warty aspect of the skin, particularly on the enlarged lump of a tail.

Of the various forms of poisonous insects and other organisms to be met with occasionally over the different parts of the country, there can be no doubt that specimens as large of their kind as were the Mygale and the scorpion obtained on the Kurubung Mountains would be capable of inflicting injury of a very serious, if not fatal, kind. Fortunately, few of them seek to cause hurt except to their natural enemies or prey; man may suffer, however, when he has accidentally or carelessly interfered with them, or has intruded too closely on their chosen quarters.

In several of the creeks, both here and across the Upper Mazaruni at similar elevations and at Roraima, I found many specimens of a new species of prawn, (*Palæmon*) which was remarkable through the long and thick claws, especially on the right side, in relation to the size of the body. In the largest males these claws are longer than the body. (Trans. Linn. Soc. ser. 2, viii. pt. 2, p. 57, pl. vi.) In the water they seemed almost grotesque in appearance, but it was surprising to watch the perfect ease with which they managed their unwieldy appendages. The butterfly-net had to be used to secure them without injury.

The journey across the Kurubung Mountains was perhaps the most tedious and unpleasant part of the expedition, on account of the repeated delays, the frequent rains, and the very bad track—perhaps largely so because we had not yet got into our stride, so to speak; and we were very glad when the last day came, though when we saw the cliff over which the trail disappeared we were aghast; and had it been other than a staid Indian guide one would have been under the impression that some sort of practical joke was being played.

At a first glance it didn't seem possible for anybody to go down such a place, for there did not appear to be anything to go down on. Far down was a very deep valley, which we knew to be that of the Upper Mazaruni. Some hundreds of feet below us were the tops of trees, clearly high forest from their spread and extent. But between us and these there was, or seemed to be, nothing but a practically sheer descent, with some small scattered trees and bushes clinging to the cliff. At the very top there was bare rock, much weathered, with some projecting roots growing across from the trees on each side. My first impression was that there had been a land-slide, and I turned to the guide with a halting inquiry—"Tierung?" (if there was another way); "Kanneh, chénie" (no, this was the one), he said.

Thoughts pass quickly through one's mind at such times; and for a moment they were on Merume and Barrington Brown and the bush-rope ladders down the vertical cliffs, and then they were on McConnell. It was bad enough for me, but worse for him, for he was a very tall, though not stout, man. Until Roraima, he had always thought he couldn't face great cliffs without a feeling of giddiness, yet he had been four times up and down that mountain on our first journey. But in a way, this was worse than anything at Roraima as far as I could see down the top distance. There it had been a very long sloping ledge, very steeply broken in parts, but broad enough that one could creep on all fours. Here there appeared to be nothing but a series of irregular roots and small trees, with broken rocky ledges, down an almost vertical drop of apparently several hundred feet. Still there was nothing to be done but to brace oneself for it.

Meanwhile, the guides had let down their baskets, examining their hands and strings, I imagine as an example to our people, for they must have seen to their baskets earlier, knowing what was coming. Our men did the same. And then the guides turned round at the top, load outwards, and began descending backwards as down a ladder, almost straight at first, slowly by means of the roots, and then later quicker by roots, saplings, and rocky projections, in a sort of zig-zag, where the cliff was clearly not so steep. Some of our people, probably the more experienced climbers, went directly after this, and we watched them safely to the same point; and then Ritchie's wife swung over with what was probably the biggest, if not the heaviest, load of all, Ritchie following her at once. Then we faced the ordeal; for it seemed as though the others were waiting on us.

It was certainly a very trying experience, but there was no time to think about it, the whole attention being given to a secure grip with the hands, and then with a half-side look, not down but in, to the cliff to make sure of secure footing. It would have been awful to have looked right down, but even with the half-glance Ritchie was in view just below. There were more roots than we had noticed, coming from trees at the sides, and the zig-zag was wider, with many rocky projections, bound in between the roots, preventing any slipping of the earthy parts. The cliff, too, sloped a good deal more than had appeared when the whole space was in view at a glance, and the growths at the side hid the lower parts to a great extent. But for the fact that it was on such a large scale, and the bottom of the valley so far down, we

should scarcely have been so disturbed at the prospect. As we got farther down, the roots and rocky ledges were more prominent at the sides, and there were little steps on the hard earthy slope, so that one could almost take a half side-position. It had been the nearly vertical and bare upper part that had given it so forbidding and impossible an aspect, when we had so unexpectedly come upon it.

We all got down quite safely, no basket strings breaking to let any part of a load come clattering down on heads below, which had been a half-thought in my mind. We wondered what we should have done with Pembroke had he been with us—it did not seem possible that he could have got down without being let down by a rope.

Before we got a quarter of the way down the steep declivity, the track curved away to the left, and we were then able to turn wholly forward, and it was quite a long time before we were on level ground through high forests, from which the cliffs could not be seen. After a comparatively short walk we came upon one of the houses built for us, but unfortunately it was not on the main river, but by a creek in the bush, where there had evidently been an old clearing for a provision field or house. Nor was there a single woodskin in sight. Everything depended on a sufficient supply of these being obtained.

It was evident from our situation here, and the nature of the descent which we had made, that the trail—at any rate, at the latter part—was not the same as that followed by McTurk and Boddam-Whetham. Apparently there were other tracks to points on the river, as the side-trails had indicated, and probably easier ones; and it was not clear why this one had been selected for us. All the guide could tell us was that this was the way, as he had said on the cliff. Perhaps it was the most direct; but it was clearly a point where we were absolutely in the hands of the people until they brought the boats, for which McConnell had made arrangements that they should be awaiting us. On the banks of the river we should not have felt so cooped up, and probably there would have been tracks to a settlement where we could hurry up the people. Here it was apparently flooded country between the creek and the river, for there was water all about the rocks and under the trees. The only thing was to wait till the woodskins were brought, as the guides said they would be.

In the late afternoon McConnell suggested to the guides that they might go and hurry up their friends, and they went off soon after through the water. Before sundown another man, who spoke a little English, turned up with the story that the boats were coming, but by next morning there were still none. Our new friend had passed the night close by under a couple of palm leaves he had brought with him—there were no palms to be seen in the immediate neighbourhood, our house having been laboriously thatched with some small leaves like those of a large lily, making a very poor substitute,—and he had shown off his accomplishments by singing for a good part of the night “Good-bye, my friends, good-bye,” which is a common paddling song on the rivers, and has been learnt as a “march-round” song in many of the Indian settlements.

Later in the morning McConnell offered the man a gun if he would get as many woodskins as we needed, and he went off at once through

the water, returning in a comparatively short time with a crowd of people and a very much larger number of boats, old and new, than we required. He evidently meant to make sure of his gun, and there was hardly any doubt a settlement must have been not far away where many of the boats had been made expressly for us, and probably the man himself was its chief.

We had thought the delay a point of tactics to secure high prices for the woodskins; and we were therefore much surprised that what was asked for those we selected was very moderate, considering we picked out all the largest and best. They had to be paid for in barter—no one would take money, for a reason we learnt later.

It seems that a German orchid collector, O——s, who had been to Roraima some years ago for the rare *Cattleya Lawrenceana*, had given the people false coin, some stamped base metal, whether in whole or part payment was not clear; and they had only learnt its nature when they went later to the gold-mining camp across the river to exchange it for goods, such as beads, powder, knives, etc. The transaction would be such a base and cruel fraud on these ignorant aborigines that one was loth to believe the story as told, and one wondered whether perhaps the man, with ordinary payments in barter, may have given presents of common metal tokens to be worn as trinkets on necklaces, which are so commonly worn by the people, made of teeth, seeds, or beads. Even this would be a very doubtful proceeding, however, unless they were already made into necklaces, as the people in these far districts could not possibly discriminate in the matter. Anyhow, it had caused very bad feeling against travellers, and it was the common report they would be killed. This was to be our fate higher up, we understood, by means of poisoned blow-pipe arrows apparently from among the trees; and our men were greatly alarmed, even though we assured them we had enough dynamite—which they all greatly feared—to blow up the Akkawoios. No doubt it was largely an attempt of the residents to frighten the strangers, and it would lose nothing of its menace through tribal suspicion and dread. In fact, we not only did not meet with any unpleasantness of any kind anywhere, but were cordially received, and found that a house had been put up specially for us by the chief of the next settlement, on the Kako, for which no arrangements had been made. These reports, that travellers will be killed by people farther up, seem to be common rumours at various times, and no doubt they had some real cause for their origin in past times.

We quickly struck camp and started down the creek, which was much obstructed by rocks, and it was some time before we got out on the river. At a rather long portage, where the boats had to be carried across, one of our craft slipped from the heads of the two men as it was being put down, and striking a rock in the water split right down the middle. Unfortunately, it was the largest; however, the accident was quickly rectified, for we had distributed our baggage in a larger number than we really required, as a precaution against just such a liability. We were able to rearrange them, setting another quite large one free for ourselves, as the damaged one was quite useless, and the long time for needed repairs was out of the question. Woodskins have to be carefully handled, being easily damaged; and while they float lightly

owing to their broad and curved surface, and are easily taken across portages and other obstructions, they have a further disadvantage in that they sink rapidly if swamped, the bark from which they are made being very heavy—unlike the corials or dug-outs, which are hollowed out of lighter woods and will keep afloat if they are swamped, though as a total weight they are much heavier than the woodskins.

Up here the Mazaruni is still quite a large river, flowing north more than 1000 feet above the point where we had left it at Kurubung, in its descent passing over a series of very high falls (Barrington Brown, *Canoe and Camp Life in British Guiana*). The scenery along the entire boat-journey was very beautiful, with mountains mostly in view, and having much the character depicted in the view of the Aruparu River facing p. xviii, Itinerary, Vol. I., though often bolder and more striking. Before reaching the Kako creek we had to surmount some small rapids, but none that gave trouble, though we had to get out and lighten the woodskins for safety.

The Kako is quite a large creek on the left bank, and is the route—by a branch on its right bank—to a point from which the land-journey begins not far north of Roraima. A little way up on the left there was a settlement of two houses, where we made a camp, as from the number of people who received us there was a good chance of procuring plenty of fresh provisions and cassava bread, of which there was already a fair quantity brought for sale.

The chief was a very kind and considerate elderly man, with the striking name of Lanceman, which seems to be distinctive in the upper part of the Mazaruni. He had not only built a house specially for us, but had prepared a large quantity of food and drinks for our men. This was mainly in a larger part of the settlement, across a small sandy savannah and along a high ridge overlooking the Mazaruni valley, where our fellows were soon at home to the usual kind of entertainment with cassava and pepper-pot, washed down with large quantities of slightly fermented cassava and yam drinks—paiwarri and casiri,—which were not yet in quite a ripe condition, but had to be used as we were bound to get on next day. Under this friendly treatment—which, as a fact, is usual among the different tribes on any special occasion as a sort of welcome or celebration, and is free to all comers—our men forgot all about the threats of which they had heard, and passed the night “dancing,” or marching round, as it is in reality, with a heavy lurching step to a monotonous sort of chant, mostly like “he-ah, he-ah,” with an accompaniment of shak-shaks or seed-rattles (mostly made of seeds of *Thevetia*, on the coast commonly known as “good-luck”) and the sonorous pounding of the hollow trumpet-wood or bamboo on the ground. The men march round in single file, the women at times joining in, a hand being placed on the man’s shoulder, though they are more usually engaged in handing the men large gourds of drink, which is never refused, and eventually leads to nausea in a continuous stream of liquid on the floor of the house in which they may be marching round, or outside, as it may be. After such relief, they are ready for fresh supplies, until they may become quite dazed or fuddled, if there is enough drink on hand. When the drink is finished, the dance is soon over.

These dances always comprise the same kind of lurching steps, the right foot being brought heavily to the ground, and making altogether a loud clattering sound, which, combined with that of the rattles and the deep-sounding hollow poles, produces a sort of rhythmic swing with the tones of the men and women. On big occasions the chant may vary a good deal, according to the resources of the leader. Thus there may be frequent repetition of the description of an event or thing, or even a sort of narrative, as of the difficulties and success of a hunt, or the dangers and terrors of a journey like that to Koraima, always with a sort of intermittent accompaniment like that of "he-ah, he-ah." The preliminaries, too, vary a good deal according to the occasion. The men at times may be decorated with their beautiful feather crowns, and with elaborate armlets and necklaces (the latter of the teeth of the peccary) with pendants of feathers, bird-skins, beetles' wings, seeds, etc., or decked out with strips of palm-leaves arranged in a tall crown for the head, a wide shoulder wreath around the neck, and a sort of kilt around the waist; while the women may appear equally decorated with all their beads, seeds, and buttons, arranged as necklaces, armlets, wristlets, leglets, anklets, and even in loops across the body, or rarely the whole body may be covered with stripes, dots, and patterns (like those on the head aprons) in red and blue-black dyes and white clay—some of the men also even thus varying their decoration, though never as elaborately as the women, so far as my own experience goes. The face and hands are often thus marked.

On these more special occasions, which may last over a couple of nights, the number of people gathered together from all directions may be considerable, and the drink-supplies equally so. Enormous gourds are filled ready, as well as large boat-like vessels, roughly hollowed out of the trunk of a tree and ornamented with the roughly carved heads of the armadillo and the tortoise, one at each end as a sort of handle to the vessel. One is always surprised at first by the small quantity of food eaten at these times, but in reality paiwarri is not a mere drink, for it contains a large quantity of finely comminuted cassava bread, and is thus to some extent a food also.

The celebration for our people was not on a very big scale, as the date of our arrival could not be known in sufficient time, and paiwarri will not keep good for more than three or four days—it becomes a purge soon after,—but such as it was they were not fit for much on the next day. Still, it had been an occasion—a good time—for all concerned, and brought about a much better state of feeling between the men of the two tribes. The guides, no doubt, had been the medium of the easy fraternization, as the paiwarri was the incentive.

In the morning we reaped another benefit in a very large supply of fresh meat, fish, cassava bread, yams, pumpkins, papaws, and sugarcane, for which Lanceman was quite willing that the people should be paid in money—small silver pieces. No doubt, the guides and our men had vouched for our characters. Apart from the trip, we were well-known on the great savannahs from having passed there on our first journey. At any rate, we had no further difficulty, and McConnell gave money or barter, sometimes both, as was most convenient or desirable. He gave some special presents and large silver pieces to the chief in

recognition of the work on the house and the entertainment of the men. As it happened, we had not made use of the house ourselves, as it was an open shelter covered over with the same sort of small leaves apparently as the last, and built on a sandy waste shut off from any breeze, but under the full blaze of the sun and excessively hot. After an explanation we had camped in the open forest close to the creek, and below the settlement, which was on a slight elevation farther back.

Our guides left us at this place, but others readily came on to the next settlement, which we reached after leaving the Aruparu creek, the branch opening on the right bank of the Kako. The creeks are small compared with the Mazaruni, and the forest on these higher rocky areas much less grand and imposing. Still there was plenty of bird life—ducklars (*Anhinga*) especially—to be seen, and insects were numerous and more easily observed; and the frequent windings, with both banks under close observation at times, gave a special character to the scenery, as in the illustration in Vol. I.

The water had fallen a good deal since the wet season, and numerous nasty snags of submerged trees, which had been uprooted along the banks, made a very close watch necessary lest our bark canoe should be bored by one of these very hard and sharp points, often just below the surface. On the Aruparu we barely escaped being swamped from an accident of this kind. McConnell had just shot two muscovy ducks, right and left, one of which we left to be picked up by the boat behind, and were racing after the other which had been slightly winged and was fluttering to the bush-lined bank, when there was a hard scrape and jar on the bottom of the canoe, and water began pouring in from a bad rip. Luckily we had pace on and were already not far from the side, so that by stuffing a cloth quickly to the hole we managed to reach a clear space to beach the boat in time. Otherwise the woodskin would have gone to the bottom, and many of our things with it, though some of them would have floated for a time and been secured by the other boats. We were glad to know afterwards that the duck had been found, as it had been the cause of our accident.

It did not take long to make repairs, for the hole, though rather large, had not seriously damaged the boat. We filled up the rip with tar and oakum and tacked on sheets from a paraffin-tin, both in and out, and were as secure as ever, if not more so. It had been a different proposition with the long split up the middle of the other boat at the start.

We could hardly blame our bowman for the accident, though Ritchie gave him a few directions, as he called them. We had been so taken up with the duck, lest it should escape, that snags were quite forgotten. It was a sharp warning, however, to all, and one well borne in mind on the still lower streams on our return: we met with no other mischance of the kind.

After three days on the water, we reached the landing-place to the settlement. Here we had to secure the canoes by hauling them up into the forest, where it was very swampy, that they might be safe from wood-ants and other insects. The paddles we carried with us, to be left at the house with the headman. We soon came upon an open house, with one man in it, whom we charged to look after the woodskins till our return, when we would give him good payment

if they were all right. The settlement was much farther in, and we did not get to it till much later.

It does not seem likely, from the description given by Boddam-Whetham, that the place they called Cashew Cottage could have been near this site; though there certainly were cashew trees here as at other places, and only one house, of the usual type, with conical palm-thatched roof and clay-wattled sides, with open sheds close by, under which a good deal of the daytime is spent. The house, however, was an enormous structure of its kind, larger than any I had previously seen except one at the village of Pelowmata, between the Kotinga and Ireng rivers, where we had spent a day during the return on our first journey. It was clearly the home of a large number of people, many of whom were away at the time.

Here we saw the only really old Indian I had ever come across in all the colony. He had long white—almost yellow-tinted—hair, and was so feeble and helpless that he had always to be taken out to be sunned. He mumbled to us when we touched him and spoke to him, but we could not catch his words; and the others said that he was telling us that he had been with Schomburgk. In this case he must have been well over seventy, which I believe to be an extreme old age among these people.

Around the house was a very extensive area of provision-fields, some of which were in a more or less abandoned state, largely covered with weeds, but with growths of banana, papaw, and sugar-cane scattered about. The rest was fairly well kept, and stocked with mainly cassava, though there were plenty of yam, corn, sugar-cane, pumpkin, banana, etc., between the large trunks of trees which had been felled to make the fields, and the smaller parts of which had been burnt when dry in clearing. It extended over several low hills, on one of which the house was built, and across the intervening valleys. The soil around was clearly good, and the fields had thus been spread widely in the neighbourhood of the settlement, rather than at a distance, as so often is the case when houses have been made on sites not favourable for agriculture, but selected for some other special reason.

From the highest elevation in a far corner, we were informed that when it is clear a view could be had of Mount Roraima, and we went on the chance, and were rewarded by a splendid spectacle. Above the line of high trees on the other side of the fields, the mountain rose in vivid clearness, the grey-white walls of the perpendicular pediment looking grand and imposing, perched on its sloping glacis. It looked so comparatively near in its clear outline that it was difficult to believe it was so many miles away, except when one realised that one was looking at some eight or nine miles of length in the escarpment. Even at that distance, we saw, or imagined that we could see, some sort of break or channel on the line, which we were told was an indication of the position of water falling to the Kako, the fall being a large one in heavy rains. We had no intention whatever of attempting to find any new way up on the unknown western face, so that from the apparent propinquity of the mountain we felt very happy in the belief that we had come by the very best route, and that it would not be long before we rounded the south-eastern corner and reached our destination.

We had camped in the forest on the further side of the clearing, and there the residents had visited us frequently, bringing large quantities of cassava and fresh provisions, and of paiwarri and casiri, which we bought for the men. It is not usual to pay for the drinks, but McConnell offered some small presents which gave much pleasure and led to further supplies, which would hardly have been forthcoming otherwise. There was no scarcity of carriers: still we wanted to get those who might belong to the southern districts, for we would thus secure the best guides, as well as those we could pay off at the next large settlement on our track, without having to give them food for a return journey. A set of carriers with fresh stock on a large scale would in this way conserve our tinned supplies of rice, flour, etc., for the special needs of Roraima. It was fortunate that a party came up the trail later, and some of the men and women readily joined us, bringing as well their own stock of cassava, for which McConnell paid them. At this settlement, as at the last, several baskets of cassava were ordered to be prepared and kept till our return.

The country around was especially interesting on account of its bird and insect life. Both in the clearing and in the forest, butterflies, beetles, ants, etc., were very numerous, and the rasping shrill sounds of the razor-grinders and cicadas were frequent. So bright and large were the lights at times of some of the click fire-flies that one became quite excited at the thought that they were the large and rare lantern-fly (*Fulgora*), but the descent of some of them to the glowing fire, which seems to have a fatal attraction, dispelled the illusion. Columns of hunting ants were sometimes encountered, marching across country and rousing everything before them, while they themselves were being pursued by numbers of small bush-shrikes and ant-thrushes with shrill discordant cries.

From various directions, mostly from the canopy of foliage above, came a medley of bird-notes. The harsh quarrelling of macaws and parrots, the puppy-like yapping of bill-birds, the tap, tap of woodpeckers—at times seeming quite too loud for birds,—the ringing of the bell-birds, and the shrill challenge of some hawks, were the most dominant; but there were dozens of others less persistent, such as the “quank” of the cock-of-the-rock, the sweet “ya-wa-ra-shee-ee-re” of some small tanager, the “pe-pe-peyo” of the greenheart bird, the liquid melody of the music-wren or quadrille-bird, running up and down the scales, and others which Cozier could recognise. Curiously enough, the greenheart-birds were not common up here, though usually they are the most frequently heard throughout the forests lower down, at times with such loud, penetrating, and quickly repeated cries as to be almost deafening, apparently when they have been disturbed by some passing mammal or larger bird, if one may judge by the disturbance that may be caused by the discharge of a gun. The music-wrens (*Cyphorhinus*) are distributed over the hilly districts, and in my experience are difficult to procure; for even on the Upper Berbice river, where, on the hills above the lake-like expanse below the Itabru cataracts, they appeared to be the commonest of the birds, if one could judge by their notes, it had been difficult to get them.

It would appear that the notes of the bell-birds must vary a good

deal in tone, either according to age or sex. Some years ago, I was able to write an Occasional Note in *Timehri* (while I was Editor) on the cry of these birds, after I had had a fully adult male under repeated observation. The bird had been brought down to Georgetown in a large cage, in which it lived quite healthily: and its cry was frequent and could at times be heard for long distances away over the town. It had but two distinct calls: one, "kong-kay," the latter part very shrill and prolonged; and the other, not so frequent but melodious and bell-like, "do-rong" the latter part also prolonged. In the former the head was swung round rapidly from side to side on the prolonged note, in the latter the head was held well up so as to straighten the throat, the beak being raised. There was never any other cry. But where numbers of bell-birds are heard repeatedly in the forest, there is often a sound like "kwa-ting," though a somewhat variable one. At our camp and around, the notes were heard at frequent intervals, and so close by that there could be no confusion. We sought repeatedly to get birds in sight long enough to determine whether this note was from an immature male or a female, and was representative of the "kong-kay" of the adult, but we were never able to do so. It seems likely, as Cozier said, that they are the notes of young males practising, much as a young cock beginning with something very unlike the crowing of the adult, for at times there were sounds that appeared to be an imperfect form of both.

Our track at first lay through high forest, but came later to an extensive abandoned provision-field where there were wide areas of partly charred or very weathered logs and trunks of large trees, under, over, and between which we had to make our way, amongst a thick growth of trumpet-trees, spiny solanums, and scandent grasses and sedges with sharp leaves and stems. It hardly seemed possible that there could be any real path through the jungle, except that we came out on a continuation of the track on the other side to another forest. It was beyond comprehension that it should remain so blocked up, if it were in regular use; and yet we came on others later of the same kind and worse. The trunks were the remains of the trees that had been felled or burnt through at various periods in making and extending the provision-fields, the lighter branches being easily burnt for the clearing and the thick hardwoods left for the processes of time. The planting is done between, until or unless they can be destroyed, and new areas are continuously treated in the same way if the ground be fertile, till abandonment takes place. In spite of our ordinary trail being often very bad, over rocks and tree-roots, we always disliked the going across these abandoned fields, since it was not possible to avoid scratches and cuts from the spines and stems, which often were very troublesome in healing.

The forest trail was much of the type that it had been over the Kurubung Mountains, and the tree-roots—often very sharp and slippery—were extremely tiresome and dangerous also, especially on the slopes, where it was difficult to avoid slipping. McConnell unfortunately was suffering from chigoes in his feet, probably got at the sandy camps or settlements on the Mazaruni or the Kako, and the walk must have been extremely painful. He had suffered similarly on

the first trip when near Roraima. From this cause our journeys were reduced to half-days, which practically doubled the time over this part of the trip. The old proverb of the ill wind held good for our men, who were very glad of the shorter journeys over such paths.

We came out later on a part of a large savannah, where there were the remains of two houses, with some cashew trees in fruit, though it was not their full season. The fruit was very refreshing, as it was quite ripe: and we only wished there had been lots more, as there were at Kwaimatta on the Rupununi, where they extend over several acres. Luckily the old abandoned fields were not in our way. There were splendid views of some mountains in the distance and of low-lying country below us. With the open sky and sunlight, it was like a breathing space before we branched off into the dull light of the forest again.

After long stretches of high woods with the same tiresome trail, up and down steep hills, we came on a branch of the Kukuie creek which runs into the Mazaruni above the Kako. This was the Ootaro, and we crossed it near a very high and beautiful fall, where the stream leaps down to the valley for some 300 feet or more. It was a perfect site for an early camp. The valley was deep, wide, and open, and it afforded a chance of seeing the nature of the surrounding country which lay before us in a beautiful picture of living green, the hills bounding the curving valley in the distance. On one side of the falls the rocks were much broken away, and by clambering down for some twelve feet, below the bushes at the top, one could get an uninterrupted view of the country, but it was impossible to see the bottom of the falls. The vegetation was rich with small and filmy ferns, tree-ferns, selaginellas, bromeliads, orchids, and flowering plants of various kinds, chiefly Melastomes; and some fine palms were visible at points below.

The stream widened out somewhat farther up, and we were able to procure some more of the new prawn with the ridiculously large and long claws. We made but few attempts for any detailed hunts, as it was desirable to give the men all the rest possible, considering the nature of the track and the heavy loads being carried.

We were now clearly on the track followed by McTurk and Boddam-Whetham, who had crossed the Ootaro above just such a waterfall; and we now knew for certain that instead of a short and direct route to Roraima, we were making the wide detour round Marima Mountain, which was taking us many days' journey eastward away from our destination. Apparently there was no other way—the guides did not know of any,—and very likely there were no settlements in the rough country between Marima and Roraima, when almost certainly there would have been a trail right through, though a very difficult one for carriers with loads such as ours. Our only hope now was that they might take the shorter road travelled by the earlier explorers on their return, rather than the one followed from this point when going. It would make a difference to us of at least two days; but we found it useless asking questions about it, and it was a possibility that the shorter track was now not open.

Leaving camp we began a long and rough descent to the bottom of a deep valley, clearly that of the Ootaro, and after skirting the ridge

began the ascent of a steep, nearly precipitous mountain on our right, which must have been a part of the eastern spur of Marima. It was a terrific climb, mainly over roots and broken rocks, and so steep and slippery that it was literally a case of hauling oneself up, and so long that it seemed one would never get to the top. There were frequent shouts, sounding far away, from men up above and from those below; and it was a great relief when, after long pauses for rest, one at last reached the top, utterly pumped out. It was altogether a painful climb for the people with their heavy loads; and for McConnell with his sore feet was a very severe trial. A long rest was taken at the top, when the baskets could be let down. In all such places the meshwork of roots is after all a great security, for they not only give the required hold for both hands and feet, but the rocks are so bound that they do not become dislodged. One rock loosened and pitching down such a hill would have been disastrous, as the path was almost straight up. A peculiar feature all over the upper part was produced by a white lichen, often met with in patches in these ranges, forming here an almost snowy carpet, giving a very unusual appearance to the forest floor.

Gradually the path wound downwards and across low hills and ridges, until one reached the Kotinga river, flowing swiftly where the channel is some forty yards wide. We crossed in a very rough and crunky dug-out, three or four at a time, and were glad that even this insecure craft was available. It required a very careful balance, and the strokes of the small paddles sent it swinging from side to side to such a degree that we often thought it was going right over. It was very long and narrow, and was therefore very unstable.

In the map in Vol. I. the upper course of the river is not shown. It flows in reality from the top of Monnt Roraima, leaping from a gap towards the northern end of the eastern wall, as from a spout low down below the line of the edge, the water falling quite clear of the side after rain has fallen heavily. It passes eastwards between Marima and Waitipu (Wey-ee-te-peur or Sun Mountain), gathering numerous streams from the adjacent heights.

The track, too, from the Kako should leave from an eastern branch of that river much farther north, making a wide curve round Marima, and crossing the Kotinga well east of the line between that mountain and Waitipu, and thence following the course of the river for many miles before turning south-west to Roraima.

Some little way up from the place at which we crossed, there was a small settlement with a provision-field, through which we passed where there were no obstructions. The path led along the river through low forest, and later passed across one of the terrible, overgrown, abandoned clearings that was even worse than the first, its thick overgrowth being closely bound together by a thicket of creepers; and after another long stretch of forest we came out to the large clearing of the village of Menaparuti by the Kotinga, which we had thus reached by the long way round. It was a large settlement of several scattered houses and sheds, very pleasantly situated, with fine views of the great mountains.

The people were very hospitable, and, following the usual custom, brought out cassava bread and pepper-pot and quantities of paiwarri

and casiri drinks. We were surprised at the abundance they had on hand, but very probably they had been apprised of our coming. Our carriers thoroughly appreciated the good fare, finishing a first lot in easy style, and thus provoking a further supply which McConnell's presents brought forth. We were particularly interested in some of the pepper-pots, which were composed of insects. In one were a quantity of young dark grasshoppers with reddish streaks, from which the small wings and thin legs had been removed, in another were the bodies of female cushie-ants; and both were thick with peppers and some leaves in the liquid, the whole contents forming a sort of thin stew. The cassava bread at first was just dipped into the fiery hot liquid, but at the end the whole mass was finished, pepper and all. It was so thick with pepper that it must have blistered any unaccustomed palate. The drinks afterwards were no doubt a welcome relief.

Many other kinds of drinks are met with at times at the various settlements, such as those made from fermented cane-juice, pine-apple, corn, cashew, etc. They are fairly strong liquors with a strong taste of vinegar; but the fresh liquor is very pleasant, except for the liability of being prepared and served in dirty vessels which have previously been used for paiwarri or casiri, and have remained unwashed. By the people themselves such vessels are not regarded as being dirty, and they do not understand one's objection to drink from them, except with the explanation that it is not English fashion. A very usual way in which ripe bananas are prepared, by being crushed in water to a thin pulp, is also a very good one, making a very pleasant drink, and preventing the swallowing of large lumps of the fruit, especially by children.

The sugar-mill, which is so common an object in the villages, is a very simple but effective machine. It is made of a good-sized log of wood, peeled of its bark and planted in the ground in a slightly inclined position, and having a hole through it at some three or four feet up, where a platform is made on the leaning side by a transverse cut in for about four or five inches, an oblique cut from above removing the piece. The part below the platform is cut close up into a sort of chin. The cane being placed on the platform is crushed by a long stout pole inserted into the hole; and the juice is collected below the pointed chin by a gourd or other vessel. As the machine is always placed outside the houses the rain keeps it clean, but the collecting vessels may be in quite a different condition.

It was interesting to find that the cock-of-the-rock was common in the low forests all around; and along a trail leading to a low hill, overlooking the Kotinga valley, it was quite easy to call the birds overhead. Cozier was particularly good in his imitation of their cry, which he had practised on the Merume mountains while making collections, though indeed the birds did not appear to discriminate against quite poor attempts. They would fly to trees with quite open branches, where they were clearly in view, and they did not seem at all shy.

We were fortunate in getting quite a large supply of cassava and other provisions before leaving, so that not only was our depleted stock again made good, but we had promises of more later. The people were

extremely kind in their attentions, as they were also as regards our future welfare at Roraima; and they were quite concerned in telling of an unpleasant report that had got spread over the district that there had been a serious epidemic at Roraima, and that everybody had either died or gone away. We wondered whether perhaps small-pox, which is so deadly among the natives, had been brought from Venezuela or Brazil, but hoped that the report was not true.

From this point our track necessarily had to cross some high and steep spurs of the various mountains of the Roraima group, and two of them indeed proved to be, as regards steepness, on the whole worse than any yet met with—one particularly being also a very long and trying ordeal. Luckily, however, there were no sheer escarpments, to which the one over the Mazaruni had so closely approached. Various small patches of savannahs, with very rough and pebbly tracks, now lay between the forests, which were thicker along numerous rocky channels, where there was little water, or where a stream was almost lost amid huge boulders; and it was with great joy that we at last came out on continuous savannah, and from a high elevation had the great range of mountains in full view—the vertical-walled Roraima before us, with other smaller Roraimas on the right: the rugged pile of Marima behind; and the beautiful Sun Mountain, with its peaked dome, its terraced slopes and sharp edges, with varying light and shade all over it, away on our left: and far away in the blue distance the high plateaux of Brazil. No wonder if, even with aching feet, our step was more elastic. We were done with the dreary forest: the beautiful sunlight was over all, and fragrant breezes refreshed us; and, more pleasing than all beside, our goal was close at hand!

The eastern view of the mountain throws into very bold prominence the great rounded ridge running from the south-eastern angle of the wall; and this is increased as one descends the outstanding ridges, and approaching nearer is able to realise somewhat better the gigantic proportions. The track is by no means good in these open savannahs, being very rough and irregular and pebbly, and made worse at the sides by the mop-like heads of an *Eriocaulon*, mostly hard and bare on the shrivelled or dead plants. It leads across and along a succession of ridges and valleys, in which at times one has to cross streams with rocky channels or even half-swampy stretches, until rounding the great boss of the angle, it joins the southern trail by which we had travelled on the first journey.

One rather large stream, evidently running to the Kotinga, and which we had crossed where it was shallowest, over a very smooth slippery bed, almost at the edge of some high falls, was noteworthy from the sections of the red jasperous rock, which is jointed and fitted like neat masonry. There are many other and smaller streams of this character in the district, and at times the rock is yellowish-green, not red. Numbers of filmy ferns and other small plants grew in the crevices and greatly heightened the wall-like appearance.

Over these extensive savannah lands, animal life was not abundant. Some hawks rose at times in the distance or sailed overhead, all too far to be certain of the species, except the little kestrel or windhover, which was often close at hand, either on the trees where

its presence was proclaimed by its rasping cry of "Ki-ri-ri," or poised hovering in the air, not far up, searching for its prey, mostly small lizards.

Flights of the smaller macaws and of parakeets—now and then the brilliant orange and yellow Kissi-kissi (*Aratinga solstitialis*)—frequently dashed out of some clumps of trees, chattering shrilly as they made for some other clump. White-throated swallows were more numerous by the streams, flying restlessly over the water. There were at times a few tyrant-shrikes, mostly either the solitary fly-catcher (*Tyrannus satrapa*) perching alone and darting out and circling in the air after some insect, to return again to its perch, or the fork-tailed tyrant (*Muscivora tyrannus*), with its peculiarly elongated tail-feathers blown aside, flying awkwardly to some perch, or sitting unafraid in some very conspicuous position. At intervals there would be a sight of a few old witches or Ani cuckoos flitting about the bushes, but never many of them together. The savannah-starlings or meadow-larks (*Sturnella*) occasionally fluttered before us, but at safe distances, though we were not troubling ourselves about them; and in the curatella bushes the grey mocking-thrush (*Mimus*) would now and then be noticed in short flights in the open branches. A yellow warbler or summer-bird (*Dendroica*) or some other bright species, mostly of the tanagers, such as *Calliste* and others, would be seen in the trees and bushes by the streams, as they flew from branch to branch or across the water. But more common than all, the little brownish *Anthus* would rise from the grass, generally with a little cry, and drop again a little ahead or by the side. Frequently one heard the cooing of the pigeons and wood-doves, and at times the little grey ground-doves would flit from beside the track. But there was never any abundance either of species or individuals, such as is so noteworthy on the coast savannahs as a rule.

It would be far from correct, however, to convey the impression that the avifauna is scanty on these elevated savannah districts, which may be regarded broadly as being at a general level of some 3500 feet above the sea. This is far from being the case, since nearly all the great groups found in the colony are represented by many forms, the Passerine birds being not only abundant in all the families, but of many of them, such as the bush-shrikes and ant-thrushes, the tree-creepers, the tyrant-shrikes, the wrens, thrushes, greenlets, tanagers, finches, sugar-birds, etc., there are many which are confined to the district, or at any rate have not so far been obtained elsewhere; though, indeed, this is hardly of special importance, since so little has been accomplished of detailed exploration in neighbouring localities that our knowledge of the distribution of the species is literally of the slightest. Again, while of the non-Passerine birds there are surprising absences of some of the groups—none of the Gruiformes, Ardeiformes, or Kingfishers, for instance, being met with,—and others, such as the Charadriiformes, the ducks, and the woodpeckers, are surprisingly few, there is an unexpected abundance of forms of other groups, such as the humming-birds (of which some 24 species occur), the hawks, pigeons, parrots, and goatsuckers, though in each one is struck by the presence or absence of individual species.

It is the case that few of these forms are much under general observation, nor is this to be wondered at considering that the few tracks over which travellers pass are usually in the more open and exposed situations, while the birds are mostly to be found in the copses or more sheltered places, where plants are more plentifully in flower or fruit. The extensive cleared lands in the forests for provision-fields are favourite haunts, owing to their open and mixed cultivation, and where these occur in the wooded valleys they are altogether the most favourable collecting-grounds for a large variety of the species. The birds are indeed the great protectors of the Indian cultivation against the ravages of their terrible plagues, the insects; and it may well be doubted whether cultivation would at all be profitable but for their beneficent work, since the people themselves do nothing to lessen the number of their pests in the fields. As well as the purely insectivorous forms, there are numerous species of the mixed feeders, whether granivorous, frugivorous, or carnivorous, to be found in and around these localities, which offer such favourable opportunities for observation as against the jungle of the forests, where the birds are either mostly hidden far above in the high canopy of leaves or equally secure in a more or less luxuriant undergrowth of small plants, mixed with creepers and climbers of all sorts. These clearings in the high forests afford the best opportunities of procuring many of the species not commonly met with on the lowlands of the coast—such, for instance, as the hawks of the genera *Accipiter*, *Micrastur*, *Geranospizias*, *Leucopternis*, *Harpagus*, etc.; though these and others, such as *Gampsonyx* and *Elanus*, are at times obtainable on the fringe of the interior savannah woods, mainly along the streams.

Bird-life in general is plentiful in the low woods in the wider valleys and along the streams of the elevated savannahs in the neighbourhood of the high mountains, but usually there is such a thicket of lower growth, mainly of creeping or scandent plants, often with sharp cutting edges or spines, that native huntsmen alone secure satisfactory results for the time spent. Even in the open grassy lands the results are little better, since the stretches of undulating plains and ridges, the surface of which from a distance presents the aspect of an almost even rolling sward, are mostly found to be excessively rough and irregularly cracked, strewn with rocks and the hard stumps of coarse growths, beneath a deceptive covering of tall grasses and other such plants, amid which one has laboriously to pick one's way, eyes to the ground, if one would avoid bruised shins, sprained ankles, or other worse mishaps.

Even on the trails it is essential to keep one's eyes on the ground, and to stop when one wishes to look about, for the tracks are so washed and uneven and narrow, all travelling being in single file, that careless walking is out of the question for safety, especially where it may be up or down. Wherever trails can be found they are but irregular lines, so to speak, mostly few and far between, across enormous stretches of country; and on a special journey the traveller has the chance of observation of a district, that might fitly be compared to a drop in an ocean of possibilities. Collections made in such an area, and even during a few months, can only be regarded as being a

few samples of its life, for one bears in mind that even on the coast, which is relatively so much travelled over, it is a fairly frequent experience to obtain, on some one particular occasion, some chance specimen of a species which had not previously been known except from the inner or higher lands, but which it becomes clear is common enough, probably over the colony generally, though it may not be easy to secure.

As illustrating this point it will be of some interest to describe the distribution of a few of the Roraima species and their allies. On a collecting-trip along the Abary creek, I once shot, at only a few miles distance from the sea, a single specimen of the white-tailed or grey kite (*Elanus leucurus*), which is now in the Georgetown Museum, and is the only record of the species from the coast, though it is known from Roraima and the great savannahs of the interior. The flight of the bird is exceedingly rapid; and the specimen was obtained by a mere chance shot as it pitched between the clumps of trees by the side of the creek, and under the impression that it was a rufous pigeon, which it somewhat resembles in size and in speed of flight—so much so that it is often known as “pigeon-hawk,” though this may be because it preys largely on them. The boatmen at once gave it the name of “hawk bass” (that is, master), recognizing it as a common terror to the pigeons and other birds along the creek, though only known to science from the far interior.

There was once brought to the Georgetown Museum a living specimen of the Guiana coquette (*Lophornis pavoninus*), which had been caught in the Georgetown livery stables, ensnared in cobwebs. Till then the species had only been known from Roraima and the Merumé Mountains. It has since been obtained at Bartika, and there can be no doubt that it must be common in the colony, though it is evidently one not easy to procure. The tufted coquette (*L. ornatus*) is only known locally from Roraima and other parts of the far interior highlands, with a range to Trinidad and Venezuela, but one can hardly believe under the circumstances that it is really so restricted in British Guiana. The rufous-breasted sabre-wing (*Campylopterus*) also, which had formerly seemed a very typically restricted Roraima species, mostly obtained at a high elevation on the slopes (6000 feet), has later been procured at Bartika, which reveals a quite different range near the coast.

The Charadriiformes present some especially striking features. The common Brazilian snipe (*Gallinago*) and the Cayenne or “Woodcock-Snipe” (*Homoptilura*) both occur at Roraima; but while the former is one of the commonest birds on the coast, found at times by the hundreds in the swamps and flooded pastures, the other was for long only known in the colony from the high lands of Roraima and Merumé. Later a single specimen was obtained on one of my trips by a mere chance shot on the Hooribea sand savannahs behind Georgetown, and still later another on the Ituribisci creek on the coast; while Wilson's snipe remains a novelty from the Supenaam, also a coast creek. Three other Roraima species (the spur-winged plover, the American golden plover, and the solitary sandpiper) are known from many parts of the interior, and are especially common on the coast, the golden plover, for instance, being met with on the pastures and low savannahs at times in

great flights of hundreds—they have been much decreased in recent years,—and equally so on the sandy flats west of the mouth of the Korentyn river, where also the turnstone, the sanderling, and the semi-palmated sandpiper or “nit” (*Ereunetes*), may at times be just as commonly seen. Yet these latter forms and the numerous others of the migrants, such as the greater and lesser yellow-shanks, the stilts and other plovers and sandpipers, which are so commonly found on the coast in their downward migration from the north, have not been obtained on the Roraima savannahs, though it would seem to be a most likely place for them, especially on their return journey when they do not appear to take the coast route. A special case of this kind is that of the common spotted sandpiper (*Actitis*), which at times is one of the most widely distributed to be seen along the banks of nearly every stream: it surprises one by its absence from the Roraima district. So, too, in the case of the large golden-eyed thick-knee (*Edicnemus*), which would appear to be a typical high savannah and forest bird, ranging from the Kuyuni and Mazaruni rivers to the Upper Ireng and the Rupununi and Essequibo, but apparently not on the coast.

It is remarkable in most of the great groups that many of the commonest coast forms are those which are frequently found at Roraima, while others less common on the coast and more abundant in the interior, or those wholly confined to parts of the high lands, often do not occur in the range. Thus of the parrots, one of the Roraima species is the screecher or orange-cheeked amazon (*Amazona amazonica*), which is certainly the commonest of the group in the colony, and especially on the coast where it will be met with by the hundreds and thousands at times when fruits such as the guava are in season, as in the great groves on the Korentyn coast, where we were able to shoot them at any time of the day when they were needed for curry or soup. Here, too, great flocks of the yellow-headed amazon (*A. ochrocephala*) have been found, a species that is usually so uncommon on the coast that it has often been regarded as confined to the interior, where it is the chief tame bird in the Indian settlements. It goes usually by the common name “Amazon”—though “screecher” is also applied to all these species—and is the best talker of the local parrots, if it has been brought up from the nest, when it will pick up every variety of sound that it hears. Though ranging over the high lands in general; it is not recorded from Roraima, neither are other species with a corresponding range, nor others wholly confined to the interior.

The Roraima macaws, the larger “Eta parrot” (*Ara manilata*) and the smaller species (*A. hahni*), are two of the very common coast birds, being met with at times by the hundreds and thousands, especially in the groves of the Eta palms (*Mauritia flexuosa*), or flying to and from their feeding grounds across the creeks and swamped savannahs, as in the Abary district, in great flocks for quite long periods continuously. The three large and beautiful macaws belong particularly to the high savannahs and mountains. The scarlet and blue (*A. macao*) is especially characteristic of the interior. The red and yellow (*A. chloroptera*) ranges also close to the coast, and I have met with them at times in great flocks of several score about the Potaro river. The blue and

yellow (*A. ararauna*) is very frequently to be met with also on the coast, as along the Hoobaboo creek, not many miles away from Georgetown; while on the Mahaicony creek I have on different occasions seen them crossing the creek by the score for quite a long time in the morning, for their feeding grounds in the savannahs: The special range of all three species appears to reach, however, only close to the vicinity of Roraima; still it would be very peculiar if they did not actually occur there.

Probably the explanation of many of the peculiarities in the distribution lies in the connotation of the term itself. For what is really meant by the Roraima district? If it were to be confined to the actual base and slopes of the mountain, certainly the bird-life would be considerably limited. But as a fact the district around extends for a considerable distance at much the same general level, rising frequently into higher irregular ridges; and the grass-covered areas are broken by forest clumps, especially along the water-courses. Over the whole area at their convenience, or as they met with success, the Indian collectors with their guns and blow-pipes would range from day to day, unless they were especially sent up the slopes; and the results would be samples from many directions where they were easily obtainable. Numbers of species would be likely to remain unrepresented, even when seen, either because they would be perceived in flight, or situated where they offered no chance of close approach, for no Indian would dream of attempting shots on the mere chance of hitting—the only justification for the shot being the certainty of the result. Many specimens are thus at times ruined beyond chance of preservation by the nearness of the shot, when the men have slowly crept as close as possible to the object; and if ordinary cartridges with the breech-loader be given them, there is every likelihood of small specimens being blown to pieces. With the blowpipes the conditions are more favourable, but specimens on the wing are out of the question, and equally so distant stationary objects. Where a traveller would risk a difficult chance shot in either case, a miss is met with derisive laughter by these people, the attempt being either regarded as a foolish one or is put in the same category as a miss at their usual close quarters.

In going out for game the huntsmen never attempted the slopes of the high mountains, but made for the open country, over which they would range for considerable distances. The game birds, such as the large maam (*Tinamus*), the small maams (*Crypturus*), the maroodi (*Penelope*), and the hannaqua (*Ortalis*), which have so wide a range to the coast, would hardly be got from the cold slopes, but at the base level around, where, too, other widely ranging forms, such as the splendid pigeon (*C. speciosa*) and the Muscovy duck, would most likely be got. Considering the occurrence of this last species, while one might not be surprised at the absence of the widely distributed coast "vicissi" duck (*Dendrocygna discolor*), it is strange that the characteristic savannah "vicissi" (*D. viduata*), of the interior highlands has not been obtained.

It is noteworthy that while none of the vultures, caracaras, or urubitingas are in the Roraima lists, some of them are always to be seen in the track of the fires, which are set to the dry grass of the

parched savannahs in the districts around, in dry seasons, where they may find an abundance of food either in the small animals trying to escape the flames, or in those that have been burnt or have been suffocated with the smoke. It may be mentioned as a peculiar thing that many of these and of other hawks, which ordinarily are regarded as carnivorous, carrion-feeding, or insectivorous, are often found with practically little else of food contents than fruit, seeds, or young leaves and leaf-buds, which, while it may sometimes be due to a scarcity of their ordinary diet, is certainly in others a condition of ordinary habit.

Among some of the further villages, inhabited by the peoples calling themselves Monikos, Sokorikos, Eukarikos, and Kwating people, there are to be seen, suspended from the timbers of the houses, striking representations of such birds as the Muscovy duck, the swallow-tailed hawk, and the herons and storks, in easily recognisable form, skilfully made up of corn-cobs, sticks, and string, the habits of the negro cop being even indicated by the figure of a fish in its beak. It was interesting to note how such forms as the heeri (*Eurynura*), the nigger-head (*Mycteria*), the negro cop (*Jabiru*), the cocoi heron (*Ardea*), and the American egret (*Camerodius*) were marked off by their size, the shape of beak, and the colour of beak and legs. It would seem, therefore, that these birds are familiar objects in these districts, from which it is not, in fact, a far flight to Roraima, where the absence of some of them, as of others, seems inexplicable except on the theory that they have only not yet been procured. It may be mentioned, in relation to common names, that on the coast the herons are usually known as "cranes" and "gauldings" according to size and colour. Thus the cocoi heron (known to the Indians as "honoré") becomes the "blue or grey crane," the large egret becomes the "white crane," while the snowy egret and the blue heron are the "white gaulding" and the "blue gaulding" respectively.

In one of the nearer villages on the Upper Ireng river, I once saw a young swallow-tailed hawk being reared entirely on large grass-hoppers of the genus *Tropidacris* (called by the Makushis "Sasa"), which were plentiful in the locality, and were greedily eaten by the bird, specimen after specimen being taken and quickly torn to pieces. In another of these villages the two species of the beautiful fire-tailed parrots (*Pyrhura*) were kept in captivity. One of them is known from Roraima, as no doubt the other will be later. In these less accessible districts, far away from the common trade routes and centres, birds and other animals in captivity were much less frequently seen than on the lower savannahs, such as those about the Rupununi river; and I think it probable that the practice has been encouraged and become established rather for the purposes of trade and barter, whether with travellers in the country or on the occasional visits of the people to the coast, than from any real appreciation or love of the creatures themselves.

The very beautiful kissi-kissi parrots (*Aratinga*) and the kestrel are much more common on the less elevated parts of the plateau than about Roraima itself, the former being sometimes seen in flights of several score, wheeling about in squadrons, as it were, and dashing from copse to copse in the valleys, with piercing cries. It is one of the

noisiest of all the parrots. It was always interesting to watch the kestrels hovering for their prey, and to see them occasionally forced to drop it, when just rising, by a sudden dash on them, from some perch close by, of the long and fork-tailed tyrant-bird, which thus easily secures its food at times—presumably a matter of consideration to them under the disadvantages of their very ungainly flight, especially in high winds, when they are considerably hampered by their tail-feathers being much blown about, the birds being often turned nearly right over. The little yellow-faced kite (*Gampsonyx swainsoni*) is commonly met with on these same parts of the plateau, and its absence from the Roraima list is one of its surprises. Both these tiny hawks are extremely common on the sandy wastes of the Rupununi savannahs, especially in the extensive areas of cashew trees about Kwaimatta, where the “ki-ri-ri” of the kestrel and the “komeh-twi-twi” of the kite—from which their Makushi names are derived—are some of the most frequent and distinctive of the bird-notes.

Many species of finches, some of which are known on the coast as “grass-birds” and “grass canaries,” are to be found about these high savannahs, the most noticeable being the little *Sycalis*, specimens of which would rise suddenly from the grass with a little startled cry, to drop again quickly but a little aside, or in front, just as does the little pipit, which, while common at Roraima, is equally so on the wide sand flats on the Korentyn coast.

The district can hardly be regarded as a good one for mammals, though no doubt specimens of many small species would well repay the careful search of the naturalist. The great ant-bear, other ant-eaters, armadilloes, agutis, and kibihees (*Nasua*) may at times be obtained in the vicinity; but game such as the savannah deer, the red brocket and the wood brocket, and the peccary, can only be got by hunting-trips of two or three days in the surrounding country, where also the jaguar may be met with. On the return on the first journey, as we passed in the late afternoon south-east of Waitipu (from which position the mountain loses its peculiar dome shape, and lies extended like a lion at rest with its head raised to the west), we had heard in a wood not far away the peculiarly sharp roar of one of these “tigers,” the cry being repeated at short intervals, which caused the people to say that the beast was hungry. Their skins are sometimes seen in the settlements, mostly cut in strips or made up into hunting pouches; and the claws are prized for protection against the Kenaima or bad spirit. The canine teeth are used for the same purpose, and are very frequently seen in necklaces, especially those worn by children.

The reptiles, batrachians, and fishes would doubtless also well reward careful and long-continued investigation, which is the great desideratum for both the animals and plants in this difficult country of such varied physical features. The fishes appear to be all of small species, for the hooks asked for as barter are the very smallest kinds. The frogs are rather plentiful to judge from their calls; and one small black and yellow species is much used in the near settlements as a beena, for good luck in hunting, several being tied up in leaves. The spawn or tadpoles are eaten in some places, where small pools or special recesses in the sands along the swiftly running streams are prepared expressly

to give opportunities for deposition and development. Rattlesnakes and labarrias are to be found in the savannahs and copses, but we saw only the latter, and a large one, of about five feet in length, was killed near by at one of our camping-places on the return on the first journey. It was found while clearing away some loose brushwood and debris not far from the river-side, and was shot and damaged beyond chance of preservation as it was escaping to the shelter of some rocks close at hand. It had been badly turned about and irritated by the dragging away of the driftwood, under which it had been concealed. The species appeared to be different from the common form (*Lachesis atrox*), for the jaw stripe was indistinct, and the markings on the side much more distinct than on the back; while the underside of the tail was reddish-yellow. A common species of Leptodira, a harmless snake with markedly triangular head and constricted neck, and body-markings somewhat like those of the labarria, for which it is mostly mistaken by those who know little about snakes, is frequently met with in the thatch of the low houses and old sheds. No doubt it is responsible, with other such forms, for many of the common tales of recovery from so-called labarria bites after the use of a large variety of useless remedies.

Down in one of the valleys on the flat, we had seen a large group of what in the distance looked like small houses close together, but which in reality were the mounds of the Termites. Some must have been more than ten feet in height, and many had an edging like the eaves of a house. They were intensely hard, and attempts for a short time to dig in to the galleries were quite futile. We had neither pick nor crowbar, but we tried, with cutlass and axe, to make a hole at the base deep enough for a dynamite cartridge; but it was hopeless with these unsuitable instruments, and the explosion merely blew off a small patch of the outside. It would have been interesting to ascertain the species, and to see the nature and plan of the galleries, as well as the method by which the smaller nests are built up into the larger, for they seemed to be just as securely roofed over. None of them had been torn open by any ant-bear, for which we were sorry; and we had to leave them with our curiosity unsatisfied.

Other insects and arachnids were common enough in many places, and interesting collections could be made of all the orders, if camps of at least a few days' duration were established to deal with the miscellaneous material in the various localities. On long journeys it is a hopeless problem, for not only does one get quickly left behind in attempted excursions from the trail, but when one reaches the site for the camp, at the end of a long day's tramp from early morning, weary and probably foot-sore from a very rough track, there are always so many little things to be seen to, for one's own personal welfare and that of the men also—such as the arrangements of the camp, the commissariat, the loads, ailments and accidents in general, writing up of diary and notes, sanitary requirements, etc.—that but little, if any, time is left before night for any satisfactory attention to the preservation of miscellaneous material; and after the evening meal, apart from the matter of light, it is mostly a question of "early to hammock, early to rise," the start next morning, after a very early tea, being

always an early one, preferably at the first streaks of dawn, to take advantage to the fullest extent possible of the cool hours.

The insects and others that fix themselves most in one's remembrance are surely the pests, such as the sand-flies and ticks; though an occasional visit of the cushis or umbrella-ants (*Atta*) and the hunting-ants may be very troublesome. Mosquitoes are rarely met with on these open elevated lands, and chigoes and dog-fleas are mostly local to the settlements or sheds on the sandy wastes, especially abandoned or unoccupied ones, which we were careful to avoid whenever possible, preferring our camp in the open, where, even if it was not always very comfortable in bad weather, it was altogether more wholesome in every respect. The cushis were not troublesome to our persons, but sometimes to the stores and clothing, biscuits especially being reduced to fragments and carried off during the night, as well as portions of soiled garments, and even gantlets and helmets (pith) were liable to severe damage, if not destruction. Hunting-ants were a nuisance on the rare occasions when they passed through a camp among the trees, stinging and biting sharply, and driving everything before them—a very unpleasant experience if it happens at night, when there may be little or no light.

The bush-ticks are a more serious trouble. They are flattened, hard fellows, small and large, which hold on like grim death, and are very plentiful in some parts on the low bushes, from which they become detached as one brushes against them. They often swarm on some of the wild animals. They are intensely irritating; and, if carelessly scratched or picked off, leave their sharp jaws in the skin, causing great and prolonging itching, with swelling and soreness, for it is almost impossible to avoid rubbing or scratching—often it is done quite unconsciously,—and especially if there be numbers of them about one's body, which is usually the case if they are the small kind. As they are mostly on one's clothes in the first instance, attention is only drawn to them when it is too late, and at times they could only be avoided by having the body thoroughly well oiled or rubbed over with grease beforehand—a remedy nearly as uncomfortable as the disease—while tramping perhaps in the hot sun (though it is mostly a forest trouble), but this is very far from being the case, as the Indians well know. In their case, however, with bare bodies except for the narrow loin-cloth, the solution of the difficulty is a much easier one. If the specimens be large, they can easily be caused to let go their hold by the application of heat, as from a live coal; but the small ones require a good dressing over the body with vaseline, kerosene oil, oil of cajeput, or the so-called crab-oil, prepared from the seeds of the crab-wood tree (*Carapa*); and this means waiting until camp is reached and perhaps after some hours of acute discomfort, if not actual misery. Luckily it is not a frequent experience, unless one remains in infested districts.

The sand-flies may be on occasion even more troublesome, especially by rocky or sandy places near swamps or streams, where sometimes they occur in great swarms. They seem to be very local in their distribution and irregular in their seasons; and even places that bear their name, because of their usual prevalence, may at times be found

free of them, as mentioned in one instance by McConnell in the itinerary of the first journey. This is mainly due, however, to the effect of drought, for it would seem they are plentiful everywhere in low-lying and flooded areas in the wet seasons. The larger species, commonly known on the rivers as "Kabowroos"—the "noonka" of the Makushis—produces an intense itching where they have pierced the skin, leaving little clots of blood which soon blacken; and the exposed parts of the body may be altogether pitted with them. They may be literally a real torture at times, and cause one to dread the chance exposure of any part of the body, as in bathing. Luckily they are easily killed by a slight slap, but the operation would have to be a continuous one to give any relief; and it is a marvel to witness the stoical endurance of the Indians under the infliction on their bare bodies. Familiarity no doubt explains much, though the oiling of the body, an atmosphere of smoke in the enclosed houses, and frequent slapping afford relief. Strong-smelling oils give some protection where clothes are not available, but the effect is only for a time; and at the camps the ordinary mosquito-netting is not of much use, as the little insects quickly get through: and one hails the coming of night, when they are not about. As may be imagined, the work of the naturalist in the skinning and preparation of specimens, is often one of literally sore trial. Yet, on the whole, in the cooler, more elevated high lands, there is a minimum of these various discomforts—if, indeed, they are not wholly absent.

In the open country, as also on the coastlands and along the rivers, one is frequently wondering at the flights of the white and yellow Pierids overhead, often for long periods. Somewhere they must be breeding in astonishing numbers, possibly in the forest canopy, since no one, as far as I am aware, has ever come upon the caterpillars in the numbers that would be required for these swarms. The commonest butterfly along the track, however, was a species of *Junonia*, which seems to be ubiquitous over the savannahs of the sandstone range. At times, many other species of Nymphalids, Hesperids, Lycaenids, etc., were to be seen; though the most curious of all these insects was a caterpillar of about three inches in length, with long and thick pink, yellow, and black hairs, that was crossing the track on a ridge where the grass was very short and sparse on a rocky ground. It is the only caterpillar I have ever seen which, from the rapidity of its movements, can really be described as running. Possibly it found the rocky track hot under the heat of the sun, or it may have been alarmed by the vibration from many sandalled feet, but its pace was astonishing, and it must have been largely habitual. It would have been interesting to rear it, if circumstances had been favourable: in ignorance of its food-plant, it would have been a trial for both parties.

The grasshoppers frequently arrested attention by their numbers and variety—chiefly the red-marked dark species, the young of which were collected for pepper-pot, and two huge kinds, species of *Tropidacris*, one with a blue and the other a red hind-wing. The latter (the "Sasa") was once met with in and around some of the Upper Irenge villages in extraordinary numbers; and the projecting central poles of the houses in one village, on an exposed plateau, were covered

with thick layers of them, clinging to each other, and evidently congregated where they could get the warmth of the air escaping through the apex of the thatch, which is always left loosely layered at this point, giving a good draught for the smoke of the many fires within at night. Till quite late in the chill morning, the insects clung to their perch. In the wooded valley below, they were numerous, particularly in and around a very extensive abandoned provision-field, where some tall simaruba trees were so thickly crowded with them in the evenings, on stem and branches, that the ground beneath had become literally a bed of their excrement and dead bodies; and it was impossible to move about without disturbing numbers of them where they clung thickly to the bushes or rested on the débris on the ground. The coarse early second growth in these abandoned fields, a thicket of trumpet trees (*Cecropia peltata*), young simaruba, spiny solanums, etc., with a close overgrowth of scandent coarse grasses, sedges, and creepers of many kinds, allows insects like these to breed up in excessive numbers where they are hidden and protected from the hawks, which so largely help to keep them in check; and I am inclined to think that, mainly in this way, the great numbers are started, which, from time to time in favourable seasons, become so great a scourge to the cultivated areas in different parts of the colony.

It was quite an event to get a record of the true large lantern-fly (*Fulgora*) in one of these forests of the sandstone plateau. The species is known by the name "Anárowa" among the Makushis, and a dead specimen was brought to me by an Indian who had caught it alive in the valley. He had secured it because of the brightness of the light of the enlarged front of the head, to which he pointed; though he had been at first somewhat alarmed by it, as being some sort of kenaima or bad spirit. As the man knew nothing of the disputes as to the luminosity of the species, his testimony must be regarded as valuable and definite, although it is quite possible that the light may be dependent on seasons, as a purely sexual character. Eager search for a living one met with no success. We were rewarded, however, by finding a fine leaf-insect of the handsome genus *Pterochroa*, the species having green front wings—the tint, reticulated veining, and perfect shape of the apparent leaf being astonishing. But for its movement, it would never have been detected, the protection being even more remarkable than in the strange stick insects, which so closely resemble dried twigs. On the first journey in the Kanuku Mountains, we had found another species, in which the resemblance was to a fading yellowish-brown leaf, and equally remarkable in its protective character.

Occasionally we secured some honey at some of the villages for the men, who are very fond of it. It was dark in colour, much like the moorland honey, but watery. There was never any real comb, but large globular or urceolate cells, singly or in groups, filled with honey, and from which large quantities are at times obtained. It was generally a stiff task getting at the cells in the hollow parts of large trees, and when encountered on the track there was seldom time to be spared, except near a camp, or when they were in the recesses of the rocks; and sometimes the small quantity found was no reward for the effort, though the men were always ready for the attempt.

In some of the savannah copses, a few species of shells occurred, but they were mostly old dead and broken specimens. They included such forms as *Bulinus oblongus*, *B. fraterculus*, *B. regina*, *Stenogyra octona*, *Leptinaria lamellata*, etc. In some of the dried up swamps were numbers of dried and broken apple-snails, of such species as *Ampullaria glauca*, *A. papyracea*, and *A. cornu-arietes*, in most cases with very thin and fragile walls, which often broke into fragments on slight pressure. Lime was clearly deficient in the plants on which they fed, as it markedly is from the Guiana soil generally; and yet about the rocks and falls in some of the streams there were a couple of species of Melania (*M. atra* and *M. circumsulcata*) with shells of much thicker and harder texture, as they are more frequently in the waters of the low lands. Crustaceans were seldom met with. On the burnt savannahs were occasional fragments of a land-crab, and a living one was once found among the rocks in a stream. Except the prawn already described, a species of wood-louse was the only other member of the group noticed. I sought particularly for that ancient type of organism, *Peripatus*, but met with no reward, though in Georgetown and on the coast generally specimens are not difficult to find. Certainly prolonged investigation would bring to light many species of these various groups.

Over the savannahs generally, on the slopes of the ridges and in the valleys, but especially by the banks of the watercourses, among the rocks and the clumps of trees, and by the moist and swampy places near steep rocky bluffs, there were many flowering plants occasionally brightening the picture, though many were small and only observed in a near view. Many of them, collected on the two expeditions, were new species; but mostly they were common and widely distributed over the country. They include such forms as the yellow Byrsonimas, orange-yellow and purple-red Malpighias, yellow and pink Pavonias, white and blue and purple convolvuli, pink and yellow and blue passion-flowers, pink and white and yellow Mandevillas, yellow milk-worts, yellow Crotalaris and Clitorias and Cassias, red Mimosas, a lilac Diperyx, golden Pœcilandras, fragrant white Eyrillas, large-flowered fragrant Clusias, the large-leaved *Archytæa multiflora* with its large and fragrant apple-like blossoms, white Ternstrœmias, yellow and red and purple Melastomas, white Ruellias, yellow Jussieas, red Diantheras, blue spiny Hydroleas, the striking many-flowered white *Tocoyena*, a peculiar blue *Didymochlamys*, a rubiaceous species (*Sipanea*) looking much like a crane's-bill, red Loganias, blue Solanums, pink Droseras, yellow and blue bladderworts (*Utricularia* and *Genlisea*), blue and red and yellow gentians, a fluffy and long-podded Asclepiad (*Ditassa*), small species of *Peperanthus*, white and yellow and red *Epidendrum*—the last of every variety of shade,—a fragrant yellow *Cyrtopodium*, the quaint lady's-slipper (*Phragmipedium*), the handsome *Cattleya Lawrenceana*, with its rich purple-red flowers, magenta Sobralias, besides many others—several of them extending up the slopes of Roraima.

It is not too much to say that detailed investigation over this great district must add enormously to what is known of the flora. What we know is the result merely of a few rapid journeys over tracks that are like threads across the territory; and of the great mountains we have only the results of a few fragmentary collections made on parts of one

of them. What this must mean in the case of such a very specialised flora as that of the upper slopes in particular, will be better realised when it is pointed out that they show no aspect whatever of uniformity, but are made up of an altogether irregular series of broken ridges and valleys, wide or narrow, shallow or deep, with gentle slopes or precipitous faces and bluffs, running across or towards the great escarpments, as so clearly shown in the illustration facing p. xxiii, Itinerary, Vol. I. Moreover, the surface may be merely rugged or thickly strewn with rocks of all sizes, covered with grass or mixed with bushes and occasional small trees, broken at times by swamps, or closely overgrown by a thicket of woods and creepers and epiphytes, intersected by streams and narrow gullies, up to and over the great jumble of huge rocky masses that in the long course of ages have fallen from the immense vertical walls, and where the atmosphere amid the vegetation is humid and dank in the extreme—an ideal home for the most luxuriant growth of succulent and delicate flowering plants, and of cryptogams of all sorts, that literally run riot in every direction, on and over rocks and other plants, and often forming a most deceptive carpet over the débris below.

The character of the surrounding savannahs is, of course, much less varied and broken, still it is sufficiently so to present a very wide range in environment for plants. At times the surfaces are almost wholly of bare rock or pebbly débris, or of white and red clays and sands, irregularly weathered and fissured, where some scanty soil has collected in little drainage channels, giving roothold for small plants. Mostly the valleys and ridges are grass-covered, with sparse bushes; though woods are frequent, especially in small coppice in sheltered situations or along the watercourses; and according to the elevations and the nature of the slopes, there are numerous small gullies and water channels with cascades, pools, and swampy areas, always rich in vegetation.

Down the steep sheltered sides of the valleys and channels, the sandstone is often just covered with a thin carpet of grass, over which the water dribbles; and these are favourite situations for masses of the peculiar-looking bromeliad, *Brocchinia reducta*, with its rolls of golden leaves. All about the moist gullies, there are numbers of ferns of many kinds, with a variety of gentians, orchids, sundews, bladderworts, xyrids, bromeliads, and other small growths; while among the rocks and on the broken débris, and along the streams, are larger flowering trees and creepers, such as species of melastomes, clusias, cassias, etc., some of which were in splendid flower, like masses of gold, red, or purple, and among them the brilliant red clusters of the fruit of a scandent prickly palm (*Desmoncus*). Some of the Ternstrœmias were especially beautiful, such as the splendid *Bonnetia sessilis*, with its fragrant rose-like flowers, though the equally fragrant *Archytea*, which recalls so much the scent of the meadow-sweet, is difficult to surpass with its masses of apple-like blossoms. In further districts plants of *Mahuria* were found in flower, with beautiful panicles.

It was noticeable that, in these more exposed situations, the plants of the characteristic *Cattleya Lawrenceana*, which was obtained in large quantities by Siedel, the first of the German orchid collectors, were

much smaller and poorer in growth than in the more humid atmosphere higher up, though probably the larger growths had been already carried off. On the stunted trees along the streams and dried-out channels, small plants were numerous.

One of the most interesting of all the orchids was an *Epidendrum*, apparently *E. schomburgkii*, which is very widely distributed on rocks and stumps, often much exposed to the effect of wind and sun. Its beautiful and abundant groups of red flowers were remarkable in the variation of the shade of colour, passing at times into pale crimson and magenta, pink or pale orange, or even to nearly a pale yellow or white, more or less of the variation being often seen on the same inflorescence. At times it was so striking that it almost seemed, at a first glance, as if two or three different species were growing together in one clump, though the extremes were mostly in individual flowers of different bunches. The range in size of plant and flower in this hardy species was even more noticeable than in the *Cattleya*. They often grew on bare rock in such exposed situations it was astonishing not that they were stunted, but that they could survive. The humidity at night no doubt gives the explanation in this and in other cases, hardly less remarkable, such as *Cyrtopodium cristatum*, a specimen of which was found growing amid small bare stones on a high hill, its golden, brown-spotted flowers being very fragrant. The commoner species, *C. andersoni*, which goes by the local name of "sugar-cane orchid" from the appearance of its long and thick, apparently jointed pseudo-bulbs, which may reach about six feet in length, is often found on bare rock fully exposed to the sun, as at the rapids of Akra-mukra, Essequibo river, and in the Kanuku Mountains; but in this case there are very large reserves of moisture, though the peculiarity remains in the starting of the young plants originally, unless some protection has been lost in some way from the site.

It was noteworthy that, while many forms such as the yellow *Jussiaea*, the blue-belled gentian (*Lisianthus uliginosus*), and the crimson campanulate *Centropogon surinamensis*, which were plentiful in the valleys of the upper plateau, were also met with in the lower savannahs, some of the most striking of the lower forms did not reach the Roraima district. Among these were such forms as the fragrant purple *Rhynchanthera*, the deep-blue *Stachytarpheta*, the sky-blue *Jacquemontia*, and the new purple *Ipomœa irengana*, which are so common at times either along the streams or in the open savannah, the last apparently flourishing best on the ant-hills.

A rather small spiny *Mauritia* palm (*M. aculeata*) is somewhat common in the vicinity; and not far away the great *Cœta* palms are plentiful in the valleys, with other such useful plants as the giant reed or wild cane (*Gynerium saccharoides*), and the *Agave* form (*Furcraea*) of the plants called "Crowia." The *Cœta* is not only of use to the natives as furnishing sandals (which are fairly lasting if allowed to dry before being used), thatch and fibre, from the leaves—the fibre being a strong one for string, rope, and hammocks,—but the fruit is gathered for food, especially in times of scarcity, when the provision-fields may have failed. The pulp is pressed into large balls, and is mostly used in the form of a rather thick drink. The wild cane yields

arrow-shafts from the strong pedicels of the inflorescence, the silvery-pink panicles of which are so much like those of the sugar-cane that they at times raised false hopes at a distance, the deceptive appearance being soon corrected, however, as the plants flourish by the banks of the streams. The *Crowia*, including also some bromeliads, furnishes a very fine quality of strong fibre, which is much prized for thread, fish-lines, and hammock-ropes. The plants grow in profusion on some of the more arid rocky slopes, where other vegetation is sparse; their leaves are sometimes used as a thatch in the smaller houses and open sheds, which are only occasionally occupied.

Farther away, and over the lower districts, many palms are met with, of which the fruits are used to increase the food supply in hard times, such as the species of the spiny *Acrocomia* and *Astrocaryum*. The urua palm (*Attalea*), which occurs so locally in the colony, is very rarely to be seen in the forest, yet just above the Kotinga we had passed plants which were taller and finer than any others I had ever seen, the spread of the leaf reaching to about from 30 to 40 feet.

At Roraima itself I had no opportunity, on this journey, of a close examination of the provision fields, which were situated on the slopes of Kukenaam Mountain; but it was clear from the profusion and quality of the cassava, yams, sweet potatoes, corn, pumpkins, and sugar-cane, that they grew in good soil and under favourable conditions, the disintegration of the volcanic rocks in the sand-stone providing fertile areas that are brought under cultivation both in the valleys and on the slopes. At some of the outer settlements we had been very interested in finding plants of a large scandent pea (*Dioclea*), with large pink and white, purplish flowers, and of an edible *Solanum*, not unlike a tomato, but with oval-oblong yellow fruit and very large leaves. There were specimens, too, of another kind of *Solanum* (*S. crinitum*), said to be inedible, which, in an abandoned settlement and field farther away, was found growing luxuriantly to a height of about ten feet, and forming a thicket over nearly the whole area. The flowers are large and vivid blue, the fruit bright yellow, nearly round but inclining to oval, and of the size of a small orange and very abundant. The whole plant is covered with thick soft prickles, and with hard spines scattered about, while the leaves carry spines and are large, though smaller than in the edible kind. It was not found growing anywhere as a true wild plant in the country, but in full fruit and flower it was one of the most striking forms that came under observation.

In these elevated savannah districts, rubber trees of a species of *Sapium*, called by the Makushis "Kash-a-yé," occur in favourable localities. In the neighbourhood of a settlement at some distance from Roraima, there were several large trees growing in the open, from which the people were obtaining supplies. They yield abundant milk in the wet season, but little in the dry, though it is said to be then of a finer quality. The rubber is used in making balls for a game, in which the fun consists in running wildly after the ball which is kept going in a series of long and high bounces by sharp strokes of the hand, any miss of the stroke being greeted with shrieks of derision. Investigation may possibly reveal considerable sources of supply.

On reaching the village at the foot of the mountain we were very much disturbed at finding that there were no people; nor did there appear to be signs of recent occupancy, as far as we could judge. We did not, in fact, examine the empty houses very carefully, for, after all, the report of some virulent disease might be true. It looked like it, with the total absence of all the people from so large a village, for there were some six large houses, each capable of holding some dozens of inhabitants. There were, however, no signs of burial to be seen in the immediate proximity, as might have taken place if large numbers had had to be buried; and we wondered whether perhaps the people were merely away on some kind of celebration.

However, we took no chances; and we all slung our hammocks in the central building, known as the church. This was a very large and open structure, raised some three feet from the ground, with a low open railing around the sides, but quite open above that, and with a wide-spreading roof coming low down outside the railing—so that it was perfectly sheltered inside from rain, even in the strongest winds, while thoroughly ventilated. The other houses, in which the people had lived, were all of the ordinary clay-wattle at the side, and were much warmer, being thus inclosed; but our men all had blankets, and had been very glad of them in many of our cold camps. Our extra carriers had been sent back, some two days earlier.

We had reached Roraima early in October, and were thus about a month earlier than on the first journey. As vegetation in the savannahs was not parched or hardly dried up by the dry weather, we hoped the results on the summit would be all the better. Our supplies would allow quite a fortnight or more in the district; yet we could not help thinking of the extra cassava and fresh provisions we might have got from the villagers from the fields under Kukuenaam and elsewhere. We wondered if there were people up at the farther village below Kukuenaam, across the river, but it did not seem worth while to waste a day going there. Besides, they would soon know we were here.

Preparations were at once begun for the ascent, Ritchie remaining in charge with instructions to send out huntsmen for meat and game—for deer and maam and marudi can be obtained in the outer districts—and other men with smaller shot to get whatever specimens of smaller mammals and birds, etc., were to be found. Cozier and Gold were to remain below to skin and prepare what was possible. McConnell intended to remain on the summit only long enough to make a selection of photographs, and then to come down and organise the best collection procurable, chiefly of birds, of which Whitely had obtained so many new and rare species; while I hoped to stay on top as long as possible or till collecting was exhausted. From our former trip we knew there was little of animal life to be got; but the flora was extensive, and the area to be examined large.

McConnell had brought a small tent for use on the summit, with thick waterproof sheet for the ground. There were besides photographic apparatus, plant presses, papers for them and collecting tins, bottles and tubes with formalin, painted canvas bags with clothes and hammocks, and tarpaulins for camps on the slopes, all these to be taken

up besides food—enough for about a week for a small party on the top, the bulk to be stored in a camp at the foot of the wall, to which additions could be made as required by a relay of two or three men, every two or three days, to replace others on the top.

An account of the ascent has already been given in McConnell's narrative of the first journey in the first volume, and it will only be necessary here to add extensions where fresh information has been obtained. The plant with flowers like balls of crimson silk (*Pithecolobium ferrugineum*), which is one of the endemic species, was in brilliant bloom, and it was as an omen of better things to come. Remembering the fire which had been carelessly set to the dry bracken on the former trip, and which had worked havoc amid the vegetation all over the slopes, even endangering our lives when it had blazed fiercely around us in the tall dry stuff, we had requested everyone to be careful on this point, though it was usually desirable to burn off dry grass where possible for the destruction of poisonous snakes. There was therefore no need to pause now below on the track for things we might get at leisure later on; still we were obliged to stop awhile at the famous El Dorado swamp, where there were in fine flower the beautiful pitcher-plants and Utricularias, gentians, liliaceous plants, Burmannias and orchids, of very many tints of red and yellow and blue and brown, many very fragrant, and especially *Eriopsis schomburgkii* with its long spikes of brownish-purple flowers, with several others, amid which the bright golden-yellow leaves of *Brocchinia reducta* gave the general tint when seen from a distance. Various small bushes, creepers, shrubs, and trees, scattered around, were also in flower, with varying shades of red, yellow, blue and white, mainly reddish-yellow and reddish-blue Melastomas, a golden *Cassia*, a brilliant yellow *Mandevilla*, and a rich red *Retiniphyllum*, most of them new species. The slope looked brighter, and was even more fragrant than we had remembered it.

Perhaps one might mention here from the Report on our two Botanical collections, already referred to, that while among the general Guiana flowering plants the largest number belong to the Leguminous order, then next to the Orchids, the Melastomes coming a poor seventh, the order of precedence changes among the flora of this upper slope to the summit, the Orchids coming first, then the Melastomes—the Legumes being, as it were, nearly out of it.

Entering the forest-belt we found the old track distinguishable at first, but soon it began to get so overgrown that as we advanced it became almost impossible to say where it lay; and it was a matter of trying this part or that to see which was the more likely. Our progress therefore was slow, and it became certain, considering the rough, insecure, and treacherous foothold, that we could not reach the wall till the next day. We pushed on carefully as far as possible, and then late in the afternoon returned to the edge of the forest-belt to make as comfortable sleeping-quarters as we could. We hoped to be able to pierce to the wall next day, make a camp, and perhaps ascend to the top—the ascent being very doubtful, as from the excessive moisture of the upper part, the track was likely to be much more obscured by overgrowths.

In the morning early we started off, and soon found ourselves in

greater difficulties than on the day before, for there was literally no trace of a path, and a much worse foothold. It was a close mass of new vegetation that had grown up in the four years since we had been here: and it was with great relief that, hearing shouts behind, we looked round and saw our old guide, Schoolmaster, the very trustworthy Arrékuna who had cut the trail up to the summit on our former visit. We had been great friends, and it was a cordial greeting in its way. He was now the chief of the village under the Kukenaam Mountain, his father being dead; and hearing that we had come again and had gone up the mountain, he followed, as he knew from former experience that the path would be quite obliterated with overgrowth. Another man had come up with him from his village.

And now we were able to enquire about the villagers from below. It was true there had been a bad sickness that had carried off many of the older folk especially, but it had been long ago, and things were all right now. Jeremiah had taken the people on a visit to another village, but no doubt he would be back as quickly as he could, when he heard we had returned to Roraima.

Schoolmaster also told us that his people had brought down supplies and paiwarri for our men, which McConnell begged that he would continue regularly, keeping an account until we should come down. We knew he was thoroughly to be trusted. Then we turned to the work in hand, the new men leading.

It proved a long task to clear a good path for the carriers through the very luxuriant vegetation and over the piles of rugged rocks that in the long course of ages had fallen from the cliffs. It was really a new track, but the direction was so true that a long way up we came upon a rocky archway over the path which had been its most characteristic feature, looking like the remains of a large building; and we finally struck the very beginning of the ledge. There was a difficulty in finding any place suitable for a camp with the tarpaulin. Where the ground was fairly level, just against the foot of the wall, it was bare and rocky; the rest was a steep rumble of rocks, with an open growth of palms (*Geonoma appuniana*) over them, the stems being weak and bent in every direction. However, we bound them together, and were able to make a shelter for the stores, and eventually managed to sling our hammocks as best we could, the supports being so flexible that when we got in we almost rested on the rocks. It did not rain that night, fortunately for us, and the sides of the tent were made secure next day with palm leaves. Near the camp the wall was overhanging, the water dripping from above falling away from the foot, and all along one could see how altogether rough and uneven the surface is in reality, though away it looks so even and smooth.

In the bush around we heard the notes of some birds, and saw what we took to be a thrush in the rapid glance we had of it. Nothing was shot, however, in the two or three attempts made, though we sought for some time. Even if we had hit anything, it was very doubtful whether it could have been found amid the deep and wide rocky interspaces, except by a mere chance.

Not far away were some loosely-growing blackberry bushes, apparently of the same kind as some more luxuriant ones lower down. The fruit

was large and rather acid, not being quite ripe. On the wall were some pretty little golden-flowered *Melastomas*; and on trees and wall and old stumps were numbers of the brilliant crimson *Utricularia Campbelliana*. There were none of the white species, *U. alpina*, to be seen, of which we had found a single specimen here on our first trip.

The vegetation on the ledge is in general much more dwarf and scattered than in the upper part of the forest-belt, though there are, at the lower part especially, very close clumps of a small bamboo, which is very difficult to penetrate. Upwards it is much more exposed and wind-swept, and the scanty soil easily becomes washed away—except in some more sheltered corners. The ledge is very clearly distinguishable in the picture in Vol. I., facing p. xxii, Itinerary. It is seen crossing the wall obliquely, from the right-hand side above the middle of the view, to the top of the left side by the rounded outer eminence; and from below it presents an irregular but continuous green surface. The grassy area in the front is a part of the slopes immediately below the forest-belt, and is just above the El Dorado swamp, some 5400 feet elevation.

At the highest point, before reaching the deep gully, where the bluff is most prominent, the trail runs on almost bare broken rock with very dwarf growths at the edge, being here sheltered by the projecting portions of a sort of irregular ledge above. The unobscured view of the rough and bare face of the walls, the irregular slopes of the forest-belt and the rock-strewn savannahs below, with the village and the winding Kukuenaam river, and the whole stretch of country away to the horizon, with mountains in the blue distance, is entrancing and unsurpassable of its kind. From the greater heights of the summit, everything below is seen depressed into a more uniform level: here they stood out more boldly, and present an altogether indescribable picture. One was loth to turn away from it—it was such a feast for the eyes and imagination. At various points of the ascent there are fine views obtainable of the surroundings, but this one from its range and comprehensiveness is unique.

The stream at the bottom of the deep gully was very small, the water from above falling like heavy rain, splashing the bare rock of the wall as well as the few bushes against it on the further side, by which one can get some little assistance in the ascent. Its size depends on the rainfall above. It swells quickly after a heavy shower, the rocks being already saturated; and in the wet season there must be a very considerable fall. Roraima-paru would be a general name for all these places, though a particular one bears the name Kamaiva—hence the name of the village, Kamaivawong.

The disintegration and breaking away of the upper part of the wall, which have left this uneven ledge, must have largely been caused by this stream and the numerous others that soak the upper edges, in the wet season especially. Even now a rapid process of alteration is going on, here particularly, and on the western slope down which must rush a great accumulation of water from above, very largely through the wide channel by which one enters on to the plateau. The outer part of this slope is swept clean below of any kind of vegetation. The sandstone rock all over the mountain is very variable in its

density: in some places it is quite hard, in others very friable, the difference being especially noticeable along the lines of stratification, as is so clearly shown by the irregularities of the disintegration in the illustrations opposite pp. xxxi and xxxii, Vol. I.

By keeping to the plants at the foot of the wall, the ascent from the gully and the descent also are safe enough, though arduous and requiring much care; but on the outer bare rock the passage is dangerous, for the slope is not only very steep, but it is inclined outwards, and a slip would certainly mean a fall over the edge of about 1000 feet, in spite of the fact that the rock has weathered into a series of small steps along the strata. On the former journey, as there was water by the wall, I had ascended by the inner part of these steps on all fours, and descended them sitting; and slowly as I had gone it was yet a very unpleasant experience.

McConnell's narrative of the ascent on the first journey unfortunately breaks off at this point. To complete it, it may be said that the upper part of the ledge, before it merges into the plateau, is much less inclined, and bears a good growth of plants—especially of *Brocchinia cordylinoides*—like those found on the top, which are thus being gradually carried lower down, probably by their seeds. At that time, as we merely wanted to get a real idea of the undertaking, we had taken nothing with us but some breakfast and a collecting-tin and net, intending to return to the camp and go up with our things the next day, if possible; but once up, Lloyd and I determined to make the best of the night on top, in order to gain as much time as possible for collecting all we could of the flora and fauna. McConnell was obliged to go down to make a selection of photographic apparatus, which the men would be able to bring up with other necessary things, since the path was not more difficult than they could manage with light loads—certainly not worse than parts of our second journey, though there was much more of it of the same character in the one spell. They had come up next day; and the three of us remained on top for the night, which was passed in the rough camp I had made the day before, enlarging it for the purpose. The camp is shown in the illustration opposite p. xxix, Vol. I., and was made by putting up a thick shelter of *Bonnetia* branches and tops, round a deep recess under some very projecting rocks in three series above. At the inner part the ground was dry at this time of year, and as there was nothing dry outside we had used the leafy clumps of *Bonnetia* to make a fairly soft covering over the rocky floor, as well as for blocking the opening. Of course, it was not very comfortable, especially for McConnell's length; but it served to give us protection from the weather, and as a fact, being tired out, we slept fairly well under our blankets. Failing these on the first night, Lloyd and I had nursed a fire until he asked whether the moist sandstone rock overhead might not split from the heat. The next day the men from the village, where most of the carriers had been left under the care of the chief Jeremiah, had come up to tell us they must go away, as I have already related; and we had gone down in time to reach the village by nightfall.

Now we had a tent, which we were able to put up on an almost level space in front of the old camp, where a thick sward of mostly Mono-

cotyledonous plants held the pegs securely for the ropes. We cut away the spiny leaves of some *Abolboda* and *Connellia* and some hard stems of *Stegolepis*, and as the ground was very wet, covered it with a thick layer of *Bonnetia* tops before laying down the waterproof sheet. The site was a low ridge overlooking the gorge by which we entered the plateau, and the distance for the men was thus very short. As it happened, it was by no means the best situation, for just a day or two before going down, I came upon a deep, wide, and perfectly dry cave under a great pile of rocks, that would have been a splendid working room for drying the plants, and a refuge for all of us, being protected in the front by high slabs that allowed a good light to pass in over them. It was only a little farther in towards the East, on the left of a wide open valley, but approached by a rather narrow passage which had served to hide it.

The seven illustrations of the summit in Vol. I., from the photographs taken by McConnell, show very clearly the general configuration of the plateau and the prevailing character of its vegetation. Another photograph gives a very good picture of a sheltered site, where trees of three new species of *Didymopanax*, *Sciadophyllum*, and *Stiftia* were growing. They were mostly very thick-stemmed, spreading and umbrellaous, the tallest of about 15 feet or more in height; and Jacob was sent up to stand in the outer branches to give an indication of the size of one of them, and that one not the largest, being on the outside, as seen in the photograph.

It may be said at once, there is no forest anywhere on the top of Roraima. Wherever trees of the genera mentioned or of *Bonnetia*, which may be much taller, are found, the clumps are always small, situated where some sort of soil has accumulated, away from any great wash of water, and not exposed to the full blast of the north-eastern winds. The usual position is in some curve or angle of the valleys, facing south or west; and in one such I came upon an unusual growth of a tree that at a distance looked from its habit like a palm. It must have been some 25 feet or more in height, with a clean stem, unbranched except at the top, where there was a thick head of leaves, from the apparent size of which I concluded it must be of one of the three genera mentioned above. It must have been drawn up in its effort to reach fuller light by the crags against which it grew, and it had the appearance of a tree which had grown among others and then been isolated. Its site was not very accessible; and as it was not in flower, nor could I have cut it down at the time, no serious effort was made to get under it.

The most favourable situation for the tallest *Bonnetias* was in deep narrow gullies hollowed out in the wider valleys or open parts of the plateau. The stronger sunlight above had in places drawn up the plants to what I estimated as being from 35-40 feet. Here also were the most luxuriant growths of such plants as the myrtles, cyrillas, hemp-agrimony, melastomes, tree-ferns, sedges, and grasses, and miscellaneous others.

It will thus be realised that in a general glance round the summit, there is nothing to relieve the desolation of the disintegrated sandstone of which it is composed; and the first impression is as if some

titanic conflagration had swept all over it, leaving only bare and blackened rocks. It is only in detail that one can appreciate the features of its vegetation, which is most abundant in sheltered nooks and crannies, and corners, by the pools and behind protecting rocks, and forming a rough carpet of mixed growths of all sorts scattered about the valleys, in open exposure to the sunlight.

During the long course of ages, the play of wind and rain has worked the rock into an astonishing variety of shapes—looking at times like roughly carved figures of men and animals and familiar objects—rising often into lofty pinnacles, like great towers and minarets, over elevated ridges, irregularly terraced and rugged, with narrow winding gullies and wide open valleys which drain away the excessive rains through numerous shallow pools and streams. The highest ridges rise to 8740 feet, and the deepest gullies are some 400 feet below them; and in all one is struck everywhere by the irregularities of the weathered rock. In places the sandstone may be hard, but mostly it is soft and friable, easily breaking away, especially on the weathered and disintegrated projections, so that falls may be frequent, and constant care is required in laboriously clambering about them while collecting. It was tantalising at times to note some apparently new specimen in positions where a broken neck would have been the almost certain reward of the attempt to reach it. As it was, bruises were frequent enough where the rotten rock had given way unexpectedly; and one was chary of climbs up or down really steep places, preferring long and tedious ways round by safer passages, where such were to be found, to reach specimens that were at first but a very few yards off. Collecting therefore was often a very slow process, but quite unavoidably so—apart from oncoming mists and clouds that obliterated everything for the time being. One always wondered, when on some high ridge, whether they might be permanent.

Occasionally one comes on some comparatively deep pools on the lower parts of the ridges, where there may be small channels of running water or cascades from the heights. They are, however, never large, being generally about some five feet in depth and a little longer at times; and they had always large numbers of dragon-fly larvæ in them. Those in the gullies were usually much larger, but very shallow, of about one or two feet in depth, with numerous rocks and much sand. In some of them, but frequently exposed, as if the pools had dried up leaving a fine greenish scum, were a profusion of quartz or quartzite crystals, often in masses, the individual crystal often being about four inches long and an inch through, and quite clear. They were the cause of much speculation, some of the people bringing them in under the impression they were diamonds—no doubt with dreams of the rush that would take place to the distant Roraima, as to other places where gold or other diamonds had been discovered. “All is not gold that glitters” is as applicable to quartz crystals as to pyrites. It is not very long ago that a prospector had loaded his boat with blocks of a peculiarly clear and bright rock crystal from the Kuribrong river, under the belief that he had hit upon a whole original formation of diamonds. The Elizabethan warrior is by no means singular.

During nine days' continuous exploration it was possible to range

over nearly the whole area, except to the extreme northern side. Before this was an enormous gorge, always filled with rising mist; and it was clearly the channel of the Kotinga stream, into which many of the valleys discharged their water from far inwards beyond the middle line. Representing this in a way, but in the other direction, was a wide, open, long valley, sloping slightly from the eastern edge towards the western, past our camp where it spread out, and lying not very far from and roughly parallel to the south-western face by which we had come up. In wet weather its waters would partly help to swell the various falls over the edge of the great cliff and also the stream that would discharge from the gorge at the top of the ledge. It afforded the easiest walking on the plateau, and is seen in part in the illustration opposite the map in Vol. I. There was entrance from it to numerous side valleys running towards the northern gorge, and no doubt in future ages it will be worked down to a depth comparable with that of the Kotinga to-day, which, when the outer part has been entirely worn down and broken away, will leave an approach to the plateau not very unlike in character, though different in position from that which gives access to-day.

The fauna is small and insignificant, both as to number of species and of individuals; but with the exception of a dragon-fly, a wasp, and a beetle, they were all new to science, and some of them were types of new genera. A few of the insects collected were immature or indeterminable. Besides these there were a few others which became spoilt, among them an earthworm and a woodlouse. Some medium-sized black butterflies, though rather common, were very difficult to catch over the rough ground, and one we managed to secure was hopelessly damaged. Some dark yellow and pale yellow and white ones, flying high in the wind, never gave a chance of capture. They seemed to be passing over rather than to belong to the Roraima top. With these exceptions the specimens were described by various naturalists in the 'Transactions of the Linnean Society,' 1900, already referred to for the new prawn. Those obtained on the first trip had been described in the 'Annals and Magazine of Natural History,' 1895.

Of vertebrates there were a small rodent (*Rhipidomys*) which was named after McConnell—it had been caught at night in a bucket of water leaning against the rocks: a *Zonotrichia*, also appropriately named after McConnell, as, after great trouble, he had shot the specimens flying about the scanty vegetation: a small lizard, caught under some rocks: and a tiny black toad (yellow on the under side) which was the type of a new genus, *Oreophrynella*, and of which several specimens were collected, as it was the commonest of all the forms, though very difficult to detect among the small pieces of blackened rock, as well as on the general surface. Another new species of the genus (*O. Macconelli*) was obtained at the foot of the mountain. Another form had also been collected. No fish were to be seen in any of the pools, though at first glance some of the dragon-fly larvæ had been mistaken for them. A large white hawk, perhaps a species of *Leucopternis*, was seen flying near the top, but almost certainly it belonged to the slopes, where there would be more food than on the practically barren top. We had thought an armadillo might be found,

as some marks in loose earth under some rocks looked like a trail—the Indians said they were,—and one of the orchid collectors who had spent a day on top had seen, or thought he had seen one, but none were met with. Their presence is quite probable, though it would necessarily be a very small species, as food would be limited. It might be mentioned that a larger toad was obtained below, which was the type of a new genus, *Otophryne*, besides other new species.

The invertebrates were a myriapod, two species of spiders, and a scorpion—other new species were obtained from the slopes,—a dragon-fly—there was certainly another species also,—a wasp, and six species of beetles. Of several of these many specimens were obtained, serving to extend the knowledge of new genera which had been made for them. The damaged forms are not included.

As these various types had only been discovered after prolonged search and careful examination of the different parts of the plateau, on both expeditions, it is not surprising that none of them had been obtained by Messrs. im Thurn and Perkins on the first ascent of the mountain, when they had been able to remain on the top for but a few hours.

The plants are peculiarly interesting, being both numerous and markedly specialised—as was shown by the original collections of im Thurn, which, considering the short time in which they were made, were extremely comprehensive. As was to be expected, our additions—the result of very detailed examination—have extended the knowledge of the flora in many directions, there being for instance 38 new species of flowering plants, two of them being types of new genera (*Connellia* and *Quelchia*), 11 new species of Pteridophytes, Bryophytes, and Thallophytes, with 10 more new forms collected on the topmost part of the ledge, in direct contact with the summit; besides 12 other new species collected on the upper slopes, and many new records of species from the whole range to the top, several of which are of very great and even peculiar interest.

Im Thurn has described in detail the aspect of the flora (*Timelari*, vol. v. 1886, and *Trans. Linn. Soc.* 1887, in which are also the systematic descriptions by various botanists who worked out the collections); and certainly much of it is very brilliant with colour, among which the most striking are the bright crimson clumps of *Ledothamnus sessiliflorus* and its varieties, and the rich pink and red, many-flowered *Befarias*, and other red Ericaceous plants; though the fritillary-like red *Lisianthus imthurnianus* and the deep crimson of the new *Utricularia quelchii*, somewhat recalling its congener on the wall below, are not less striking in their way. Shades of red are the prevailing tints, especially noticeable also in the pink of the pitcher-plants (*Heliamphora nutans*) with its purple and green pitchers, the pale pink or red *Leitgebia imthurniana*, and a *Marcetia*, with exserted stamens and yellow anthers. But there are many others, and, one of the most beautiful, the rich rose-red of the new bromeliad, *Connellia quelchii*, about which N. E. Brown, who described it in the Report, has remarked that it was well worth cultivating.

The white flowers are abundant in the fragrant and rare myrtles, one a new species, but especially noteworthy in the large and creamy

spread of the new Rubiaceous species, *Chalepophyllum speciosum*, with their long tubes. The little blue milkworts—a new species of *Monnina*—came as a welcome change; though there are several yellows to be seen, one of the commonest being a new *Lisianthus*, with large almost funnel-shaped flowers.

The most common and widely distributed plant of all on the top, *Bonnetia rorainve*, which at times is found as a comparatively tall tree, bears a small flower hidden by its brush of leaves. The plants were always welcome, however, as affording a little relief to the scene of blackened rock, though what one mostly saw were bare brown stems and branches reaching up to a small tuft of small rusty-green leaves at the top, which at a little distance look more brown than green. Their very look suggests that they must be very slow-growing. They occur everywhere in the lower positions, and are shown in many of the illustrations in Vol. I. In the one opposite the map, many clumps are seen growing in the exposed open valley, where from their stunted nature the leafy tops are brought close together, giving a thicker and more conspicuous appearance than usual in relation to the bare stems and branches. The wood is hard but very brittle, and somewhat resinous, so that when green it burns readily. It was our common firewood in this condition, though supplemented by dead pieces when the fire was being lighted.

Unfortunately, though there were many plants of the fragile and low-lying *Crepinella* to be seen, even right by the camp, none were in flower; nor could I detect anywhere specimens of the new and very interesting genus of ferns, *Enterosora*, which had been found by im Thurn. Orchids were numerous, but not conspicuous and showy in any special degree. The little clumps of the small mistletoe, *Phoradendron*, were also plentiful; while ferns were especially abundant, both in clumps and species, in the more sheltered positions, where they were thick in the crannies and around the sides of the rocks and other moist recesses—as were also numbers of other mixed growths of all sorts, often gathered into a close sward or carpet, as so well seen in the illustrations in Vol. I., opposite pp. xxix, xxx, and xxxiv. As there was great difficulty in drying the larger and more succulent plants, some of the common well-known species, like *Brocchinia*, were not collected.

Though of the flowering plants the orchids are represented by the largest number of species, the Compositæ are not far behind, and they are much more conspicuous in their bushy, shrubby, and arborescent growths, as seen, for example, in the genera *Quelchia*, *Eupatorium*, and *Stiffnia*. The Ericacæ and the Melastomes follow next in numbers of species, but they are found in very abundant growths, and, as already indicated, are very conspicuous by the bright colours of their flowers. Many orders are represented only by one or two species, and they are often some of the most interesting.

It was noticeable that many plants were not in flower or seed; and as most of the species are endemic, it is certain that considerable additions of very interesting material will be made in collections during other months than those at the end of the year. Besides many delicate forms may have died away entirely during the drier weather.

And these remarks hold good of the slopes below also: so that Burkhill's regret, already quoted, has real cause.

In this connection it will be of interest to mention some of the special features brought out by Burkhill in his Introduction (*loc. cit.*) as to the nature of the Flora of Roraima above 5000 feet. Referring to the high proportion of endemic species (50·6 per cent.) among the flowering plants, he writes:—

“The proportion of endemic Spermophyta may seem large, but does not exceed that on record for some of the mountains of Mexico. Of far greater interest is the number of endemic genera. The law that mountains by their isolation and extension, as well as by their latitude, produce endemic genera, is illustrated by their number in the ranges of Cis-Equatorial South America: thus there are eleven among the Spermophyta of Roraima, and only two in the Coast Andes, which are comparatively small and not isolated, but I am aware of no fewer than thirty-six in the extensive Andes of Colombia, including with them the Cordillera of Merida.

“The endemic genera are enumerated on p. 7. They belong to as many orders. One of them—*Heliamphora*—has no kindred in South America, but belongs, like *Cyrilla*, to a North American group; all the rest have more or less close allies in genera of the South American continent. *Ledothamnus*, however, deserves further remark, because it is one of the very few Ericaceæ with ericoid leaves which exist in the New World.”

He points out also the special relationship of the Roraima flora with that of the Andes, and not with that of the southern mountains of Brazil, with which it has been compared, and in which any similarities noted are much more due to similarities of climate than to any evidently intimate relationship between them in times past. Thus he names six genera as common to Roraima and the mountains of South Brazil, but not reaching the Chilian Andes, being in fact not montane in a restricted sense: also seven genera of the Andes which extend from the north to Chili, also to Roraima and the mountains of South Brazil; while there are fourteen genera of the northern Andes, not overpassing Boliva southwards, but reaching Roraima, and not South Brazil—besides thirteen other Andean genera extending to the Coast Andes of Venezuela, reaching to the neighbourhood of Caracas, but not yet found on the Roraima Group.

A luminous passage may also be quoted from the Report by Stephani:—“The collection of Liverworts made by Messrs. McConnell and Quelch is a small one, but is of particular interest from a geographical point of view. Many plants were found which hitherto had been only observed in the Andes of South America; their unexpected appearance on the top of Mt. Roraima is quite startling: the curious *Frullania mirabilis*, Jack et Steph., is of particular interest, as well as the very rare and beautiful *Pleurozia paradoxa*, Jack, both of which up to this time had not been elsewhere observed.” The collection of Liverworts contained 40 species.

Clearly therefore one may sum up the matter by saying that recent extensions of our knowledge of the Flora of the Roraima district—in which Mr. McConnell's special expedition bore an important part—but

serve to show that a very great deal, and probably of remarkable interest, yet awaits discovery.

During the day with a shade temperature of about 64° F., it was very pleasant on the summit, except when thick mists or clouds lay over the mountain and the temperature would sink rapidly many degrees below that. The nights to us coast-dwellers were very cold, the temperature ranging on occasions to as low as between 44°-47° F., though probably in July and August it may be higher, and lower in December and January, as would naturally be the case. The morning was nearly as cold; and early collecting was hardly a joy, as even if there were no rainy mists or actual rain to soak one through, there was little to choose between these and the dripping bushes and saturated thick felting of dead and living small plants into which one often had to penetrate to collect plants or search for animals. The water or moisture in these places struck one's body as almost icy. Once we had attempted an early dip in one of the very clear pools with sandy bottom, but in the chilly atmosphere we did not repeat it.

Often in the course of long tramps, heavy passing clouds would settle on the mountain, coming on so suddenly and quickly that at times one might be caught high up on some ridge, and it was a time for speculation as to whether they would shift or settle for the rest of the day. Luckily they always passed away after a little time, otherwise a descent from some of the ridges and the return to camp might have been rather doubtful, as there would be but an opaque whiteness around, and at times we might be miles from the camp with many ridges to cross. In the rainy season these clouds might settle on the mountain for days, so that collecting would be no sinecure, if at all possible. Even as it was, with the clouds settling down in the late afternoon or evening, as a rule, and not rising till the morning, it was a difficult matter drying the plants and keeping the papers dry in the saturated atmosphere. One was obliged to use a fire under the little tent, with a drying-pan for the press, which meant late sitting up and constant attention to prevent injury.

Once we had a very unpleasant experience in a thunderstorm of great violence, the worst I have ever gone through. We had returned to camp in the late afternoon to prepare specimens and avoid the clouds which might settle, and were pottering about not very far away, keeping a watch for insects or anything else that might be about before dusk, when strong winds seemed suddenly to rise, and heavy rain came on, with a very dull light, and then terrific lightning and thunder broke all around, almost blinding and deafening in their intensity. Luckily we were in the open, and not on any ridge where the discharges might be taking place, but the thunder-claps were literally at one's ears, and they echoed and re-echoed along the winding gullies in the most astonishingly loud and sharp manner. It was altogether a real clashing of the elements, and we were more than glad when it passed away to Kukenaam on the west, receding in the distance, but leaving behind peculiar echoes in some of the valleys. The loud whistling winds in the *Bonnetia* trees, and in these resounding valleys, had been at times like some stormy sounds of the ocean on the shore, especially when combined with pelting rain, and

they had been in fact rather soothing under our shelter: but thunderstorms of such severity were quite another matter. The southing of the winds in the slender *Bonnetia* branches and their thin tops, with recurrent echoes, was always a half-surprise when one woke from fitful sleep at night, as though one heard the distant murmuring of the seas; and perhaps the closeness of one's ears to the ground may have added to the impression.

After getting the only species of bird noticed on the top, and taking a representative series of photographs, among them the one of the tree with Jacob in the branches, McConnell had gone down on the third day for the special effort on the birds below, and in the most considerate manner had left our personal servant, George, with me. As a fact, I hardly know how I could have managed without him, for as the days passed I began to get so stiff in the back and legs from the constant soaking with the cold moisture and water, and perhaps too from the chilly waterproof-sheet at night on the moist ground, that I had to get about with a sort of half-stoop; and George always had something hot waiting for me, and he would relieve me greatly by rubbing me over with vaseline and embrocation and warm cloths, which kept me going. Besides, he was of the greatest use in helping me to sort out and prepare the miscellaneous material brought in. We could not always remember all that had previously been collected, so that the selection took more time as we went on; and he was of much more service than any of the untrained Indians could have been under the circumstances.

At last, however, as new material became practically exhausted, I decided to join McConnell below, where, as I heard through the relays of Indians who came up, he was getting a very fine set of birds. I hoped to be able to do some work on the more sunny slopes of Kukenaam and in the extensive clearing of the provision-fields, and perhaps in the unexplored gorge between the two mountains.

We all got down safely, many carriers having come up so that the loads might not be heavy. Suffering as I was with stiffness in the back and joints, I found the descent a long and laborious task, for though the path was now well-worn and open, it had become worse by the traffic over some of the moistest and steepest parts, where it was the easiest to slide down on the back and side; and I was literally plastered with mud and the slime of many small plants before I got out of the forest-belt. To make it worse, a cold drenching rain began falling heavily when I was some two miles from the village, chilling me to the bone during the slow walk over the narrow rocky track: this was the last straw for me. For more than a week I was nearly helpless in my hammock, and it was nearly another before I was able to attempt the return journey. McConnell told me afterwards that he had made all arrangements with Ritchie to have me carried on our former track south, which though longer was nothing like as difficult as the Mazaruni route; and, of course, the Indians were all sure I was dying, as a penalty for staying so long on the mountain and going all over it. With the increasing stiffness, I had realised that such continuous work, under the moist conditions inseparable from it, would most likely cause me much suffering later, but with limited

time in such a field one is inclined to run risks that would be inexcusable otherwise. Certainly it did not occur to me that, outside of my own possible suffering, I might so considerably inconvenience McConnell and prolong the expedition through helplessness.

In the meantime, McConnell was a centre of activity not only as to the birds, but also to the plants, which required frequent changing in the presses and dry warm paper. When the weather was bad, the cassava baking-slabs in the houses had to serve as driers, with but the loss of a paper or two occasionally. He was often out with his gun, and the men were kept busy ranging over the district. From the little they brought in, we felt sure they spent the time (or most of it) either at neighbouring villages or sitting down away from observation. They had been told that rattlesnakes and labarrias, which are the two commonest of the poisonous snakes of the colony, were often met with in the grass, and we had been inclined to look on it as an attempt on the part of the Arrekunas to frighten them, as the elevation seemed against it. Schoolmaster, however, assured us it was the case, and McConnell himself had once had a very narrow escape from a labarria not far above the village. He was walking through the grass on the slopes carrying his gun on his arm as was almost habitual with him, when a sudden feeling came over him—as he said afterwards—that a snake was in the grass poised for striking; and without waiting to aim, he just dropped the gun to his hand and pulled the trigger. Some sort of unusual movement in the grass must have struck his glance in a sort of unconscious way, for there surely lay a good-sized labarria with the front of the body blown to pieces by the close discharge, and it had been just where his leg would have been struck by it. As he wore no leggings and only thin trousers, it probably would have been a fatal bite. Considering the amount of travel that has been done all over the colony, it has been on very rare occasions that so close a shave has been run. Luckily, these reptiles are mostly on the move at night and quiescent by day in retired spots, so the chances are few that one would tread either on or very close to them, and even in the latter case they often remain quite undisturbed, as happened with the bushmaster mentioned by McConnell in the first volume.

The Arrekuna boys of the two villages proved invaluable in getting the small birds with their short blowpipe and arrows. After McConnell began paying them with bright three-penny pieces—new ones obtained specially for the trip—he had no difficulty in getting all the boys into service, and even the little chap photographed with the breech-loader in Vol. I. p. xxiv had proved to be quite an expert in that way. The tiny blowpipe-arrows were not tipped with poison, as in the larger ones, the blow itself proving sufficient for the smaller birds; and in the case of the very smallest, such as the humming-birds, they used a blunt and thicker-headed arrow, by which the bird was only partly stunned, giving time to run up and secure it. The plumage was thus not soiled by blood either then or in the skinning, as sometimes may happen after the most careful plugging of shot-holes. Perhaps Whitely had left some of these methods as a tradition in the district, and this was almost certainly the case as to the manner in which the birds were carried. Instead of being put into the usual hunting-bag of string or

basket-work, they were slung through the nostril on the fine string of a tightly-bent bow, the bow being carried in the hand; and the plumage was thus not in the slightest degree ruffled.

The boys were so keen it was difficult to get them to come in before evening, when it was rather late to sort out the sets and settle up. For the skinning it did not much matter, as in the cool atmosphere there was no difficulty in keeping them till the next day, though Cozier would frequently keep at it till late in the night. He quite understood this was his busy part of the trip. The boys soon found it was to their advantage to bring in the less common forms, as they got better pay, and most for those not previously brought in. McConnell would often remind them of those we did not want, of which enough had already been prepared, but naturally not always with success, though the boys were quite content to take them away to be eaten. They were always eager and interested in looking over the skins, remarking with animation on individual forms secured in special places; and many of them just as eagerly watched and tried to imitate Cozier's work, occasionally with remarkable success. The collections being incorporated in this work, no detailed mention of them is necessary: as was to be expected they were mostly Passerine birds, and many only obtainable in the Roraima district.

As the houses were safe from any infection, and some of them only occupied by two or three women, our Indians soon left the cold church to sleep where they could have a fire under their hammocks at night, as is the Indian habit. It apparently suited all parties, until one woman came to tell us that none of the men came to sleep in her house: she was by no means satisfied with our assurance that it was the men's own business. They frequently made bargains for beads, and I suppose this was the object behind the complaint.

McConnell's narrative has already mentioned the perfect passion or mania among the native peoples for church-going. Any person of any sort of authority, or claiming it, would be quite readily accepted as parson, especially if he could sing anything or read or pretend to read from a book: and the people would come to church whenever they were called or a bell should ring. The bell seems to be the great thing, however small a hand-bell it may be. And at the gatherings the people are perfectly decorous. It is a fine survival, in its way, of the services that used to be held in the former missions on the great savannahs, and has been kept alive by the visits of the people to the various missions along the lower parts of the rivers. Within recent years there have been established branches of various sections of the different churches in the savannah districts, and the Indians have been more than satisfied. At Roraima, with the chief Jeremiah as parson, services were every day in full swing, though we occupied the greater part of the building.

Many years ago a young deacon of the Church of England had spent quite a long time at one of the large villages on the Upper Ireng river, not very far from Roraima, under urgent request from the chief, who exercised great authority in the district, and people had flocked thither from all directions, Jeremiah and his villagers among them; and in the building which he had put up afterwards on his return to

Roraima, he had regularly carried on church. The imitation of the manner and ceremonial of the parson was so perfect that it was always like pure comedy to witness it, though it was painful in a way, since one saw that underlying it all there was real deep feeling, with the desire to learn and to worship something that could be but a species of Mumbo-Jumbo in reality to them. Neither Jeremiah nor any other could read, though they knew by heart many parts of the service of the Church of England printed in the Akkawaio language, which the other Carib tribes understand. Many of them could only pick out some of the capital letters in the book of the services which the chief had, but they could repeat many of the chants, the collects, and parts of the prayers and Psalms, and knew exactly where they were in different parts of the book, pointing to the places, though they repeated merely from memory, and were quite at sea if dodged about. Some of the older women spent the day in the church teaching the younger to learn these parts as "school," and they would point with a stick, word by word, as they had seen the teachers do in the mission school-houses—at times, however, at what had nothing whatever to do with the words they were repeating.

Lying in my hammock ill, and in no happy frame of mind from the waste of precious time, so far as the trip was concerned, I was an unwilling listener and observer through the whole procedure for many days; and when I was sufficiently recovered as to be able to draw the letters of the alphabet and the numbers up to 10, after repeated entreaty from Jeremiah, and to help him and others to learn them—which they did in surprisingly quick time—I was considerably taken aback in finding that these also became a part of the church teaching, with loud and frequent repetition. They sang the chants, however, in a remarkably pleasing manner; and the whole service was an altogether astonishing performance, in which the sermon was not the least peculiar, for Jeremiah was constantly posing, with rapid and emphatic gesticulations, sometimes with his head rested on his hand on a high desk at which he stood, or his hands outstretched or raised aloft, his fingers pointing or clenched, his voice modulated in tone, either subdued and pleading, or ringing with denunciation. I must confess I sometimes wished that I was sufficiently familiar with the language to follow what he said, in which No, yes, good, bad, dead, come, go, to-day, I tell you, do you understand, God, Jesus Christ—the last especially—frequently recurred in varying tones.

The deacon had evidently been High Church, and Jeremiah's separation of the sexes, and his bowings and bendings before the altar, were quite a feature. The altar was represented by a small wooden table, on which were a large dressed doll, a wooden cross, and some bible and general newspaper illustrations, of which there were others suspended around. Jeremiah is shown in his parson's dress in the illustration opposite p. xxvii, Vol. I. Under an old frock-coat there is a wide band of white cloth hanging down to the feet; around the neck a narrow white band; and over all a large piece of mosquito-net, as a surplice. His wife appeared for service with a small piece of mosquito netting over her head, causing McConnell at once to dub her as "the Bride." Perhaps it was the distinctive dress for the chief schoolmistress and choir-leader. It was all very comical and yet pitiful.

Associating with these native peoples, as on these long expeditions, but especially in living among them in their native surroundings, one cannot help becoming very much interested in them. As a rule, they are quiet, inoffensive, and placid, giving the impression of being apathetic, though this is far from being the case, as their interest can very easily be roused. Their reserve and apparent indifference are merely the result of long training in tribal habit, in which they are taught by example to do for, and rely on, themselves, and to mind their own business—the boys from quite an early age associating with their father and other men, learning a man's work, such as fishing and hunting, and the making and repair of the various articles used, such as bows, arrows, and boats, together with basket-work, house-building, and the clearing of forests for provision-fields; the girls as markedly keeping with their mother and other women, engaged in all the miscellaneous work of the home, such as the getting of provisions from, and the care of, the fields, the preparation and cooking of the food, looking to the needs of the men and the family in general, the getting of fuel and water, the making of hammocks, and the spinning of its materials, etc. The women thus become the labourers and carriers in all routine work, and on a journey from home are loaded up with all the necessaries of home-life, with the babies and tame pets, such as parrots and even fowls, if the absence be for long—the men marching in front with their bows and arrows or gun, carrying perhaps their hammock and a hunting-bag with their few necessaries and ready at a moment's call to secure whatever may offer in the way of game, though probably the idea of protection had a good deal to do with the formation of this apparently selfish habit of disregarding the heavy loads of the women.

Unaccustomed as the men are to carrying heavy burdens, except on rare occasions such as a very successful hunt, it is surprising what weights—anything from fifty to eighty pounds usually—they will carry quite willingly on a long day's tramp, and for many days at a stretch, on a long expedition, though each individual is always ready at the start to leave the heavier loads to others, unless special rewards have been promised, such as a gun, to the best carriers. Then many will attempt considerably to overload themselves, asking for additions to an already heavy load, no doubt partly to attract attention to what is being taken. On rough difficult tracks, however, such really heavy weights are a mistake, as even the strongest men are apt to get knocked out by bruised back or sore feet, and probably fever, causing considerable delay and inconvenience, and perhaps worse liability, if it be in an uninhabited district.

Though very hospitable to travellers and to each other, always offering food and drink on arrival, they tend to become, through the tribal habit of mainly concerning themselves about their own affairs, callous to the difficulties and sufferings of others, except of their own immediate relatives—though after all one cannot perhaps say that they differ much in this respect from the members of civilised societies in general. In the course of much travelling I have been struck by the fact that they seldom or never offer to lighten loads for their companions, even when their own have been very largely reduced by the use of supplies; and, unless the captain rearranges the baskets, those with their original

packs do not seem even to expect relief. On one occasion on leaving camp I had stopped a young carrier whose load seemed excessive, for an extra bunch of bananas had been added to it, probably by one of the older men because he was a new carrier of another tribe. On the approach of two strong men whose packs had visibly been lightened for supplies, I indicated that they should take the bananas. They protested, saying their loads were heavy, as they generally will do, even though they will subsequently add on considerable quantities of sugarcane (of which they are particularly fond) for their own use, if they happen to pass a field. As they made no attempt to take the bunch, I took it down and slung it over my back, when, seeing my intention to take it myself, they at once unslung it, cut it in two, and sped along the trail, with some laughing remark. They were willing to do for me what they had refused for the stranger; and probably, if, in the first instance, I had simply cut the bunch into two and handed each his half, they would have taken it at once and gone on in equally good spirit. It was a lesson in management.

On another occasion, at one of the breakfast-camps on the first journey, I had missed a lad who carried a collecting-box. On enquiry I learnt that some of the men had passed him, lying down with fever, far back on the track. On going back some good distance I came upon him, still lying down under the shade of a rock, and with hot fever; and very likely he would have remained there till night had I not noticed his absence. It was a case of each man minding his own business, for each had his own load. I tried to convince them that they should at least have told me when they came into camp (for I had been well in front) because I wanted all of them to be looked after, and I did not wish any of them to be left on the trail at night, and perhaps to be killed by a jaguar, if they were lying down ill. And yet later on the same journey, while returning, Lloyd had dropped out through severe pains in the stomach and fever, and had been passed, reclining on the ground, by several men who made no attempt to inform me. His non-appearance at the camp by dusk led to enquiry, and my return along the track with a lantern. Probably they had thought he was merely resting and would come on later, but after the former experience I had expected they would at least have asked him if he were ill or have told me on reaching camp. Their habit of unconcern was too strong. Luckily on this first journey I had been particularly fit all through, and was able to do much that would have been out of the question on the second.

An instance that betrays a more serious defect may be given of the treatment of a blind girl at one of the large settlements. I had come upon her by chance near a house where I seldom passed, and was struck by her uncertain movements, and her pitifully neglected and dirty condition, which is altogether unusual among these people. I then found she was blind in both eyes. The lower parts of her body and her hands were infested with chigoes and her hair with lice; and she was alone in the house—a delicate and pathetic figure of wretchedness. The people gave her food, but that appeared to be all; and no doubt they were surprised that I should make so much fuss about the girl being looked after and kept clean. However, they readily did all

I required at the time, but, on going to the house next day, I found she had been taken away to some other place, whither I was quite unable to ascertain. I could not really at heart regret my action, but I wondered whether perhaps my interference had done more harm than good for the girl, and might expose her to greater suffering in new surroundings unfamiliar to her. It was not a pleasant thought, and, being quite unable to do anything, I realised that it may not be always wise to interfere in tribal matters, unless one has the power to shoulder the responsibility. That sad face and figure of suffering, with its gentle pathetic voice and spirit of loneliness and resignation, has always been a living memory with me since.

Though they are very undemonstrative in their affection, exhibiting little or no sign of welcome, or of regret and farewell at parting, there is yet ordinarily a very real affection between the various members of a family, seen particularly at times between husband and wife, and parents and children, but always in a very quiet, unobtrusive way. I was once particularly struck, on a trip on the Upper Berbice river, by the devotion shown by the parents of a sick child that was rapidly wasting away with consumption, hastened by the attacks at night of blood-sucking bats, which may be very troublesome to men and animals in certain localities. The parents kept watch night after night to protect the child, but in their lonely vigil they would at times unintentionally doze off, always to find that, however short the interval, the bats had been at work on some exposed part of the child, the nose, ear, or chin, if the toes and fingers were covered in the hammock. Unprovided with nets or any substitute, the situation was a hopeless one from the beginning, for they were of the forest Indians, living in houses not enclosed at the sides.

During much travelling on the first journey in the Makushi country, we had become quite at home, reciprocally so, with the people, who, as a rule, are as open in their dealings as the plains they inhabit, if they are handled sympathetically. Reports of us were spread everywhere, and we were always welcomed, whole parties at times wanting to accompany us; and on our leaving, baby after baby would be held out to us to be blown upon three times, a protective proceeding of their menfolk, especially of the peaimen or medicine-men, as they would be. This might be regarded as a sign of farewell, but it had no reference to the mother, only to the welfare of the child; and, as such, it was an animistic rite. At first sight, it would appear as a direct blowing away of the ills and evils that might affect the child, a literal blowing for good luck: in reality, it seemed to be something deeper, a leaving behind of the spirit of the blower, as a sort of guardian spirit for the protection of the child, explicable only by a real comprehension of their type of animism, with its wide range of belief in the power and agency of spirits.

We met with a very different state of things among the people of the little-visited districts about the upper Kotinga, which may be regarded as on the outskirts of the Makushi tribe. Here they fled to the forest when possible on our approach, and where the houses were far out on the savannah, they took refuge in their hammocks, or hid away behind the various objects in the houses, until their fears of us, as

Brazilians or Spaniards, were allayed, when some of the men especially became exceedingly inquisitive as to all our belongings, working themselves into quite a state of excitement. Remembrance is still vivid among them of the days of seizure for forced labour—and perhaps in those distant parts such experiences were not merely of the far past.

At Roraima itself the Arrékunas were very friendly and accessible, probably owing to the visits of travellers at different times; but it may be that farther west, in their own special country, they may be much less so with strangers, as is reported of them. They are a thick-set, sturdy, vigorous people, and as a strong mountain tribe seem to be rather dreaded by the others. They are much more painted ordinarily with dots and stripes of red dye about the face than is customary on the lower savannahs, and this gives them a rather fierce aspect—an impression that would be heightened by their abrupt manner, and deep, rather harsh tones in speaking.

The more open manners of the Makushis are no doubt partly due to the tribe being spread over a district that has always been a passageway between the Brazils and our coast; and they have thus been more in touch with travellers, traders, and settlers, and missionaries also. Articles like combs, razors, scissors, and clothes are much more in common use, as the result of exchange and barter, or even of their own trading on trips to the coast with hammocks, basket-work, feather-crowns, and other curios, and a miscellaneous collection of macaws, parrots, and other tame animals that make their boats a babel of noise at times. The trimming and combing of the hair give the people quite a polished appearance as contrasted with the unkempt Kotinga folk. They are slighter in build than the Arrékunas, which gives them the appearance of being taller, and many of them are really quite tall, though McConnell towered above them all; and it was no wonder that the boys would sometimes slink up behind him with a couple of sticks, one by which to measure him and the other to mark the height, scampering away laughing if they were detected or when they had succeeded.

The features in these Carib tribes are mostly strongly marked, and in the men especially bold and prominent, much of the aquiline type, with strongly developed brow-ridges and the temporal region wide. McConnell took some very good photographs of a selected series, illustrating the various types of the Makushis, full face and profile, of both sexes, young and old; and a greatly enlarged set of them, forming a fine ethnological study, together with others illustrating the expedition generally, and the summit of Roraima in particular, was presented by him to the Royal Agricultural and Commercial Society, by whom they were framed and hung in the Museum in Georgetown, where they form a quite unique collection in the public galleries.

Altogether they are a very willing folk; and from their tribal docility easy to get on with: though often, like children, they must be humoured. Judged superficially they would probably be said to be taciturn, when in fact they are inclined to be rather garrulous, but speaking ordinarily in quiet subdued tones to each other in conversation, and at a little distance giving the impression of silence. Liberal as they are with food and drinks in their houses, they are yet inclined

to be greedy and close in bargaining, though over a long and wide experience one has to make very large exceptions, which shows that they are much the same as civilised peoples, with the balance of excuse on their side, considering the conditions under which they live. Grasping as they may be as regards their simple needs, and when brought in touch with the various desirable things that appeal to them and would often make their lives easier, it is yet quite easy for unscrupulous traders, travellers, and employers to take advantage of their ignorance, and unfortunately this has often been the case, though it is doubtless much less possible to-day than formerly, when there was less Government supervision.

A very marked characteristic is the absence of any noisy quarrelling amongst them, a condition resulting from the real recognition and practice of personal rights under tribal custom. The only instances to the contrary that ever came under my notice were those occasionally brought about by the excessive *paivarri*-drinking at their ceremonial dances, or on the part of those who had been somewhat contaminated by residence under civilised conditions. These last, too, would be the ones likely to disregard the rights of property recognised by tribal custom or law, if it may be so understood; though there are many communal features as regards many things. Thus while the prepared food of a house would be private property as regards a newcomer or passer-by, the roots in the field of cassava would be available freely for use and preparation for the time being, it being incumbent on the user to plant new sticks to supply the area reaped. With the unsophisticated people, our things were always safe, however exposed they might be in the house, and even in our absence; and though they would handle and examine them, item after item, quite unreservedly, and even take them to pass round to others if they were particularly interested, there was no thought of purloining, except in the minds of suspicious owners, who would interrupt them under that impression. In fact, this perfect freedom of access has a very great deal to do with getting the people in the frame of mind to fall in with one's wishes. True, they would be assured that one had supplies of all the various kinds of barter for payment, whether for work or for supplies of food, yet they would be much more keen after seeing and handling them; nor were they less interested in one's personal outfit and apparatus, articles of which were a never-failing source of amusement and wonder, such for instance as a triple magnifying-lens, a field-glass, or books on Natural History with coloured plates, especially of familiar objects like the jaguar or the tapir, etc. To see these, they would often bring in strangers who had heard of them at quite long distances away.

One special type of appropriation of property—that of the nipples of the common muzzle-loading guns used by them—may be mentioned as an example where their principles may seem not to have been quite proof against temptation, but which on the other hand may be explainable otherwise. These nipples often wear down badly; and sometimes a huntsman will bring his gun in such case, asking for a new nipple (which is always a part of barter carried) that he may go and shoot meat for you. It is a simple and transparent way of getting the gun in use again without paying directly for the means, but it is

recognised on both sides that it is paid for, over and over again it may be, by game brought in as presents in return for powder, shot, and caps.

Occasionally, however, a gun is asked for, under the same pretext, and is kept for some days before return, when one may or may not notice that an old nipple has replaced the good one. If it has been noticed, as it always should be by an examination of the gun, the huntsman's explanation would be that he found the new gun not to suit him (as a fact they are finically particular as to various points about new guns) and he had transferred the nipple so as to use his own gun, as he had been doing all the time. One would point out of course that it was a bad way, that he should have brought his gun for a new nipple; but excuses are always to hand that he was far away or that he was in a hurry in the early morning, etc., which may be true enough: and if one has had, and is likely to have, much meat, it is not expedient to make too much of the incident, even though one may suspect an attempt at sharp practice, even where the transfer has been first mentioned by the huntsman. Still it is always advisable to insist that the nipple be returned to its proper gun, as a clean fit, and to give a barter nipple for use, which may, or may not, be an equal fit. Though apparently simple, some of these people are very astute, and it is advisable to show that one is awake to possibilities.

From long tribal training the men are peculiarly good huntsmen and bushmen; and where they have had opportunities of river work are equally good boatmen: and for these occupations their services are eagerly sought after by the employers and managers in the various industries of the interior. They are also good ranchmen on the cattle farms of the savannahs; and, being quick in learning, both men and women are easily trained in many miscellaneous occupations. Constitutionally, however, they are by no means adapted to any heavy routine, such as continuous agricultural or mining work, though even in these they could be encouraged to do a great deal, where pressure is relaxed: for though fond of repose, they are by no means idle, as their work in many directions indicates. Properly handled and administered, along the lines of their tribal development, they might easily become a very useful and important element in the advancement of the colony, instead of being, as they mainly are at present, a backward, if not disappearing feature. Sympathy in management and a rigid exclusion of any approach to exploitation are the essential requisites.

It was very noticeable that the people met with on the distant elevated Kotinga districts, not far from Roraima, were of a much coarser-looking type, the women especially. They were much shorter and thicker, more like some of the people of the Arrawak stock on the coast, though many of the men were fairly tall; yet it was just in these parts, reaching across to the upper Ireng river, that we came upon those really artistic attempts in the representation of birds by means of string, sticks, and corn-cobs, as already described. They were quite a puzzle to us as regards the reason for their manufacture, nor were we able, in our short interval at these settlements, to elicit any explanation. In all the villages the women and children were very

numerous, and the men so few that we wondered what had become of them. All we could ascertain was that they were far away. The people call themselves mostly by names taken from the rivers close by, as the Sokorikos from the Soko creek, and the Quating people from the main river; but the derivation of the name of the Monikos was not evident. They were all clearly of the Carib stock, for both the Arrékunas and the Makushis understood them; and in one widely scattered village, both Monikos and Makushis lived in close association.

A very marked feature among the people of these little-travelled upper savannahs, though not at the two villages near the base of Roraima and Kukenaam, is the smallness of the women's aprons. Beads are evidently scarce, for where the queyus consisted of them, they were either very small, of but three or four inches either way—contrasting very strongly with the usual very ample proportions of the others, of about a foot or even more,—or but a mere central pattern in a cotton fringe. At times the apron was but a small cotton fringe without beads, of the type of those worn by girls at puberty, though the latter would be dyed red. One elderly woman wore but a small pendent rag of cloth from her waist, a mere strip suspended as an apron, and it looked much as if it had been improvised on our arrival. The smaller girls were quite nude, except for small necklaces, mainly of seeds—a quite unusual condition elsewhere. The seed-necklaces of the women and children were seldom elaborate, or of any great size, some of the latter even wearing strings of pieces of crockery and gun-ramrods. The necklaces of the men, on the other hand, were often very fine, of the teeth of the aguti, the capybara, or peccary, mostly the last, and occasionally with one or two of those of the jaguar, or of its claws, or of the claws of the ant-bear, and generally with long cotton strings, with or without pendants of feathers, seeds, insect wings, etc. Supplying the deficiency of bead ornamentation, however, the women were much decorated with red and blue-black dyes, in stripes and dots, over the face, hands, and feet, and occasionally over other parts of the body, especially for the ceremonial dance occasions—the men at times also being thus decorated, but to a much less extent, and with additions of white clay. The arnatto trees grew commonly at the settlements, and sometimes the good-luck tree (*Thevetia*), from the seeds of which are made the common rattles or shak-shaks, though occasionally they were found made of deer-hoofs.

In these remote districts, the houses are altogether smaller in every way than those in the more accessible country; and it is probably due to the greater poverty of the people, who are far from chances of employment by which they might furnish themselves with such articles as axes, cutlasses, and large knives, which appear to be very few in the settlements. Considering the number of the people, the houses are also few, and they are thus very much crowded. If the observed scarcity of men in proportion to women is due to a normal deficiency, this no doubt will help to explain the conditions. Where the houses in the open savannahs are far from the sources of supply for timber and thatch, this is likely also to reduce the size and number of houses, especially if the number of men is a limited one; and the

greater exposure to driving wind and rain tends also in the same direction.

As a variation from the usual type of houses with conical roof, there were seen occasional instances of horizontal tops, and there were also subsidiary houses that were thatched to the ground, though these were usually found as temporary structures in good hunting districts or by provision-fields, where they would be only occasionally occupied. The thatch in such positions was always of a rougher character, both in its material and construction, clearly indicating its temporary purpose.

As furniture, instead of the elaborately carved benches met with in the larger, thriving settlements, and which have been cut from a solid block of wood, and finished off at the ends with the representation of the head of an animal, such as the tortoise, ant-eater, or armadillo, those in these houses were mostly of a very simple type, being merely a roughly cut piece of wood, or a smooth root-stump, with three prongs as legs. Both are equally suitable in raising the body above the ground, and thus preventing the attacks of chigoes on the more sensitive parts, though there are no lower pieces for the feet as in the better constructed articles. They are chiefly used by the women during their various duties, the men usually sitting in their hammocks during their lighter occupations, such as making and trimming bows, arrows, and other articles.

The baking-slabs for the preparation of cassava bread, farine, and parched corn may be a thick plate of sandstone, or a concave structure of white clay built up on large flat stones, the spaces between being closed by smaller stones and clay. They are often quite large, about two feet or more in diameter. Very common objects also are the fish-traps and hand-nets used in catching the small fishes of these upper regions. The smaller streams or nearly dried out channels of the larger rivers are dammed back with stones, sticks, bushes, and grass for the purpose; and the result is more easily attained when bruised bushes, possessing narcotic properties, are thrown into the water, the partially drugged fishes coming to the surface where they are secured with the hand-net. In the waters of the lowland country, where fish is very abundant, there are many methods in use for catching large numbers by means of pounded or bruised plants of the same nature.

As already indicated by the supplies at the various villages, the provisions commonly grown are cassava, yam, sweet potato, maize, banana, plantain, pumpkin, papaw peppers, and sugar-cane, individual kinds being more or less prevalent in certain localities. Maize is grown in very large quantities in some parts, and is stored in the cob in the upper part of the houses, where it is protected from insect attack by the constant atmosphere of smoke. The parched corn is pounded or ground, and is either boiled and eaten, or is made into drinks, alone or mixed with sweet potato or yam. Sometimes one sees pine-apples (not the wild one which is so common in some places), tannias (*Caladium*), and melons; and on one occasion I was very surprised to find that ground-nuts (*Arachis*) were being grown.

In travelling over these great stretches of country, from the lowlands upwards one cannot but be struck by their adaptability for general

agriculture and the support of quite a large population. The fine quality of the various products indicates the nature of the soil; and though in some cases they have been grown in lands just cleared and brought under cultivation, yet in others they had been obtained where many other crops had been produced: and this is noteworthy considering the very primitive methods in use by the people, and what might be done by advanced methods and suitable appliances. True, large areas are quite unsuited for agriculture; and this is more especially the case with the Brazilian territory, west of the Upper Ireng and Kotinga rivers, which includes the south-eastern districts of Roraima by which travellers reach the mountain. The British territory to the north and east is mostly wooded, showing its possibilities; and where savannahs occur much of them would be available for grazing, as in the eastern Ireng lands occupied by Mr. Menzies for a cattle-ranch. If these elevated tracts were opened out, there would be opportunities for products characteristic of the more temperate climes, with the great benefits of healthier conditions in such hill-stations, as compared with the lowlying swampy coast. There can hardly be any doubt, from what is already ascertained, that considerable mineral wealth also lies stored away in these regions, awaiting exploration; and in the case of the diamond, which has been found broadcast in the eastern and southern districts below the great escarpments of the sandstone plateau, and in disintegrated fragments of that formation, there is every reason for believing that research will some day lay bare many hidden sources of supply, if not indeed some original "chimneys" of its formation.

By the end of October I was able to tell McConnell I thought I could manage the journey. He was anxious to get back, and the Indians were restless after the long stay. I had been the unfortunate log blocking the path. Little by little I had been training myself, at first by getting in and out of the hammock and up and down the steps of the house, more and more quickly, and then by ranging around the village as fast as possible, and up and down the rocks and slopes, farther and farther afield. The long tramp would be very different, especially those terrible ascents and descents after two or three days, with streams to be gone through, and perhaps much of it in rain; but it had to be done, and that was all to be said.

Schoolmaster assured us there was a track round the western part of Roraima by Kukenam, across the savannahs to the Kako, that was much shorter and easier than the route by which we had come. While this would have been welcome news at the start, if we had had a guide, it was of no use now. Our woodskins were nearly at the head of the Aruparu; besides we had supplies awaiting us at the villages, and the half-day camps would now just suit me, taking the whole day to the half-journey.

The loads were quickly arranged—among them some fine clumps of *Cattleya Lawrenceana*, the rare and beautiful Roraima orchid which grows to such perfection in the moist gorges and for which so many collectors had already made the journey. Schoolmaster's people had prepared large supplies for us; and there was some also from the village, though Jeremiah had not been in favour with McConnell

through his extortionate demands, which he seemed to regard as excusable because, as he reminded McConnell, we had camped in his church. Schoolmaster was going to Georgetown with us to be paid off for all the things his people had supplied during our long stay. It had been a very convenient arrangement for us, leaving our barter for eventualities, and a good one for the chief also as he had never been to town. He and his goods would go to the Rupununi with Ritchie in the return boats, and his people would meet him at our old camp at Kwaimatta, where he and his party had been so ill while waiting for us on the first journey. We had been so trusted, McConnell was especially careful in all the arrangements for him and his things.

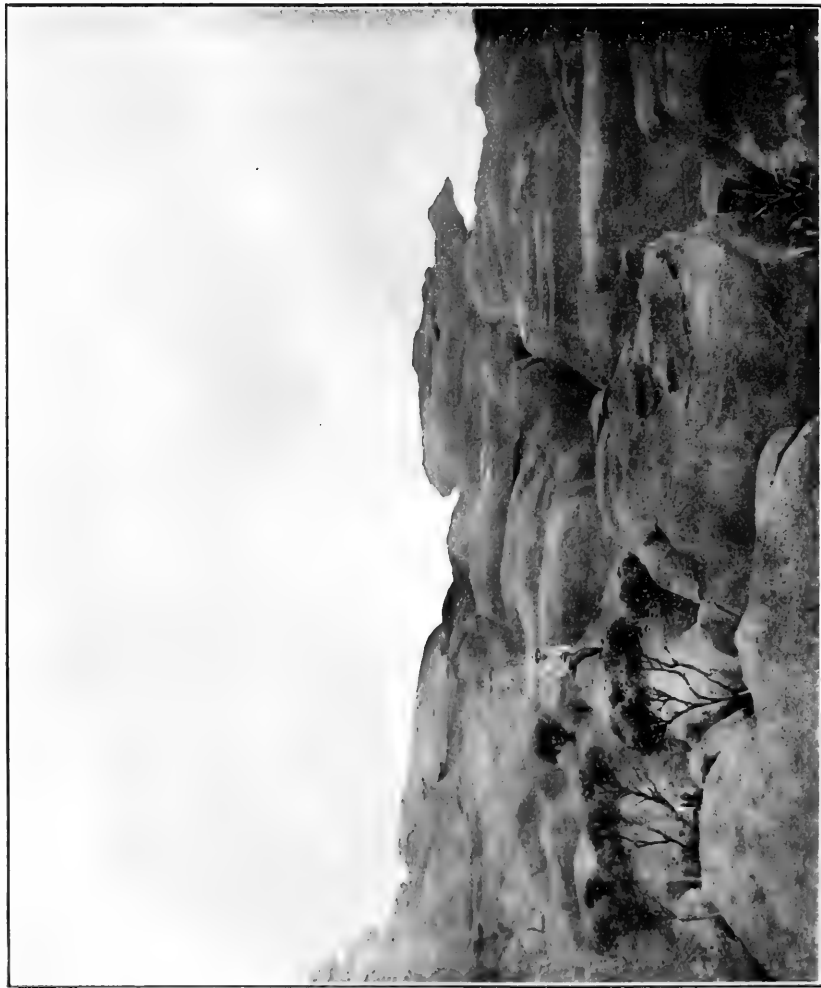
It is unnecessary to say much of the return journey to the Kurubung Creek, which we all reached safely. The walk to the Aruparu had been a very severe trial to me through weakness, and it was with the greatest relief that the tramp was ended and the woodskins reached. At the mouth of the creek we found such a splendidly exposed bank from the low water that we gladly made a very early camp to have a good drying of all our things. The picturesque scene was photographed by McConnell from the opposite bank; facing p. xx, Vol. I., an illustration is given, where the woodskins are seen in the foreground, and the drying of plant papers and the changing of plants in the presses are in process farther back. From the Kako, Lanceman travelled with us on his way to the gold-mining camp on the Mazaruni to change the silver into barter.

At the camp on the Kurubung we had an extremely unpleasant surprise. Pembroke and Adam had not only finished all the food put aside to last them till our return, but had broached cargo; and about half of the food for the return journey to Bartika had disappeared. True, we had exceeded our estimate of time through the extra days on both journeys and during my illness, but it was not merely a case of extra food for two men in that time, which would have made not very much difference. It appeared that many people had passed through the camp, and even stopped there; and the men had always cooked a large quantity of food to supply them, probably with the object of conciliating the strangers, of whom they would be somewhat afraid. Each blamed the other, and it might seem a case of the pot calling the kettle black; but McConnell knew Pembroke well, and it was out of the question that the Indian could have influenced him in any way. As it happened also, when we had reached the camp early, the big pot was on the fire being tended by Pembroke, and it was full of rice with salt fish and pork for breakfast, and enough for several people. McConnell already had cause against him for malingering, but that was as nothing in comparison: and Pembroke had a bad time of it when he was called up.

The predicament was really a very serious one, for we had returned, with practically nothing in the way of food, expecting to find full supplies. The only thing to be done was to go at once on half-rations—which is very short commons for men in hard work—and to speed up the return as much as possible, starting as early as light would allow and camping later than usual. We therefore wasted no



SUMMIT OF RORAIMA.



SUMMIT OF RORAIMA.



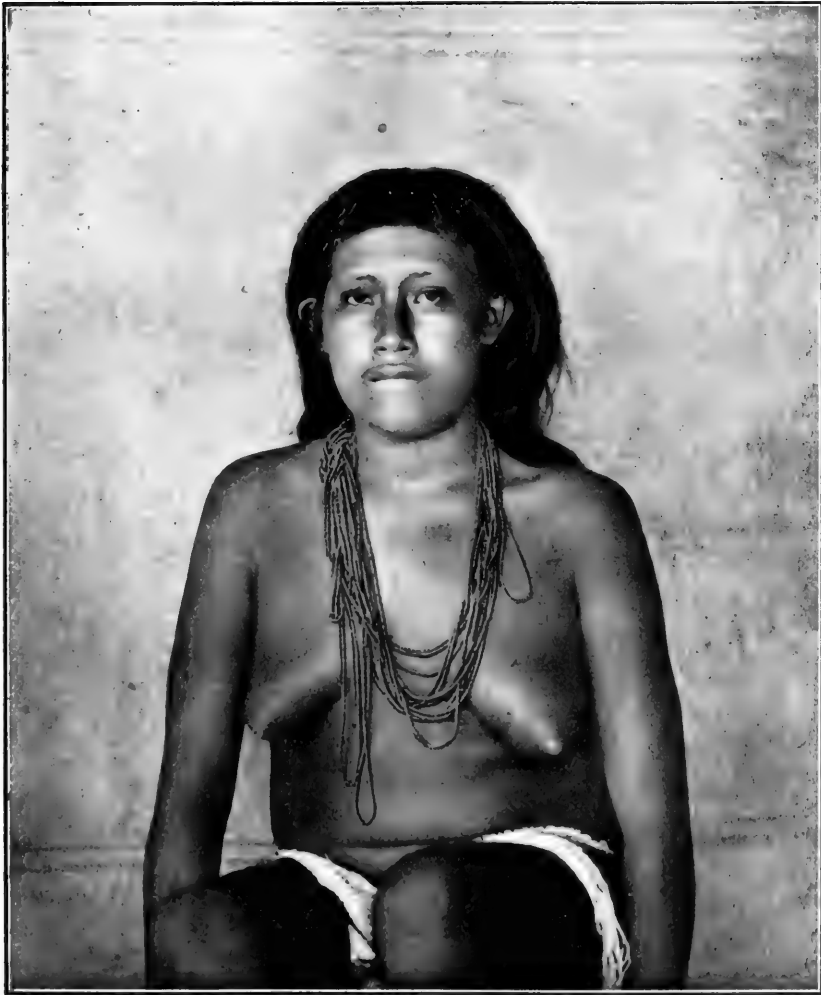
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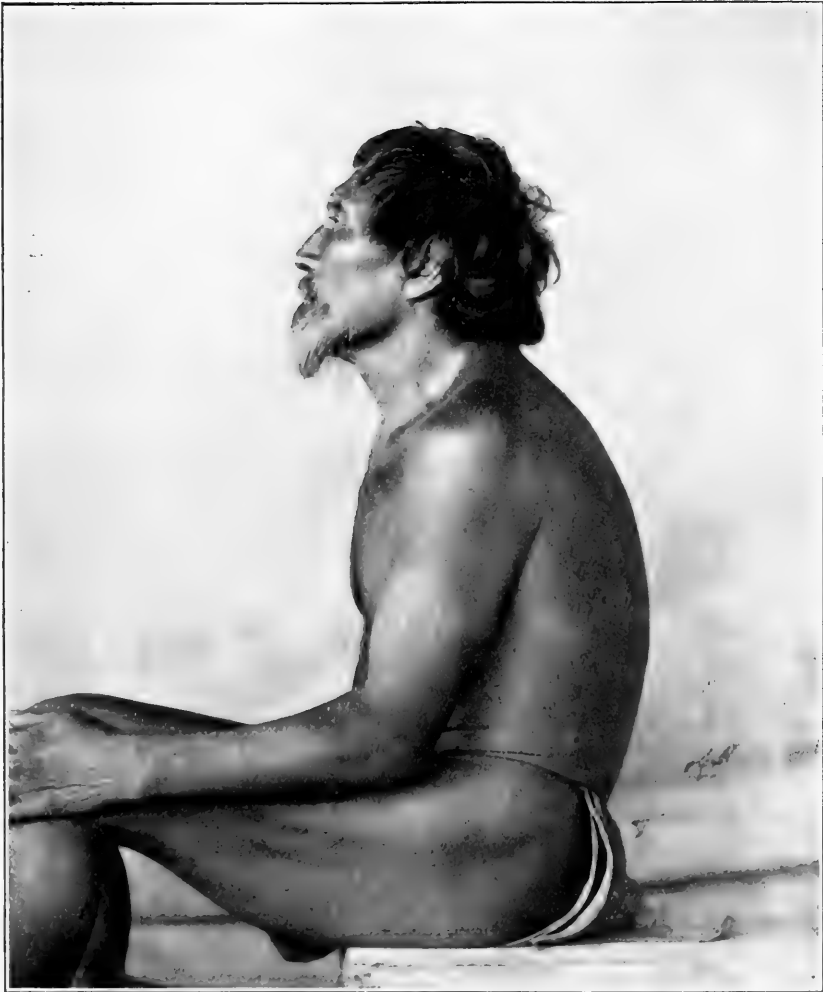
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time, but got our things into the boats as quickly as possible, and hastened to drop down the creek.

There was just the chance we might be able to get a bag or two of rice at the gold-mining camp farther up the river—for it is always the cereals that make the difference. On the other hand, we should have lost a day if the attempt failed; though probably we might be able to get sufficient to make up a day's supply even considering that the camp was so far away from supplies and was under Government regulations as to the food of the labourers. Anyhow we decided to make the attempt; and as I knew the manager I started off with a very full crew in the boat, which had been discharged for the purpose. As it turned out, they also were running short, and were daily expecting the proprietor himself in the relief boats with three months' supplies and a fresh batch of labourers. We should meet him on the open river, in a day or two most likely, and could then procure what we needed. To make it worse at the camp, their ground-provisions had failed, owing to the very exceptional dry weather of the last three months—a state of things that seemed to be general along the river, where the Indians were supplementing their cassava with grated *mora* seeds mixed in before baking, and making a by no means pleasant addition.

We therefore dropped down the river feeling secure that we would meet the boats before passing over the unobstructed course. Even with little current in the low water, however, we had already rounded Teboco and passed through the rapids, in which there is a clear view across, before we came upon them just near camping time—with a much greater relief than can well be expressed, for in the long series of falls below there was every possibility that we might pass them in a different channel without being aware of it. It was an extra pleasure to see Mr. Barnard, the proprietor, himself with them; and he explained that they had been delayed several days beyond their normal time owing to the very low state of the river. We were by no means loth to dine with him that night, the more so that he had fresh meat and fish, which his huntsmen had obtained while the boats were struggling with the falls; and our men enjoyed the first square meal they had had since getting to the Kurubung camp.

With the explanation of our plight we felt our troubles and anxiety over, for Barnard most kindly offered all the assistance required; but as we were already so far down, McConnell only accepted a bag of rice, knowing the difficulties of the food-supplies in these far distant parts. As it happened, we were considerably delayed by the low water, and it must have been a common thought to all of us, though unexpressed, that it was a pity a second bag had not been taken, for it was with very tightened belts and sharp desire that we at last reached the land of plenty at Bartika. What it would have been like if we had missed Barnard among the falls, none of us cared to contemplate—sufficient for the day was the evil thereof.

It only remains to add in a few lines that for any traveller to Roraima to-day, the problem is a very different one, presenting but few of the earlier difficulties. By the Potaro route, there is a steamer available to a point on the Upper Demerara river from which a short railway runs to a station on the Essequibo river, above the first set of

falls—a journey of one day. Here there is a comfortable hotel with every accommodation. From this station a launch runs, in another day's journey, to the Potaro river below the great cataract at Tumatumari. Here there is another convenient rest-house. Above this there are facilities available by boat and road for an easy journey of three or four days to a point below the Great Kaieteur Falls. The portage of baggage to the top of the plateau being accomplished, the coast people can be sent back if arrangements had been made for Indians from above, which could no doubt be done through a Scotch ranch-holder, Mr. John Menzies, who lives some three or four days' journey in towards the mountains from the falls. At his ranch fresh milk and probably butter would afford a pleasant change, with fresh meat; and at some little cost, a good supply of beef could most likely be arranged for both in going and returning. From this point onwards the journey would be a fairly direct one of a few days, with carriers already arranged for with Mr. Menzies, who is sure to be in touch with all the people in the district.

The Hon. Cecil Clementi, C.M.G., the Government Secretary of British Guiana, and Mrs. Clementi, have recently travelled over the track in search of a site which might be suitable for the much desired hill station for residents in the colony. They extended their journey to the top of Mt. Roraima, which, to say the least of it, is an exceedingly fine feat for a lady.

But Roraima calls for more than mere visits, however interesting these may be in themselves. As I have indicated, there are rich harvests to be reaped from exhaustive biological research, which necessarily pre-supposes a sufficiency of time and means. With long experience and first-hand knowledge of the district personally, I have been desirous for many years to risk everything in a two years' exploration to complete our work; but means have been lacking. The tricky and extortionate Jeremiah is now no more, and the most influential person in the neighbourhood is the chief, Schoolmaster, whom we always found to be considerate and trustworthy. The way therefore lies clearly open. Who will tread it?

JOHN J. QUELCH.

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BIRDS OF BRITISH GUIANA.

Order **PASSERIFORMES.**

Family **CONOPOPHAGIDÆ.**

THIS family is characterized by the broad, depressed, and Muscicapine bill, and further distinguished in having four notches in the posterior margin of the sternum.

It consists of three genera and about fifteen species, all of which are confined to the continent of South America—from Colombia, Venezuela, and Guiana on the North to South-east Brazil, Paraguay, and Bolivia in the South, two of the genera and two of the species being represented in British Guiana.

Genus **CONOPOPHAGA** Vieill.

Conopophaga Vieillot, Anal. nouv. Orn. p. 39, 1816. Type *C. aurita* (Gmel.).

Myagrus Boie, Isis, 1826, p. 973, for *Turdus auritus* Lath., is a synonym of the present genus.

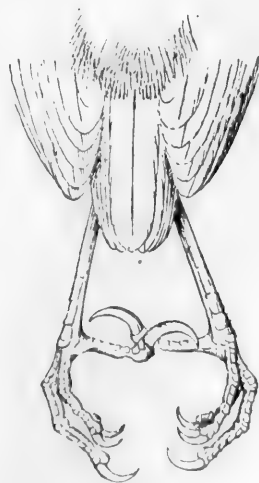


Fig. 1.—*Conopophaga a. aurita.*

The members of this genus are distinguished chiefly by their
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wide and depressed, or flattened bills and short tails, which are only a little longer than the tarsus.

350. *Conopophaga aurita aurita*.

CHESTNUT-BELLIED GNAT-EATER.

Turdus auritus Gmel. Syst. Nat. i. p. 827, 1789 (Cayenne).

Conopophaga aurita Selater, Cat. B. Brit. Mus. xv. p. 330 (part), 1890 (Cayenne); Brabourne & Chubb, B. S. Amer. i. p. 184, no. 1839 (part), 1912 (Guiana).

Adult male. General colour above golden brown with dark edges to the feathers of the back; upper wing-coverts more rufous-brown than the back, with pale edges to the feathers like the innermost secondaries; bastard-wing and primary-coverts dark brown; quills brown, rufous-brown on the outer edges and pale margins to the inner webs; tail-feathers brown; crown of head and nape deep chestnut-brown; a broad patch of silky-white feathers on the sides of the hinder crown and nape; base of forehead, lores, a line above the eye, entire sides of face, and throat deep black; breast bright chestnut; middle of abdomen, under wing-coverts, and under tail-coverts white; sides of the body and flanks greyish brown.

Total length 109 mm., culmen 17, wing 72, tail 29, tarsus 27.

Adult female. Differs from the adult male chiefly in the absence of the black on the throat, sides of face, base of forehead, and a line above the eye, which is replaced by grey at the base of the forehead, rufous on the sides of the face, and white on the throat tinged with rufous. Wing 68 mm.

The male and female described were collected on the Ituribisi River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Abary River, Great Falls Demerara River (*McConnell collection*).

Extralimital Range. Cayenne (*Gmelin*); Surinam (*Penard*).

Habits. Unrecorded in British Guiana.

Although this species was originally described from Cayenne it has not been previously recorded in the Colony of British Guiana.

Genus **CORYTHOPIS** Sund.

Corythopis Sundevall, K. Vet.-Ak. Handl. 1835, p. 93. Type *C. calcarata* (Wied).

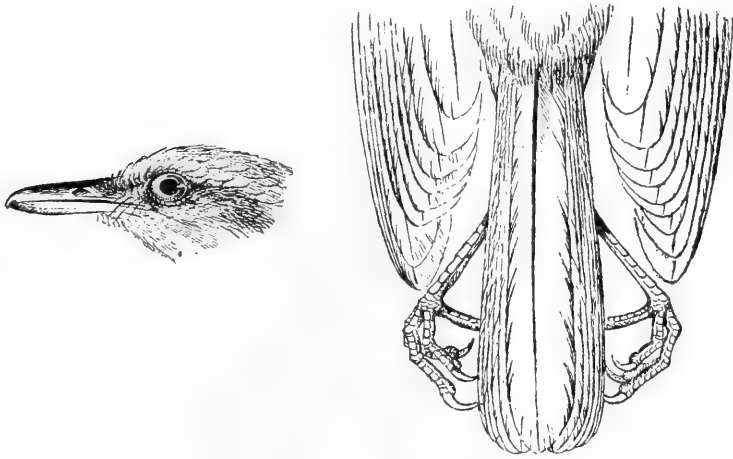


Fig. 2.—*Corythopis t. anthoides*.

This genus is distinguished by the longer, thinner, and narrower bill and the longer tail, which is about double the length of the tarsus. It differs entirely, too, in coloration, having the appearance of *Dendranthus indicus*, which is an aberrant Wagtail. It may not be referable, therefore, to the *Conopophagidae*.

351. ***Corythopis torquata anthoides*.**

AMAZONIAN RINGED GNAT-EATER.

Muscicapa anthoides Pucher. Arch. du Mus. Paris, vii. p. 334, 1855 (Cayenne).

Corythopis anthoides Salvin, Ibis, 1885, p. 430 (Bartica Grove, Camacusa, Merumé Mts., River Atapurau, Roraima, 3500 ft.); Sclater, Cat. B. Brit. Mus. xv. p. 335, 1890 (Takutu River).

Corythopis torquata anthoides Berlepsch, Nov. Zool. xv. p. 164, 1908 (Cayenne).

Corythopis anthoides Brabourne & Chubb, B. S. Amer. i. p. 186, no. 1852 (part), 1912.

Adult. General colour above brown with an olive tinge on the back, wings, and tail; inner webs of primary and secondary quills dark brown; head somewhat darker than the back; throat white

with an irregular band of black across the fore-neck and breast, the black extending more or less on to the feathers on the sides of the body ; sides of body brown ; remainder of the under surface white tinged with buff ; under tail-coverts and under wing-coverts dark brown.

Total length 123 mm., culmen 16, wing 65, tail 51, tarsus 25.

The bird from which the description is taken was collected on the Ituribisi River.

Breeding-season. Unknown in British Guiana.

NOTE. Genus PSEUDOCNOPHAGA Chubb.

Pseudoconopophaga Chubb, Ann. & Mag. Nat. Hist. (9) ii. 1918, July 1, p. 122.



Fig. 3.—*Pseudoconopophaga melanogaster*.

This genus, which is founded on *P. melanogaster* (Menetr.), is distinguished from *Conopophaga*, based on *C. aurita* (Gmel.), by its long and narrow bill, the long tarsi and toes, the larger size, and different coloration.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Bartica, Bonasika River, Abary River, Makauria River, Arawai River (*McConnell collection*), Roraima, Merumé Mountains, Kamakusa, Takutu River, Kamarang River (*Whitely*).

Extralimital Range. Cayenne (*Pucheran*) ; Venezuela.

Habits. Unrecorded in British Guiana.

Muscicapa delalandi Less. *Traité d'Orn.* p. 392, 1830, was synonymised with *Corythopsis calcarata* Wied, by Dr. Selater in the Catalogue of the Birds in the British Museum, xv. p. 335. It has priority over that species. Pucheran in the *Archiv. Mus. Paris*, vii. p. 374, 1855, made this determination, and Ménégau & Hellmayr (*Bull. du Mus. d'Hist. Nat. Paris*, 1905, p. 377) have confirmed it, though the description does not agree at all well. They continued Wied's name, however, but Lesson's must be used. They also give the locality as Rio de Janeiro from the label on the specimen.

Corythopsis nigrocincta d'Orb. et Lafr. *Syn. Av.* p. 13, 1837 (Prov. Chiquitosensi, Bolivia) ; *Mag. de Zool., Ois.* 1831-38 ; d'Orb. *Voy. S. Amer., Aves*, p. 187, pl. vi. fig. 2, is obviously the same bird as *C. delalandi*. It was placed as a footnote by the late Dr. P. L. Selater, *Cat. B. Brit. Mus.* xv. p. 335, with the following remark :—"I only know this bird from the description and figure of d'Orbigny. It is probably not different from *C. anthoides*." Ménégau & Hellmayr had already come to this conclusion when examining the types of this group in the Paris Museum (*cf.* *Bull. du Mus. d'Hist. Nat.* 1905, p. 377).

Family FORMICARIIDÆ.

This family, which is composed of many peculiar and varied forms, has two characters which may be observed throughout the whole of the genera, viz., the sharply hooked bill, which resembles that of the Shrikes or Butcher-birds of the Old World, and the fluffy feathers on the back. At the time when Brabourne and Chubb published their 'List of the Birds of South America' it consisted of thirty-eight genera and about three hundred and seventy species, most of which occurred in South America ; twenty-two of the genera and fifty-one of the species were represented in British Guiana.

Genus **CYMBILAIMUS** Gray.*Cymbilaimus* Gray, List of Gen. p. 36, 1840. Type *C. lineatus* (Leach).Fig. 4.—*Cymbilaimus lineatus*.

This genus is distinguished by the banded plumage, which occurs in both male and female, the male having white bands and the crown of the head black, while the female has pale buff bands, which are much wider on the under surface, and the crown of the head chestnut. The bill is sharply hooked on the upper mandible and the under mandible is toothed. The wing is rounded, the fourth and fifth primary-quills longest and the third about equal to the sixth. The tail is also rounded and much graduated, the outer feathers on each side only slightly more than half the length of the middle ones.

352. **Cymbilaimus lineatus.**

BANDED BUSH-SHRIKE.

Lanius lineatus Leach, Zool. Misc. i. p. 20, pl. 6, 1814 (Berbice).*Cymbilanius lineatus* Salvin, Ibis, 1885, p. 423 (Bartica Grove, Camacusa); Selater, Cat. B. Brit. Mus. xv. p. 178, 1890 (British Guiana).*Cymbilaimus lineatus* Brabourne & Chubb, B. S. Amer. i. p. 186, no. 1854, 1912.

Adult male. General colour above black, narrowly banded with white, the black interspaces being very much wider than the white cross-bands; crown of head black, minutely barred with white; entire under surface regularly barred with black and white; primary and secondary quills not barred on the inner webs, but slightly toothed on the edges.

Total length 177 mm., culmen 32, wing 82, tail 72, tarsus 25.

The bird from which the description is taken was collected on the Bonasika River, 1911.

Adult female. Differs from adult male in having the crown of the head chestnut, the remainder of upper parts umber-brown

barred with buff, and the underparts buff narrowly barred with dark brown. Wing 78 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Abary River, Mazaruni River, Arwye Creek, Tiger Creek, Great Falls Demerara River (*McConnell collection*); Berbice (*Leach*); Kamakusa (*Whitely*).

Extralimital Range. Surinam, East Ecuador.

Habits. Unrecorded in British Guiana.

[MACKENZIANA Chubb.

Mackenziæna Chubb, Ann. & Mag. Nat. Hist. (9) ii. 1918, July 1, p. 123. Type *M. leachi* (Such).

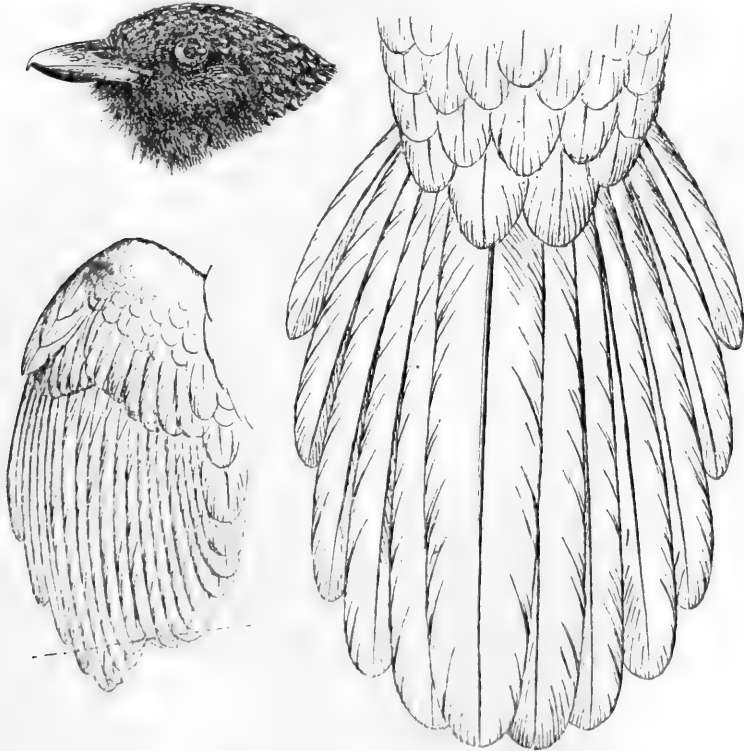


Fig. 5.—*Mackenziæna leachi*.

Reichenbach, in 1850, proposed the generic name *Nisius* and gave a figure in his Av. Syst. Nat. Vög. pl. lxxi., which has been

associated by previous authors with *Thamnophilus leachi* Such, as the type; but, when one compares that bird with the figure, it will be easily seen that Reichenbach could not have intended it, as the bill is not anything like it. The species was originally, and has for many years been, placed in the genus *Thamnophilus* Vieillot, where it was equally out of place, as it is so entirely different from that genus, which was founded on *Lanius doliaetus* Linn. I have proposed, therefore, the new generic title *Mackenziaena*, with the following characters:—Head not crested, no concealed white dorsal patch, tail much longer than wing. Bill short and stout, the depth about two-thirds the length of the exposed culmen; the wing, which is shorter than the tail, has the fifth primary longest; the tail is rounded and much graduated, the two middle feathers longest. Coloration: the male is black with ovate white spots and bars to the feathers, and the female is brown marked with buff. This genus is named in honour of Mrs. Helen Mackenzie McConnell.]

FREDERICKENA Chubb.

Frederickena Chubb, Ann. & Mag. Nat. Hist. (9) ii. 1918, July 1, p. 123.



Fig. 6.—*Frederickena viridis*.

The chief characters of this genus are the nuchal crest, which is composed of rather broad feathers with rounded tips; no concealed white dorsal patch; the bill is short and stout, the depth being about half the length of the exposed culmen; the wings are rounded, the fourth, fifth, and sixth primaries longest and subequal, the seventh is between the third and fourth; the tail, which is also rounded and graduated, is about two-thirds the length of the wing. Coloration: the male is almost uniform, but the female has the tail and entire under surface barred.

Type *F. viridis* (Vieill.).

This genus is named in honour of Frederick Arthur, the eldest surviving son of Mrs. McConnell.

353. *Frederickena viridis*.

CRESTED BUSH-SHRIKE.

Thamnophilus viridis Vieill. N. Diet. d'Hist. Nat. iii. p. 318, 1816 (Cayenne); Brabourne & Chubb, B. S. Amer. i. p. 187, no. 1861, 1912.

Thamnophilus fuliginosus Gould, P. Z. S. 1837, p. 80 (British Guiana); Selater, Cat. B. Brit. Mus. xv. p. 183, 1890 (Bartica Grove, Camacusa).

Thamnophilus lunulatus Salvin, Ibis, 1885, p. 423 (Bartica Grove, Camacusa).

Adult male. General colour above and below dark slate-grey; top of head, sides of face, and throat black.

Total length 200 mm., exposed culmen 23, wing 98, tail 76, tarsus 35.

The bird described was obtained on the Supenaam River, 1911.

Adult female. Differs from the adult male in being chestnut-brown above, becoming dark chestnut on the head and sides of face, and the entire under surface blackish barred with white.

Total length 200 mm., exposed culmen 23, wing 90, tail 63, tarsus 35.

The bird described was collected on the Ituribisi River, Feb. 1907.

Young male. Similar to adult female, but differs in being darker above, and most of the feathers have indications of blackish cross-bars to the feathers on the back, and mottlings and semicircular crescent-shaped marks at the tips of the inner secondaries. The under surface similar to the female but much darker, especially on the abdomen.

The nestling. General colour above chocolate-brown with pale edgings to the feathers, which give the appearance of cross-bars on the back and tail; flight-quills blackish brown on the inner webs; under surface buff with dark brown cross-bars, base of feathers whitish.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Suponaam River, Bartica, Bonasika River, Makauria River (*McConnell collection*); Bartica, Kamakusa (*Whitely*).

Extralimital Range. Cayenne (*Vieillot*), Venezuela.

Habits. Unrecorded in British Guiana.

Genus **TARABA** Less.

Taraba Lesson, *Traité d'Ornith.* p. 375, 1831. Type *T. major* (*Vieill.*).



Fig. 7.—*Taraba major*.

This genus is characterized chiefly by the short and inconspicuous crest. A dorsal white patch. The bill somewhat long and compressed, the depth about half the length of the exposed culmen. Wing rounded, the fourth primary longest, the third about equal to the seventh. Tail also rounded and graduated, the two middle feathers longest and nearly equal in length to that of the wing. Coloration: the male is black above and the female rufous, but both are white on the under surface.

354. *Taraba semifasciata*.

PARA BUSH-SHRIKE.

Thamnophilus semifasciatus Cab. J. f. O. 1872, p. 234 (Pará);
Brabourne & Chubb, B. S. Amer. i. p. 187, no. 1865, 1912.

Thamnophilus major (nec Vieill.) Cab. in Schomb. Reis. Guian. iii.
p. 687, 1848; Salvin, Ibis, 1885, p. 423; Selater, Cat. B. Brit.
Mus. xv. p. 186 (part), 1890 (Takutu River, Quonga).

Adult male. General colour above black with white bases to the feathers of the upper back and grey bases to those of the lower back; upper wing-coverts edged with white at the tips; primary and secondary quills blackish with white edges to inner webs; tail

black, with white tooth-like marks on the inner webs of the feathers; tips of upper tail-coverts and tips of tail-feathers also white; entire under surface, including the under wing-coverts, white, more or less grey on the flanks.

Total length 200 mm., culmen 25, wing 91, tail 76, tarsus 32.

Adult female. Differs from the adult male in having the head, back, wings, and tail chestnut-brown.

Total length 185 mm., culmen 25, wing 88, tail 74, tarsus 32.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Bonasika River, Abary River (*McConnell collection*); Takutu River, Quonga River (*Whitely*).

Extralimital Range. North Brazil (*Pará, Cabanis*), Trinidad, Venezuela.

Habits. Schomburgk states (*Reis. Guian. iii. p. 687*) that he often found this bird in bushes on the outskirts of woods as well as in dense woods in the neighbourhood of rivers. It is a very wary bird, and at the slightest sign of danger hides itself in the thickest of bushes.

Genus **THAMNOPHILUS** Vieill.

Thamnophilus Vieillot, *Anal. nouv. Ornith. p. 40, 1816.* Type *T. doliatus* (Linn.).



Fig. 8.—*Thamnophilus doliatus*.

The chief characters that constitute this genus are the large crest, which is composed of white feathers with black tips. The concealed dorsal white patch. The bill is short and stout, the depth being about one third the length of the exposed culmen. Wing almost

square, the secondary-quills being nearly equal to the primaries in length, the fourth and fifth primaries longest, the third about equal to the seventh. Tail rounded, the two middle feathers longest and about six-sevenths the length of the wing. Coloration: the male is black banded with white, and the female almost entirely rufous both above and below.

355. *Thamnophilus doliatus*.

WHITE-BARRED BUSH-SHRIKE.

Black and White Butcher-bird, Edwards, Gleanings of Nat. Hist. i. p. 35, pl. 226, 1758 (Surinam).

Lanius doliatus Linn. Syst. Nat. i. p. 136, 1766 (Guiana).

Thamnophilus doliatus Cab. in Schomb. Reis. Guian. iii. p. 687, 1848; Salvin, Ibis, 1885, p. 424; Sclater, Cat. B. Brit. Mus. xv. p. 207, 1890 (Georgetown); Quelch, Timehri (2) v. p. 93, 1891 (Georgetown); Brabourne & Chubb, B. S. Amer. i. p. 191, no. 1908, 1912.

“Check-bird” (Quelch).

Adult male. General colour both above and below black barred with white; crown of head white with ovate black tips to the feathers; forehead, throat, sides of face, and hind-neck black with white fringes to the feathers, which impart a streaked appearance; flight-quills and tail-feathers black, with white marks on the marginal portion of both webs but not continued across the feathers.

Total length 154 mm., culmen 20, wing 72, tail 61, tarsus 28.

The specimen from which the description is taken was collected on the Bonasika River.

A young male, from the same locality, differs from the adult in having the flight-quills marked with rufous and the primary-coverts margined with the same colour, the upper tail-coverts tipped with rufous, and the lower abdomen and flanks tinged with ochreous.

Immature male. Rufous-brown above, with paler cross-bars to the more advanced feathers, which are dark brown on the sides of the upper back; upper wing-coverts dark brown margined with rufous; flight-quills dark brown, marked with rufous or pale buff on the margins; tail-feathers similar to those of the adult, with a tinge of rufous at the tips; a few black feathers on the top of the head; under surface ochreous-white with dark brown cross-bars to the feathers.

The bird from which the description is taken was collected on the Makauria River.

Adult female. General colour above bright rufous; primary and secondary quills brown on the inner webs and margined with cinnamon; crown of head somewhat darker than the back; sides of face and nape brown with white, or buffy-white margins to the feathers; chin and throat whitish, with dark shaft-lines and tinged with buff; breast, abdomen, and under tail-coverts orange-buff; under wing-coverts and quill-lining cinnamon. Wing 75 mm.

The description is taken from an example collected on the Abary River in September 1906.

Immature female. Differs from the adult in having dark obsolete bars on the feathers of the back and dark subapical spots on the upper wing-coverts, in the absence of the dark streaks on the throat and sides of the face and the nuchal collar.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Bonasika River, Makauria River, Abary River (*McConnell collection*); Georgetown (*Queleh*).

Extralimital Range. Northern Brazil, Colombia, Venezuela, Trinidad.

Habits. Schomburgk's remarks on this species (*Reis. Guian.* iii. p. 687) are as follows:—This is one of the commonest birds near the coast. Its favourite haunts are the Avicennien bushes and the damp virgin forest. It is a very lively and restless bird, always moving about and creeping easily through the densest bush. The male and female are always together. When it is excited it always raises the feathers on the crown. The Warraus call it "Dobenakuh," and the Macuis call it "Kubarik."

Mr. J. J. Queleh, writing on the birds observed at Georgetown (*Timehri* (2) v. p. 93), remarks:—The large group of American Bush-Shrikes and Ant-Thrushes which, as a rule, are confined to the dense forest; but there is one large and typical species that occurs, and by no means sparsely, which is known as the Check-bird (*Thamnophilus doliatus*). The Check-bird, like the members of the family generally, has a strong hooked Shrike-like bill, with which it can protect itself even against the birds of prey, which it attacks and pursues with a loud harsh cry. It feeds upon insects

generally, larvæ and ants included. It is a lively bird, constantly on the move, uttering a by no means pleasing cry, made up of a succession of harsh and loud sounds, like the other songless birds generally.

Genus **SAKESPHORUS** Chubb.

Sakesphorus Chubb, Ann. & Mag. Nat. Hist. (9) ii. 1918, July 1, p. 123.
Pro *Hypolophus* Cabanis & Heine, 1859, nec Müller & Henle, 1837.
Type *H. canadensis* (Linn.).



Fig. 9.—*Sakesphorus canadensis*.

The chief characters of this genus are the long and conspicuous crest, which is black in the male and rufous in the female, the absence of a concealed white dorsal patch, the somewhat small bill, the depth about one third the length of the exposed culmen, the almost square wing, the third, fourth, fifth, sixth, and seventh primaries longest, the second primary about equal to the ninth, the rounded tail—the two middle feathers longest, being about six tenths the length of the wing.

356. **Sakesphorus canadensis.**

BLACK-CRESTED BUSH-SHRIKE.

- Lanius canadensis* Linn. Syst. Nat. i. p. 134, 1766 (Cayenne).
Thamnophilus cirrhatus (Gmel.) Cab. in Schomb. Reis. Guian. iii. p. 687, 1848; Selater, Cat. B. Brit. Mus. xv. p. 202, 1890 (Quonga).
Thamnophilus atricapillus Salvin, Ibis, 1885, p. 423 (British Guiana).
Thamnophilus canadensis Brabourne & Chubb, B. S. Amer. i. p. 190, no. 1900, 1912.

Adult male. Head, sides of face, and throat uniform black, upper back smoke-brown, becoming grey on the rump; upper

wing-coverts black tipped, or edged with white; quills blackish brown, with pale outer webs to the primaries and white edgings to the innermost secondaries; edges to the inner webs of both primary and secondary quills white; upper tail-coverts and tail black tipped with white, with a white spot on the outer web of the outermost pair of tail-feathers and white edges to some of the middle feathers; abdomen, sides of breast, sides of body, and under tail-coverts pale slate-grey; under wing-coverts white.

Total length 143 mm., culmen 20, wing 76, tail 61, tarsus 25.

Adult female. Differs from the male in having the crown of the head chestnut, the back rufous-brown, and the breast ochreous with black shaft-lines to the feathers. Wing 72 mm.

Immature male. Very similar in colour to the female, but distinguished partly by its black crest and also by the approach of black feathers on the throat.

The male and female birds described were collected at Bartica in 1911, and the immature male on the Abary River, July 1906.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Bonasika River, Abary River, Anarica River (*McConnell collection*); Quonga, Annai, Rupunini River (*Whitely*).

Extralimital Range. Cayenne (*Linné*), Trinidad, Venezuela.

Habits. Schomburgk states (*Reis. Guian. iii. p. 687*) that this bird was fond of the Avicennien-bush near the coast, and that its life and habits are similar to those of *Thamnophilus major*, p. 10.

Latham, in his 'General Synopsis,' ii. pt. i. p. 83, writes:—"These inhabit *Cayenne*, where they breed several times in a year, and lay three eggs at a time. Their cry is like that of a young chicken. Feeds on ants."

Genus **ERIONOTUS** Cab. & Hein.

Erionotus Cabanis & Heine, Mus. Hein. ii. p. 15, 1859. Type *E. cærulescens* (Vieill.).

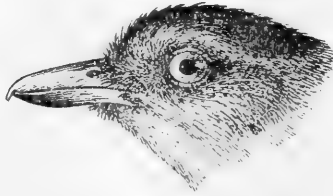


Fig. 10.—*Erionotus punctatus*.

This genus is distinguished by its small size and inconspicuous crest. The bill is small, the length of the exposed culmen three times that of its depth. The wing is rounded, the fourth, fifth, and sixth primaries longest, the third ranges between the eighth and ninth in length. Tail also rounded, the two middle feathers longest, being about five-tenths the length of the wing. Coloration: the male for the most part slate-grey with black on the crown of the head, wings, and tail; the female rufous on the top of the head, tail, and outer aspect of the wing.

Key to the Species.

- A. Smaller, wing less than 72 mm.
- a.* General colour pale slate-grey; upper tail-coverts tipped with white..... *E. punctatus* ♂, p. 17.
 - a'.* Throat, fore-neck, and breast ochreous grey; crown of head rufous *E. punctatus* ♀, p. 17.
 - b.* General colour dark slate-grey; upper tail-coverts not tipped with white ... *E. amazonicus* ♂, p. 18.
 - b'.* Crown of head, throat, fore-neck, and breast bright ferruginous..... *E. amazonicus* ♀, p. 18.
- B. Larger, wing more than 72 mm.
- c.* General colour for the most part black including the crown and nape..... *E. insignis* ♂, p. 19.
 - c'.* Crown of head and nape deep chestnut *E. insignis* ♀, p. 19.

357. *Erionotus punctatus*.

SPOTTED BUSH-SHRIKE.

Lanius punctatus Shaw, Gen. Zool. vii. 2, p. 327, 1809 (Cayenne).

Thamnophilus navius Cab. in Schomb. Reis. Guian. iii. p. 687, 1848;
Salvin, Ibis, 1885, p. 423 (Roraima, 3500 ft.); Selater, Cat. B.
Brit. Mus. xv. p. 197, 1890 (Quonga),

Thamnophilus punctatus Brabourne & Chubb, B. S. Amer. i. p. 189,
no. 1883, 1912.

Adult male. Crown of head, mantle, wings, and tail black, with white bases to the feathers on the mantle, white tips to the upper wing-coverts and edges of the primary and secondary quills; the upper tail-coverts and tail-feathers tipped with white and a white spot on the outer web of the outermost pair of tail-feathers; inner edges of primary and secondary quills white towards the base; lower back very dark slate-grey; under surface from the throat downwards slate-grey, tips of under tail-coverts inclining to whitish; under wing-coverts white.

Total length 135 mm., culmen 16, wing 67, tail 55, tarsus 19.

Adult female. Quite different from the male; sides of face and back mouse-brown; the under surface similar but somewhat paler; crown of head tawny; long upper tail-coverts and middle tail-feathers similar but darker, the lateral feathers inclining more or less to blackish, with white tips and a white spot on the outer edge of the outermost feathers; upper tail-coverts tipped with white; upper wing-coverts brown edged with white, as are also the innermost secondaries; the outer edges of the quills olive-brown.

Total length 133 mm., exposed culmen 17, wing 65, tail 53, tarsus 19.

Immature male. Shows scarcely any black on the upper surface, which is pale slate-colour as well as the under surface, both of which are tinged with an olive wash.

Of the birds described, the male was collected on the Anarica River, 1913, the female on the Abary River in September 1906, and the young male on the Ituribisi River in February 1907.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Upper Takutu Mountains, Ituribisi River, Supenaam River, Abary River, Great

Falls Demerara River, Tiger Creek Essequibo River, Anarica River (*McConnell collection*).

Extralimital Range. Surinam (*Peuard*), Venezuela and North Brazil.

Habits. Schomburgk states (*Reis. Guian.* iii. p. 687) that he found this species near the coast and in the neighbourhood of Mount Roraima, and it appeared to him to be generally distributed throughout the colony.

358. *Erionotus amazonicus*.

SCLATER'S AMAZONIAN BUSH-SHRIKE.

Thamnophilus amazonicus Sclater, P. Z. S. 1858, p. 214, pl. 139. figs. 1, 2 (East Peru); id. *Cat. B. Brit. Mus.* xv. p. 199, 1890 (Bartica Grove, Camacusa, Takutu River); Brabourne & Chubb, B. S. Amer. i. p. 189, no. 1889, 1912.

Thamnophilus ruficollis Cab. in Schomb. *Reis. Guian.* iii. p. 687, 1848; Salvin, *Ibis*, 1885, p. 423 (Camacusa, Bartica Grove); Oates, *Cat. Birds' Eggs Brit. Mus.* iii. p. 167, pl. iii. fig. 2, 1903.

Adult male. General colour above and below slate-grey, somewhat paler on the under surface, the feathers on the head and upper back centred with black, the latter having white bases; upper wing-coverts black edged with white; primary and secondary quills blackish with white on the outer edges; upper tail-coverts and tail-feathers black tipped with white; inner edges of primary and secondary quills also white.

Total length 132 mm., exposed culmen 15, wing 65, tail 54, tarsus 21.

The bird described was collected on the Kamakabra River, 1911.

Adult female. Head and entire under surface rufous, brighter on the head and paler below; back olive-brown with slate-colour bases to the feathers and concealed white spots; upper wing-coverts blackish with white edges; primary and secondary quills dark brown, with pale edges on the outer and inner webs; upper tail-coverts and middle tail-feathers rufous-brown, the former tipped with white, the outer tail-feathers darker and more broadly tipped on the outermost, which has a white spot on the outer web; under wing-coverts pale buff. Wing 65 mm.

The female described was collected on the Ituribisi River in August 1909.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. The eggs of this species in the British Museum are of an extremely narrow oval form, and moderately glossy. They are creamy white, mottled, more densely at the broad end than elsewhere, with reddish brown and lilac. Two examples measure respectively: 1.04 by 0.65, 1.08 by 0.65 (*vide* Oates, Cat. Birds' Eggs Brit. Mus. iii. p. 167).

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Bartica, Kamakabra River, Bonasika River, Abary River, Arwee Creek, Tiger Creek Essequibo River, Great Falls Demerara River (*McConnell collection*); Bartica, Kamakusa, Takutu River (*Whitely*).

Extralimital Range. Surinam (*Penard*), Northern Brazil, East Peru.

Habits. According to Schomburgk (*Reis. Guian.* iii. p. 687) this bird is common in the woods near the coast, where it enlivens the low bush.

359. *Erionotus insignis*.

RORAIMA BUSH-SHRIKE.

Thamnophilus insignis Salvin & Godman, *Ibis*, 1884, p. 450 (Mt. Roraima); Salvin, *Ibis*, 1885, p. 424 (Roraima, 5000 ft.); Sclater, *Cat. B. Brit. Mus.* xv. p. 199, pl. xiii., 1890 (Roraima); Brabourne & Chubb, *B. S. Amer.* i. p. 190, no. 1891, 1912.

Adult male. General colour above and below dark slate-grey; crown of head including the crest black; upper back black with subterminal white spots on the feathers, like those on the hind-neck; wings also black, the feathers tipped or edged with white; upper tail-coverts and tail black tipped with white, the outer pair of tail-feathers having a white spot on the outer webs; the quills bordered on the outer web and edged on the inner web with white; the under wing-coverts grey tipped with white.

Total length 155 mm., exposed culmen 17, wing 76, tail 66, tarsus 25.

Adult female. Differs from the adult male in having an occipital crest of maroon-chestnut, the forehead black with grey and white tips to the feathers. Wing 76 mm.

The birds described were collected by Mr. McConnell on Mount Roraima in October 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima, 5000 feet (*Whitely*).

Extralimital Range. Surinam (*Penard*).

Habits. Unrecorded in British Guiana.

Genus **DYSITHAMNUS** Cab.

Dysithamnus Cabanis, *Archiv für Naturg.* xiii. pt. i. p. 223, 1847. Type *D. guttulatus* (Licht.).



Fig. 11.—*Dysithamnus guttulatus*.

This genus has for many years been compared with and placed next to *Thamnophilus*, or those forms included under that name, neither of which appears to have any very close relationship.

The present genus includes birds of small size and having no crest. The bill is small and sharply hooked—the exposed culmen being about three-fourths the length of the tarsus. The wing is rounded, the fourth, fifth, and sixth primaries longest, the third is shorter than the sixth but longer than the seventh. The tail is short and nearly square, the outer feather on each side being only about 3 mm. shorter than the middle ones. The

feet are slender and weak. Coloration: the male and female differ in colour of plumage.

Key to the Species.

- A. Throat lead-grey like the rest of the under surface in the male.
- a. Crown of head dark lead-grey; lesser upper wing-coverts blackish *D. spodionotus*, ♂, p. 21.
- a'. Crown of head rufous; back rufous-brown; middle of abdomen white. *D. spodionotus*, ♀, p. 22.
- b. Crown of head pale lead-grey; lesser upper wing-coverts also grey *D. murinus*, ♂, p. 22.
- b'. Crown of head dull rufous; back ochreous-brown; middle of abdomen isabelline *D. murinus*, ♀, p. 23.
- B. Throat black in contrast to the grey under surface in the male
- c. Crown of head ochreous-brown like the back; middle of the abdomen fawn-colour *D. saturninus*, ♂, p. 23.
- c. Crown of head ochreous-brown like the back; middle of the abdomen fawn-colour *D. saturninus*, ♀, p. 23.

360. *Dysithamnus spodionotus*.

ASHY-BACKED BUSH-BIRD.

Dysithamnus spodionotus Salvin & Godman, Ibis, 1883, p. 211 (Roraima); Salvin, Ibis, 1885, p. 424 (Roraima, 3500 ft.); Selater, Cat. B. Brit. Mus. xv. p. 222, 1890 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 194, no. 1941, 1912.

Adult male. General colour above dark slate-colour, darker and inclining to black on the head; upper wing-coverts black edged with white; primary and secondary quills dark brown, edged with slate-grey on the outer webs; tail black, fringed with white at the tip; under surface for the most part ash-grey, darker and more slate-grey on the sides of the body.

Total length 105 mm., exposed culmen 17, wing 64, tail 35, tarsus 20.

The male from which the description is taken was collected on the Makauria River in August 1910.

Immature male. Differs from the adult male in having the upper surface olive-brown with a tinge of chestnut on the head; throat pale ash-grey, middle of abdomen white; breast and sides of the body pale olive-brown; under tail-coverts pale fulvous; under wing-coverts white, inner edge of quills below buffy-white.

The young male described was collected by Mr. McConnell at Mount Roraima in October 1898.

Adult female. Fore part of head bright rust-colour which fades away on the nape into the olive-brown of the back; outer aspect of the wings and tail more rufous-brown, inner webs of flight-quills dark brown with buffy-white edges; breast and sides of the body ochreous-brown; throat and middle of abdomen whitish; under tail-coverts and edge of wing pale fulvous; under wing-coverts white. Wing 62 mm.

The female described was also collected by Mr. McConnell on Mount Roraima in October 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Makauria River (McConnell collection); Mount Roraima, 3500 ft. (Whitely).

Extralimital Range. Surinam (Penard).

Habits. Unrecorded in British Guiana.

361. *Dysithamnus murinus*.

MOUSE-COLOURED BUSH-BIRD.

Thamnophilus murinus, Selater & Salvin, P. Z. S. 1867, p. 756 (Marabitanas); Salvin, Ibis, 1885, p. 423 (Bartica Grove, Camacusa, Merumé Mts.); W. L. Selater, Ibis, 1887, p. 318 (Maccasseema, Pomeroun River); Selater, Cat. B. Brit. Mus. xv. p. 195, 1890 (Marakka, Takutu River).

Dysithamnus murinus Brabourne & Chubb, B. S. Amer. i. p. 195, no. 1952, 1912.

Adult male. General colour above, including the head, back, and tail, bluish slate-colour, with concealed white bases to the feathers on the back; lesser upper wing-coverts edged with white, the greater coverts inclining to olive-brown and are also margined with white; primary-coverts and quills dark brown, edged with olive on the outer webs and white on the inner webs of the latter, the inner secondaries are very narrowly edged with white at the tips; tail-feathers tipped with white; sides of face pale slate-grey with white shaft-lines to the feathers; middle of throat, middle of breast, and middle of abdomen dull white; sides of neck, sides of body, flanks, thighs, and under tail-coverts slate-grey; under wing-coverts white.

Total length 134 mm., exposed culmen 17, wing 62, tail 51, tarsus 22.

The bird described was collected on the Anarica River.

Adult female. Differs from the adult male in being rust-brown above, brighter and inclining to chestnut on the head, the absence of the concealed white patch on the back, and the ochreous-brown on the underparts. Wing 61 mm.

The description of the female is taken from a specimen collected on the Kamakabra River in 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Makauria River, Anarica River (*McConnell collection*); Bartica, Kamakusa, Merumé Mountains, Takutu River (*Whitely*); Marakka, Mac-casseema, Pomeroun River (*W. L. Slater*).

Extralimital Range. Cayenne, North Brazil, Venezuela, East Peru.

Habits. Unrecorded in British Guiana.

362. *Dysithamnus saturninus*.

SATURNINE BUSH-BIRD.

Dysithamnus saturninus Pelz. Orn. Bras. p. 147, 1869 (Borba);
Brabourne & Chubb, B. S. Amer. i. p. 195, no. 1954, 1912.

Dysithamnus ardesiacus (nec Scl. & Salv.) Salvin, Ibis, 1885, p. 424
(Bartica Grove, Camacusa, Merumé Mts.); Slater, Cat. B. Brit.
Mus. xv. p. 225 (part), 1890 (Roraima, Takutu River).

Thamnomanes glaucus (nec Cab.) W. L. Slater, Ibis, 1887, p. 318
(Marakka).

Adult male. General colour above bluish slate-colour, including the head, back, wings, and tail; inner webs of flight-quills dark brown with pale edges; tail similar to the back, narrowly margined with white at the tip; throat black; breast and sides of the body slate-colour somewhat paler than the back; the abdomen and under tail-coverts with more or less white intermixed like the under wing-coverts.

Total length 130 mm., exposed culmen 16, wing 71, tail 48, tarsus 19.

The male described was collected on the Ituribisi River in October 1908.

Immature male. Differs from the adult male in having the

remains of rusty-brown on the wings and under tail-coverts and the throat grey instead of black.

Adult female. Upper surface rufous-brown; inner webs of flight-quills dark brown edged with cinnamon-buff; throat whitish tinged with buff; breast pale rufous-brown, becoming bright rufous on the lower abdomen, under tail-coverts, and under wing-coverts. Wing 70 mm.

The female described was collected on the Kamakabra River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Great Falls Demerara River, Arwee Creek (*McConnell collection*); Bartica, Kamakusa, Merumé Mountains, Mount Roraima, Takutu River (*Whitely*); Marakka (*W. L. Sclater*).

Extralimital Range. Cayenne (*British Museum*), Venezuela, Central Brazil.

Habits. Unrecorded in British Guiana.

Genus **THAMNOMANES** Cab.

Thamnomanes Cabanis, Archiv für Naturg. xiii. pt. i. p. 230, 1847.

Type *T. cæsius* (Licht.).

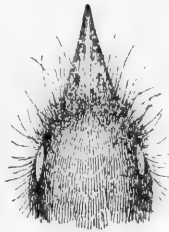


Fig. 12.—*Thamnomanes cæsius*.

Head not crested, but a concealed white dorsal patch is present. Bill sharply hooked, somewhat broad at the base, and profusely furnished with rictal bristles; the exposed culmen is about 16 mm. and about equal to the tarsus in length. Wing rounded, the fourth, fifth, and sixth primaries longest, the third shorter than the sixth and longer than the seventh. In the type of the genus

the wing only slightly exceeds the length of the tail. Tail graduate and rounded, the six middle feathers longest and subequal. Feet stronger and stouter than in *Dysithamnus*. The male and female differ in colour of plumage.

363. *Thamnomanes glaucus*.

NORTHERN CINEREOUS BUSH-BIRD.

Thamnomanes glaucus Cab. Arch. für Naturg. 1847, p. 230 (Cayenne); id. in Schomb. Reis. Guian. iii. p. 688, 1848; Salvin, Ibis, 1885, p. 424 (Bartica Grove, Camacusa); Selater, Cat. B. Brit. Mus. xv. p. 227, 1890 (Mirakka, Camacusa, Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 196, no. 1959, 1912.

Adult male. General colour above and below dark slate-colour, with concealed white bases to the feathers on the upper back; the flight-quills dark brown, with pale edges on the inner webs; the outermost pair of tail-feathers slightly edged with white; under wing-coverts grey; under tail-coverts fringed with pale grey at the tips.

Total length 130 mm., exposed culmen 16, wing 73, tail 57, tarsus 17.

The male bird described was collected at Bartica in 1911.

Adult female. General colour above cinnamon-brown inclining to rufous-brown on the wings and tail, with concealed white bases to the feathers of the upper back; inner webs of flight-quills dark brown, edged with pale rufous on the inner webs; throat dusky-white; breast dusky-brown; abdomen, flanks, under tail-coverts, and under wing-coverts bright rufous.

Total length 138 mm., culmen 18, wing 65, tail 61, tarsus 16.

The female described was also collected at Bartica in 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Makauria River, Berbice River, Anarica River (*McConnell collection*); Bartica and Kamakusa (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Cabanis*), Venezuela, Ecuador, and Peru.

Habits. Unrecorded in British Guiana.

Genus **MYRMOTHERULA** ScL.*Myrmotherula* Sclater, P. Z. S. 1858, p. 234. Type *M. pygmæa* (Gmel.).Fig. 13.—*Myrmotherula pygmæa*.

The type of this genus is conspicuous by its small size, the absence of a crest, the small and slender bill which is sharply hooked, the rounded wing, the third, fourth, and fifth primaries longest, and the second about equal to the seventh, the tail short and rounded, longer than the culmen but shorter than the tarsus. Male and female different in colour.

Key to the Species.

- A. Abdomen uniform yellow, throat white. *M. pygmæa*, ♂, p. 26.
 a. Throat yellowish buff *M. pygmæa*, ♀, p. 27.
 B. Abdomen and throat profusely
 streaked with black *M. surinamensis*, ♂, p. 27.
 b. Throat and abdomen pale fawn-colour
 sparsely streaked *M. surinamensis*, ♀, p. 28.

364. *Myrmotherula pygmæa*.

PYGMY ANT-BIRD.

Muscicapa pygmæa Gmel. Syst. Nat. i. p. 933, 1789 (Cayenne).*Formicivora pygmæa* Cab. in Schomb. Reis. Guian. iii. p. 688, 1848.*Myrmotherula pygmæa* Salvin, Ibis, 1885, p. 425 (Bartica Grove, Camacusa); Sclater, Cat. B. Brit. Mus. xv. p. 231, 1890; Braubourne & Chubb, B. S. Amer. i. p. 196, no. 1961, 1912.

Adult male. General colour of the upper surface black, the feathers edged with white or sulphur-yellow, narrowly on the head, hind-neck, and outer webs of primary and secondary quills, and more broadly on the upper wing-coverts; rump and upper

tail-coverts dusky without any pale margins to the feathers; tail-feathers slightly margined with whitish or sulphur-yellow; a rather broad white streak below the eye; chin and throat white; sides of the face and sides of the breast similar to the back; middle of the breast, abdomen, under tail-coverts, sides of the body, and under wing-coverts yellow.

Total length 61 mm., exposed culmen 13, wing 38, tail 16, tarsus 17.

Adult female. Similar to the adult male, but differs in having the chin, throat, and upper breast yellowish buff, and the feathers on the sides of the face and the top of the head edged with the same colour. Wing 41 mm.

The male and female described were collected on the Supenaam River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River (*McConnell collection*); Bartica, Kamakusa (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Gmelin*), Northern Brazil, Colombia, Ecuador, Peru.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 688*) this bird lives in low brush on the outskirts of the woods, in the fields cultivated by the natives, and in the neighbourhood of rivers.

365. *Myrmotherula surinamensis*.

SURINAM ANT-BIRD.

Sitta surinamensis Gmel. *Syst. Nat. i. p. 442, 1788* (Surinam).

Formicivora quadrivittata Cab. in Schomb. *Reis. Guian. iii. p. 688, 1848*.

Myrmotherula surinamensis Salvin, *Ibis, 1885, p. 425* (Camacusa);

Slater, *Cat. B. Brit. Mus. xv. p. 231, 1890* (Takutu River, Carimang River); Brabourne & Chubb, *B. S. Amer. i. p. 196, no. 1962, 1912*.

Adult male. General colour of the upper surface black with white tips and edgings to the feathers, narrower on head, hind-neck, flight-quills, and tail-feathers, and broader on the upper back, where the bases of the feathers are white, and the upper wing-coverts; sides of lower back and rump lead-grey; sides of face and under surface white with narrow black shaft-streaks to the feathers, the white portion inclining to grey on the sides of

the breast and sides of the body; under wing-coverts and inner edges of the quills white.

Total length 90 mm., exposed culmen 15, wing 58, tail 25, tarsus 16.

Adult female. Differs from the adult male in having the crown of the head and hind-neck bright rufous, streaked with black on the occiput and hind-neck, becoming paler on the sides of the face, much paler and inclining to white on the throat; remainder of the under surface almost uniform dull white. Exposed culmen 14 mm., wing 49.

The male and female described were collected on the Supenaam River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Kamakabra River, Bonasika River, Makauria River, Great Falls Demerara River, Arawai River, Anarica River (*McConnell collection*); Kamakusa, Kamarang River, Takutu River (*Whitely*).

Extralimital Range. Surinam (*Gmelin, Penard*), Cayenne (*British Museum*), Venezuela.

Habits. Schomburgk states (*Reis. Guian. iii. p. 688*) that this bird lives in the low brush on the outskirts of the woods, in the fields cultivated by the natives, and in the neighbourhood of rivers.

Genus **RHOPIAS** Cab. & Hein.

Rhopias Cabanis & Heine, *Mus. Hein. ii. p. 13, 1859.* Type *R. gularis* (Spix).

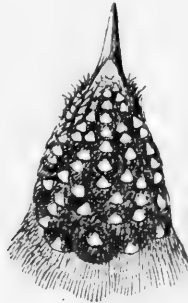


Fig. 14.—*Rhopias gularis*.

The members of this genus are distinguished at sight in having

the throat black, or dark brown, spotted with white. The bill is small and slender. The wing is rounded, the fourth, fifth, and sixth primary-quills longest, the third about equal to, or very slightly shorter than, the seventh. The tail is short and very slightly rounded, and measures about four-fifths the length of the wing and about three times the length of the exposed culmen. Male and female similar in colour in the typical species, but differ in some of the others.

366. *Rhopias gutturalis*.

BROWN-BELLIED ANT-BIRD.

Myrmotherula gutturalis Selater & Salvin, Ibis, 1881, p. 269 (Bartica Grove); Salvin, op. cit. 1885, p. 425 (Merumé Mts., R. Atapurau, Bartica Grove); Selater, Cat. B. Brit. Mus. xv. p. 233, 1890 (Quonga); Brabourne & Chubb, B. S. Amer. i. p. 197, no. 1969, 1912.

Adult male. General colour of the upper surface olive-brown including the head, ear-coverts, back, wings, and tail; upper wing-coverts tipped with white; primary and secondary quills hair-brown on the inner webs, which have pale margins; tail somewhat darker than the back and inclining to rufous-brown; throat black, with white pear-shaped marks at the tips of the feathers; sides of face and breast lead-grey; sides of the body, abdomen, and under tail-coverts olive-brown; under wing-coverts isabelline buff.

Total length 104 mm., exposed culmen 13, wing 50, tail 39, tarsus 16.

Adult female. Differs from the adult male in being rufous-brown above, instead of olive-brown, and in the absence of the black and white throat-patch, the grey on the breast, and olive-brown abdomen—these parts being fulvous in the female. Wing 52 mm.

The male and female birds described were collected on the Supenaam River in 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roriama, Ituribisi River, Supenaam River, Anarica River, Arwee Creek (*McConnell collection*); Bartica, Merumé Mountains, Kamarang River, Quonga (*Whitely*).

Extralimital Range. Surinam (*Penard*).

Habits. Unrecorded in British Guiana.

Genus **MYRMOPAGIS** Ridgw.

Myrmopagis Ridgway, Proc. Biol. Soc. Washington, xxii. April 17, 1909.
Type *M. axillaris* (Vieill.).

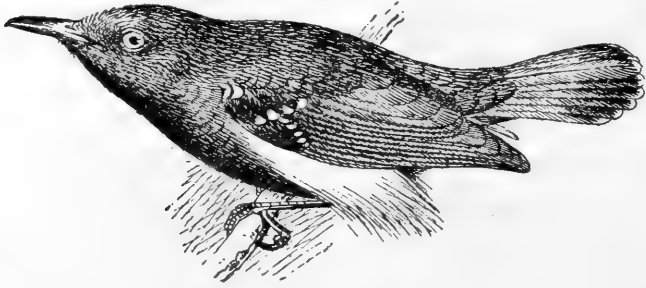


Fig. 15.—*Myrmopagis axillaris*.

This genus is easily distinguished by the long and, usually, white flank-plumes which form a conspicuous patch on the sides of the body. The bill is slender. The wing is rounded, the fourth and fifth primaries longest, the third about equal to the sixth. The tail is comparatively long, being about three-fourths the length of the wing, rounded, and much graduated, the outer feather on each side being about two-thirds the length of the middle ones. The male and female differ entirely in colour.

367. *Myrmopagis axillaris*.

WHITE-FLANKED ANT-BIRD.

Myrmothera axillaris Vieill. N. Dict. d'Hist. Nat. xii. p. 113, 1817
(Cayenne).

Formicivora axillaris Cab. in Schomb. Reis. Guian. iii. p. 688, 1848.

Myrmotherula axillaris Salvin, Ibis, 1885, p. 425 (Bartica Grove, Camacusa, Merumé Mts.); Selater, Cat. B. Brit. Mus. xv. p. 238, 1890 (Takutu River); Beebe, Our Search for a Wilderness, p. 194, 1910 (Hoorie); Brabourne & Chubb, B. S. Amer. i. p. 198, no. 1982, 1912.

Adult male. General colour for the most part slate-grey, including the head, back, upper tail-coverts, sides of face, and sides of breast; upper wing-coverts, bastard-wing, and primary-coverts black tipped with white, more broadly on the greater series; primary and secondary quills dark brown, margined with white on the inner webs; tail blackish, with narrow white

edges at the tips of the feathers ; sides of the body, axillaries, under wing-coverts, and edge of wing silky-white ; throat, fore-neck, middle of breast and abdomen black ; under tail-coverts also black fringed with grey.

Total length 99 mm., exposed culmen 15, wing 52, tail 36, tarsus 15.

The specimen from which the description is taken was collected on the Ituribisi River in February 1907.

Adult female. Upper parts fulvous-brown including the head, back, and sides of the breast, becoming rufous on the wings and tail ; inner webs of the primary and secondary quills dark brown, with cinnamon-buff edgings ; throat whitish slightly tinged with buff ; breast and abdomen ochreous-buff, becoming deeper in colour on the under tail-coverts ; flanks white ; under wing-coverts and inner edges of the quills below cinnamon-buff. Wing 49 mm.

The female described was collected on the Makauria River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Bonasika River, Makauria River, Abary River, Berbice River, Arwye Creek, Great Falls Demerara River, Arawai River, Tiger Creek Essequibo River, Anarica River (*McConnell collection*) ; Bartica, Kamakusa, Merumé Mts., Takutu River (*Whitely*) ; Hoorie River (*Beebe*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Vieillot*), Trinidad, Venezuela, North Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 688*) that this bird lives in the low brush on the outskirts of the woods, in the fields cultivated by the natives, and in the neighbourhood of rivers.

Mr. W. Beebe, in 'Our Search for a Wilderness,' p. 194, gives the following note :—"One, a White-shouldered Pygmy Ant-bird, now flits ahead of us, tiny as a Wren, slate-colored, with white dots on the lesser coverts of the wings and a dotted bar across the wings. The flanks and under wings are white and although ordinarily concealed, yet the little fellow flirts his wings every second, thus flashing out the color, and making himself most conspicuous. His call-note is low and inarticulate, but he occasionally lisps a pleasing little song : chu ! chu ! chúwee !"

Genus **MYRMOPHILA** Cab. & Hein.

Myrmophila Cabanis & Heine, Mus. Hein. ii. p. 12, 1859. Type
M. minor (Salvadori).



Fig. 16.—*Myrmophila minor*.

In this genus the male has a uniform black throat. The bill is short and slender. The wing is rounded, the fifth primary longest, the fourth about equal to the sixth in length, the third between the seventh and eighth. The tail is proportionately long, being more than half the length of the wing. The sexes differ in colour of plumage.

Key to the Species.

- A. Larger, wing more than 60 mm.; upper wing-coverts black tipped with white, in contrast to the rest of the upper surface *M. vavasouri*, p. 32.
B. Smaller, wing less than 60 mm.; upper wing-coverts uniform with the rest of the upper surface *M. behni*, p. 33.

368. **Myrmophila vavasouri.**

VAVASOUR'S LONG-WINGED ANT-BIRD.

Myrmotherula longipennis (nec Pelz.) Salvin, Ibis, 1885, p. 426 (Bartica Grove, Camacusa); Sclater, Cat. B. Brit. Mus. xv. p. 241, 1890; Brabourne & Chubb, B. S. Amer. i. p. 198, no. 1988, 1912.

Myrmophila vavasouri Chubb, Bull. Brit. Orn. Club, xxxviii. p. 83, 1918.

Adult male. General colour above and below slate-blue, including

the head, back, inner secondaries, tail, breast, abdomen, sides of body, under tail-coverts, and under wing-coverts; a white tuft on the shoulder of the wing; upper wing-coverts black tipped with white; primary and secondary quills dark brown with pale edges on the inner webs, slate-blue on the outer webs, and narrowly edged with white at the tips of the secondaries; inner webs of tail-feathers blackish and narrowly margined with white at the tips; chin and throat-patch deep black.

Total length 103 mm., exposed culmen 14, wing 66, tail 41, tarsus 16.

Adult female. Differs entirely from the male in being fulvous-brown above and inclining to rufous on the wings; sides of the face, throat, and middle of the breast ochreous-buff; sides of the breast, sides of the body, and under tail-coverts fulvous; middle of abdomen greyish white. Wing 61 mm.

The types of both male and female are in the McConnell collection and were collected on the Ituribisi River in February 1907.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Makauria River, Anarica River (*McConnell collection*); Bartica, Kamakusa (*Whitely*).

Extralimital Range. Surinam (*Penard*).

Habits. Unrecorded in British Guiana.

This bird is named in honour of Mrs. McConnell's second surviving son.

369. *Myrmophila behni*.

BEHN'S ANT-BIRD.

Myrmotherula behni Berl. & Leverk. Ornis, vi. p. 25, pl. i. fig. 2, 1890 (S. Fé de Bogota); Brabourne & Chubb, B. S. Amer. i. p. 199, no. 1992, 1912.

Myrmotherula unicolor (nec Menetr.) Salvin, Ibis, 1885, p. 426 (Bartica Grove, Camacusa, Roraima, 3500 ft.).

Myrmotherula inornata Selater, Cat. B. Brit. Mus. xv. p. 243, 1890 (Camacusa, Roraima, Bartica Grove).

Adult male. General colour above, including the crown of the head, sides of the face, entire back, wings, and tail, slate-blue;

inner webs of flight-quills dark brown margined with white; throat and middle of breast black; sides of the body, abdomen, under tail-coverts, and under wing-coverts slate-blue, paler on the last which have whitish shaft-lines; under surface of flight-quills hair-brown with white edges; lower aspect of tail dark brown.

Total length 92 mm., exposed culmen 12, wing 55, tail 34, tarsus 17.

The male described was collected at Mount Roraima, 3500 ft., by H. Whitely on January 15th, 1884. Now in the British Museum—Salvin-Godman collection.

Adult female. General colour of the upper surface dark rust-brown including the top of the head, sides of the face, entire back, wings and tail; inner webs of flight-quills hair-brown; eye-ring and throat whitish; breast, abdomen, sides of the body, and under tail-coverts pale rust-brown, darker on the flanks and under tail-coverts; axillaries and under wing-coverts white washed with cinnamon-buff; under surface of quills pale brown with white inner edges. Wing 52 mm.

The female described, which is in the British Museum, was also collected at Mount Roraima by H. Whitely, on October 31st, 1883.

Immature male. Similar to the adult female, but differs in being more rufous on the fore part of the head and wings; the sides of the face are pale rufous; throat and breast isabelline-buff; abdomen, sides of the body, and under tail-coverts pale slate-grey; under surface of flight-quills dark brown with rufous inner edgings.

The immature male described was collected at Bartica by H. Whitely on the 17th of December, 1879, and is now in the British Museum.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Bartica, Makauria River (*McConnell collection*); Mount Roraima, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Colombia.

Habits. Unrecorded in British Guiana.

Genus **POLIOLÆMA** Chubb.

Poliolæma Chubb, Bull. Brit. Orn. Club, xxxix. p. 42, Jan. 3, 1919.
Type *P. cinereiventris* (Scl. & Salv.).



Fig. 17.—*Poliolæma cinereiventris*.

This genus is readily distinguished in having the throat uniform with the rest of the under surface. The bill, which is long compared with the other genera of this group, has the exposed culmen about equal in length to the hind toe and claw. The wing is rounded, the third, fourth, and fifth quills longest, the second about equal to the seventh. The tail is short and nearly square, the outer feather on each side is only very slightly shorter than the rest. The feet are small and weak. Male and female entirely different in colour.

Key to the Species.

- A. Abdomen grey like the breast *P. cinereiventris*, ♂, p. 35.
 - a. Upper tail-coverts grey like the back. *P. cinereiventris*, ♀, p. 36.
- B. Abdomen ferruginous in contrast to the grey breast *P. guttata*, ♂, p. 36.
 - b. Upper tail-coverts ferruginous in contrast to the back..... *P. guttata*, ♀, p. 37.

370. *Poliolæma cinereiventris*.

GREY-BREADED ANT-BIRD.

Myrmotherula cinereiventris Sclater & Salvin, P. Z. S. 1867, p. 756 (Cayenne); Salvin, Ibis, 1885, p. 426 (Bartica Grove, Camacusa); Sclater, Cat. B. Brit. Mus. xv. p. 244, 1890 (Bartica Grove, Camacusa); Brabourne & Chubb, B. S. Amer. i. p. 199, no. 1993, 1912.

Adult male. General colour above and below lead-grey, rather paler on the throat; the subapical portion of the upper wing-coverts black fringed with white at the tips; primary and secondary quills dark brown on the inner webs with pale edgings; tail-feathers narrowly tipped with white; under wing-coverts

black fringed with white; under tail-coverts like the abdomen but broadly margined with white.

Total length 86 mm., exposed culmen 15, wing 57, tail 29, tarsus 17.

Adult female. Upper surface, including the crown of the head, entire back, and tail, mouse-grey; outer aspect of wing tinged with rufous; inner webs of flight-quills dark brown with buffy-white edges; lores, a line over the eye extending on to the sides of the crown, and sides of the face grey; throat whitish; breast, abdomen, sides of the body, under tail-coverts, under wing-coverts, and inner edges of the flight-quills below buff. Wing 53 mm.

The female described was collected at Bartica by H. Whitely on the 1st November, 1879—now in the British Museum, Salvin Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Bartica, Berbice, Arwye Creek, Tiger Creek (*McConnell collection*); Bartica, Kamakusa, Mount Roraima (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Sclater & Salvin*).

Habits. Unrecorded in British Guiana.

371. *Poliolæma guttata*.

RUFUS-BELLIED ANT-BIRD.

Myrmothera guttata Vieill. Gal. Ois. i. p. 251, pl. 155, 1825 (Cayenne).

Rhopoterpe guttata Cab. in Schomb. Reis. Guian. iii. p. 688, 1848.

Myrmotherula guttata Salvin, Ibis, 1885, p. 425 (Camacusa, Bartica Grove); Slater, Cat. B. Brit. Mus. xv. p. 232, 1890 (Bartica Grove, Roraima, Camacusa); Brabourne & Chubb, B. S. Amer. i. p. 197, no. 1967, 1912.

Adult male. Crown of head, hind-neck, upper back, sides of the face, throat, and breast dark slate-grey, darker on the head and paler on the throat; the feathers of the back are white at the base, subapically marked with black and rust-brown at the tips; rump rust-brown with rufous tips to the feathers; lesser upper wing-coverts greyish brown; median and greater wing-coverts black tipped with fulvous; bastard-wing dark brown, the outer margins of the feathers fulvous; primary coverts and quills dark brown, with rust-brown on the edges of the outer webs of the

latter and pale buff margins on the inner webs, the innermost secondary quills black with large fulvous spots at the tips, the spots decreasing in size on the outer secondaries; upper tail-coverts and tail black with rufous-buff tips to the feathers, under surface of tail similar; flanks, abdomen, and under tail-coverts chestnut; under wing-coverts dusky.

Total length 87 mm., exposed culmen 14, wing 52, tail 29, tarsus 19.

Adult female. Differs from the adult male in the absence of the dark slate-grey on the head, hind-neck, upper back, throat, sides of the face, and breast, replaced by dusky-brown, which is paler on the breast and becoming whitish on the throat. Wing 49 mm.

The male described was collected by Mr. McConnell on the Lower Mazaruni River during his expedition to Mount Roraima in 1898; the female was collected on the Makauria River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Bartica, Kamakabra River, Makauria River, Lower Mazaruni River, Arawai River (*McConnell collection*); Kamakusa, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Vieillot*).

Habits. According to Schomburgk (*Reis. Guian.* iii. p. 688) this bird inhabits the outskirts of woods. It procures its food, which consists of insects, on the ground among the leaves under the bushes.

Genus **HERPSILOCHMUS** Cab.

Herpsilochmus Cabanis, *Archiv für Naturg.* xiii. pt. i. p. 224, 1847.

Type *H. pileatus* (Licht.).



Fig. 18.—*Herpsilochmus pileatus*.

The species on which this genus was founded has a somewhat long bill, in proportion to its general size, which is hooked at the tip. The wing is rounded, the fourth primary slightly longest. The tail is also rounded and graduated, the outermost feather on

each side is about three-fourths the length of the middle ones. The feet are slender, the tarsus about two-thirds the length of the tail. Coloration: male and female similar.

Key to the Species.

- A. Smaller, tail less than 40 mm.
a. Crown of head black *H. sticturus*, ♂, p. 38.
b. Crown of head for the most part chestnut *H. sticturus*, ♀, p. 38.
 B. Larger, tail more than 40 mm.
c. Crown of head black *H. roraimæ*, ♂, p. 39.
d. Crown of head black with white tips to the feathers *H. roraimæ*, ♀, p. 39.

372. *Herpsilochmus sticturus*.

SPOTTED-TAILED ANT-BIRD.

Herpsilochmus sticturus Salvin, Ibis, 1885, p. 424 (Bartica Grove, Camacusa); Selater, Cat. B. Brit. Mus. xv. p. 245, 1890 (Camacusa, Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 199, no. 2000, 1912.

Adult male. Crown of head, nape, hind-neck, a line in front and behind the eye black, which colour also extends on to the middle of the back, where the bases of the feathers are grey and the subapical portion white; scapulars, rump, and upper tail-coverts lead-grey; upper wing-coverts black tipped with white, the white increasing in extent on the greater series; bastard-wing, primary-coverts, primary and secondary quills black margined with white; tail black with white marginal spots and white tips to the feathers, the white increasing in extent on the outer feathers; eyelids, lores, and a line over the eye, which is continued on to the sides of the nape, white like the throat, middle of the abdomen, under tail-coverts, axillaries, and under wing-coverts; cheeks, sides of breast, and sides of the body lead-grey.

Total length 97 mm., exposed culmen 14, wing 50, tail 31, tarsus 19.

Adult female. Differs from the adult male in having the feathers on the head partially chestnut, the back paler, a tinge of isabelline on the breast, and much paler on the abdomen and sides of the body. Wing 49 mm.

The female described is the co-type, and was collected by the late Henry Whitely at Kamakusa on the 8th of May, 1882; now in the British Museum—Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Great Falls Demerara River (*McConnell collection*); Kamakusa, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*).

Habits. Unrecorded in British Guiana.

373. *Herpsilochmus roraimæ*.

RORAIMA ANT-BIRD.

Herpsilochmus sp. inc., Salvin, Ibis, 1885, p. 425 (Roraima, 3500 ft.).

Herpsilochmus dorsomaculatus (nec Pelz.) Sclater, Cat. B. Brit. Mus. xv. p. 246, 1890 (Twek-quay).

Herpsilochmus roraimæ Hellmayr, Verh. zool.-bot. Ges. Wien, liii. p. 208, 1903 (Mt. Roraima); Brabourne & Chubb, B. S. Amer. i. p. 200, no. 2002, 1912.

Adult male. Crown of head black; back, rump, and upper tail-coverts lead-grey, some of the feathers on the middle of the back white at the base, with black on the apical portion; upper wing-coverts black broadly tipped with white; flight-quills blackish, edged with white on the outer and inner webs, more broadly on the latter; tail black tipped with white, the outer feathers marked with white on both webs; lores and a broad line over the eye extending along the sides of the crown white, followed by a line of black from behind the eye; a dark spot in front of the eye; sides of face and throat greyish white; breast and sides of body ash-grey; middle of abdomen, under tail-coverts, axillaries, under wing-coverts, and inner edges of quills below white; under surface of flight-quills hair-brown; lower aspect of tail black, tipped and extensively marked with white on the outer feathers.

Total length 123 mm., exposed culmen 15, wing 54, tail 50, tarsus 20.

Adult female. Differs from the adult male in being paler grey on the back, the feathers on the crown of the head black tipped with white, and the breast isabelline. Wing 54 mm.

This species is unrepresented in the *McConnell* collection, and the male and female described above, which are in the British Museum, were collected at Mount Roraima by the late Henry Whitely in January 1882 and in 1884—*Salvin-Godman* collection.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima, Twek-quay, Kamarang River (*Whitely*).

Habits. Unrecorded.

Genus **DRYMOPHILA** Such.

Drymophila Such, Zool. Journ. i. p. 559, 1824. Type *D. ferruginea* (Licht., nec Mull.).

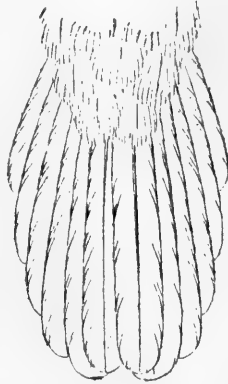


Fig. 19.—*Drymophila grisea*.

The members of this genus have slender bills, short wings, and long tails. The exposed culmen is about three-fourths the length of the tarsus, the wing about one-tenth longer than the tail, and the tarsus nearly half the length of the tail. This genus strongly resembles *Myrmopagis* of Ridgway. Coloration: male and female different.

374. ***Drymophila grisea*.**

CAYENNE ANT-WREN.

Turdus griseus Bodd. Tabl. Pl. Enl. p. 39, 1783 (Cayenne).

Formicivora grisea Cab. in Schomb. Reis. Guian. iii. p. 687, 1848;

Salvin, Ibis, 1885, p. 426 (Merumé Mts.); Selater, Cat. B. Brit.

Mus. xv. p. 249, 1890 (Quonga); Brabourne & Chubb, B. S. Amer.

i. p. 200, no. 2009, 1912.

Adult male. Head, hind-neck, back, scapulars, and upper tail-coverts dusky greyish brown with dark slate-grey bases to the feathers; upper wing-coverts black with white tips to the feathers, including the bastard-wing and primary-coverts; primary and

secondary quills dark brown; tail-feathers black tipped with white, more broadly on the lateral ones, some of which are edged with white on the outer webs; a narrow white line on the base of the forehead which extends over the eye and down the sides of the neck, where it joins the white on the sides of the breast and sides of the body; lores, sides of face, throat, breast, and abdomen black; under tail-coverts black tipped with white; under wing-coverts silky-white, those on the outer margin black minutely tipped with white.

Total length 120 mm., exposed culmen 15, wing 53, tail 41, tarsus 21.

Adult female. Head, back, and wings dusky-brown; upper wing-coverts and tail-feathers blackish brown tipped with white; lores, sides of face, and throat white, the last tinged with buff; breast, flanks, and abdomen orange-buff; under wing-coverts and inner edges of quills white. Wing 54 mm.

The male and female described were collected on the Abary River in September 1906.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Takutu River, Ituribisi River, Abary River, Ireng River, Great Falls Demerara River (*McConnell collection*); Merumé Mountains, Quonga River (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Bodduert*), North-east and Eastern Brazil.

Habits. According to Schomburgk (*Reis. Guian.* iii. p. 687) this bird lives in the bushes along the river-side.

Genus **TERENURA** Cab. & Hein.

Terenura Cabanis & Heine, *Mus. Hein.* ii. p. 11, 1859. Type *T. maculata* (Wied).



Fig. 20.—*Terenura maculata*.

The members of this genus are birds of small size with pointed bills which are slightly hooked. The wing is rounded, the fourth

fifth, and sixth primaries longest, the third about equal to the seventh. The tail, which is nearly equal to the wing in length, is rounded and graduated, the two middle feathers longest, the outermost feather on each side only slightly more than half the length of the middle ones. The feet are small and slender; the tarsus exceeds the length of the exposed culmen by about one-fourth. Coloration: male and female similar.

375. *Terenura spodioptila*.

ASH-VENTED ANT-WREN.

Terenura spodioptila Selater & Salvin, Ibis, 1881, p. 270, pl. ix. fig. 1 (Bartica Grove); Salvin, Ibis, 1885, p. 426 (Camacusa); Selater, Cat. B. Brit. Mus. xv. p. 258, 1890 (Bartica Grove, Camacusa); Brabourne & Chubb, B. S. Amer. i. p. 203, no. 2039, 1912.

Adult male. Crown of the head and nape blackish brown; back, scapulars, rump, and short upper tail-coverts chestnut; wings, long upper tail-coverts, and tail greyish brown; median and upper wing-coverts tipped with white, which forms a double wing-bar; lores, a line over the eye and along the sides of the crown, and sides of the face ash-grey like the entire under surface, paler on the throat and inclining to white on the axillaries and under wing-coverts.

Total length 95 mm., exposed culmen 13, wing 49, tail 37, tarsus 15.

Adult female. Differs from the adult male in having the crown of the head and nape ochreous, including the lores and sides of the crown, and the throat and fore-neck tipped with isabelline. Wing 46 mm.

This species is not represented in the McConnell collection, and the descriptions are taken from material in the British Museum. The male, which is the type of the species, was collected by the late Henry Whitely at Bartica in June 1880 and the female at Kamakusa in March 1882.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Bartica, Kamakusa (*Whitely*).

Extralimital Range. Surinam (*Penard*).

Habits. Unrecorded in British Guiana.

Genus **RHAMPHOCÆNUS** Vieill.

Rhamphocænus Vieill. N. Dict. d.Hist. Nat. xxix. p. 5, 1819. Type
R. melanurus Vieill.



Fig. 21.—*Rhamphocænus melanurus*.

This genus, which is unlike any of its congeners, may be easily distinguished by its long bill, short wings, and long tail. The bill is long and slender and slightly hooked at the tip of the upper mandible, and the exposed culmen is almost equal to the tarsus in length. The wing is rounded, the fourth, fifth, and sixth primary-quills longest, the third about equal in length to the seventh. The tail, which exceeds the length of the wing, is almost square at the tip, the outer feather on each side being shorter than the rest. Coloration : male and female similar.

376. **Rhamphocænus albiventris.**

WHITE-BELLIED ANT-WREN.

Rhamphocænus albiventris Sclater, Ibis, 1893, p. 95 (Surinam); Salvin, Ibis, 1885, p. 426 (Bartica Grove, Camacusa); Sclater, Cat. B. Brit. Mus. xv. p. 261, 1890 (Quonga); Brabourne & Chubb, B. S. Amer. i. p. 204, no. 2045, 1912.

Adult male. Head, back, wings, and tail rufous-brown; inner webs of primary and secondary quills darker brown; tail black fringed with russet-brown which increases in extent on the two outermost feathers on each side; there is a slight indication of a superciliary streak from the lores over and behind the eye; cheeks, throat, breast, and sides of the body silvery-grey, the middle of the abdomen inclining to silky-white like the under wing-coverts.

Total length 117 mm., exposed culmen 22, wing 47, tail 43, tarsus 20.

The bird from which the description is taken was collected on the Ituribisi River in 1909.

Adult female. Similar to the adult male. Wing 42 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Great Falls Demerara River, Arawai River (*McConnell collection*); Bartica, Kamakusa, Quonga River (*Whitely*).

Extralimital Range. Surinam (*Bartlett, Penard*).

Habits. Unrecorded in British Guiana.

Genus **CERCOMACRA** ScL.

Cercomacra Sclater, P. Z. S. 1858, p. 244. Type *C. cærulescens* Sclater (nec Vieill.) = *C. brasiliana* Hellmayr, Nov. Zool. xii. p. 289, 1905.

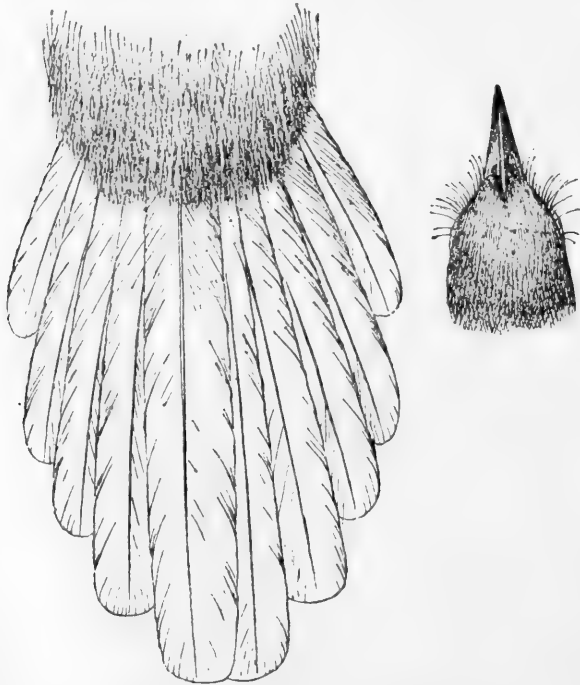


Fig. 22.—*Cercomacra brasiliana*.

The present genus is distinguished chiefly by the large and graduated tail, which exceeds the length of the wing by nearly one-fourth. It possesses numerous stiffened black bristles on the fore part of the head. The bill is hooked at the tip and proportionally long, the exposed portion of the culmen being about

two-thirds the length of the tarsus. The wing is rounded, the fifth, sixth, and seventh primaries longest and equal and the fourth about equal to the eighth. The tail is long and much graduated, the outer feather on each side being about half the length of the middle ones. Coloration: male and female different.

Key to the Species.

- | | |
|---|---------------------------------------|
| A. Bend of wing and margins of upper wing-coverts uniform with the rest of the upper surface | [p. 45. |
| <i>C. cinerascens immaculata</i> , ♂, | |
| <i>a.</i> Under surface ochreous brown... | <i>C. cinerascens immaculata</i> , ♀, |
| | [p. 46. |
| B. Bend of wing and margins of upper wing-coverts white in contrast to the rest of the upper surface..... | [p. 46. |
| <i>C. tyrannina saturator</i> , ♂, | |
| <i>b.</i> Under surface bright chestnut-rufous | [p. 46. |
| | <i>C. tyrannina saturator</i> , ♀, |

377. *Cercomacra cinerascens immaculata*.

THE BRITISH GUIANA ANT-WREN.

Cercomacra cinerascens (nec Scl.) Salvin, Ibis, 1885, p. 426 (Bartica Grove, Camacusa); Sclater, Cat. B. Brit. Mus. xv. p. 264, 1890, part, specimens *a-d*; Brabourne & Chubb, B. S. Amer. i. p. 204, no. 2050 part, 1912.

Cercomacra cinerascens immaculata Chubb, Bull. Brit. Orn. Club, xxxviii. p. 84, July 25, 1918.

Adult male. General colour above and below blackish slate-colour; primary and secondary quills blackish, with pale grey edgings to the inner webs; tail somewhat darker than the back, with indistinct wavy bars and narrow white tips to the feathers; under surface slightly paler than the back.

Total length 147 mm., culmen 17, wing 65, tail 57, tarsus 20.

The type, which is in the McConnell collection, was collected on the Supenaam River in March 1910.

This subspecies differs from *C. cinerascens cinerascens* in being darker (both male and female), above and below, in the absence of the white dorsal patch, and the uniform upper wing-coverts.

According to Hellmayr (Nov. Zool. xii. p. 287) *C. napensis* Scl. is synonymic with *C. cinerascens* Scl. The Guiana bird therefore is easily separable from the type of the latter by the characters given above.

Adult female. General colour above very dark ochreous-brown, becoming paler brown on the head and outer aspect of the wings; primary and secondary quills dark brown, with pale edges to the inner webs; tail-feathers olive-brown regularly, but obscurely, barred with black and fringed with white at the tips; entire under surface rust-brown. Wing 63 mm.

The female described was collected at the Great Falls Demerara River in August 1913.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Bartica, Great Falls Demerara River (*McConnell collection*); Bartica, Kamakusa (*Whitely*).

Extralimital Range. ? Surinam, Venezuela.

Habits. Unrecorded in British Guiana.

378. *Cercomacra tyrannina saturator*.

GUIANA ANT-WREN.

Cercomacra tyrannina (nec *Sc.*) Salvin, *Ibis*, 1885, p. 427 (Bartica Grove, Camacusa, Roraima, 3500 ft.); Selater, *Cat. B. Brit. Mus.* xv. p. 265, 1890 (Takutu River); Brabourne & Chubb, *B. S. Amer.* i. p. 204, no. 2053, 1912.

Cercomacra tyrannina saturator Chubb, *Bull. Brit. Orn. Club*, xxxviii. p. 85, 1918.

Adult male. Differs from the type of *C. t. tyrannina* from Bogota in being much darker, almost black above, and very dark slate-colour on the under surface.

Total length 144 mm., exposed culmen 17, wing 65, tail 59, tarsus 23.

Adult female. Differs from the typical female of *C. t. tyrannina* in being bright chestnut rufous on the cheeks and entire under surface.

Total length 129 mm., exposed culmen 16, wing 64, tail 56, tarsus 22.

The male described was collected on the Ituribisi River in February 1907 and the female in 1909. The types are in the *McConnell collection*.

An immature male from the Abary River is, for the most part,

like the male but still retains on the under surface a trace of the female plumage.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Makauria River, Bonasika River, Abary River, Anarica River, Aarawai River, Arwee Creek, Tiger Creek Essequibo River (*McConnell collection*); Mount Roraima, Kamakusa, Takutu River, Bartica (*Whitely*).

Extralimital Range. ? Surinam.

Habits. Unrecorded in British Guiana.

Genus **MANIKUP** Desm.

Manikup Desmarest, Hist. Nat. Tanagars, Manakins, et Todies, pl. 66, 1805. Type *M. albifrons* (Linn.).



Fig. 23.—*Manikup albifrons*.

The type of this genus is easily distinguished by the long white lanceolate feathers on the top of the head and on the throat.

The wing, which is rounded, has the third, fourth, and fifth primaries longest and equal, the second about equal to the seventh. The tail is almost square at the tip and about half the length of the wing. The feet are proportionally large, the tarsus about one-fourth longer than the exposed portion of the culmen. Coloration: male and female similar.

379. *Manikup albifrons*.

WHITE-FRONTED ANT-CATCHER.

Pipra albifrons Linn. Syst. Nat. 12th ed. i. p. 339, 1766 (Guiana: ex Edwards, pl. 344).

Pithys albifrons Cab. in Schomb. Reis. Guian. iii. p. 685, 1848; Salvin, Ibis, 1885, p. 428 (Bartica Grove, Camacusa, Merumé Mts., Roraima 3500 ft.); Sclater, Cat. B. Brit. Mus. xv. p. 294, 1890 (Roraima, Camacusa, Merumé Mts., Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 206, no. 2068, 1912; Beebe, Trop. Wild Life in British Guiana, p. 132, Jan. 1917 (Bartica).

Manikup albifrons Chubb, Bull. Brit. Orn. Club, xxxix, p. 42, Jan. 3, 1919.

Adult male. Back and wings dark slate-colour, inner webs of primary and secondary quills dark brown; upper tail-coverts, a nuchal collar, ear-coverts, breast, abdomen, under tail-coverts, axillaries, under wing-coverts, and tail, both above and below, deep chestnut; crown of head, fore part of face, and the feathers dividing the white chin and chestnut breast black; a narrow streak behind the eye, fore part of head and throat white, the feathers of the two latter much elongated and lanceolate; greater under wing-coverts and quill-lining pale brown.

Total length 122 mm., exposed culmen 18, wing 72, tail 38, tarsus 24.

The bird from which the description is taken was collected on the Ituribisi River in August 1908.

Adult female. Similar to the adult male. Wing 67 mm.

Young birds are distinguished by the dusky appearance above and below, the absence of the chestnut collar on the hind-neck, the white streak behind the eye, the white feathers on the fore part of the head, and the white on the throat. The specimen on which these remarks are based was collected on the Ituribisi River in October 1908. There are two other immature examples from the Anarica River, rather more advanced, which show the appearance of white on the middle of the throat.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Anarica River (*McConnell collection*); Mount Roraima, Kamakusa, Merumé Mountains, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne, North Brazil, Venezuela.

Habits. Schomburgk states (*Reis. Guian.* iii. p. 685) that he only met with this bird when he came in contact with a stretch of land occupied by the unmeasurable "Wander-ants." It appears to come with them and leave at the same time. He did not know anything of its nidification, neither could the Indians give him any information on the subject.

Genus ANOPOLOPS Cab. & Hein.

Anoplops Cabanis & Heine, *Mus. Hein.* ii. p. 9, 1859. Type *A. rufigula* (Bodd.).



Fig. 24.—*Anoplops rufigula*.

The species on which this genus is based has a bare space round the eye. A concealed dorsal patch, which is white in the male and orange-buff in the female. The bill is of normal size and hooked at the tip. The wing is rounded, the fourth, fifth, and sixth primaries are longest and equal, the third about equal in length to the seventh. The tail is almost square at the tip, the outer feather on each side being only slightly shorter than the middle ones. Coloration: the dorsal patch white in the male, orange-buff in the female.

380. *Anoplops rufigula*.

RUFIOUS-FRONTED ANT-CATCHER.

- Turdus rufigula* Bodd. *Tabl. Pl. Enl.* p. 39, 1783 (Cayenne).
Pithys pectoralis Cab. in *Schomb. Reis. Guian.* iii. p. 685, 1848.
Pithys rufigula Salvin, *Ibis*, 1885, p. 428 (Bartica Grove, Camacusa);
 W. L. Selater, *Ibis*, 1887, p. 318 (Maccasseema).
Gymnopithys rufigula Selater, *Cat. B. Brit. Mus.* xv. p. 297, 1890.
Anoplops rufigula *Brabourne & Chubb, B. S. Amer.* i. p. 206, no. 2074,
 1912.
Anoplops rufigula rufigula Beebe, *Tropical Wild Life in Brit. Guian.*
 p. 229, 1917.

"Yackman-bird" (*W. L. Selater*).

Adult male. General colour above dark chocolate-brown, somewhat richer and inclining to deep chestnut-brown on the head; the base of the feathers on the mantle pure white, which forms a semi-observed dorsal patch; inner webs of the primary and secondary quills blackish with pale fulvous inner margins; tail similar to the back but somewhat paler; cheeks and ear-coverts deep chestnut, rather darker on the hinder portion of the latter; fore-neck and throat fawn-colour, richer and deeper in colour on the latter like the outer edge of the wing; breast, abdomen, under tail-coverts, sides of body, and inner under wing-coverts dusky fawn-brown.

Total length 136 mm., exposed culmen 16, wing 76, tail 47, tarsus 27.

Adult female. Similar in the general colour of the plumage to the adult male, but differs in having the dorsal patch orange-buff instead of pure white. Wing 75 mm.

The birds from which the descriptions are taken were collected on the Ituribisi River in February 1907.

A nestling in the British Museum, collected by Whitely at Bartica in January 1880, is uniform chocolate-brown both above and below.

Breeding-season. June (*Beebe*).

Nest. Built of small twigs and vine stems lined with a few pieces of coarse fibre (*Beebe*).

Eggs. Warm pinkish ground-colour, marked with purplish red, lilac and lake, chiefly at the larger end: measurements 21.5 × 17 mm. (*Beebe*).

Range in British Guiana. Ituribisi River, Bartica, Makauria River (*McConnell collection*); Kamakusa, Bartica (*Whitely*); Maccasseema (*W. L. Sclater*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Boddaert*), North-east Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 685*) that he only found this bird in the low brush of the coast-woods or on the ground in search for its food.

The following note is copied from *W. L. Sclater (Ibis, 1887, p. 318)*:—"This Ant-Thrush, I was told, was commonly known as the Yackman-bird. It is said to be seen only in pursuit of the moving troops of the Yackman-ants (*Eciton, sp. inc.*), which, as is stated, have no nest, but move in enormous masses through the

forest. The specimen of this bird which I procured was shot by one of the Indians in my presence, while I was engaged in watching a troop of these ants which were passing through the forest."

See also Beebe, 'Tropical Wild Life,' p. 229.

Genus **MYRMORNIS** Herm.

Myrmornis Hermann, Tab. Affin. Anim. p. 188, 1783. Type *M. torquata* (Bodd.).

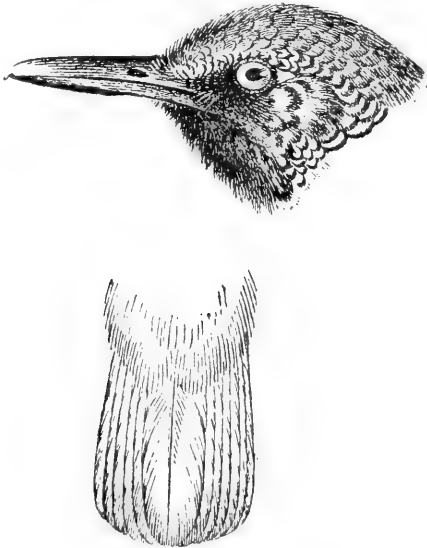


Fig. 25.—*Myrmornis torquata*.

The species on which this genus was founded is conspicuous by its large bill, short tail, somewhat thick feet, and Woodcock-like upper plumage. The bill is hooked at the tip, and the exposed portion of the culmen is nearly as long as the tarsus. The wing is almost square, the primaries being only about 20 mm. longer than the secondaries. The tail is only a little more than one-third the length of the wing. Coloration: male and female different.

381. *Myrmornis torquata torquata* *.

CAYENNE ANT-THRUSH.

Formicarius torquatus Boddaert, Tabl. Pl. Enl. p. 43, 1783 (Cayenne).
Rhopoterpe torquata Salvin, Ibis, 1885, p. 429 (Bartica Grove, Camacusa); Selater, Cat. B. Brit. Mus. xv. p. 298, 1890 (Demerara);
 Beebe, Our Search for a Wilderness, p. 302, 1910 (Aremu River).

Woodcock Ant-bird (*Beebe*).

Adult male. Head dark chestnut-brown with slightly paler shaft-streaks to the feathers; back greyish brown, the feathers broadly fringed with chestnut, some of the feathers have white bases with the terminal portion black, while others have an ovate black subterminal spot; rump, upper tail-coverts, and tail chestnut; upper wing-coverts black fringed with white or smoky-white and sometimes greyish brown on the basal portion; an oblique band of smoky-white across the outer webs of the primary-quills, tips of secondary quills bronze-grey, a large patch of white on the inner webs of the quills, which commences on the third outer primary, increasing in extent towards the inner secondaries; lores, a line over the eye, and hinder face speckled with black and white; throat and fore-neck black, the feathers on the outer margin of the black throat-spot tipped with white; breast, sides of the body, and abdomen dark ash-grey, somewhat paler on middle of the abdomen; lower flanks rust-brown; under tail-coverts pale chestnut; under wing-coverts white barred with dark brown; quills below pale brown with a white patch.

Total length 140 mm., exposed culmen 22, wing 93, tail 36, tarsus 23.

The male from which the description is taken was collected on the Ituribisi River.

Adult female. Differs from the adult male in having a chestnut throat-patch instead of black as in the male. Wing 93 mm.

The adult female described was collected at Bartica.

Nestling. Covered for the most part with down, which is chestnut-brown in colour. The wing-feathers, which are more or less developed, are similar in colour to those of the adult. This specimen was collected on the Kamakabra River.

* This species was unfortunately omitted from Brabourne & Chubb's 'Birds of South America,' vol. i.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Makauria River, Arawai River, Arwey Creek (*McConnell collection*); Bartica, Kamakusa (*Whitely*); Demerara (*Brown*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Boddaert*).

Habits. Beebe, in 'Our Search for a Wilderness,' p. 302, gives the following note on this species:—"Keeping to the left through the open underbrush I intersected another wood road, then swung around and at last entered the clearing from the south-east. Hearing a rustling I suspected another tortoise, and was about to pass on when I saw leaves and twigs flying into the air behind a log. Creeping from tree to tree I saw that the commotion was made by a trio of Ant-thrushes, or, as I prefer to call them, Antbirds. They took the leaves and leaf-mould in their beaks and threw them over their backs, all three working side by side, covering a width of about two feet. They were Woodcock Antbirds, reminding one, in the general tone of coloration of the upper parts, of that bird. The chin and throat were black bordered with white which extended up the sides of the neck and forward over the eyes. The tail was short and often held erect over the back, while the strong legs and feet proclaimed them terrestrial rather than arboreal. When flying or excited, a row of white spots flashed out from all the wing-feathers save the first two primaries, but when the wings were closed only buff markings were visible. Now and then two of the birds would spy some morsel of food at the same instant and a tussle would ensue. With angry scolding cries the two contestants would strike at each other with their beaks, with wings wide spread and the elongated feathers of the back raised and parted exposing the conspicuous white base of the plumes, almost like a rosette. These white stars were very conspicuous amid the dark shadows of the forest floor, vanishing instantly when the wings were lowered. This colour is not visible in flight... When the matter of dispute was devoured or had crawled away into safety the quarrel was at once forgotten, and the birds began scratching peacefully side by side as before."

Genus **PERCNOSTOLA** Cab. & Hein.

Percnostola Cabanis & Heine, Mus. Hein. ii. p. 10, 1859. Type *P. rufifrons* (Gmel.).



Fig. 26.—*Percnostola rufifrons*.

This genus is distinguished in having the head crested, the feathers of the back long and disintegrated, and the absence of a concealed dorsal patch.

The bill is short and stout, the exposed culmen about two-thirds the length of the tarsus. The wing rounded, the fourth, fifth, sixth, seventh, and eighth primaries longest and subequal, the third slightly shorter than the ninth. The tail is also rounded and is about three-fourths the length of the wing. Coloration: the male and female are quite different in colour.

382. *Percnostola rufifrons*.

CAYENNE BLACK-HEADED ANT-CATCHER.

Turdus rufifrons Gmel. Syst. Nat. i. p. 825, 1789 (Cayenne).

Pyriglena funebris Cab. in Schomb. Reis. Guian. iii. p. 684, 1848;
Salvin, Ibis, 1885, p. 429.

Percnostola funebris Selater, Cat. B. Brit. Mus. xv. p. 273, 1890.

Percnostola rufifrons Brabourne & Chubb, B. S. Amer. i. p. 208,
no. 2093, 1912.

Adult male. General colour above and below dark slate-colour; upper wing-coverts, including the bastard-wing, black narrowly fringed with white at the tips of the feathers; primary-coverts, primary and secondary quills dark brown margined on the outer edges with dark slate-colour; tail similar to the back, with indistinct dark narrow cross-bars; entire head, sides of face, neck all round, and throat black; under wing-coverts and quills below pale brown; lower aspect of tail blackish.

Total length 151 mm., exposed culmen 20, wing 73, tail 58, tarsus 30.

The male described was collected on the Bonasika River.

Adult female. Entire back, scapulars, and tail dusky brown; upper wing-coverts black margined with buff at the tips; the tips of the loose feathers on the rump and outer aspect of the quills rust-brown, inner webs of quills dark brown, somewhat paler on the inner edges; crown of head and nape black; base of forehead, a narrow line over the eye, sides of face, sides of neck, throat, and upper breast bright ferruginous, becoming paler on the lower breast, abdomen, sides of body, and under tail-coverts; under wing-coverts buff, the greater series and quill-lining brown with pale edges to the inner webs; lower aspect of tail dark brown. Wing 68 mm.

The female described was collected on the Supenaam River.

Immature male. Similar to the adult female on the upper parts, but much less brilliant in colour on the sides of the face, throat, and fore-neck; breast, abdomen and under tail-coverts rust-brown.

The immature bird was collected on the Bonasika River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Abary River, Berbice River, Anarica River, Arwye Creek, Great Falls Demerara River (*McConnell collection*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Gmelin*).

Habits. According to Schomburgk (*Reis. Guian. iii. p. 684*) this bird is more common in the coast woods than in the woods of the interior.

Genus **SCLATERIA** Oberholser.

Sclateria Oberholser, Proc. Acad. Nat. Sci. Philad. 1899, p. 299. Type *S. navia* (Gmel.).



Fig. 27.—*Sclateria navia*.

This genus is distinguished by the long and somewhat thin bill and the smooth non-scutellated tarsi. The exposed portion of the

culmen is about four-fifths the length of the tarsus. The wing is rounded, the fourth, fifth, sixth, and seventh primaries longest and subequal, the third shorter than the eighth and ninth but much longer than the tenth. The tail also rounded at the tip and graduated, the two middle feathers longest and about five-sevenths the length of the wing. Coloration: male and female quite different.

Key to the Species.

- A. Under surface streaked.
- a. Throat and breast slate-grey streaked with white *S. nævia* ♂, p. 56.
 - b. Throat and breast white streaked with fawn-brown *S. nævia* ♀, p. 57.
- B. Under surface uniform, not streaked.
- c. Larger, under parts ash-grey *S. leucostigma* ♂, p. 57.
 - c'. Larger, and paler chestnut on the under surface *S. leucostigma* ♀, p. 58.
 - d. Smaller, under surface blackish slate-colour *S. saturata* ♂, p. 58.
 - d'. Smaller, and darker chestnut on the under surface *S. saturata* ♀, p. 59.

383. *Scelateria nævia*.

SURINAM ANT-CREEPER.

Sitta nævia Gmel. Syst. Nat. i. p. 442, 1788 (Surinam).

Heterocnemis lineata Cab. in Schomb. Reis. Guian. iii. p. 685, 1848.

Heterocnemis nævia Salvin, Ibis, 1885, p. 427 (Camacusa); Scelater, Cat. B. Brit. Mus. xv. p. 275, 1890 (Camacusa).

Scelateria nævia Brabourne & Chubb, B. S. Amer. i. p. 208, no. 2906, 1912.

Adult male. General colour above dark slate-colour, somewhat darker and inclining to black on the upper wing-coverts, all of which are tipped with white, including the bastard-wing and primary-coverts; primary and secondary quills dark brown; tail sooty-black; head like the back, the short feathers surrounding the eye and sides of the face have white shaft-lines; throat white, the feathers slightly tipped with slate-grey; remainder of the under surface slate-colour, but paler than the back, with longitudinal white centres to the feathers on the fore-neck, breast, and abdomen, somewhat darker and almost entirely uniform on the flanks, under tail-coverts, and under wing-coverts; under surface of quills and lower aspect of tail dark brown.

Total length 145 mm., exposed culmen 21, wing 71, tail 51, tarsus 25.

The male from which the description is taken was collected on the Kamakabra River in 1911.

Adult female. Differs entirely from the adult male in being dark chocolate-brown above, instead of slate-colour, the upper wing-coverts tipped with fulvous, instead of white, and the under surface rust-brown lined with white, instead of slate-colour with white lines. Wing 68 mm.

The female bird described was collected on the Ituribisi River in 1909.

The young male bird in its first plumage is like the adult female, though somewhat darker perhaps, and has the fulvous tips to the upper wing-coverts. As it advances in age, however, these tips change to white, first on the major series; this change appears to be one of the first signs that denotes the sex, and the slate-colour of the adult plumage may be seen approaching in patches on the back and sides of the neck. The immature bird mentioned was collected on the Mazaruni River in October 1907.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Makauria River, Abary River, Mazaruni River, Arawai River (*McConnell collection*); Kamakusa (*Whitely*).

Extralimital Range. Surinam (*Gmelin, Penard*).

Habits. Schomburgk states (*Reis. Guian. iii. p. 685*) that he met with this bird only in the woods near the coast, where it ran about on the ground among the low bushes.

384. *Sclateria leucostigma*.

SPOT-WINGED ANT-CREEPER.

Percnostola leucostigma Pelz. Orn. Bras. pp. 86, 130, 1869 (Barra do Rio Negro).

Heterocnemis leucostigma Salvin, Ibis, 1885, p. 427 (Bartica Grove, Camacusa, Merumé Mts.); Sclater, Cat. B. Brit. Mus. xv. p. 276, 1890 (Takutu River, Camacusa, Bartica Grove).

Sclateria leucostigma Brabourne & Chubb, B. S. Amer. i. p. 209, no. 2098, 1912.

Adult male. General colour above blackish tinged with slate-colour, including the head, back, and tail; upper wing-coverts black, each with a small white spot at the tip; primary and

secondary quills blackish brown; sides of the face dark slate-grey becoming paler on the throat, breast, abdomen, and under wing-coverts and darker on the sides of the body, flanks, and under tail-coverts; under surface of quills dark brown; lower aspect of tail sooty-black.

Total length 150 mm., exposed culmen 17, wing 79, tail 58, tarsus 23.

The male bird described was collected on the Ituribisi River in October 1908.

Adult female. Differs entirely from the adult male in having the upper parts chiefly chocolate-brown, instead of dark slate-colour, ferruginous spots at the tips of the upper wing-coverts, instead of white, and bright ferruginous on the under surface, instead of slate-grey. Wing 64 mm.

The female described above was collected on the Ituribisi River in 1909.

A young male of this species, collected on the Mazaruni River in October 1907, still retains traces of its first plumage, which is like that of the adult female, in having a few ferruginous feathers on the under surface and some of the upper wing-coverts tipped with ferruginous while the remainder have white tips.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Kamakabra River, Bonasika River, Makauria River, Mazaruni River, Tiger Creek, Essequibo River, Arawai River (*McConnell collection*); Bartica, Kamakusa, Takutu River (*Whitely*).

Extralimital Range. Surinam (*Penard*), North Brazil, East Peru, Ecuador, Colombia.

Habits. Unrecorded in British Guiana.

385. *Sclateria saturata*.

RORAIMA ANT-CREEPER.

Heterocnemis saturata Salvin, Ibis, 1885, p. 427 (Roraima, 3500 ft.); Slater, Cat. B. Brit. Mus. xv. p. 276, 1890 (Roraima, British Guiana).

Sclateria saturata Brabourne & Chubb, B. S. Amer. i. p. 209, no. 2101, 1912.

Adult male. General colour above and below blackish slate-colour; upper wing-coverts black with white tips to the feathers;

bastard-wing edged with white on the outer web; primary and secondary quills blackish; axillaries and under wing-coverts tipped with white; under surface of flight-quills smoke-brown.

Total length 156 mm., exposed culmen 17, wing 64, tail 56, tarsus 27.

Adult female. General colour above chocolate-brown, darker and tinged with grey on the top of the head and sides of the hinder face; upper wing-coverts tipped with pale ferruginous; outer edge of bastard-wing similar; throat and breast chestnut becoming darker on the abdomen, flanks, and under tail-coverts; under wing-coverts hair-brown more or less marked with chestnut; tail blackish above and below.

Total length 140 mm., exposed culmen 17, wing 63, tail 53, tarsus 24.

This species is not represented in the McConnell collection, and the descriptions are taken from the types in the British Museum, which were collected at Mount Roraima by the late Henry Whitely—Salvin-Godman collection.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*Whitely*).

Habits. Unrecorded.

Genus MYRMODERUS Ridgw.

Myrmoderus Ridgway, Proc. Biol. Soc. Washington, xxii. p. 70, 1909.

Type *M. loriceatus* (Licht.).



Fig. 28.—*Myrmoderus longipes*.

The chief characters which distinguish this genus are the long bill, the almost square wing, and the long tarsi. The bill is slightly hooked. The wing is only slightly rounded, the secondaries being almost equal in length to the primaries. The

tail is rounded and graduated and about three-fourths the length of the wing. Coloration : male and female different.

Key to the Species.

- A. Abdomen white.
a. Throat black *M. longipes* ♂, p. 60.
b. Throat ferruginous *M. longipes* ♀, p. 60.
 B. Abdomen chocolate-brown.
c. Throat black *M. ferrugineus* ♂, p. 61.
d. Throat white *M. ferrugineus* ♀, p. 61.
 C. Abdomen blackish brown.
e. Throat black *M. atrothorax* ♂, p. 62.
f. Throat white tinged with bright fawn-colour *M. atrothorax* ♀, p. 62.

386. *Myrmoderus longipes*.

SWAINSON'S ANT-CREEPER.

Dryophila longipes Swains. Zool. Journ. ii. p. 152, 1825 (Trinidad);
 Brabourne & Chubb, B. S. Amer. i. p. 209, no. 2105, 1912.

Myrmeciza longipes Sclater, Cat. B. Brit. Mus. xv. p. 278, 1890
 (Quonga).

Adult male. Upper surface bright chestnut including the head, back, wings, and tail; the feathers on the upper back more or less white towards the base and forming a somewhat concealed patch; inner webs of primary and secondary quills brown with narrow rufous edgings; forehead, sides of crown, and sides of the nape grey, the feathers at the base of the forehead have black shaft-lines; lower sides of face, throat, and fore-neck dark slate-grey; middle of abdomen inclining to white; flanks fulvous-brown; under tail-coverts bright cinnamon; under wing-coverts whitish; under surface of quills brown with rufous edgings; lower aspect of tail chestnut like the upper surface.

Total length 140 mm., exposed culmen 16, wing 66, tail 53, tarsus 28.

Adult female. Differs from the adult male in having the throat whitish and fore-neck pale rufous, instead of black, the breast whitish, instead of slate-grey, and a black spot on the subapical portion of the upper wing-coverts. Wing 64 mm.

The male and female described were collected in the Upper Takutu Mountains in 1909.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains (*McConnell* collection); Quonga River (*Whitely*).

Extralimital Range. Venezuela, Colombia.

Habits. Unrecorded in British Guiana.

387. *Myrmoderus ferrugineus*.

CAYENNE ANT-CREEPER.

Turdus ferrugineus P. L. S. Müll. Syst. Nat. Suppl. p. 141, 1776 (Cayenne).

Myrmonax cinnamomeus Cab. in Schomb. Reis. Guian. iii. p. 684, 1848.

Myrmeciza cinnamomea Salvin, Ibis, 1885, p. 427 (Bartica Grove, Camacusa); Sclater, Cat. B. Brit. Mus. xv. p. 280, 1890 (Takutu River, Berbice).

Drymophila ferruginea Brabourne & Chubb, B. S. Amer. i. p. 210, no. 2109, 1912.

Adult male. General colour of the upper surface chestnut including the head, back, wings, and tail; lesser marginal upper wing-coverts white, the remainder of the coverts above black minutely tipped with white on the lesser series and broadly edged at the tips with ferruginous buff on the median and greater series, the primary-coverts similar but the edgings very narrow; primary and secondary quills dark brown on the inner webs; lores and a line over the eye skirting the sides of the nape black, the feathers on the sides of the nape tipped with white which forms a conspicuous white streak; cheeks, hinder face, throat, and breast uniform black; region in front and behind the eye bare; the feathers on the lower breast broadly margined with ash-grey, while those on the sides of the breast are paler and inclining to white; middle of abdomen slate-grey; sides of body and flanks rust-brown; under tail-coverts chestnut; under wing-coverts black, the greater series brown fringed with white at the tips; quills below brown; lower aspect of tail rufous-brown.

Total length 150 mm., exposed culmen 19, wing 65, tail 52, tarsus 27.

The specimen from which the description is taken was collected on the Mazaruni River in October 1907.

Adult female. Differs from the adult male in having the throat white, instead of black, and the lower breast paler and inclining to white. Wing 64 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Mazaruni River, Bartica, Kamakabra River, Arawai River (*McConnell collection*); Bartica, Kamakusa, Takutu River (*Whitely*); Berbice (*British Museum*).

Extralimital Range. Cayenne (*Müller*), Northern Brazil.

Habits. According to Schomburgk (*Reis. Guian.* iii. p. 684) this bird frequents the woods on the coast, where it hops about in the low bush or on the ground in search of food.

388. *Myrmoderus atrothorax*.

BLACK-THROATED ANT-CREEPER.

Formicarius atrothorax Bodd. *Tabl. Pl. Enl.* p. 44, 1783 (Cayenne).

Myrmeciza atrothorax Salvin, *Ibis*, 1885, p. 428 (Merumé Mts.);

Sclater, *Cat. B. Brit. Mus.* xv. p. 282, 1890 (Merumé Mts.).

Drymophila atrothorax Brabourne & Chubb, *B. S. Amer.* i. p. 210, no. 2113, 1912.

Adult male. Head and back bronze-brown; wings rather darker than the back and inclining to smoky-black, with minute white spots at the tips of the upper wing-coverts and those round the edge of the wing both above and below; inner webs of the primary and secondary quills dark brown, somewhat paler on the inner margins; dorsal feathers white towards the base which forms a concealed white patch on the back; rump and upper tail-coverts dull black, very loose and fluffy in texture; tail also black, both above and below; sides of face, sides of neck, abdomen, and flanks dark slate-colour; throat and fore-neck black, as are also the under tail-coverts; under wing-coverts dusky grey.

Total length 143 mm., exposed culmen 17, wing 57, tail 56, tarsus 26.

Adult female. Similar to the adult male above, but differs below in having the throat white and the remainder of the under surface for the most part bright ferruginous. Wing 55 mm.

The male and female from which the above descriptions are taken were collected on the Supenaam River in 1910.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Kamakabra River,

Makauria River, Abary River, Arawai River (*McConnell collection*); Merumé Mountains (*Whitely*).

Extralimital Range. Cayenne (*Boddaert*), North Brazil, Venezuela, Colombia.

Habits. Unrecorded in British Guiana.

Genus **HYPOCNEMIS** Cab.

Hypocnemis Cabanis, Arch. für Naturg. 1847, i. p. 212. Type *H. cantator* (Bodd.).



Fig. 29.—*Hypocnemis cantator*.

The species on which this genus was founded is a somewhat small bird. The bill is hooked at the tip, slender in form, and about two-thirds the length of the tarsus. It possesses short but numerous rictal bristles. The wing is rounded, the fourth and fifth primaries longest and equal, the third intermediate between the seventh and eighth. The tail, which is proportionately long, is rounded at the tip and graduated, the outer feather on each side about three-fourths the length of the middle ones. Coloration: male and female similar.

389. **Hypocnemis cantator.**

WARBLING ANT-CREEPER.

Formicarius cantator Bodd. Tabl. Pl. Enl. p. 44, 1783 (Cayenne).

Hypocnemis tintinnabulata Cab. in Schomb. Reis. Guian. iii. p. 684, 1848.

Hypocnemis cantator Salvin, Ibis, 1885, p. 428 (Camacusa, Bartica Grove); Selater, Cat. B. Brit. Mus. xv. p. 285, 1890 (Camacusa, Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 211, no. 2120, 1912.

Adult male. Entire head and nape black with white tips to many of the feathers which form three irregular lines, a narrow one above each eye which spreads out on the sides of the neck, and

a broader one on the middle of the crown and nape; mantle olive-brown with black tips and white bases to the feathers; upper wing-coverts black with a white spot at the tips of the feathers; bastard-wing white on the outer edge; outer aspect of flight-quills, rump, upper tail-coverts, and tail rust-brown; inner webs of the primary and secondary quills blackish with whitish edgings; the tail-feathers have also pale edgings at the tips; loreal streak white with bristly black tips to the feathers; a spot in front of the eye entirely black; throat, fore-neck, breast, and middle of abdomen white with dark edges and black centres to the feathers, which are broader on the sides of the breast, narrower on the middle portion, and almost entirely absent on the abdomen; flanks and under tail-coverts pale ferruginous; under wing-coverts for the most part white; quill-lining pale brown with buffy-white inner edges; lower aspect of tail similar to that of the upper surface.

Total length 109 mm., exposed culmen 14, wing 55, tail 40, tarsus 21.

The male described was collected on the Makauria River in August 1910.

Adult female. Similar to the adult male, but the pale markings on the head and face isabelline instead of white, and the upper wing-coverts rust-brown with buff spots at the tips of the feathers instead of black with white tips, the feathers on the mantle uniform olive-brown instead of having black tips with white bases. Wing 58 mm.

The description of the female is taken from a specimen collected on the Abary River in November 1906.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Supenaam River, Bartica, Kamakabra River, Bonasika River, Makauria River, Abary River, Arawai River, Tiger Creek, Essequibo River, Arwye Creek (*McConnell collection*); Kamakusa, Takutu River, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Boddaert*), North Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 684*) that this bird is found more commonly in the woods near the coast than in those of the interior. It hops about in the lower part of the bushes and on the ground in search of food.

Genus **MYRMOBORUS** Cab. & Hein.

Myrmoborus Cabanis & Heine, Mus. Hein. ii. p. 9, 1860. Type
M. leucophrys (Tsch.).



Fig. 30.—*Myrmoborus leucophrys*.

The members that comprise this genus are larger in size than those of the previous one, and are distinguished in having the female plumage entirely different from that of the male. It differs also in the almost entire absence of rictal bristles. The exposed culmen is about three-fifths the length of the tarsus. The wing is rounded, the fourth and fifth primaries longest, the third about equal to the sixth. The tail is rounded at the tip, the outer feather on each side about three-fourths the length of the middle ones. Coloration : male and female different.

390. **Myrmoborus angustirostris.**

SCHOMBURGK'S ANT-CREEPER.

Conopophaga angustirostris Cab. in Schomb. Reis. Guian. iii. p. 685, 1848 (British Guiana).

Myrmonax leucophrys (nec Tsch.), Cab. tom. cit. p. 684.

Hypocnemis leucophrys (nec Tsch.), Salvin, Ibis, 1885, p. 428 (Bartica Grove); Selater, Cat. B. Brit. Mus. xv. p. 288, 1890 (Bartica Grove, Takutu River).

Hypocnemis angustirostris Brabourne & Chubb, B. S. Amer. i. p. 212, no. 2130, 1912.

Adult male. General colour above and below dark slate-colour; inner webs of flight-quills dark brown with pale edges; fore part of the head and a line over the eye greyish white; sides of face and throat uniform black.

Total length 122 mm., exposed culmen 15, wing 67, tail 43, tarsus 25.

The description is taken from an example collected on the Ituribisi River in February 1907.

Adult female. Differs entirely from the adult male in being rust-brown above with buffy-white spots at the tips of the upper wing-coverts; fore part of head bright rufous, paler and inclining to buff on the sides of the crown; lores and sides of face black; under surface for the most part white. Wing 67 mm.

The female described was collected on the Supenaam River in 1910.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Kamakabra River, Abary River, Arawai River, Arwee Creek (*McConnell collection*); Bartica, Takutu River (*Whitely*).

Extralimital Range. Surinam (*Penard*), Venezuela, Northern and Western Brazil, East Bolivia.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 685*) this species also frequents the woods near the coast and lives in the dense bushes, and hops about on the ground in search of food.

Genus **DICHIPOGON** Chubb.

Dichropogon Chubb, *Ann. & Mag. Nat. Hist. (9) ii. p. 124, 1918.*
Type *D. pæcilonota* (Cab.).



Fig. 31.—*Dichropogon pæcilonota*.

The species which I have separated generically had previously been associated with *Hypocnemis* of Cabanis, but it differs

altogether in colour as well as in its proportionate forms. The bill is small and narrow. The wing, which is rounded, has the third, fourth, fifth, and sixth primaries longest, the second about equal to the eighth. The tail, which is nearly square at the tip, is about two-thirds the length of the wing. The legs and feet are proportionately strong; the tarsus exceeds the length of the exposed culmen by about two-fifths. Coloration: male and female similar.

391. *Dichropogon pœcilonota*.

SPOTTED-BACKED ANT-CREEPER.

Hypocnemis pœcilonota Cab. Arch. für Naturg. 1847, p. 213, pl. iv. (Guiana); id. in Schomb. Reis. Guian. iii. p. 684, 1848; Salvin, Ibis, 1885, p. 428 (Roraima, 3500 ft., Camacusa, Atapurau River, Bartica Grove); Selater, Cat. B. Brit. Mus. xv. p. 286, 1890 (Bartica Grove, Camacusa, Roraima, Atapurau River); Brabourne & Chubb, B. S. Amer. i. p. 211, no. 2125, 1912.

Adult male. General colour above and below slate-grey, the feathers on the middle of the back subapically black and edged with white at the tips; upper wing-coverts and innermost secondaries black margined with white at the tips of the feathers, outer edge of bastard-wing white like the outer margin of the first primary; primary-coverts blackish with just a trace of white at the tips; inner webs of flight-quills dark brown with whitish edges; upper tail-coverts and tail-feathers black tipped with white, the latter spotted with white on both webs; under surface paler slate-colour than above, especially on the chin, abdomen, under tail-coverts, and under wing-coverts, all of which incline to ash-grey.

Total length 119 mm., exposed culmen 15, wing 64, tail 40, tarsus 24.

The male bird described was collected on the Bonasika River in 1911.

Adult female. Differs from the adult male in having the chin, sides of the face, and fore part of the head bright rufous, somewhat darker on the hinder crown and nape, and the entire back and wings suffused with ochreous-brown as are also the lower flanks and under tail-coverts. Wing 63 mm.

The female described was collected on the Ituribisi River in November 1906.

The young male in its first plumage is evidently like the female, as there is an example from the Ituribisi River that shows the remains of rufous on the head, back, wings, sides of face, and throat.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Makauria River, Anarica River, Arawai River, Arwey Creek.

Extralimital Range. Surinam (*Penard*), Venezuela.

Habits. Schomburgk mentions (*Reis. Guian.* iii. p. 684) that this bird frequents the woods near the coast, where it hops about in the low bushes and on the ground in search of food.

The following note is quoted from Beebe (*Our Search for a Wilderness*, p. 324):—"I thoroughly enjoyed this new aspect of the jungle world. As usual small birds were fairly abundant, of which apparently 99 per cent. were Antbirds or Woodhewers. The most common Antbird in the valleys was the Scaly-backed, slate-coloured except for the feathers of the back, wings, and tail, which were black tipped with white. At one place two dozen of these little birds must have been in sight, uttering sharp, snapping calls, and clinging, like Marsh-Wrens, to upright stems in the underbrush."

Genus **HYPOCNEMOIDES** Bangs & Penard.

Hypocnemoides Bangs & Penard, *Bull. Mus. Harv. Coll.* lxii, p. 69, April 1918. Type *H. melanopogon* (Sclater).

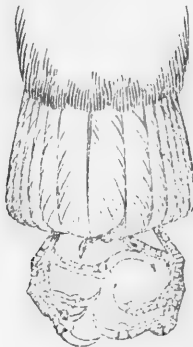


Fig. 32.—*Hypocnemoides melanopogon*.

This genus is distinguished chiefly by its short tail and the long upper tail-coverts which cover half its length. The wing is rounded, the fourth, fifth, and sixth primaries longest and the third about equal to the eighth. Coloration: male and female similar.

392. *Hypocnemoides melanopogon*.

BLACK-CHINNED ANT-CREEPER.

Hypocnemis melanopogon Sclater, P. Z. S. 1857, p. 130 (Chamicurros); Salvin, Ibis, 1885, p. 428 (Camacusa); Sclater, Cat. B. Brit. Mus. xv. p. 290, 1890 (Guiana); Brabourne & Chubb, B. S. Amer. i. p. 212, no. 2139, 1912.

Adult male. General colour above dark slate-colour; upper wing-coverts black margined with greyish white; inner webs of flight-quills dark brown; tail-feathers black edged with white at the tips; throat black; remainder of the under surface slate-grey, paler on the under tail-coverts and under wing-coverts.

Total length 105 mm., exposed culmen 16, wing 63, tail 32, tarsus 21.

The male described was collected on the Anarica River.

Adult female. Similar to the adult male above, but differs on the under surface in having the throat white with very slight dark edges to the feathers, instead of uniform black, the feathers on the back tipped with ash-grey, and the abdomen white instead of slate-grey. Wing 62 mm.

The female described was also collected on the Anarica River.

An immature male, collected on the Ituribisi River in October 1908, has the throat blackish with white bases to the feathers, which imparts a spotted appearance.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Bartica, Bonasika River, Anarica River, Great Falls Demerara River, Arawai River (*McConnell collection*); Kamakusa (*Whitely*).

Extralimital Range. Surinam (*Penard*), North-west Brazil and Venezuela.

Habits. Unrecorded in British Guiana.

Genus **STICTOMYRMORNIS** Chubb.

Stictomyrmornis Chubb, Bull. Brit. Orn. Club, xxxix. p. 59, Feb. 1919.
Type *S. nævius* (Gmel.).

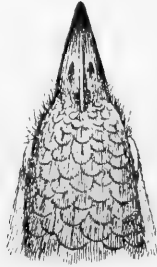


Fig. 33.—*Stictomyrmornis nævius*.

The species that I have separated as a new genus under the above title had also been placed by previous authors in the genus *Hypocnemis*. It is, however, easily distinguished by its flat and muscicapine bill, the width of which at the base is about three-fifths the length of the exposed culmen. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the third shorter than the sixth but longer than the seventh. Tail nearly square, the outer feather on each side being about eight-ninths the length of the middle ones. The feet are small, the tarsus is about one-fourth longer than the exposed culmen. Coloration: male and female similar.

393. **Stictomyrmornis nævius.**

SPOT-BACKED ANT-CREEPER.

Pipra nævia Gmel. Syst. Nat. i. p. 1003, 1789 (Cayenne).

Hypocnemis theresæ (part) Selater, Cat. B. Brit. Mus. xv. p. 292, 1890
(Oyapoc, Cayenne).

Hypocnemis nævia Brabourne & Chubb, B. S. Amer. i. p. 213, no. 2142,
1912.

Adult male. Head, upper back, scapulars, and lower back rust-brown, somewhat more rufous on the upper tail-coverts; the feathers on the middle of the back have white bases which form a concealed dorsal white spot, the apical portion black with a pale

fulvous pear-shaped mark at the tips; tail similar in colour to the back but the feathers darker subterminally and edged with white at the tips; upper wing-coverts black minutely tipped with white on the lesser series, more broadly on the median and greater series where the white is tinged, more or less, with pale fulvous like the spots on the outer webs of the inner secondary-quills; outer edge of the bastard-wing white; primary-coverts uniform black; inner webs of the primary and secondary quills blackish with pale edges, the outer margins like the back but darker towards the base; the feathers on the top of the head have dark margins which impart a squamated appearance; base of the forehead and hinder face dark slate-grey; throat black; fore-neck and breast white with black tips to the feathers on the latter, the black increasing in extent on the sides of the breast; abdomen, flanks, and under tail-coverts pale fulvous; under wing-coverts whitish, the outer margin black with minute white spots, the greater series brown like the quill-lining; lower aspect of tail brown with a dark subterminal band and whitish at the tip.

Total length 111 mm., exposed culmen 15, wing 61, tail 38, tarsus 20.

The male described was collected on the Ituribisi River in February 1907.

Adult female. Similar to the adult male on the upper surface but differs below in the absence of the black on the throat, which is whitish, and the white on the fore-neck and breast, which is fulvous like the remainder of the under parts. Wing 58 mm.

The female described was collected on the Kamakabra River in 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Great Falls Demerara River (*McConnell collection*).

Extralimital Range. Surinam (*Penard*), North Brazil.

Habits. Unrecorded in British Guiana.

Genus **PHLEGOPSIS** Reichenb.

Phlegopsis Reichenbach, Syst. Av. p. lvii, 1850. Type *P. nigromaculata* (Lafr. & D'Orb.).



Fig. 34.—*Phlegopsis nigromaculata*.

This genus is distinguished by the bare space round the eye, the nuchal crest, strong feet, and smooth tarsi. The bill is sharply hooked, the exposed culmen about two-thirds the length of the tarsus. The wing is rounded, the fourth and fifth primaries longest and the third equal to the sixth in length. The tail is very slightly rounded, the outer feather on each side being only about 3 mm. shorter than the middle ones.

394. **Phlegopsis erythroptera.**

RUFous-WINGED-BARE-EYE.

Formicarius erythropterus Gould, Ann. & Mag. Hist (2) xv. p. 345, 1855 (Demerara); id. P. Z. S. 1855, p. 69.

Phlogopsis erythroptera Selater, Cat. B. Brit. Mus. xv. p. 301, 1890 (Demerara).

Phlegopsis erythroptera Brabourne & Chubb, B. S. Amer. i. p. 213, no. 2151, 1912.

Adult (type of the species). Crown of head, sides of face, throat, and entire under surface black, including the under tail-coverts and under wing-coverts; upper back and upper wing-coverts black, the feathers narrowly edged with white, the median, greater series, and primary-coverts broadly tipped with chestnut; basal portion of flight-quills and tips of secondaries chestnut, the remaining portion black; lower back dusky black; upper tail-coverts black tipped with maroon-chestnut; tail black above and below; flight-quills below rufous at the base, hair-brown on the apical portion.

Total length 159 mm., exposed culmen 17, wing 93, tail 58, tarsus 31.

This species is not represented in the McConnell collection, and the description is taken from Gould's type, which is now in the British Museum.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Demerara (Gould).

Extralimital Range. Surinam (Penard), North-west Brazil, Ecuador.

Habits. Unrecorded in British Guiana.

Genus **FORMICARIUS** Bodd.

Formicarius Boddart, Tabl. Pl. Enl. p. 43, 1783. Type *F. colma* Bodd.



Fig. 35.—*Formicarius colma*.

This genus is distinguished by the olive-brown upper surface and glossy feathers on the fore part of the head. The bill is rather narrow and hooked at the tip. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second about equal to the sixth. The tail, which is rather short and rounded, is a little more than half the length of the wing. The tarsus is scutellated and about a third longer than the exposed culmen. Coloration: male and female similar.

Key to the Species.

- A. Crown of head chestnut in contrast to the back; under tail-coverts like the abdomen... *F. colma*, p. 74.
- B. Crown of head chocolate-brown similar to the back; under tail-coverts chestnut in contrast to the abdomen *F. crissalis*, p. 75.

395. *Formicarius colma*.

BODDAERT'S ANT-THRUSH.

- Formicarius colma* Boddaert, Tabl. Pl. Enl. p. 44, 1783 (Cayenne);
 Brabourne & Chubb, B. S. Amer. i. p. 214, no. 2155, 1912.
Myiothera colma Cab. in Schomb. Reis. Guian. iii. p. 686, 1848.
Formicarius nigrifrons Gould, Ann. & Mag. Nat. Hist. (2) xvi. p. 344,
 1855 (Chamicurros, on the eastern side of Peru); Salvin, Ibis, 1885,
 p. 429 (Camacusa, Bartica Grove); Selater, Cat. B. Brit. Mus. xv.
 p. 303, 1890 (Demerara).

Adult male. General colour above including the back, wings, and tail bronze-brown; outer edge of bastard-wing pale orange like the basal portion of the primary-quills, terminal portion of the primary and secondary quills dark brown; tail-feathers blackish towards the tips; fore part of head glossy black; crown of head chestnut with black edges to the feathers, occiput and nape pale chestnut; sides of face, throat, and breast black fading to brown on the abdomen, flanks, and under tail-coverts; axillaries white at the base with blackish tips; inner and greater series of under wing-coverts blackish, the outer series and basal portion of quill-lining pale orange; apical portion of quill-lining and lower aspect of tail dark brown.

Total length 150 mm., exposed culmen 17, wing 86, tail 49, tarsus 28.

The male described was collected on the Supenaam River in 1910.

Immature male. General colour above and below rust-brown; crown of head, nape, and feathers round the eye chestnut, darker on the middle of the crown; cheeks, chin, and throat ferruginous, each feather minutely tinged with black. The black increases as age advances, and the throat becomes uniform black in the adult male.

The immature male from which the description is taken has no exact locality.

Adult female. Hinder crown, nape, back, wings, and tail similar to those of the adult male, but differs, however, in having the lores and throat white, breast dark slate-grey, becoming paler and inclining to white on the abdomen. Wing 85 mm.

The female described was collected on the Kamakabra River in 1911.

Immature female. Differs from the adult female described in

being darker on the breast and abdomen and in having the feathers of the cheeks, chin, and throat tipped with black.

The description of the immature female is based on an example collected on the Supenaam River, 1910.

According to Dr. Sclater (Catalogue of the Birds in the British Museum, xv. p. 302) the female is similar to the male and the young have the lores and throat varied with whitish. I am of opinion, however, that this is not the case. The fully adult female, I believe, is distinguished by its white lores, entire white throat, and more or less white on the abdomen.

The young males have the lores and throat rufous (never white). The young females, on the other hand, never have the lores rufous but always white, and the feathers of the entire throat tipped with white. Whether the throat is entirely black in the first plumage is a problem that the present series, though fairly large, do not enable me to solve.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Kamakabra River, Makauria River, Lower Mazaruni River, Abary River (*McConnell collection*); Demerara (*Brown*); Kamarang River, Bartica, Kamakusa (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Boddaert*), Venezuela, Colombia, Ecuador, Peru.

Habits. Schomburgk states (*Reis. Guian. iii. p. 686*) that he found this species in the woods up to an altitude of 4000 feet. It lives almost exclusively on the ground and feeds on insects, caterpillars, etc. Its note, which it utters from time to time, is a peculiar whistling noise. It is often observed following the armies of "Wander-Ants." The "Warraus" call it *Hebakatinerarub*.

396. *Formicarius crissalis*.

RUFOUS-VENTED ANT-THRUSH.

Myiothera analis (nec d'Orb.), Cab. in Schomb. Reis. Guian. iii. p. 686, 1848.

Myrmornis crissalis Cab. J. f. O. 1861, p. 96 (Roraima).

Formicarius hoffmanni Salvin (nec Cab.), Ibis, 1885, p. 429 (Camacusa).

Formicarius crissalis Sclater, Cat. B. Brit. Mus. xv. p. 305, 1890
(Carimang River, Takutu River); Brabourne & Chubb, B. S. Amer.
i. p. 214, no. 2158, 1912.

Adult. General colour of the upper surface bronze-brown including the wings, back, and tail; primary-coverts somewhat darker; inner webs of the primary and secondary quills dark brown, pale orange at the base; tail blackish towards the tip; the upper tail-coverts inclining to rufous; the feathers of the head have dark centres which impart a scalloped appearance; lores, a narrow line over the eye, cheeks, and entire throat black with a white spot in the middle of the lores; hinder face, ear-coverts, and sides of neck cinnamon; breast and lower flanks slate-grey becoming paler and inclining to white on the middle of the abdomen; axillaries and sides of the body silky-white with dark tips to the feathers; under tail-coverts pale chestnut; under wing-coverts dark brown, the marginal series and basal portion of flight-quills below pale orange-buff, apical portion of quills below pale brown; under surface of tail dark brown with paler edges at the tips.

Total length 164 mm., exposed culmen 21, wing 90, tail 49, tarsus 34.

The bird described above was collected on the Bonasika River.

The female of this species is not represented in the McConnell collection, but according to a specimen in the British Museum from Kamakusa, collected and sexed by Whitely, it would appear to be similar to the adult male. Wing 88 mm.

A young bird from the Anarica River, collected in 1913, is similar on the upper surface to the adult described, but differs in having scarcely any black on the lores, the fore part of the face and throat dark brown with white bases and pale shaft-lines to the feathers, the cinnamon on the hinder face and sides of the neck only faintly represented, and the under wing-coverts not fully developed. The lower mandible and tip of the upper are almost white.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Kamakabra River, Bonasika River, Anarica River (McConnell collection); Mount Roraima (*Schomburgk*); Takutu River, Kamarang River, Kamakusa (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*British Museum*).

Habits. Schomburgk, on whose collection this species was founded, remarks (*Reis. Guian.* iii. p. 686) that he only met with it in the vicinity of the Roraima Mountains at an altitude of 4000 feet, where it frequents the lower bush. The "Arekunas" call it *Pairika*.

Genus **CHAMÆZA** Vig.

Chamæza Vigors, *Zool. Journ.* ii. p. 395, 1825. Type *C. brevicauda* (Vieill.).

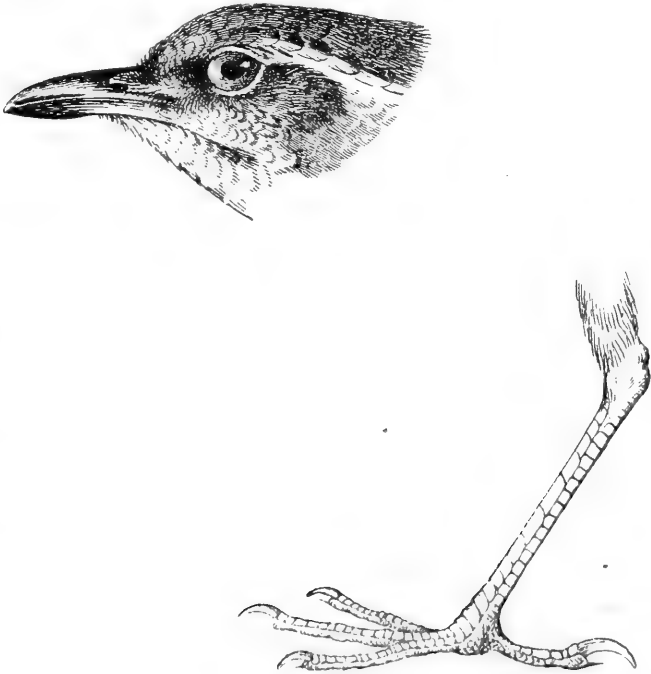


Fig. 36.—*Chamæza brevicauda*.

The species on which this genus was founded is more or less Thrush-like in appearance. The bill is small in proportion to the general size of the bird. The wing is almost square, the inner secondaries being only about 10 mm. shorter than the longest primaries, the third, fourth, and fifth primaries longest and equal, the second shorter than the sixth but longer than the seventh.

equal. The tarsus is somewhat long, being rather more than twice the length of the exposed culmen, and strongly scutellated.

397. *Chamæza fulvescens*.

MERUMÉ ANT-THRUSH.

(Plate I. fig. 2.)

Chamæza fulvescens Salvin & Godman, Ibis, 1882, p. 79 (Merumé Mts.); Salvin, Ibis, 1885, p. 429 (Camacusa, Roraima, 3500 ft.); Selater, Cat. B. Brit. Mus. xv. p. 308, 1890 (Merumé Mts., Roraima); Brabourne & Chubb, B. S. Amer. i. p. 215, no. 2166, 1912.

Adult male. General colour above fulvous-brown including the head, back, wings, and tail; upper wing-coverts and inner webs of the primary and secondary quills rather darker than the back; the lateral tail-feathers have a dark subterminal band and edged with white at the tips; the feathers covering the nostrils fulvous; the feathers on the chin, cheeks, and behind the eye white marked with brown and tinged with fulvous; sides of the neck like the back; middle of throat white tinged with fulvous; the feathers on the fore-neck fulvous margined with black; abdomen white, the feathers margined with black; sides of the body black, the feathers broadly margined on one side with white; under tail-coverts blackish tipped with fulvous, some of the lateral ones showing more or less white; axillaries white edged or tipped with brown; under wing-coverts white tipped with brown; quill-lining and under surface of tail pale brown, the latter having the tips of the feathers edged with white.

Total length 195 mm., exposed culmen 24, wing 103, tail 61, tarsus 45.

The above description is based on an example collected by Mr. F. V. McConnell at Mount Roraima in 1898.

Adult female. Similar to the adult male, but rather smaller. Wing 98 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Merumé Mountains and Mount Roraima (*Whitely*).

Extralimital Range. Surinam (*Penard*).

Habits. Unrecorded in British Guiana.



1. *Hylopezus macconnelli*.

McConnell's Spotted-breasted Ant-Thrush.

2. *Chamæza fulvescens*.

Merumé Ant-Thrush.

Genus **GRALLARIA** Vieill.

Grallaria Vieillot, *Analyse nouv. Orn.* p. 43, 1816. Type *G. varia* (Bodd.).



Fig. 37.—*Grallaria varia*.

This genus is characterized by the somewhat stout bill, short tail, and long legs. The depth of the bill is nearly equal to half the length of the exposed culmen, the nostrils are large and oval in shape. The wing is nearly square, the secondaries being about 14 mm. shorter than the longest primaries, the third, fourth, and fifth of the latter are longest and equal, the second being The tail is rounded, the four middle feathers longest and about

about equal to the sixth. The tail is short and square at the tip. The tarsus is long, being about one-fifth longer than the tail.

Key to the Species.

- | | |
|--|-------------------------------|
| A. Larger; wing more than 90 mm. | [p. 80.] |
| <i>a.</i> Abdomen bright rufous | <i>G. regulus roraimæ</i> , |
| <i>b.</i> Abdomen cream-colour..... | <i>G. varia</i> , p. 81. |
| B. Smaller; wing less than 90 mm. | |
| <i>c.</i> Breast and sides of body grey streaked
with white | <i>G. brevicauda</i> , p. 82. |
| <i>d.</i> Breast and sides of body uniform grey ... | <i>G. simplex</i> , p. 83. |

398. *Grallaria regulus roraimæ*, subsp. nov.

FULVOUS-BREADED ANT-THRUSH.

Grallaria regulus (nec ScL.), Salvin, Ibis, 1885, p. 430 (Roraima, 5000 ft.); Selater, Cat. B. Brit. Mus. xv. p. 314, 1890 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 216, no. 2178, 1912.

Adult female. Differs from the type of *G. r. regulus* in being more grey on the top of the head, nape, and hind-neck; paler and more olive-brown on the back and the dark fringes to the feathers less pronounced; paler and more cinnamon-rufous on the outer aspect of the flight-quills; ear-coverts darker; throat more streaked with white or ferruginous; fore-neck ferruginous intermixed with black, instead of uniform ochreous brown; breast, abdomen, and under tail-coverts paler and brighter ferruginous; and the larger size.

Total length 170 mm., exposed culmen 23, wing 108, tail 39, tarsus 41.

This subspecies is not represented in the McConnell collection. The type, which is in the British Museum, was collected by the late Henry Whitely on Mount Roraima, at an altitude of 5000 feet, on September the 13th, 1883, and is the only specimen that I have been able to examine from the Colony.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*Whitely*).

Habits. Unrecorded.

399. *Grallaria varia*.

ROYAL ANT-THRUSH.

Formicarius varius Bodd. Tabl. Pl. Enl. p. 44. 1783 (Cayenne).

Grallaria varia Salvin, Ibis, 1885, p. 430 (Camacusa); Selater, Cat. B. Brit. Mus. xv. p. 315, 1890 (Takutu River, Quonga River, Camacusa); Brabourne & Chubb, B. S. Amer. i. p. 217, no. 2182, 1912.

Adult male. General colour of the upper surface fulvous-brown with black edges to the feathers, including the fore part of the head and back; nape and hind-neck grey with black margins to the feathers; upper wing-coverts and outer aspect of flight-quills paler than the back and inclining to cinnamon-rufous with paler tips to the median and greater coverts, but darker on the primary-coverts; inner webs of flight-quills dark brown broadly margined with pale ferruginous on the basal portion; tail cinnamon-rufous; forehead, lores, and cheeks buffy-white; ear-coverts, sides of neck, throat, and fore-neck chestnut-brown with pale shaft-streaks to the feathers, which widen out and become white on the middle of the lower throat; breast, abdomen, and under tail-coverts pale ferruginous, darker and inclining to ochreous on the sides of the body; under wing-coverts and inner edges of quills below pale cinnamon-rufous; remainder of the quill-lining pale brown; lower aspect of tail cinnamon-brown.

Total length 166 mm., exposed culmen 21, depth of bill 10, wing 110, tail 38, tarsus 48.

Adult female. Similar to the adult male but everywhere paler both above and below. Wing 112 mm.

Nestling. Cinnamon-rufous on the upper surface, brighter rufous on the tips of the greater upper wing-coverts and tips of flight-quills; under parts darker and inclining to chocolate-brown on the fore-neck; throat much paler cinnamon and almost naked.

This species is not represented in the McConnell collection and the male and female described are in the British Museum—Salvin-Godman collection, and were collected by the late Henry Whitely at Kamakusa, and the nestling at Quonga, Potaro River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Kamakusa, Takutu River, Quonga River (*Whitely*).

Extralimital Range. Cayenne (*Boddaert*), North Brazil.

Habits. Unrecorded in British Guiana.

400. *Grallaria brevicauda*.

LITTLE ANT-THRUSH.

Formicarius brevicauda Bodd. Tabl. Pl. Enl. p. 44, 1783 (Cayenne).

Calobathris tinniens Cab. in Schomb. Reis. Guian. iii. p. 686, 1848.

Grallaria brevicauda Salvin, Ibis, 1885, p. 430 (Camacusa, Bartica Grove); Selater, Cat. B. Brit. Mus. xv. p. 321, 1890 (Camacusa, Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 218, no. 2202, 1912.

Adult male. General colour above rufous-brown including the head, back, wings, and tail; inner webs of the primary and secondary quills dark brown with paler margins; ear-coverts like the back; throat and under surface white edged with greyish brown on the breast and more broadly on the sides of the breast and sides of the body; axillaries and under wing-coverts cinnamon-rufous, quill-lining also tinged with the same colour, apical portion of the quills below brown like the lower aspect of the tail.

Total length 129 mm., exposed culmen 20, wing 80, tail 30, tarsus 40.

The male described was collected at Bartica.

Adult female. Similar to the adult male but rather smaller. Wing 77 mm.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Bartica, Kamakabra River, Makauria River, Arwye River, Tiger Creek, Arawai River (*McConnell collection*); Bartica, Kamakusa (*Whitely*).

Extralimital Range. Cayenne (*Boddaert*), Colombia, Ecuador, Peru.

Habits. Unrecorded in British Guiana. Although Schomburgk met with this species he makes no remark in regard to its habits.

401. *Grallaria simplex*.

GREY-BREASTED ANT-THRUSH.

Grallaria simplex Salvin & Godman, Ibis, 1884, p. 451 (Mt. Roraima); Salvin, op. cit. 1885, p. 430 (Roraima, 5000 ft.); Selater, Cat. B. Brit. Mus. xv. p. 322, 1890 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 218, no. 2203, 1912.

Adult male. General colour of the upper surface chestnut-brown including the crown of the head, entire back, wings, and tail, darker and more blackish brown on the inner webs of the flight-quills; base of lores and short feathers surrounding the eye whitish with black bristly tips to the feathers; throat and middle of abdomen dull white; breast and sides of body dusky grey; under tail-coverts chestnut-brown; thighs similar; under wing-coverts chocolate-brown; under surface of flight-quills rust-brown, paler on the inner edges.

Total length 155 mm., exposed culmen 19, wing 85, tail 43, tarsus 43.

Adult female. Similar to the adult male. Wing 78 mm.

A young male collected in August differs from the adult in being darker and almost entirely grey on the breast and abdomen with the remains of a few bright rufous feathers on the latter, which points to the fact that the first plumage is much brighter.

This species is not represented in the McConnell collection, and the descriptions are taken from the types in the British Museum, which were collected by the late H. Whitely on Mount Roraima in August and September, 1883, at an altitude of 5000 feet.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range confined to British Guiana. Mount Roraima (*Whitely*).

Habits. Unrecorded.

Genus **HYLOPEZUS** Ridgw.

Hylopezus Ridgway, Proc. Biol. Soc. Washington, xxii. April 17, 1909, p. 71. Type *H. perspicillata* (Lawr.).



Fig. 38.—*Hylopezus perspicillata*.

In this genus the bill is proportionately small, the exposed culmen being about equal to the hind toe and claw, and slightly hooked at the tip of the upper mandible. The wing is rounded, the third, fourth, fifth, and sixth primaries longest and about equal, the second about equal to the seventh. The tail is short, being only one-third longer than the exposed culmen. The tarsus is two-sevenths longer than the tail. The hind toe and claw are about four-fifths the length of the middle toe and claw.

402. *Hylopezus macularia macconnelli*.

MCCONNELL'S SPOTTED-BREASTED ANT-THRUSH.

(Plate I. fig. 1.)

Calobathris macularia nec Temm., Cab. in Schomb. Reis. Guian. iii. p. 685, 1848.

Grallaria macularia Salvin, Ibis, 1885, p. 430 (Bartica Grove, Camacusa, Merumé Mts., Atapurow River); Slater, Cat. B. Brit. Mus. xv. p. 324, 1890 (Bartica Grove, Merumé Mts., Camacusa, Atapurow River); Brabourne & Chubb, B. S. Amer. i. p. 219, no. 2209, 1912.

Hylopezus macularia macconnelli Chubb, Bull. Brit. Orn. Club, xxxviii. p. 86, July 25, 1918.

Adult male. General colour above olive-brown including the back, wings, and tail; upper wing-coverts tipped with rufous; outer edge of bastard-wing, outer margin of outer primary, and the basal portion of the quills rufous, inner portion of bastard-wing, primary-coverts, and inner webs of quills dark brown; crown of head and nape slate-grey; base of forehead with minute dark tips to the feathers; a ring of short rufous feathers encircling the eye; ear-coverts brown with pale streaks; a dark streak from the gape across the face to below the ear-coverts, another one on the sides of the chin enclosing a white line between them; chin, throat, breast, and middle of abdomen white, the feathers margined with black; sides of body and under tail-coverts fulvous; under wing-coverts, axillaries, and quill-lining at the base rufous, remainder of the quill below brown.

Total length 132 mm., exposed culmen 20, wing 88, tail 27, tarsus 34.

The male from which the description is taken was collected on the Ituribisi River in August 1909.

Adult female. Similar to the adult male. "Iris dark brown; legs, toes, and claws purplish flesh-colour" (*H. Whitely*). Wing 79 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Makauria River, Mazaruni River (*McConnell collection*); Merumé Mountains, Kamarang River, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Cayenne (*Brit. Mus.*). East Peru.

Habits. Schomburgk states (*Reis. Guian.* iii. p. 685) that he met with this bird in the dense woods on the Pomeroon River, where it lives chiefly on the ground. Its nidification was unknown to him. Its food appeared to consist of insects only.

Genus **GRALLARICULA** Sel.

Grallaricula Sclater, P. Z. S. 1885, p. 283. Type *G. flavirostris* Sel.



Fig. 39.—*Grallaricula flavirostris*.

This genus is characterized by its small size, short and narrow bill, the strongly pronounced rectal bristles, short tail, and slender feet. The depth of the bill is about half the length of the exposed culmen. The wing is rounded, the third, fourth, fifth, and sixth primaries longest and subequal, the second about equal to the eighth. The tail is short and nearly square at the tip, and only slightly longer than the tarsus. Coloration: male and female similar.

403. ***Grallaricula nana kukenamensis***.

KUKENAM ANT-THRUSH.

Grallaricula nana (nec Lafr.) Salvin, Ibis, 1885, p. 430 (Kukenam, 5000 ft.); Sclater, Cat. B. Brit. Mus. xv. p. 327, 1890 (Kukenam).
Grallaricula nana kukenamensis Chubb, Bull. Brit. Ornith. Club, xxxviii. p. 86, 1918.

Adult female. Differs from an adult female of *G. nana nana* (Lafr.) from Bogota in being paler and inclining to ash-grey on the head and nape; the back, wings, and tail paler and ochreous brown instead of chocolate-brown, the feathers round the eye ferruginous instead of black, throat and abdomen pale ferruginous instead of deep ferruginous (or "intense," as Lafresnaye expressed it), the thighs pale ferruginous instead of dusky, and in its smaller size.

Total length 103 mm., exposed culmen 13, wing 62, tail 28, tarsus 23.

This species is not represented in the McConnell collection, and the description is taken from the type in the British Museum, which was collected by the late Henry Whitely in the Kukenam Mountains, at an altitude of 5000 feet, on August 31, 1883—Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range confined to British Guiana. Kukenam Mountains (Whitely).

Habits. Unrecorded.

Family FURNARIIDÆ.

This family consists of ten genera and about seventy-three species. Three of the genera and five of the species are represented in British Guiana.

Genus FURNARIUS Vieill.

Furnarius Vieillot, Analyse d'une nouv. Ornith. element. p. 47, 1819.
Type *F. rufus* (Gmel.).



Fig. 40.—*Furnarius rufus*.

The members of the present genus are distinguished by having the exposed culmen about equal in length to that of the middle toe and claw. The wing is almost square, the secondaries being only about 5 mm. shorter than the primaries, the third, fourth, fifth, and sixth primaries longest and subequal, the second about equal to the seventh. The tail is slightly rounded and rather more than half the length of the wing, and the tarsus about the same length as the tail. Coloration : male and female similar.

404. *Furnarius leucopus leucopus*.

WHITE-EYEBROWED OVEN-BIRD.

Furnarius leucopus Swains. Anim. in Menag. p. 325, 1838 (Guiana);
Cab. in Schomb. Reis. Guian. iii. p. 688, 1848; Salvin, Ibis, 1885,
p. 418; Selater, Cat. B. Brit. Mus. xv. p. 13, 1890 (British
Guiana); Brabourne & Chubb, B. S. Amer. i. p. 222, no. 2239, 1912.

Adult male. General colour above cinnamon-rufous, including

the entire back, wings, and tail, somewhat darker and inclining to chestnut on the upper wing-coverts; bastard-wing, primary-coverts, and primary-quills dark brown, the outer webs and some of the tips of the last more or less marked with rufous; outer edge of wing buffy-white, the inner webs pale rufous on the basal portion, decreasing in extent on the outer quills and becomes a spot only on the third primary; crown of head earth-brown, the forehead and lores rather paler; a whitish line on the sides of the crown behind the eye; chin and throat white; sides of the face and fore-neck pale cinnamon-rufous, somewhat paler on the breast, abdomen, sides of the body, lower flanks, and thighs; middle of the abdomen and under tail-coverts dull white, the latter having dark bases to the feathers; under wing-coverts similar to the upper surface, except those at the base of the outer primary which are whitish; quills dark brown below with a pale rufous patch; lower aspect of tail similar to that above.

Total length 168 mm., exposed culmen 20, wing 88, tail 51, tarsus 29, middle toe and claw 19.

Adult female. Similar to the adult male but slightly smaller. Wing 83 mm.

The birds described were collected in the Upper Takutu Mountains.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Upper Takutu River, Ireng River (*McConnell collection*); Demerara (*Brown*).

Extralimital Range. Surinam (*Penard*), North-west Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 688*) that he first met with this bird in the neighbourhood of the Pirara River, where it enlivens the bush near the banks. It is never still and all the time uttering its piercing loud note, more persistently at dawn and sunset. It is usually met with in pairs. The "Macusis" call it *Nomaiko*.

Genus **LOCHMIAS** Swains.

Lochmias Swainson, Zool. Journ. iii. p. 355, 1827. Type *L. nematura* (Licht.).



Fig. 41.—*Lochmias nematura*.

The birds on which this genus is based are rather small in size and contain only two species and one subspecific form. The bill, which is almost straight, is slender and about two-thirds the length of the tarsus. The wing is rounded. The tail is somewhat stiffened and fan-shaped and nearly two-thirds the length of the wing. The tarsus is slender and proportionately long, with scarcely any trace of scutes. The distribution is confined to South America. Coloration : male and female similar.

405. ***Lochmias nematura castanonota***.

CHESTNUT-BACKED SHARP-TAILED CREEPER.

Lochmias nematura (nec Licht.) Salvin, Ibis, 1885, p. 418 (Kukenam Mountains, 5000 ft.); Selater, Cat. B. Brit. Mus. xv. p. 28, 1890 ("River Arranparu," Kukenam).

Lochmias nematura castanonota Chubb, Bull. Brit. Orn. Club, xxxviii. p. 87, July 1918.

Adult female. Similar to *L. nematura nematura* (Licht.) from South-east Brazil, but differs in being rich chestnut-brown on the upper surface, the white on the under surface more restricted, the white shaft-lines on the under tail-coverts much less extensive and almost obsolete, and the smaller measurements.

Total length 146 mm., exposed culmen from anterior part of nostrils 14, wing 64, tail 43, tarsus 23.

This subspecies is not represented in the McConnell collection and the description is taken from the type in the British Museum, which is the only known example. It was collected by the late Henry Whitely on the Aruparu River in the Kukenam Mountains at an altitude of 5000 ft. on the 29th of August, 1883.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Kukenam Mountains (*Whitely*).

Extralimital Range. Surinam (*Penard*).

Habits. Unrecorded in British Guiana.

Genus **SCLERURUS** Swains.

Sclerurus Swainson, Zool. Journ. iii. p. 356, 1827. Type *S. umbretta* (Licht.).



Fig. 42.—*Sclerurus umbretta*.

The members of this genus are similar in general form to those of *Lochmias* but larger birds, and their geographical distribution extends to Central America as far as Mexico. The bill is long

and nearly straight. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second shorter than the fifth but longer than the sixth, and the first about equal in length to the eighth. The tail is stiffened, rounded at the tip, and rather less than two-thirds the length of the wing. The tarsus is proportionately short, being about equal in length to that of the exposed culmen. Coloration: male and female similar.

Key to the Species.

- A. Throat fawn-colour.
a. Larger, wing more than 82 mm., culmen more than 20 mm. *S. caudacutus*, p. 91.
b. Smaller, wing less than 82 mm., culmen less than 20 mm. *S. rufigularis*, p. 92.
 B. Throat bright ferruginous; culmen 26 mm., wing 80 *S. m. macconnelli*, p. 92.

406. *Sclerurus caudacutus*.

BLACK-TAILED LEAFSCRAPER.

Thamnophilus caudacutus Vieill. N. Dict. d'Hist. Nat. iii. p. 310, 1816 (Cayenne).

Sclerurus caudacutus Salvin, Ibis, 1885, p. 419 (Bartica Grove, Camacusa, Meruné Mts., Atapurau River); Selater, Cat. B. Brit. Mus. xv. p. 116, 1890 (Meruné Mts., Bartica Grove, Attápurow River, Camacusa, Carimang River); Brabourne & Chubb, B. S. Amer. i. p. 246, no. 2497, 1912.

Sclerurus caudacutus caudacutus Hellm. Nov. Zool. xiv. p. 56, 1907.

Adult male. General colour above and below umber-brown, paler and more rufescent on the lores, fore part of the head, sides of the face, and fore-neck; chin and throat paler and inclining to fawn-colour; inner webs of the flight-quills somewhat darker than the outer ones; tail blackish; under wing-coverts rufescent; quills below greyish brown; lower aspect of tail similar to that above.

Total length 161 mm., exposed culmen 20, wing 91, tail 68, tarsus 23.

The bird described was collected on the Ituribisi River in August 1909.

Adult female. Similar to the adult male. Wing 89 mm.

An immature bird from the Anarica River is similar to the adult but everywhere less bright in colour.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Anarica River, Great Falls Demerara River (*McConnell collection*); Kamakusa, Merumé Mountains, Atapurov River, Kamarang River (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Vieillot*), Rio Capim, Pará (*Wallace*).

Habits. Unrecorded in British Guiana.

407. *Sclerurus rufigularis*.

PELZELN'S BLACK-TAILED LEAFSCRAPER.

Sclerurus rufigularis Pelzeln, Orn. Bras. pp. 87, 161, 1869 (Borba and Marabitanas); Brabourne & Chubb, B. S. Amer. i. p. 247, no. 2505, 1912.

Sclerurus caudacutus Sclater, Cat. B. Brit. Mus. xv. p. 116 (part, specimens *h, i*), 1890.

Adult male. General colour above and below dark chocolate-brown; inner webs of flight-quills brown; upper tail-coverts inclining to chestnut; tail blackish; a narrow line over the eye, sides of face, and throat pale rufescent; under wing-coverts rust-brown; under surface of quills pale brown; lower aspect of tail blackish.

Total length 137 mm., exposed culmen 19, wing 80, tail 55, tarsus 21.

The male described was collected on the Supenaam River in 1910.

Adult female. Similar to the adult male. Wing 77 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Makauria River, Anarica River (*McConnell collection*); Kamarang River, Ourumee, Takutu River, Bartica (*Whitely*).

Extralimital Range. Northern Brazil.

Habits. Unrecorded in British Guiana.

408. *Sclerurus mexicanus macconnelli*.

McCONNELL'S LEAFSCRAPER.

Sclerurus mexicanus macconnelli Chubb, Bull. Brit. Orn. Club, xxxix. p. 41, Dec. 1918.

Sclerurus mexicanus (nec *Scl.*) Brabourne & Chubb, B. S. Amer. i. p. 246, no. 2503, 1912.

Adult male. General colour above and below rust-brown tinged with olive, including the head, back, and wings on the upper parts and the abdomen, sides of body, and under tail-coverts on the under surface; inner webs of flight-quills brown with pale inner edges; upper tail-coverts dark chestnut in contrast with the back; tail dark brown, or blackish, with obsolete bars; head somewhat darker than the back, and the feathers being short and rounded imparts a more or less scalloped appearance; sides of the face, throat, and breast bright ferruginous, rather darker on the last; under wing-coverts pale rufous; under surface of quills pale brown; lower aspect of tail blackish.

Total length 118 mm., exposed culmen 26, wing 80, tail 58, tarsus 22.

The type from which the description is taken was collected on the Ituribisi River in February 1907.

In the British Museum there is a male specimen of this bird, which was collected at Ourumee on the 3rd of October, 1890, by the late Henry Whitely and is identical with the type described.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River (*McConnell collection*); Ourumee (*Whitely*).

Extralimital Range. Surinam (*Penard*).

Habits. Unrecorded in British Guiana.

Family SYNALLAXIDÆ.

This family consists of about twenty-five genera and about two hundred and sixteen species. Five of the genera and about twelve of the species are represented in British Guiana.

Genus SYNALLAXIS Vieill.

Synallaxis Vieillot, N. Diet. d'Hist. Nat. xxxii. p. 309, 1819. Type *S. ruficapilla* Vieill.



Fig. 43.—*Synallaxis ruficapilla*.

The species on which this genus was founded are small and slender birds with short wings and long tails. The bill is slender and pointed, and the exposed culmen only slightly more than half the length of the tarsus. The wing is small and rounded, the fourth and fifth primaries longest, the third slightly longer than the sixth, and the second about equal to the seventh. The tail is long, and soft in texture, and exceeds the length of the wing by about the length of the tarsus. The tarsus, which is somewhat long, is smooth and slender.

Key to the Species.

- | | |
|---|---|
| A. Crown of head rufous. | |
| <i>a.</i> Abdomen and sides of body similar in colour; tail rufous. | |
| <i>a'</i> . Ear-coverts pale brown with whitish shaft-streaks | <i>S. poliophrys</i> , p. 94. |
| <i>b'</i> . Ear-coverts uniform blackish | <i>S. macconnelli</i> , p. 95. |
| <i>b.</i> Abdomen white in contrast to the flanks; tail brown..... | [p. 96.
<i>S. albigularis josephinae</i> , |
| B. Crown of head brown. | |
| <i>c.</i> Abdomen dark ochreous buff..... | <i>S. guianensis</i> , p. 97. |
| <i>d.</i> Abdomen white | <i>S. cinnamomea</i> , p. 98. |
| <i>e.</i> Abdomen streaked with buffy-white..... | <i>S. adusta</i> , p. 100. |

409. *Synallaxis poliophrys*.

GREY-BROWED SPINE-TAIL.

Synallaxis poliophrys Cab. J. f. O. 1866, p. 307 ("Cayana"); Sclater, Cat. B. Brit. Mus. xv. p. 39, 1890 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 228, no. 2303, 1912.

Synallaxis demissa Salvin & Godman, Ibis, 1884, p. 449 (Roraima, 5000 to 6000 ft.); Salvin, Ibis, 1885, p. 420.

Adult male. Crown of head, nape, upper wing-coverts, upper tail-coverts, and tail both above and below rufous, inner webs of flight-quills dark hair-brown with cinnamon-buff on the inner edges; back olive-brown; sides of the face and sides of the body dusky ochreous brown; a pale narrow line over the eye and along the sides of the crown; base of lores and chin, white with black hair-like tips to the feathers; throat, breast, and abdomen dark ash-grey; thighs and under tail-coverts ochreous; under wing-coverts and inner edges of quills below pale cinnamon-buff, remainder of quill-lining dark hair-brown.

Total length 145 mm., exposed culmen 13, wing 61, tail 69, tarsus 18.

Adult female. Similar to the adult male. Wing 60 mm.

The descriptions of the adult male and female are based on specimens in the British Museum collected on Mount Roraima by H. Whitely at an altitude of 5000 to 6000 ft. in August and September, 1883.

Immature. Crown of head, wings, upper tail-coverts, and tail chestnut, inner webs of the bastard-wing and primary-coverts dark brown, as are also those of the primary and secondary quills, which are edged with pale rufous; hind-neck, mantle, and back rufous-brown; base of forehead, sides of the face, breast, and abdomen dusky brown, the shafts of the feathers on the ear-coverts rather paler and somewhat contrasting; throat inclining to whitish; under tail-coverts rufous-brown; under wing-coverts rufous; quills brown below with rufous inner edgings; lower aspect of tail similar to that above.

Total length 137 mm., exposed culmen 13, wing 61, tail 65, tarsus 22.

The immature bird described was collected by Mr. McConnell at Mount Roraima in October 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Cabanis*).

Habits. Unrecorded in British Guiana.

410. *Synallaxis macconnelli*.

McCONNELL'S SPINE-TAIL.

Synallaxis brunneicauda (nec Scl.) Salvin, *Ibis*, 1885, p. 419 (Roraima, 3500 to 5000 ft.); Selater, *Cat. B. Brit. Mus.* xv. p. 41 (part), 1890.

Synallaxis brunneicaudalis Brabourne & Chubb, *B. S. Amer.* i. p. 223, no. 2311, 1912.

Synallaxis macconnelli Chubb, *Bull. Brit. Orn. Club*, xxxix. p. 78, April 1919.

Adult male. General colour above including the entire back dull brown, becoming tinged with rufous on the tail; upper wing-coverts and outer aspect of wing chestnut; inner webs of primary and secondary quills brown with pale rufous edgings; crown of head and hind-neck chestnut; sides of face and under surface of body dusky brown; throat silvery grey, with dark brown

bases to the feathers; under wing-coverts rufous; quill-lining dark brown, with pale rufous edgings to the inner webs; lower aspect of tail rufous, rather paler than the upper surface.

Total length 141 mm., exposed culmen 14, wing 63, tail 64, tarsus 23.

The bird from which the description is taken was collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

Adult female. Differs from the adult male in being rather paler and inclining to smoke-brown on the under surface. Wing 61 mm.

There appears to be some doubt as to whether the species *S. brunneicaudalis* Sclater, occurs in British Guiana, as when the late Dr. Sclater wrote Vol. xv. of the 'Catalogue of Birds in the British Museum' there was but one specimen of that species from Ecuador, and that is certainly not the same as the Guiana bird. I have therefore described the latter as a distinct species.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Unrecorded.

411. *Synallaxis albigularis josephinae*.

JOSEPHINE'S WHITE-THROATED SPINE-TAIL.

Synallaxis albescens (nec Temm.) Salvin, Ibis, 1885, p. 419 (Merumé Mts., Roraima 3500 ft.); Sclater, Cat. B. Brit. Mus. xv. p. 43, 1890 (Merumé Mts., Roraima).

Synallaxis albigularis (nec Sc.) Brabourne & Chubb, B. S. Amer. i. p. 229, no. 2317, 1912.

Synallaxis albigularis josephinae Chubb, Bull. Brit. Orn. Club, xxxix. p. 60, Feb. 28, 1919.

Adult male. General colour above earth-brown including the fore part of the head, hind-neck, entire back, primary and secondary quills, and tail; crown and upper wing-coverts chestnut; inner webs of greater upper wing-coverts dark brown; sides of the face, sides of neck, breast, sides of the body, thighs, and under tail-coverts dusky grey; throat and middle of abdomen white; under wing-coverts pale buff; quill-lining and lower aspect of tail pale brown.

Total length 149 mm., exposed culmen 14, wing 60, tail 72, tarsus 21.

The birds from which the descriptions are taken were collected by Mr. McConnell at Mount Roraima in October 1898. There is another male specimen from the same locality in which the tail measures 79 mm.

An immature bird, also collected by Mr. McConnell at Mount Roraima in October 1898, is similar to the adult on the upper surface, but the rufous patch on the nape is more restricted; under surface for the most part pale ochreous.

Adult female. Similar to the adult male but slightly paler in colour both above and below. Wing 58 mm.

There is also an immature bird, sexed as female, in the British Museum which is rust-brown on the whole of the upper surface; under surface fulvous or tawny, inclining to white on the throat and lower abdomen.

Having compared and measured a series of eleven birds from Ecuador, which is the type locality of *S. albigularis albigularis*, and East Peru, with eight others from British Guiana, I find that the latter are darker rufous on the hinder crown and nape and have the wing and tail measurements larger.

This subspecies is named in honour of Mrs. F. V. McConnell's only daughter.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Upper Takutu Mountains, Ituribisi River, Bonasika River, Abary River (*McConnell collection*); Merumé Mountains and Mount Roraima (*Whitely*).

Extralimital Range. Surinam (*Penard*).

412. *Synallaxis guianensis*.

GUIANA SPINE-TAIL.

Motacilla guianensis Gmel. Syst. Nat. i. p. 988, 1789 (Guiana).

Synallaxis guianensis Salvin, Ibis, 1885, p. 419 (Bartica Grove);

Selater, Cat. B. Brit. Mus. xv. p. 46, 1890 (Bartica Grove);

Brabourne & Chubb, B. S. Amer. i. p. 230, no. 2321, 1912.

Adult male. Head, scapulars, and back dark earth-brown with a slight tinge of rufous on the back and scapulars, and the feathers on the fore part of the head have dark centres which impart a more or less scalloped appearance; wings and tail chestnut;

inner webs of primary and secondary quills dark brown, diminishing in extent towards the inner quills where it is restricted to the tips of the feathers only, the basal portion being chestnut; sides of face pale brown, lores white at the base and dusky on the tips; chin and throat white; breast, abdomen, and under tail-coverts pale rust-brown; sides of the body and flanks rufous-brown; under wing-coverts and axillaries pale chestnut like the basal portion of the quills below; apical portion of quills below dark brown; lower aspect of tail like that of its upper surface.

Total length 140 mm., exposed culmen 15, wing 61, tail 70, tarsus 25.

Adult female. Similar to the adult male. Wing 57 mm.

The male described was collected at Bartica in 1911.

There is a specimen from the Rio Negro, collected by Natterer, in the British Museum which was said by the late Dr. P. L. Selater to be *S. inornata* Pelzeln. This bird appears to me to be quite different from *S. guianensis* and is worthy at least of sub-specific rank. I would suggest, therefore, that it be called *Synallaxis guianensis inornata*.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Bartica (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Venezuela, Colombia, North Brazil.

413. *Synallaxis cinnamomea*.

YELLOW-THROATED SPINE-TAIL.

Certhia cinnamomea Gmel. Syst. Nat. i. p. 480, 1788 (Guana).

Synallaxis ruficauda (nec Vieill.) Cab. in Schomb. Reis. Guian. iii. p. 689, 1848.

Synallaxis cinnamomea Salvin, Ibis, 1885, p. 419; Selater, Cat. B. Brit. Mus. xv. p. 50, 1890; Lloyd-Price, Timehri (2) v. p. 64, 1891 (nest and eggs); Quelch, tom. cit. p. 92 (Georgetown); Lloyd, op. cit. (2) xi. p. 6, 1897 (nest and eggs); Beebe, Our Search for a Wilderness, p. 304 (Aremu), p. 379 (Abary), 1910; Brabourne & Chubb, B. S. Amer. i. p. 230, no. 2332, 1912.

“Rootie” (*Quelch*); “Little Spine-tail” (*C. A. Lloyd*).

Adult male. General colour above rufous-brown, including the head, scapulars, and back, being somewhat darker on the head and

more rufous on the rump and upper tail-coverts; wings chestnut, with more or less brown on the bastard-wing and primary-coverts and on the apical portion of the primary and secondary quills—the first or outermost primary almost entirely brown; tail chestnut but rather paler than the wings; an obsolete whitish line from the lores to above the eye; throat, breast, and abdomen white with a tinge of yellowish buff; sides of the body, under tail-coverts, and under wing-coverts buff; inner edges of quills below cinnamon, remainder of the under surface of the quills brown; lower aspect of the tail similar to that of the upper surface.

Total length 140 mm., exposed culmen 14, wing 57, tail 59, tarsus 21.

The male from which the description is taken was collected on the Abary River in November 1906.

Adult female. Similar to the adult male, but not quite so dark in plumage and slightly smaller in wing-measurement. Wing 54 mm.

Breeding-season. Unrecorded in British Guiana.

Nest. "The nest is tunnel-shaped, built of dry pimpler sticks, and exceedingly large for the size of the bird" (*H. Lloyd Price*). "It builds its cumbersome nest in close proximity to those of wasps" (*C. A. Lloyd*).

Eggs. "The eggs are of a dull white" (*H. Lloyd Price*). "The eggs are dull white and usually four in number" (*C. A. Lloyd*).

Range in British Guiana. Upper Takutu Mountains, Bartica, Bonasika River, Abary River, Anarica River (*McConnell collection*); Annai (*Whitely*).

Extralimital Range. Surinam (*Penard*), Trinidad, Venezuela, Colombia.

Habits. Schomburgk states (*Reis. Guian. iii. p. 689*) that he met with this bird in fairly large numbers in the Canuku Mountains, where it frequented the lower dense bushes.

Mr. H. Lloyd Price writes (*Timehri* (2) v. p. 64):—"Another nest of dry pimpler sticks is that of a small brown bird commonly called the 'Rutie' (*Synallaxis cinnamomea*). The nest is tunnel-shaped, and exceedingly large for the size of the bird, and may be found almost everywhere. The eggs are dull white."

The following note is quoted from Mr. J. J. Quelch (*Timehri* (2) v. pp. 92, 93), who observed this species in Georgetown and remarks:—"Quite different from the preceding tyrant birds, but

inhabiting the same districts on the outskirts of the city, are the little 'Spine-tails,' commonly known as 'Rootie' (*Synallaxis cinnamomea*), evidently so named from its cry.

"These little spine-tails are the only town representatives of the large family of 'American Bush-creepers' or 'Spine-tails' (Dendrocolaptidæ), which altogether number more than 200 species. They are usually, throughout the family, of some shade of brown; and in their bills, feet, and spiny tails, the typical forms approach the true Creepers of the Old World, with which they closely agree in habits. They are, however, chiefly forest birds, and but few of them, as in our common 'Rootie,' resort to the reeds and rushes in open swampy lands, and to the low bush in waste or grassy places."

The following note has been copied from Mr. C. A. Lloyd (Timehri (2) xi. p. 6): writing on the nesting of some Guiana birds he remarks:—"The little Spine-tail (*Synallaxis cinnamomea*), or 'Rootie' as it is called here, also builds its cumbersome nest in close proximity to those of wasps, and singularly enough, as if not satisfied with the protection afforded by these pugnacious neighbours, it invariably *attaches* a portion of the cast skin of a snake on the outside, possibly as an additional warning to its enemies. The eggs of the 'Rootie' are dull white and usually four in number. Sometimes one or two strange bluish eggs are found with them, but no one seems to be acquainted with the bird to which they belong."

Mr. Beebe (Our Search for a Wilderness, p. 379) writes:—"The little 'Rooties,' or Cinnamon Spine-tails—absurdly Wren-like but in reality Woodhewers which have deserted tree-trunks for reeds—showed us their homes, concealed in great untidy balls of twigs. As they flit here and there through the bushes and grasses, they let off a sound like a miniature rattle."

414. *Synallaxis adusta*.

RORAIMA SPINE-TAIL.

Synallaxis adusta Salvin & Godman, Ibis, 1884, p. 450 (Mount Roraima); Salvin, Ibis, 1885, p. 419 (Roraima, 5000 to 6000 ft.); Sclater, Cat. B. Brit. Mus. xv. p. 55, pl. iii., 1890 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 232, no. 2344, 1912.

Adult male. General colour of the upper surface dark chestnut brown, rather darker on the head; inner webs of the bastard-wing,





Berlepschia rikeri.
Riker's Pointed-tail.

primary-coverts, primary and secondary quills blackish; ear-coverts like the back; cheeks, throat, breast, and abdomen smoky-white, the feathers on the breast and abdomen margined with coffee-brown; sides of the body and under tail-coverts coffee-brown; under wing-coverts buff; under surface of quills dark brown; lower aspect of tail chestnut-brown.

Total length 130 mm., exposed culmen 15, wing 65, tail 66, tarsus 20.

The male described above was collected by Mr. McConnell at Mount Roraima in October 1898.

Adult female. Similar to the adult male. Wing 66 mm.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Unrecorded.

Genus **BERLEPSCHIA** Ridgway.

Berlepschia Ridgway, Proc. U. S. Nat. Mus. x. p. 151, 1887. Type *B. rikeri* (Ridgway).

This monotypic genus, which has no very near ally, has a somewhat long and pointed bill, the ridge of the culmen and the keel of the lower mandible narrow, and the feathers at the base of the forehead encroaching on to the posterior portion of the nostrils. The wing is pointed, the second and third primaries longest and equal, the first slightly shorter than the fourth but much longer than the fifth. The tail, which is about four-fifths the length of the wing, is rounded and graduated, the feathers are soft and pointed at the tips. The tarsus is slightly shorter in length than the exposed culmen, the hinder toe and claw about equal in length to that of the middle toe and claw.

415. *Berlepschia rikeri*.

RIKER'S POINTED-TAIL.

(Plate II.)

Picolaptes rikeri Ridgway, Proc. U.S. Nat. Mus. ix. p. 523, 1886 (Santarem).

Berlepschia rikeri Ridgway, Proc. U.S. Nat. Mus. x. p. 151, 1887; Selater, Ibis, 1889, p. 351, pl. xi.; id. Cat. B. Brit. Mus. xv. p. 79,

1890; Brabourne & Chubb, B. S. Amer. i. p. 238, no. 2415, 1912; Chubb, Bull. Brit. Orn. Club, xxxi. p. 39, 1913 (Supenaam River, British Guiana).

Adult (unsexed). Entire back, upper wing-coverts, innermost secondaries, and tail rufous-chestnut; bastard-wing, primary-coverts, primary and secondary quills dark brown, some of the secondaries rufous-chestnut on the outer webs; crown of head, nape, and sides of neck black with white shaft-lines to the feathers, the white increasing in width on the nape and sides of the neck; ear-coverts, cheeks, and throat white with dark brown margins to the feathers; fore-neck and upper breast also white, with black semicircular spots on the margins of the feathers, the white decreasing and the black increasing on the lower breast and abdomen; lower flanks and under tail-coverts black barred with white; under wing-coverts barred or spotted with brown; under surface of quills greyish brown; lower aspect of tail rufous.

Total length 197 mm., exposed culmen 25, wing 102, tail 85, tarsus 22.

The bird described was collected on the Kamakabra River in 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Kamakabra River (McConnell collection).

Extralimital Range. Santarem, Northern Brazil.

Habits. Unrecorded in British Guiana.

Genus **AUTOMOLUS** Reichenb.

Automolus Reichenbach, Handb. sp. Orn. p. 173, 1853. Type *A. leucophthalmus* (Wied).



Fig. 44.—*Automolus leucophthalmus*.

The species on which this genus is based is more or less

Thrush-like in size and general appearance. The bill is somewhat stout, its depth, at the fore part of the nostrils, is about one-third the length of the exposed culmen. The wing is rather pointed, the third, fourth, and fifth primaries longest and subequal, the second is rather shorter than the sixth. The tail is somewhat long and rounded at the tip, the feathers rather wide, the four middle ones longest, and their length about six-sevenths that of the wing. The tarsus is about equal in length to the middle toe and claw. Coloration : male and female similar.

Key to the Species.

- A. Abdomen ochreous-brown; under tail-coverts rufous.
- a. Throat cream-colour; no superciliary line along sides of the crown [p. 103. *A. t. macconnelli*,
- b. Throat white; a white superciliary line which extends behind the eye and along the sides of the crown *A. albicularis*, p. 104.
- B. Abdomen and under tail-coverts grey *A. cervicalis*, p. 105.

416. *Automolus turdinus macconnelli*.

McCONNELL'S AUTOMOLUS.

Philydor turdinus (nec Pelz.) Salvin, Ibis, 1885, p. 420 (Bartica Grove).

Automolus turdiuus (nec Pelz.) Selater, Cat. B. Brit. Mus. xv. p. 93, 1890 (Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 241, no. 2441, 1912.

Automolus turdinus macconnelli Chubb, Bull. Brit. Orn. Club, xxxix. p. 60, 1919.

Adult male. Head, back, and wings fawn-brown, head somewhat darker than the back and squamated in appearance; primary and secondary quills brown on the inner webs which are edged with buff on the basal portion; rump, upper tail-coverts, and tail rufous-chestnut; the short feathers on the loreal space and ring round the eye pale fawn-colour, with black hair-like tips to the feathers; upper cheeks and ear-coverts similar to the back, with pale shaft-lines to the feathers of the latter; chin and upper throat buffy-white followed by pale fawn-colour on the lower cheeks and lower throat; breast, abdomen, and sides of the body ochreous brown; under tail-coverts rufous-chestnut; under wing-coverts and inner lining of quills cinnamon-rufous; tips of quills below pale brown; lower aspect of tail rufous.

Total length 180 mm., exposed culmen 21, wing 89, tail 71, tarsus 22.

Adult female. Similar to the adult male but rather smaller. Wing 85 mm.

The type from which the description is taken was collected on the Ituribisi River in 1909.

Having compared British Guiana birds with a typical specimen of *A. turdinus turdinus* (Pelz.) in the British Museum, I find that the Guiana bird differs in being less rufous and more dusky on the head and upper back, more ochreous on the breast and abdomen, paler on the throat, and in having the wing and tail measurements smaller.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Mazaruni River, Arwey Creek (*McConnell collection*); Bartica (*Whitely*).

Habits. Unrecorded.

417. *Automolus albigularis*.

WHITE-THROATED AUTOMOLUS.

Philydor albigularis Salvin & Godman, Ibis, 1884, p. 450 (Mount Roraima); Salvin, Ibis, 1885, p. 420 (Roraima, 3500 to 6000 ft.).

Automolus albigularis Sclater, Cat. B. Brit. Mus. xv. p. 93, 1890 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 241, no. 2443, 1912.

Adult male. Entire back and wings rufous-brown; inner webs of primary and secondary quills dark brown, with buff edgings on the basal portion; upper tail-coverts and tail rufous-chestnut; head dark chocolate-brown; ear-coverts somewhat similar; a whitish line over the eye extending along the sides of the crown; the short feathers on the loreal space buffy-white at the base and dark brown at the tips of the feathers; chin and throat buffy-white; breast, abdomen, and sides of the body ochreous-brown, somewhat darker on the last; under tail-coverts rufous-brown; under wing-coverts cinnamon-rufous; quills below pale brown with pale rufous on the inner edges of the feathers; lower aspect of the tail rufous.

Total length 174 mm., exposed culmen 21, wing 87, tail 76, tarsus 24.

Adult female. Similar to the adult male but slightly smaller. Wing 79 mm.

The male described was collected by Mr. McConnell during his journey to Mount Roraima in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Unrecorded.

418. *Automolus cervicalis*.

OLIVE-CAPPED AUTOMOLUS.

Automolus sclateri (nec Pelz.) Salvin, Ibis, 1885, p. 420 (Bartica Grove, Camacusa); Selater, Cat. B. Brit. Mus. xv. p. 95, 1890 (Camacusa, Bartica Grove—specimens *j, k, l, m*).

Philydor cervicalis Selater, P. Z. S. 1889, p. 33 (Camacusa and Bartica Grove); id. Cat. B. Brit. Mus. xv. p. 101, 1890.

Automolus cervicalis Brabourne & Chubb, B. S. Amer. i. p. 241 no. 2448, 1912.

Adult male. Head, back, upper wing-coverts, and outer aspect of primary and secondary quills olive-brown; inner webs of the flight-quills dark brown with buff margins; rump and upper tail-coverts dark rufous-chestnut; the tail similar but somewhat paler; fore part of the head rather paler than the hinder crown with pale shaft-streaks like the ear-coverts and feathers below the eye; loreal space and feathers in front of the eye whitish at the base, with black hair-like tips to the feathers; chin and throat dull white with a yellowish tinge; breast, sides of the body, abdomen, and under tail-coverts dusky brown, paler and inclining to grey on the middle of the abdomen; under wing-coverts cinnamon-rufous, inner edges of the quills below similar but rather paler, remainder of the under surface of the quills pale brown; lower aspect of the tail rufous.

Total length 159 mm., exposed culmen 18, wing 85, tail 66, tarsus 20.

The male described was collected on the Ituribisi River in 1909.

Adult female. Similar to the adult male but slightly smaller. Wing 80 mm.

An immature bird from the Supenaam River differs from the adult in having the fore-neck squamated.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Makauria River, Anarica River, Tiger Creek (*McConnell collection*); Bartica, Kamacusa (*Whitely*).

Extra-limital Range. Surinam (*Penard*), Venezuela, North-west Brazil.

Habits. Unrecorded in British Guiana.

Genus PHILYDOR Spix.

Philydor Spix, Av. Bras. i p. 73, 1824. Type *P. atricapillus* (Wied).



Fig. 45.—*Philydor atricapillus*.

The species on which this genus was founded has a straight bill, the length of the exposed culmen being rather more than twice that of its depth. The wing is rounded, the third, fourth, and fifth primaries longest, the second shorter than the fifth but much longer than the sixth. Tail proportionately long and rounded at the tip; its texture is soft and its length about seven-tenths that of the wing. The tarsus is about one-third longer than that of the exposed culmen, and the middle toe and claw exceeds in length that of the hind toe and claw. Coloration: male and female similar.

Key to the Species.

- | | |
|---|-----------------------------------|
| A. Under surface tawny-ochraceous | <i>P. pyrrhodes</i> , p. 107. |
| B. Under surface olive-yellow | <i>P. e. guianensis</i> , p. 107, |

419. *Philydor pyrrhodes*.

CINNAMON-RUMPED PHILYDOR.

Anabates pyrrhodes Cab. in Schomb. Reis. Guian. iii. p. 689, 1848.

Philydor pyrrhodes Salvin, Ibis, 1885, p. 420 (Bartica Grove); Selater, Cat. B. Brit. Mus. xv. p. 99, 1890 (Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 243, no. 2464, 1912.

Adult male. Crown of head, hind-neck, and back rust-brown; wings darker and inclining to chocolate-brown; rump, upper tail-coverts, and tail pale cinnamon-rufous; lores, a line over and behind the eye, sides of face, entire under surface, including the under wing-coverts and lower aspect of tail, pale cinnamon-rufous.

Total length 154 mm., exposed culmen 17, wing 80, tail 57, tarsus 20.

The male described was collected on the Ituribisi River in November 1906.

Adult female. Similar to the adult male but slightly smaller. Wing 76 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Abary River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Venezuela, Ecuador, Peru.

Habits. Schomburgk (Reis. Guian. iii. p. 689) simply says that this bird lives near the coast.

420. *Philydor erythrocerus guianensis*.

GUIANA DUSKY-VENTED PHILYDOR.

Philydor erythrocerus (nec Pelz.) Salvin, Ibis, 1885, p. 420 (Camacusa); Selater, Cat. B. Brit. Mus. xv. p. 101, 1890 (Camacusa); Brabourne & Chubb, B. S. Amer. i. p. 243, no. 2471, 1912.

Philydor erythrocerus guianensis Chubb, Bull. Brit. Orn. Club, xxxix. p. 60, Feb. 28, 1919.

Adult male. Crown of head, sides of face, back and wings dark olive; inner webs of the upper wing-coverts and flight-quills dark brown with cream-white margins to the last; rump, upper tail-coverts, and tail, both above and below, rufous-chestnut; lores

whitish at the base and dusky at the tips of the feathers; superciliary line yellowish white; chin and throat also yellowish white, becoming darker on the breast and middle of the abdomen and more olive on the sides of the body and under tail-coverts; under wing-coverts orange-buff; under surface of flight-quills pale brown with yellowish-white inner edges.

Total length 162 mm., exposed culmen 16, wing 90, tail 65, tarsus 20.

Adult female. Similar to the adult male and differs only in having the under tail-coverts pale rufous. Wing 79 mm.

There is a specimen in the British Museum, sexed as female, from Ourumee, which differs from those described and others in the collection in having the superciliary streak and the feathers adjoining the hinder ear-coverts rufous. I am inclined to think, however, that this must be a sign of immaturity, as some of the tail-feathers are not fully grown.

This subspecies is not represented in the McConnell collection; the birds described are in the British Museum, and were collected by the late Henry Whitely at Kamacusa and Ourumee.

There is also in the collection a male individual from Barro do Rio Negro, said by the late Dr. Selater to be one of the typical specimens of *P. e. erythrocerus*. The Guiana bird differs, however, from this and another from Para, collected by the late A. R. Wallace, in being darker on the upper parts, with more brown and less olive; this applies also to the under surface, especially on the sides of the body. I have, therefore, separated these subspecifically.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Kamacusa, Ourumee (*Whitely*).

Extralimital Range. Cayenne.

Habits. Unrecorded in British Guiana.

Family XENOPIDÆ.

This family consists of two genera and seven species. One of the genera and one of the species are represented in British Guiana.

Genus **XENOPS** Illig.*Xenops* Illiger, Prodr. p. 213, 1811. Type *X. genibarbis* Illig.Fig. 46.—*Xenops genibarbis*.

This genus is distinguished by its small size, narrow bill, and upturned lower mandible. The wing is rather pointed, the third and fourth primaries longest, the second equal to the fifth, and the first between the sixth and seventh. The tail is proportionately long and graduated, the middle feathers slightly longest, the feathers are broad and soft in texture, and about four-fifths the length of the wing. The tarsus is about equal in length to that of the middle toe and claw. Coloration: male and female similar.

421. **Xenops genibarbis.**

WHISKERED RECURVED-BILL.

Xenops genibarbis Illig. Prodr. p. 213, 1811 (Cametá, Brazil); Salvin, Ibis, 1885, p. 420 (Bartica Grove, Camacusa, Roraima, 3500 ft.); Selater, Cat. B. Brit. Mus. xv. p. 110, 1890 (Bartica Grove, Camacusa); Brabourne & Chubb, B. S. Amer. i. p. 245, no. 2489, 1912.

Adult male. Back and upper wing-coverts rust-brown; head rather darker with pale shaft-streaks to the feathers; lesser

upper wing-coverts like the back, the median and greater series more or less blackish on the inner webs; primary-coverts and primary and secondary quills also blackish with a band of rufous across the middle portion of the quills, the secondaries margined with the same colour at the tips, as are also the outer edges of some of the primaries; the innermost secondary entirely dull rufous; middle pair of tail-feathers rufous, the next pair black, the following pair also black with an oblique mark of rufous at the tip on the outer web, the two outer pairs rufous with more or less black on the basal portion; a white line over and behind the eye and another one across the cheeks; ear-coverts brown with minute pale streaks; throat dull white; remainder of the under surface dusky brown including the breast, abdomen, sides of the body, and under tail-coverts; under wing-coverts and a band across the under surface of the quills orange-buff, remainder of the quill-lining pale brown; lower aspect of tail rufous and black.

Total length 122 mm., exposed culmen 15, wing 62, tail 48, tarsus 16.

The male described was collected on the Supenaam River in 1911.

Adult female. Similar to the adult male but a little smaller. Wing 56 mm.

Breeding-season. Unrecorded in British Guiana.

Nest. In the crevice of a tree about two feet from the ground, composed of rootlets and fibres (*Beebe*).

Eggs. Pure white and three in number (*Beebe*).

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Makauria River, Anarica River, Great Falls Demerara River, Berbice River (*McConnell collection*); Mount Roraima, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Northern Brazil, Venezuela, Colombia, Peru.

NOTE.

XENOPS HETERURUS.

Xenops heterurus Cab. & Hein. Mus. Hein. ii. p. 33, 1859 (Colombia).

This species is not represented in the *McConnell collection*, neither are there any specimens in the collection at the National Museum from British Guiana.

Family DENDROCOLAPTIDÆ.

The present family consists of the spine-tailed and tree-climbing birds usually known as Wood-hewers, which have long bills of variable forms, long and stiffened tails, short legs, long toes, and very sharp claws. At the time when Brabourne & Chubb published their 'List of the Birds of South America' there were eighteen genera and about one hundred and seventeen species. Nine of the genera and about thirteen of the species were represented in British Guiana.

Genus GLYPHORHYNCHUS Wied.

Glyphorhynchus Wied, Beitr. Naturg. Bras. iii. p. 1149, 1831. Type
G. cuneatus (Licht.).



Fig. 47.—*Glyphorhynchus cuneatus*.

This genus is distinguished by the short bill, rather pointed

wings, somewhat long tail, slender feet, and sharply curved claws. The bill flattened at the tip of the upper mandible, and the outer edges turned inwards. The wing is rather pointed, the second, third, fourth, and fifth primaries longest and subequal, the first slightly shorter than the seventh. The tail is rounded and graduated, the feathers curved towards the apical portion, and the shafts extended and bare at the tips. The feet are small, the two outer toes longest and about equal in length and the inner and hinder toes, measured from the same point, are nearly equal, and the claws are sharply curved with needle-like points. Coloration: male and female similar.

422. *Glyphorhynchus cuneatus simillimus*.

WEDGE-BILLED WOOD-HEWER.

Glyphorhynchus cuneatus (nec Licht.) Salvin, Ibis, 1885, p. 421 (Bartica Grove, Camacusa, Roraima 3500 ft.); Selater, Cat. B. Brit. Mus. xv. p. 154, 1890 (Roraima, Camacusa, Bartica Grove); Beebe, Our Search for a Wilderness, p. 392, 1910 (Aremu River); Brabourne & Chubb, B. S. Amer. i. p. 248, no. 2561 (part), 1912.

Glyphorhynchus cuneatus simillimus Hartert & Goodson, Nov. Zool. xxiv. p. 419, 1917.

Wedge-billed Pigmy Woodhewer, Beebe, Our Search for a Wilderness, pp. 339, 392, 1910.

Adult female. Crown of the head, upper back, scapulars, upper wing-coverts, and outer aspect of flight-quills dark ochreous brown; primary-coverts and inner webs of flight-quills blackish with a patch of white on the basal portion of the latter, innermost secondaries tinged with chestnut; lower back, rump, upper tail-coverts, and tail rufous chestnut; forehead somewhat darker than the crown, with pale shaft-lines to the feathers; lores similar with black hair-like tips to the feathers; sides of face ochreous brown, the feathers streaked or tipped with buffy-white; a narrow superciliary streak also buffy-white; chin and throat ferruginous more or less intermixed with brown; remainder of the under surface dull ochreous brown with broad buffy-white lanceolate markings to the feathers on the fore-neck, which fade off into narrow streaks on the breast and become almost obsolete on the abdomen and sides of the body; under tail-coverts similar but inclining to chestnut-rufous at the tips; axillaries and under wing-coverts white, outer edge of wing below ochreous brown; under surface

of flight-quills dark brown with an oblique patch of buff; lower aspect of tail rufous, the shafts paler than on the upper surface and inclining to white.

Total length 135 mm., exposed culmen 11, wing 65, tail 63, tarsus 15.

The female form from which the description is taken was collected on the Supenaam River in 1911.

Adult male. Similar to the adult female but slightly larger. Wing 76 mm.

Breeding-season. Unrecorded in British Guiana.

Nest. Two feet above the ground—a thin network of rootlets and fibres (*Beebe*).

Eggs. The eggs were a broad oval in shape, dull white in colour, and measured 20 by 16 mm. (*Beebe*).

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Abary River, Anarica River, Arwee Creek (*McConnell collection*); Mount Roraima, Kamakusa, Bartica (*Whitely*); Aremu River (*Beebe*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Jelski*), Venezuela, Colombia, Brazil.

Habits. The following notes are quoted from *Beebe* (Our Search for a Wilderness, p. 339):—"I secured a Wedge-billed Pygmy Woodhewer with its single young one, which must have left the nest that very day. Curiously enough, the latter perched as often as it clung to the tree-trunks, and keeping this in mind I found that the measurements of the two birds were very interesting. There was almost no difference between the length of the wings and beaks of parent and young, but the tail of the young bird was only $1\frac{7}{8}$ inches in length as compared with $4\frac{3}{4}$ inches in the adult. From this it appears that the climbing habit is not developed as early in the young Woodhewer as in Woodpeckers, in which it seems instinctive from the first.

"Resting my camera for a moment against the buttress of a giant mora, a small brown bird flew out and I recognised another Wedge-billed Pygmy Woodhewer. It flew to a sapling and peered at me around the side. When I did not move away it came nearer and voiced its disapproval by a five-syllabled cry, chik-chik-chik-chik-chik! This made me suspicious, and peering down a narrow crevice formed by a deep fold in the buttress I caught a glint of white, and finally made out three eggs, one of

which seemed to be freshly broken. A safer or cosier place could not be imagined. The crevice was eighteen inches deep and only two inches wide, with the opening of the fold almost closed by a small dangling bush rope. The nest itself was only two feet above the ground. The eggs were pure white and were laid on a thin network of rootlets and fibres resting on the black mould which had collected in the crevice. The following day it took me two hours of hard work, cutting and sawing, to reach the nest, and when Milady spooned up nest and eggs, four good sized scorpions came with them, unpleasant guests I should think! There were two eggs in the nest and a broken one on the ground outside which the parent had removed the night before. This egg had probably been broken by the hurried flight of the parent on the preceding day. The eggs were a broad oval in shape, dull white, and both measured 20 by 16 mm."

Genus **DENDROCINCLA** Gray.

Dendrocincla Gray, List Gen. Birds, p. 18, 1840. Type *D. turdina* (Licht.).

The birds that constitute this genus are of medium size. The bill is fairly long and somewhat slender, the exposed culmen about equal in length to that of the tarsus. The wing is rounded, the third, fourth, and fifth primaries longest, the second slightly shorter than the sixth but longer than the seventh, and the first about half the length of the wing. The tail is long and somewhat stiffened, the shafts protruding beyond the webs of the feathers at the tips. The two outer toes and claws about equal in length and longer than the hind toe and claw. Coloration: male and female similar.

Key to the Species.

- | | |
|--|--------------------------------|
| A. Larger, wing more than 100 mm., tail more than 80, culmen more than 25 | <i>D. fuliginosa</i> , p. 116. |
| B. Smaller, wing less than 100 mm., tail less than 80, culmen less than 25 | <i>D. merula</i> , p. 116. |

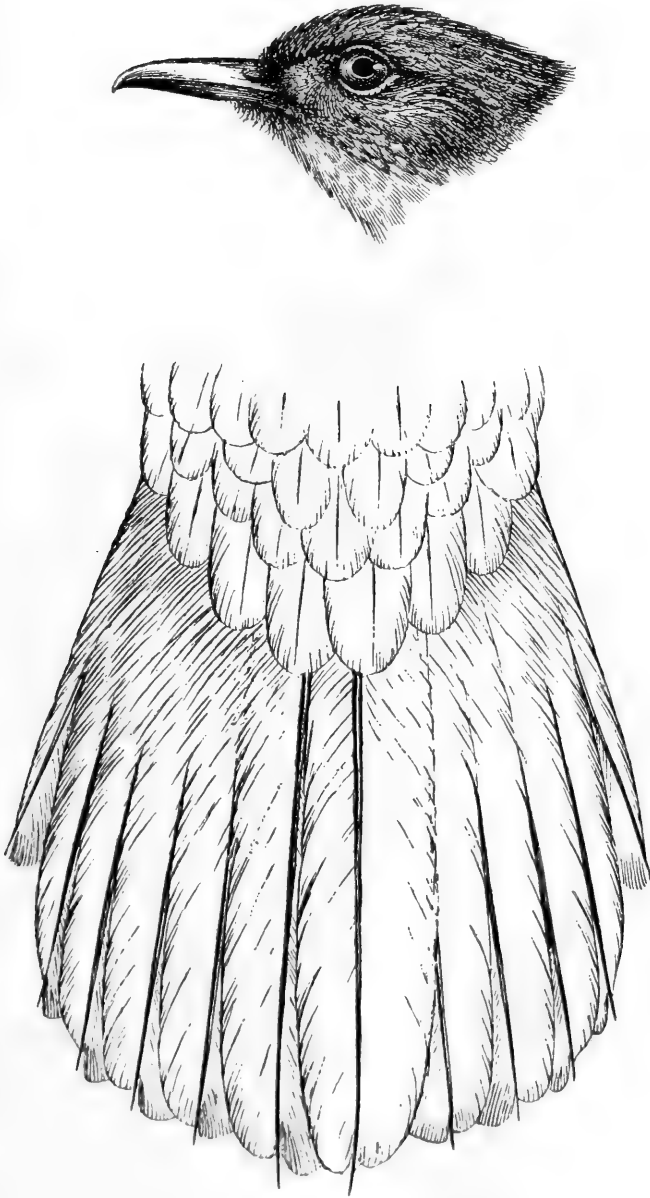


Fig. 48.—*Dendrocincla turdina*.

423. *Dendrocincla fuliginosa*.

VIEILLOT'S WOOD-HEWER.

Dendrocopus fuliginosus Vieill. N. Diet. d'Hist. Nat. xxvi. p. 117, 1818 (Cayenne).

Dendrocincla fumigata Salvin, Ibis, 1885, p. 421 (Bartica Grove, Camacusa, Roraima 3500 ft.).

Dendrocincla fuliginosa Selater, Cat. B. Brit. Mus. xv. p. 165, 1890 (Roraima, Camacusa, Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 248, no. 2520, 1912.

Adult male. Head, back, upper wing-coverts, breast, abdomen, and sides of the body dusky olive-brown; primary and secondary quills rufous, with dark shaft-lines and buff edges to the inner webs, the six outer primaries brown at the tips; upper and under tail-coverts rufous; tail-feathers rufous with black shaft-lines; a short line of buff behind the eye; the short feathers on the lores and in front of the eye whitish at the base with dark tips; sides of the face and ear-coverts dusky brown with pale shaft-lines; chin and throat pale grey, becoming brown with pale narrow shaft-lines on the fore-neck; under wing-coverts and greater part of the quill-lining cinnamon-rufous, tips of primary-quills below brown; lower aspect of tail pale rufous including the shafts of the feathers.

Total length 226 mm., exposed culmen 29, wing 110, tail 95, tarsus 30.

The male described was collected on the Demerara River.

Adult female. Similar to the adult male but rather smaller. Wing 105 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Mazaruni River, Demerara River (*McConnell collection*); Mount Roraima, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Vieillot*).

Habits. Unrecorded in British Guiana.

424. *Dendrocincla merula*.

RED-VENTED WOOD-HEWER.

Dendrocolaptes merula Licht. Abh. Ak. Berl. 1820, p. 208 (Cayenne).

Dendrocincla merula Salvin, Ibis, 1885, p. 421 (Bartica Grove);

Sclater, Cat. B. Brit. Mus. xv. p. 168, 1890 (Bartica Grove);
Brabourne & Chubb, B. S. Amer. i. p. 249, no. 2527, 1912.

Adult. Head, back, sides of face, sides of neck, breast, abdomen, and sides of the body dark sooty-brown; throat white tinged with lemon-yellow; upper and under tail-coverts dark chestnut; wings and tail chestnut-brown, apical portion of outer primary-quills dark brown on the inner webs, the remainder of the primary and the whole of the secondary quills rufous on the inner webs becoming paler on the edges; under wing-coverts and axillaries pale chestnut; quills below pale rufous, becoming dark brown at the tips of the outer primaries; under surface of tail the same as that of the upper side.

Total length 162 mm., exposed culmen 20, wing 95, tail 61, tarsus 24.

The bird described was collected on the Supenaam River in 1910.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Licht.*), Venezuela, Peru, Brazil.

Habits. Unrecorded in British Guiana.

Genus **SITTASOMUS** Swains.

Sittasomus Swains. Zool. Journ. iii. p. 355, 1827. Type *S. sylviellus* (Temm.).

The species on which this genus was founded are small birds. The bill is slender and pointed at the tip, the exposed culmen is about equal in length to that of the inner toe and claw. The wing is rounded, the third, fourth, and fifth primaries longest, the second rather shorter than the fifth but much longer than the sixth, and the first about equal in length to the outer secondaries. The tail is rounded and graduated, and about the same length as that of the wing. Coloration: male and female similar.



Fig. 49.—*Sittasomus sylviiellus*.

425. *Sittasomus amazonus*.

AMAZONIAN OLIVE CREEPER.

Sittasomus amazonus Lafr. Rev. Zool. 1850, p. 590 (haut Amazone);
 Brabourne & Chubb, B. S. Amer. i. p. 249, no. 2530, 1912.

Sittasomus olivaceus Salvin, Ibis, 1885, p. 421 (Camacusa, Merumé
 Mts., Roraima, 3500 ft.); Sclater, Cat. B. Brit. Mus. xv. p. 119,
 1890 (Roraima, Merumé Mts.).

Adult male. Crown of head, nape, upper back, upper wing-coverts, sides of face, throat, breast, abdomen, and sides of body dusky olive-brown; outer aspect of wings rufous, inner webs of flight-quills dark brown with cinnamon-rufous on the basal portion; lower back, rump, upper and under wing-coverts, and

tail, above and below, bright rufous; axillaries and under wing-coverts drab-white; under surface of quills dark brown with cinnamon-rufous on the inner edges at the base.

Total length 168 mm., exposed culmen 14, wing 85, tail 84, tarsus 17.

Adult female. Similar to the adult male but rather smaller. Wing 78 mm.

This species is not represented in the McConnell collection, and the male and female from which the descriptions are taken are in the British Museum and were collected at Mount Roraima by Henry Whitely—Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*Whitely*).

Extralimital Range. Venezuela, Colombia, Peru.

Habits. Unrecorded in British Guiana.

Genus **DENDROCINLOPA**, Chubb.

Dendrocinlopa Chubb, Bull. Brit. Orn. Cl. xl. p. 107, March 1920.

Type *D. guianensis* (Chubb).



Fig. 50.—*Dendrocinlopa guianensis*.

The species on which I propose to base this new genus was placed by Brabourne and Chubb (B. S. Amer. i. p. 250) in the genus *Deconychura* Cherrie. I find, however, that it differs from the type of that genus in having twelve tail-feathers instead of ten. The bill is somewhat long and slender, the exposed culmen about equal in length to that of the tarsus. The wing is rounded, the third, fourth, and fifth primaries longest and subequal, the second is intermediate in length between the fifth and sixth. The tail is rounded and graduated, and exceeds the length of wing. Coloration: male and female similar.

426. *Dendrocinlopa longicauda guianensis*.

GUIANA LONG-TAILED CREEPER.

Dendrocincla longicauda (nec Pelz.) Salvin, Ibis, 1885, p. 421 (Bartica Grove, Merumé Mts.); Selater, Cat. B. Brit. Mus. xv. p. 165, 1890 (Merumé Mts., Bartica Grove).

Deconychura longicauda Brabourne & Chubb, B. S. Amer. i. p. 250, no. 2534 (part), 1912.

Dendrocincla longicauda guianensis Chubb, Bull. Brit. Orn. Club, xxxix. p. 61, 1919.

Adult. Crown of head and sides of face rufous-brown with pale shaft-lines to the feathers; mantle and back uniform rufous-brown; flight-quills and tail chestnut-rufous with brown tips to the primary-quills on the inner webs; throat fulvous; fore-neck, breast, abdomen, and sides of body dusky brown, with pale ferruginous shaft-lines to the feathers on the fore-neck; under tail-coverts inclining to rufous; axillaries and under wing-coverts cinnamon-rufous; under surface of quills dark brown with rufous inner edgings.

Total length 197 mm., exposed culmen 20, wing 99, tail 104, tarsus 23.

The type, which is in the British Museum, was collected at Bartica on the 20th of December, 1880, by Henry Whitely—Salvin-Godman collection,

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Merumé Mountains, Bartica (Whitely).

Habits. Unrecorded.

Genus **XIPHORHYNCHUS** Swains.

Xiphorhynchus Swainson, Phil. Mag. i. p. 440, 1827. Type *X. flavigaster* Swains.

The species on which this genus was founded has a somewhat long and compressed bill. The wing is rounded, the third and fourth primaries longest and equal, the second about equal to the sixth, and the first about equal in length to the secondaries. The tail is rounded and graduated, the two middle feathers slightly longest. Tarsus about two-thirds the length of the exposed culmen. Coloration: male and female similar.

Key to the Species.

- A. Larger, wing more than 110 mm. *X. sororius*, p. 121.
 B. Smaller, wing less than 110 mm.
 a. Throat and middle of the feathers on the
 fore-neck and breast buffy white; bill
 stouter *X. polystictus*, p. 123.
 b. Throat and middle of the feathers on the
 fore-neck and breast fulvous; bill more
 slender *X. pardalotus*, p. 122.

427. *Xiphorhynchus sororius*.

VENEZUELAN WOOD-HEWER.

Xiphorhynchus sororius Berlepsch & Hartert, Nov. Zool. ix. p. 63, 1902 (Maipures, Rio Oironoco); Brabourne & Chubb, B. S. Amer. i. p. 250, no. 2540, 1912.

Dendrocolaptes guttatus (nec Licht.) Cab. in Schomb. Reis. Guian. iii. p. 690, 1848.

Dendrornis guttatoides (nec Lafr.) Salvin, Ibis, 1885, p. 422 (Bartica Grove); Selater, Cat. B. Brit. Mus. xv. p. 128, 1890 (Bartica Grove).

Adult. Head, hind-neck, and sides of face dark brown with smoky-white pear-shaped markings on the middle of the feathers which are minute on the sides of the face and forehead, larger and widening out on the nape and hind-neck; mantle and upper wing-coverts rust-brown, some of the feathers on the mantle have smoke-coloured shaft-streaks which are margined with black; lower back, rump, upper tail-coverts, primary and secondary quills rufous chestnut with pale brown tips to the outer primaries; tail dark chestnut; throat buff, with minute dark margins to the feathers which increase in width on the lower throat; breast, abdomen, sides of body, and under tail-coverts umber-brown with wide shaft-lines of buff many of which are narrowly margined with dark brown; under wing-coverts ochreous buff; quill-lining pale rufous, becoming pale brown on the tips of the outer primaries; lower aspect of tail pale rufous.

Total length 240 mm., exposed culmen 39, wing 115, tail 96, tarsus 24.

The specimen from which the description is taken was collected on the Abary River in July 1906.

Breeding-season. Unrecorded in British Guiana.

Nest. In the holes of trees (*Schomburgk*).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Takutu River, Ituribisi River, Supenaam River, Bartica, Kamakabra River, Makauria River, Abary River, Anarica River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Venezuela, North Brazil.

Habits. Schomburgk (Reis. Guian. iii. p. 690) states that he found this bird distributed over the whole of British Guiana. It has the same habits as those of our Common Tree-Creeper (*Certhia familiaris*). It lives in the woods but is sometimes found on isolated trees. Single individuals may also be observed among flocks that roam through the woods. It nests in the holes of trees.

428. *Xiphorhynchus pardalotus*.

CHESTNUT-RUMPED WOOD-HEWER.

Dendrocopus pardalotus Vieill. N. Dict. d'Hist. Nat. xxv. p. 117, 1818 (Cayenne).

Dendroornis pardalotus Salvin. Ibis. 1885, p. 422 (Bartica Grove, Camacusa, Merumé Mts., Roraima, 3500 ft.); Selater, Cat. B. Brit. Mus. xv. p. 134, 1890 (Roraima, Merumé Mts., Camacusa, Bartica Grove).

Xiphorhynchus pardalotus Brabourne & Chubb, B. S. Amer. i. p. 251, no. 2547, 1912.

Adult. Head, nape, and sides of face dark brown with small pale fulvous shaft-lines to the feathers which are more minute on the sides of the face; upper back and upper wing-coverts bronze-brown which extends along the outer webs of the primary-quills, some of the feathers of the mantle have rather broad shaft-streaks which are narrowly edged with blackish; primary and secondary quills rufous-chestnut with dark shafts and dark brown on the apical portion of some of the outer primary-quills; lower back, rump, upper tail-coverts, and tail chestnut; chin whitish; throat ferruginous buff, with slight dark edgings to the feathers, which increase in width on the fore-neck; breast and sides of the body umber-brown with pale broad shaft-lines some of which are narrowly lined with black on the outer webs, the shaft-lines obsolete on the lower flanks; middle of abdomen and under tail-coverts ferruginous buff more or less intermixed with umber-brown; under wing-coverts cinnamon-buff; inner portion of

quills below rufous becoming brown on the outer and apical portions; lower aspect of the tail uniform rufous.

Total length 220 mm., exposed culmen 33, wing 108, tail 92, tarsus 22.

The bird described was collected at Bartica in 1912.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Bartica, Kama^akabra River, Makauria River, Anarica River, Mazaruni River, Arwey Creek, Tiger Creek (*McConnell collection*); Mount Roraima, Merumé Mountains, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Vieillot*), North Brazil.

Habits. Unrecorded in British Guiana.

429. *Xiphorhynchus polystictus*,

SPOTTED WOOD-HEWER.

Dendrornis polysticta Salvin & Godman, Ibis, 1883, p. 210 (Bartica Grove); Salvin, Ibis, 1885, p. 422; Sclater, Cat. B. Brit. Mus. xv. p. 135, pl. x. 1890 (Bartica Grove).

Xiphorhynchus polystictus Brabourne & Chubb, B. S. Amer. i. p. 251, no. 2548, 1912.

Adult. Head, sides of face, sides of neck, and hind-neck dark brown, with smoky-white pear-shaped marks on the middle of the feathers, more minutely on the sides of the face and fore part of the head and more coarsely on the hind-neck and sides of neck; mantle and upper wing-coverts bronze-brown with pale fulvous shaft-streaks, which have narrow black margins, to some of the feathers on the mantle; primary and secondary quills rufous-chestnut with dark shafts and dark brown tips to the outer primaries; lower back, rump, and upper tail-coverts rufous-chestnut; tail similar but somewhat darker on the middle feathers; chin and throat yellowish white; remainder of the under surface umber-brown with smoky-white or buffy-white centres, with narrow blackish margins to the feathers, the pale centres broader on the breast, narrower on the abdomen, and almost obsolete on the vent and under tail-coverts, the narrow black line that fringes the pale portion of the feathers on the breast is represented by small black spots on the lower abdomen;

under wing-coverts cinnamon-rufous; quills below pale rufous with dark tips to the outer primaries; under surface of tail uniform rufous.

Total length 243 mm., exposed culmen 38, wing 107, tail 96, tarsus 23.

The bird described was collected on the Bonasika River, 1911.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Upper Takutu Mountains, Bartica, Bonasika River, Great Falls Demerara River, Arawai River (*McConnell collection*); Bartica (*Whitely*).

Habits. Unrecorded.

Genus **DENDROPLEX** Swains.

Dendroplex Swainson, Zool. Journ. iii. p. 354, 1827. Type *D. picus* (Gmel.).

The species on which this genus was founded is of medium size. The bill is compressed, the gonys is long and slightly upturned, both mandibles about equal in length. The wings are somewhat pointed, the third and fourth primaries longest, the second shorter than the fifth but longer than the sixth, and the first about three fourths the length of the second. The tail is stiffened, proportionately long, and rounded, the four middle feathers, which are longest, have the shafts naked at the tips and decurved. The tarsus is about equal in length to the middle toe and claw, and the toes have very sharply curved claws. Coloration: male and female scarcely distinguishable.

430. *Dendroplex picus*.

PICINE WOOD-HEWER.

Oriolus picus Gmel. Syst. Nat. i. p. 384, 1788 (Guiana).

Dendroplex picus Cab. in Schomb. Reis. Guian. iii. p. 690, 1848; Salvin, Ibis, 1885, p. 422; Selater, Cat. B. Brit. Mus. xv. p. 138, 1890; Brabourne & Chubb, B. S. Amer. i. p. 252, no. 2559, 1912.

Adult. Upper back and upper wing-coverts rust-brown, becoming chestnut-rufous on the lower back, rump, and upper tail-coverts, primary and secondary quills, and outer tail-feathers, the middle ones darker and contrasting with the lower back; outer secondary and primary quills brown at the tips, the brown

increasing on the outermost primary, the shafts of the primary-quills black; crown of head and hind-neck dark brown with a white, or buffy-white, sagittate mark on the middle of each feather, the short feathers on the forehead and above the eye for the most part white; lores, sides of face, and ear-coverts greyish white with dark narrow margins to the feathers; throat yellowish white with dark narrow edges to the feathers, the dark edgings increasing in width on the fore-neck and upper breast where they become conspicuous; lower breast, abdomen, sides of the body, and under tail-coverts earth-brown with white shaft-streaks, the latter much less pronounced on the abdomen, sides of body, and under tail-coverts; under wing-coverts cinnamon-rufous like the basal portion of the quill-lining, the terminal portion of the latter pale brown; lower aspect of tail dull rufous.

Total length 195 mm., exposed culmen 24, wing 95, tail 75, tarsus 20.

The bird described was collected on the Bonasika River in 1912.

An immature bird, collected on the Ituribisi River in 1909, is darker than the adult both above and below. The head is darker, the feathers shorter, the pale markings on the feathers not so elongated and more buffy-white in colour. Throat and central portion of the feathers below fulvous. The bill also much darker.

The specimen noted from the Upper Takutu River differs from the other individuals in being much paler in colour both above and below.

In a series of twelve fully adult specimens I find considerable difference in the measurements of the wing, which vary from 88 mm. to 103.

Breeding-season. Unrecorded in British Guiana.

Nest. In holes of trees (*Schomburgk*).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Upper Takutu River, Ituribisi River, Supenaam River, Bartica, Bonasika River, Abary River, Anarica River, Ireng River (*McConnell* collection).

Extralimital Range. Surinam (*Peuard*), Eastern and Northern Brazil, Venezuela.

Habits. According to *Schomburgk* (Reis. Guian. iii. p. 690)

this bird is distributed throughout British Guiana and has similar climbing habits to that of our Common Tree-creeper (*Certhia familiaris*). Although it usually lives in woods, individuals are sometimes found on isolated trees. It makes its nest in the holes of trees.

Genus **THRIBROTUS** Cab.

Thripobrotus Cabanis, Arch. für Naturg. 1847, i. p. 339. Type
T. fuscus (Vieill.).

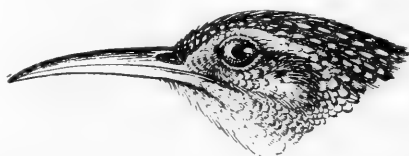


Fig. 51.—*Thripobrotus fuscus*.

The species on which this genus was based has a somewhat long, slender, and compressed bill. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second intermediate in length between the fifth and sixth and the first is about equal to the outer secondaries. The tail, which is rounded at the tip and graduated, is about seven-tenths the length of the wing, the shafts are bare at the tips and the two middle feathers longest. The tarsus is shorter than the exposed culmen and the middle toe and claw about two-thirds the length of the latter. Coloration : male and female similar.

Key to the Species.

- A. Smaller, wing less than 90 mm.
 a. General colour darker both above and below *T. puncticeps*, p. 126.
 B. Larger, wing more than 90 mm.
 b. General colour paler both above and below *T. albolineatus*, p. 127.

431. Thripobrotus puncticeps.

SPOTTED-CROWNED WOOD-HEWER.

Picolaptes puncticeps Sclater & Salvin, Nomencl. Av. Neotr. pp. 69, 160, 1873 (Interior of Guiana); Salvin, Ibis, 1885, p. 422 (Merumé

Mts.); Selater, Cat. B. Brit. Mus. xv. p. 151, 1890; Brabourne & Chubb, B. S. Amer. i. p. 254, no. 2591, 1912.

Adult male. Crown of head and sides of face dusky brown with buffy-white shaft-streaks to the feathers; back, scapulars, and upper wing-coverts rufous-brown; outer aspect of flight-quills, rump, upper tail-coverts, and tail dark chestnut, inner webs of flight-quills rufous on the basal portion, hair-brown towards the tips, the first or outer primary entirely of this colour, which decreases in extent towards the innermost secondaries, where it is almost entirely absent; throat pale buff; cheeks blackish with buffy-white margins to the feathers; breast, abdomen, sides of body ochreous brown with white broad shaft-streaks to the feathers, which are fringed with black; under tail-coverts similar but inclining to rufous, under wing-coverts and inner edges of quills orange-rufous.

Total length 170 mm., exposed culmen 22, wing 87, tail 72, tarsus 16.

Adult female. Similar to the type described above. Wing 83 mm.

This species is not represented in the McConnell collection and the descriptions are taken from the type of the species, which is from Cayenne and is in the collection of the British Museum; the female, also in the National Collection, is from the Merumé Mountains, collected by the late Henry Whitely in June 1881—Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Merumé Mountains (*Whitely*).

Extralimital Range. North Brazil.

Habits. Unrecorded in British Guiana.

432. *Thripobrotus albolineatus*.

FULVOUS-THROATED WOOD-HEWER.

Dendrocolaptes albolineatus Lafr. Rev. Zool. 1846, p. 208 (Colombia).

Picolaptes albolineatus Salvin, Ibis, 1885, p. 422 (Kukenam, Roraima, 3500 to 5000 ft.); Selater, Cat. B. Brit. Mus. xv. p. 152, 1890 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 255, no. 2594, 1912.

Adult male. Crown of head and sides of face pale dusky brown

with narrow shaft-streaks to the feathers; back, scapulars, and upper wing-coverts pale rust-brown; outer aspect of quills, rump, upper tail-coverts, and tail rufous, inner webs of flight-quills dark brown on the apical portion; chin and throat cream-colour; the feathers of the breast cream-white lined with black and margined with olive-grey, becoming almost uniform olive-grey on the abdomen; under tail-coverts similar in pattern to the breast but inclining to rufous; under wing-coverts and inner edges of quills below orange-rufous; lower aspect of tail similar to that above.

Total length 96 mm., exposed culmen 28, wing $94\frac{3}{4}$, tail $81\frac{3}{4}$, tarsus 15.

Adult female. Similar to the adult male but smaller. Wing 85 mm.

This species is not represented in the McConnell collection, and the birds described are in the British Museum. The male was collected in the Kukenaam Mountains at an altitude of 5000 feet by H. Whitely on the 31st August, 1883, and the female at Mount Roraima, altitude 3500 feet, H. Whitely, on December 6, 1883—both in the Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Kukenaam Mountains (*Whitely*).

Extralimital Range. Venezuela, Colombia.

Habits. Unrecorded in British Guiana.

Genus **CAMPYLORHAMPHUS** Bertoni.

Campylorhamphus Bertoni, Aves Neuv. Parag. p. 70, 1901. Type *C. procurvus* (Temm.).

This genus is easily recognised by the long and sickle-shaped bill which is smooth, much compressed, and more than half the length of the wing. Coloration: male and female similar.

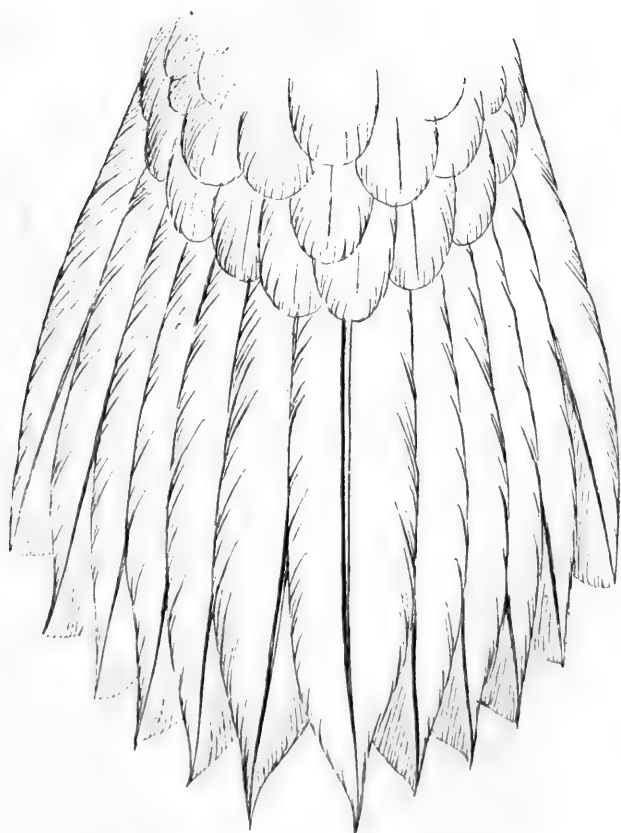


Fig. 52.—*Campylorhamphus procurvus*.

433. *Campylorhamphus procurvoides*.

GUIANA WOOD-HEWER.

Xiphorhynchus procurvoides Lafr. Rev. et Mag. de Zool. (2) ii. p. 376, 1852 (Cayenne).

Xiphorhynchus trochilirostris (nec Licht.) Cab. in Schomb. Reis. Guian. iii. p. 690, 1848; Salvin, Ibis, 1885, p. 422 (Bartica Grove, Camacusa); Sclater, Cat. B. Brit. Mus. xv. p. 159 (part), 1890 (Bartica Grove, Camacusa, Mazaruni River).

Campylorhamphus procurvoides Brabourne & Chubb, B. S. Amer. i. p. 256, no. 2605, 1912.

Adult. Upper back and upper wing-coverts uniform rust-brown; lower back, rump, and upper tail-coverts rufous; wings and tail rufous-chestnut with a tinge of bronze-brown on the outer aspect of the primary-quills, which are more or less brown at the tips; crown of head and nape rather darker than the upper back with small pale shaft-lines to the feathers, the short feathers on the cheeks and those surrounding the eye brown tipped with whitish; hinder face and ear-coverts brown with whitish shaft-streaks; under surface of body umber-brown with pale shaft-lines to the feathers, more strongly pronounced on the throat where they are whiter in colour and rounded in form, becoming less pronounced on the breast and upper abdomen and almost obsolete on the vent and under tail-coverts, where they take the form of elongated narrow streaks; under wing-coverts and axillaries cinnamon-rufous, like the inner quill-lining; outer quill-lining pale brown; lower aspect of tail dull rufous.

Total length 228 mm., exposed culmen 54, wing 95, tail 82, tarsus 18.

The bird described was collected by Mr. McConnell on the Lower Mazaruni River in 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Lower Mazaruni River, Ituribisi River, Supenaam River, Bonasika River, Makauria River, Abary River, Anarica River (*McConnell collection*); Bartica, Kamakusa (*Whitely*); Mazaruni (*Quelch*).

Extralimital Range. Surinam (*Penard*); North Brazil.

Habits. Unrecorded in British Guiana.

Genus **DENDROCOLAPTES** Herm.

Dendrocolaptes Hermann, Obs. Zool. p. 135, 1804. Type *D. certhia* (Bodd.).



Fig. 53.—*Dendrocolaptes certhia*.

This genus contains some of the largest species of the family. The bill is wide at the base and laterally depressed, the culmen sharply keeled, and the tip of the upper mandible hooked. The wing is somewhat pointed, the third, fourth, and fifth primaries longest and equal, the second slightly shorter than the sixth but longer than the seventh, and the first about three fourths the length of the second. The tail is rounded and graduated, the two middle feathers longest, all the shafts protruding, and decurved at the tips. Tarsus about equal in length to the middle toe and claw, front claws much more sharply curved than the hind one. Coloration: male and female similar.

Key to the Species.

- A. Crown of head with longitudinal pale fulvous shaft-streaks; breast with pale elongated streaks to the feathers; abdomen broadly barred with brown..... *D. plagosus*, p. 131.
- B. Crown of head without pale elongated shaft-streaks, the feathers barred; breast and abdomen fulvous narrowly barred with brown *D. certhia*, p. 132.

434. *Dendrocolaptes plagosus*.

BLACK-BANDED WOOD-HEWER.

Dendrocolaptes plagosus Salvin & Godman, Ibis, 1883, p. 210 (Camacusa, British Guiana); Salvin, Ibis, 1885, p. 421; Selater, Cat. B.

Brit. Mus. xv. p. 172, 1890 (Carimang River); Brabourne & Chubb, B. S. Amer. i. p. 257, no. 2617, 1917.

Adult. Back and upper wing-coverts olive-brown with dark brown bars to the feathers; upper tail-coverts, primary and secondary quills, and tail rufous-chestnut with a few dark edgings to the upper tail-coverts; primary-quills brown on the apical portion; crown of head and nape rather darker than the back, with pale narrow shaft-lines and black edgings to the feathers; sides of face buff with brown edgings to the feathers; throat pale fulvous with dark brown dotted edgings to the feathers; breast olive-brown with twin black spots on the feathers; remainder of under surface fulvous regularly barred with dark brown, somewhat brighter on the under wing-coverts; quill-lining cinnamon-rufous, becoming darker towards the tips of the quills; lower aspect of tail dull rufous.

Total length 290 mm., exposed culmen 33, wing 139, tail 122, tarsus 29.

The bird described was collected by Mr. McConnell, exact locality in British Guiana unknown.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Anarica River (*McConnell collection*); Kamakusa, Kamarang River (*Whitely*).

Extralimital Range. North Brazil.

Habits. Unrecorded in British Guiana.

435. *Dendrocolaptes certhia*.

BUFFON'S BARRED WOOD-HEWER.

Picus certhia Bodd. Tabl. Pl. Enl. p. 38, 1783 (Cayenne).

Prinnocopus undulatus Cab. in Schomb. Reis. Guian. iii. p. 689, 1848.

Dendrocolaptes certhia Salvin, Ibis, 1885, p. 421 (Bartica Grove, Merumé Mts., Camacusa, Roraima 3500 ft.); Selater, Cat. B. Brit. Mus. xv. p. 173, 1890 (Roraima, Camacusa, Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 257, no. 2621, 1912.

“Tarikua” (*Schomburgk*).

Adult. Upper back and upper wing-coverts olive-brown barred with dark brown which is more or less concentric on the upper wing-coverts, which have pale central markings; upper tail-coverts, primary and secondary quills, and tail rufous-chestnut, with the apical portion of the primary-quills brown, and the

inner portion of the inner webs of the secondary quills inclining to cinnamon; head slightly darker than the back, with pale narrow shaft-streaks and narrow dark brown edges to the feathers; ear-coverts similar with whitish shaft-lines; throat and hinder cheeks dull white with brown margins to the feathers; remainder of under surface fulvous barred with dark brown; under wing-coverts and quill-lining cinnamon-rufous, the quills somewhat darker at the tips; lower aspect of tail dull rufous.

Total length 285 mm., exposed culmen 35, wing 132, tail 125, tarsus 28, middle toe and claw 28.

The bird described was collected on the Makauria River, August 1910.

A young bird from the Kamakabra River differs from the adult in being somewhat paler on the upper surface, the feathers of the head and nape fulvous with narrow dark edgings, but no conspicuous pale shaft-streaks as in the adult; under surface also paler; the bill much shorter and for the most part black; tail very short, but the feathers well formed.

Breeding-season. Unrecorded in British Guiana.

Nest. In holes in trees (*Schomburgk*).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Supenaam River, Bonasika River, Bartica, Kamakabra River, Makauria River, Abary River (*McConnell collection*); Mount Roraima, Merumé Mountains, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Venzeuela, Guiana, North and North-east Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 689*) that he met with this bird in the Canuku Mountains. Its habit of tree-climbing is similar to our Tree-creeper (*Certhia familiaris*). It makes its nest in holes in trees. The "Arekunas" and the "Macusis" call it *Turikua*.

Family TYRANNIDÆ.

This family consists of a large number of genera of various forms; the majority however have flattened, or muscicapine bills thus representing the Flycatchers of the Old World. The plumage is also varied, but the more usual one is green accompanied by yellow, olive, or grey.

At the time when Brabourne and Chubb published their 'List of the Birds of South America' there were eighty-eight genera and four hundred and eighty-four species. Thirty-eight of the genera and sixty-nine of the species are represented in British Guiana.

Genus **MECOCERCULUS** Selater.

Mecocerculus Selater, P. Z. S. 1862, p. 113. Type *M. setophagoides* (Bonap.).



Fig. 54.—*Mecocerculus setophagoides*.

The species of which this genus consists are small birds with flattened bills. The length of the exposed culmen exceeds the width at the base by about one-third only. The wing is rounded, the second, third, fourth, and fifth primaries longest and subequal, the first about equal in length to that of the eighth. The tail is square at the tip and about half the length of the wing. The tarsus is rather long, being slightly more than double the length of the exposed culmen. Hind toe and claw about equal in length to that of the outer toe and claw. Coloration: male and female similar.

436. *Mecocerculus setophagoides*.

BONAPARTE'S CHAT-TYRANT.

Tyrannula setophagoides Bonap. Atti Sesta Riun. Sci. Ital. Milan, p. 405, 1845 (Santa Fé di Bogotá).

Ochthaea setophagoides Salvin, Ibis, 1885, p. 291 (Roraima, 5000 to 6000 ft.).

Mecocerculus leucophrys (nec d'Orb.) Selater, Cat. B. Brit. Mus. xiv. p. 27 part, 1888 (Roraima).

Mecocerculus setophagoides Brabourne & Chubb, B. S. Amer. i. p. 263, no. 2678, 1912.

Adult. General colour above earth-brown, the upper wing-coverts broadly edged with fulvous; bastard-wing, primary-coverts, primary and secondary quills dark brown with fulvous edgings to the innermost secondaries; tail somewhat paler than the quills, slightly edged on the outer webs with olive-brown; lores,

a line above the eye which encircles the latter greyish-white as is also the chin ; breast hoary-grey becoming paler and inclining to yellowish on the lower breast and sides of the body ; abdomen, under tail-coverts, axillaries, and under wing-coverts sulphur-yellow ; under surface of quills brown with whitish edges to the inner webs ; lower aspect of tail pale brown.

Total length 117 mm., exposed culmen 9, width at base 7, wing 61, tail 52, tarsus 20.

The bird from which the description is taken was collected at Bartica, 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Bartica, Bonasika River (*McConnell collection*) ; Mount Roraima (*Whitely*).

Extralimital Range. Surinam (*Penard*), Venezuela, Colombia, Ecuador.

Genus **OCHTHORNIS** Selater.

Ochthornis Selater, Cat. B. Brit. Mus. xiv. p. 31, 1888. Type *O. littoralis* (Pelz.).

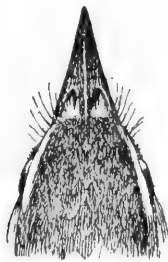


Fig. 55.—*Ochthornis littoralis*.

The species on which this genus was founded has a muscipine bill which is hooked at the tip, the width at the base is about half the length of the exposed culmen. The wing is rounded, the second, third, and fourth primaries longest and equal, the first about equal in length to the seventh. The tail is almost square at the tip and about five-sevenths the length of the wing. The tarsus is about one-third longer than the exposed culmen. Coloration : male and female similar.

437. *Ochthornis littoralis*.

NATTERER'S WATER-TYRANT.

Elainea littoralis Pelzeln, Orn. Bras. pp. 108, 180, 1869 (Borba, Rio Madeira).

Ochthæca murina Selater, P. Z. S. 1871, p. 749; id. op. cit. 1881, p. 214 (British Guiana).

Ochthornis littoralis Selater, Cat. B. Brit. Mus. xiv. p. 31, 1888; Brabourne & Chubb, B. S. Amer. i. p. 264, no. 2685, 1912.

Adult male. Crown of head, back, and scapulars pale earth-brown, somewhat paler on the rump becoming darker brown on the wings and tail but paler on the inner margins of the primary and secondary quills; lores and feathers above and below the eye white; a spot in front of the eye dark brown with black bristly tips to the feathers; chin whitish, remainder of the under surface ochreous-grey including the axillaries and under wing-coverts; under surface of quills and lower aspect of tail pale brown. "Bill and feet black" (Cat. B. Brit. Mus.).

Total length 131 mm., exposed culmen 12, wing 71, tail 55, tarsus 18.

This species is not represented in the McConnell collection, and the male described, which is in the British Museum, was collected by the late Henry Whitely at Ourumee in December 1890—Salvin-Godman collection.

Adult female. Similar to the adult male but slightly smaller. Wing 68 mm.

Young male. Differs from the adult in having a rufous tinge both on the upper and under surface. This individual was collected at the same time and at the same locality as the adult male described above.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ourumee (*Whitely*).

Central-limital Range. Surinam (*Penard*), Central Brazil, Eastern Peru, Eastern Ecuador.

Habits. Unrecorded in British Guiana.

Genus **FLUVICOLA** Swains.

Fluvicola Swains. Zool. Journ. iii. p. 172, 1827. Type *F. climazura* (Vieill.).

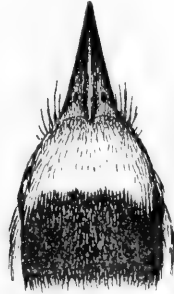


Fig. 56.—*Fluvicola climazura*.

The members of this genus are conspicuous by their black and white colour. The bill is sharply hooked at the tip of the upper mandible and furnished with black bristles at the base: the width of the base is about two-thirds the length of the exposed culmen. The wing is rounded, the second, third, fourth, and fifth primaries longest and subequal, the first about equal in length to that of the ninth. The tail is slightly rounded at the tip and about two-thirds the length of the wing. The tarsus is about twice the length of the exposed culmen and the hind toe and claw about equal in length to that of the inner toe and claw. Coloration: male and female similar.

438. **Fluvicola pica.**

WHITE-SHOULDERED WATER-TYRANT.

Muscicapa pica Bodd. Tabl. Pl. Enl. p. 42, 1783 (Cayenne).

Fluvicola bicolor Cab. in Schomb. Reis. Guian. iii. p. 703, 1848.

Fluvicola pica Salvin, Ibis, 1885, p. 291; Selater, Cat. B. Brit. Mus. xiv. p. 35, 1888 (Georgetown); Lloyd Price, Timehri (2) v. p. 64, 1891 (nest and eggs); Queleh, tom. cit. p. 91 (Georgetown); Beebe, Our Search for a Wilderness, p. 131, 1910 (Georgetown); Brabourne & Chubb, B. S. Amer. i. p. 264, no. 2686, 1912.

“Cotton-bird” (*Schomburgk*); Silk Cotton-Bird (*H. Lloyd Price*).

Adult male. Hinder crown, nape, back, wings, and tail black; innermost secondary quills edged with white at the tips and along

the outer webs; tail-feathers margined with white at the tips and the central pair white at the extreme base; scapulars, innermost lesser upper wing-coverts, rump, and upper tail-coverts white like the forehead, sides of face, throat, and under surface of body including the axillaries, and under wing-coverts; rictal bristles black; quill-lining and lower aspect of tail also black with white tips to the latter.

Total length 126 mm., exposed culmen 11, width at base 7, wing 69, tail 49, tarsus 21.

The male described was collected on the Abary River in July 1906.

Adult female. Similar to that of the adult male both in colour and measurements.

Breeding-season. April according to Beebe, 'Our Search for a Wilderness,' p. 131.

Nest. "Built in thorn bushes not far from the ground and is composed of plant-cotton" (*Schomburgk*). In low bushes especially when they hang over water. "It builds a dome-shaped nest of dry pimpler sticks" (*H. Lloyd Price*).

Eggs. "It lays two, or at the most three white eggs" (*Schomburgk*). "The Silk Cotton-bird lays three eggs, which are white faintly spotted with red" (*H. Lloyd Price*).

Range in British Guiana. Upper Takutu Mountains, Bartica, Bonasika River, Abary River (*McConnell collection*); Georgetown (*Brown, Beebe, Quelch*).

Extralimital Range. Surinam (*Penard*), Venezuela, Colombia.

Habits. According to Schomburgk (*Reis. Guin. iii. p. 703*) this bird is more common on the coast than in the hinterland. Its favourite haunts are in trees and bushes growing on the banks of ditches. Its nest is built in the thorn bushes not far from the ground and is composed chiefly of plant-cotton, that is why the natives and settlers call it the "Cotton-bird." It lays two, or at the most three, white eggs.

The following note has been taken from Beebe (*Our Search for a Wilderness, p. 65*):—"The White Shouldered Ground Flycatchers or "Cotton-birds" which scurry along the ground over pitch and fallen logs. Their tails continually wag from side to side, and they come within a few feet us, uttering low inquiring notes: pit! pit! They, too, are clad in white, except for back, nape, wings, and tail."

The following note has been copied from H. Lloyd-Price (Timehri (2) v. p. 64) who remarks as follows:—"In low bushes, especially when they hang over water, the little black and white silk Cotton-bird (*Fluvicola pica*), builds a dome-shaped nest of dry pimpler sticks and lays three eggs, which are white, faintly spotted with red."

Mr. J. J. Quelch (Timehri (2) v. p. 91) observed this species in Georgetown, and remarks:—"A very common small Tyrant, about 4-5 inches in length, known as Cotton-bird (*Fluvicola pica*), is also usually to be found about the grassy parts of the town, and more especially by the trenches of the outskirts among grassy and bushy wastes. These pretty but sober-coloured little birds feed chiefly on worms and insects which they seek among the grass and low bush and on the ground. They are not at all shy, but will allow of one's close approach."

Genus **ARUNDINICOLA** d'Orb.

Arundinicola d'Orbigny, Voy. Amer. Merid. Ois. p. 334, 1840. *A. leucocephala* (Linn.).

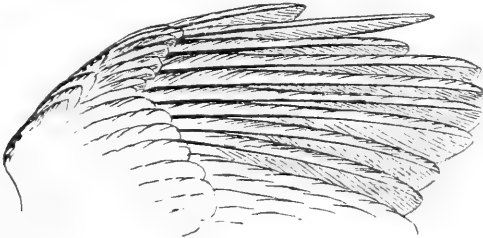


Fig. 57.—*Arundinicola leucocephala*.

This genus is also conspicuous by the black and white plumage of the male. The bill is proportionately long, hooked at the tip of the upper mandible, and finished with rictal bristles at the base; the width at the basal portion is about three-fifths the length of the exposed culmen. The wing is rounded, the fourth, fifth, and sixth primaries longest and subequal, the first is short, the second abnormally narrow, slightly longer than the third, and about equal to the eighth. The tail is slightly rounded at the tip and rather more than two-thirds the length of the wing. The tarsus is short, being only slightly longer than the exposed culmen. Coloration: male and female different.

439. *Arundinicola leucocephala*.

WHITE-HEADED MARSH-TYRANT.

Pipra leucocephala Linn. Mus. Ad. Frid. ii. Prodr. p. 33, 1764 ("Surinami").

Arundinicola leucocephala Cab. in Schomb. Reis. Guian. iii. p. 703, 1848; Salvin, Ibis, 1885, p. 291 (Bartica Grove); Selater, Cat. B. Brit. Mus. xiv p. 37, 1888 (Bartica Grove); Lloyd Price, Timehri (2) v. p. 64, 1891 (nests and eggs); Quelch, tom. cit. pp. 91, 92 (Georgetown); Brabourne & Chubb, B. S. Amer. i. p. 264, no. 2690, 1912.

"The Parson" (*Schomburgk*); "Parson-bird" (*Quelch*).

Adult male. General colour above and below including the back, wings, and tail on the upper surface, and the breast, abdomen, under tail-coverts, and under wing-coverts on the lower parts; a concealed patch of white on the lower flanks; primary and secondary quills brown on the inner webs and at the tips above, and similar though somewhat paler below; lower aspect of tail black; entire head, throat, and neck all round white; rictal bristles and a few hair-like tips to the feathers in front of the eye black.

Total length 123 mm., exposed culmen 15, width at base 9, wing 61, tail 44, tarsus 17.

The male from which the description is taken was collected on the Abary River in November 1906.

Adult female. Differs from the adult male in having the hinder crown, back, and sides of breast ash-grey, the wings dark brown, the middle of the breast, abdomen, under tail-coverts, and the under wing-coverts grey edged with white. Wing 54 mm.

The female described was collected on the Abary River in July 1906.

Breeding-season. Unrecorded in British Guiana.

Nest. Built of grass stems and plant-cotton and usually found in a bush near water (*Schomburgk*).

Eggs. "White, usually one or two in number" (*Schomburgk*).

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Bonasica River, Abary River, Anarica River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Venezuela, Colombia, Peru, Brazil, Boliva, Argentina.

Schomburgk states (Reis. Guian. iii. p. 703) that this beautiful

bird has owing to the white head and black body plumage, been christened "The Parson" by the settlers. Its favourite haunts are the banks of the ditches and bogs near the coast. It is usually seen sitting on a branch overhanging the water, or on the protruding twig of a tree which has fallen into the water, where it darts off in pursuit of insects flying past. Its nest is built of grass-stems and plant-cotton, lined with feathers and usually found near a ditch. The eggs are one or two in number and white in colour. The female is different in colour to the male, and the young male is like the female.

Beebe (Our Search for a Wilderness, p. 65) remarks that the "White-headed Marsh Flycatchers perching in the reeds and making fierce sallies after passing insects."

Mr. H. Lloyd Price (Timehri (2) v. p. 64) remarks:—"A small black bird with a white head will frequently be observed among the grass-birds; this is not inappropriately called the Parson Bird (*Arundinicola leucocephala*)."

Mr. J. J. Quelch (Timehri (2) v. pp. 91, 92), who observed this species in Georgetown, remarks:—"In similar places to the preceding (*Fluvicola pica*) on the outskirts of the town will be found another Small Tyrant, somewhat smaller than the Cotton-bird and known as the Parson-bird (*Arundinicola leucocephala*). These birds like the foregoing, frequent the neighbourhood of water, perching on the small twigs and stems, but chiefly on the reeds and reed-like growths. Almost invariably they will be seen in pairs, darting from bush to brush in search of insects. The common name is evidently taken from the resemblance of its colours to those of a parson and his gown."

Genus COLONIA Gray.

Colonia J. E. Gray in Griffith & Pidgeon's ed. Cuv. Anim. Kingd. vi. (Class Aves, I.) p. 336, 1829. Type *C. colonus* (Vieill.).

This genus is distinguished by the elongation of the two middle tail-feathers and long outer primary-quill. Coloration: male and female similar.

440, *Colonia leuconotus*.

NORTHERN LONG-TAILED TYRANT.

(Plate III. fig. 1.)

Copurus leuconotus Lafr. Rev. Zool. 1842, p. 235 (Bogota); Salvin, Ibis, 1885, p. 291; Selater, Cat. B. Brit. Mus. xiv. p. 51, 1888; Brabourne & Chubb, B. S. Amer. i. p. 267, no. 2715, 1912.
Copurus pæcilonotus Cab. in Schomb. Reis. Guian. iii. p. 703, 1848.

Adult male. General colour both above and below black; crown of head and nape pale slate-grey with dark centres to some of the feathers on the crown; base of forehead, a line over the eye, middle of back, and upper tail-coverts greyish-white. "Bill and feet black" (Cat. B. Brit. Mus.)

Total length 270 mm., exposed culmen 8, width at base 9, wing 86, tail 56, middle feathers 196, tarsus 14.

The male described was collected on the Mazaruni River in October 1907.

Adult female. Similar to adult male but differs in having the middle tail-feathers much shorter and the abdomen dark slate-grey.

Total length of middle tail-feathers 130 mm., wing 77.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mazaruni River, Bartica, Arawai River (*McConnell collection*); Canuku Mountains (*Schomburgk*).

Extralimital Range. Surinam (*Penard*), Colombia, West Ecuador.

Habits. According to Schomburgk (Reis. Guian. iv. p. 703) this bird is somewhat rare in British Guiana, as he states that he only met with single individuals which frequented the trees on the outskirts of the woods in the Canuku Mountains. He was of opinion, too, that it migrated during the rainy season. Of its nidification, he knew nothing.



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1. *Copurus leuconotus.*
Northern Long-tailed Tyrant.
2. *Placostomus saturatus.*
Guiana Flat-bill.

Genus **PLACOSTOMUS** Ridgw.

Placostomus Ridgway, Proc. Biol. Soc. Wash. xviii. p. 208, Sept. 2, 1905. Type *P. superciliaris* (Lawr.).

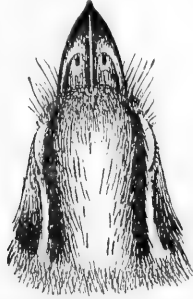


Fig. 58.—*Placostomus superciliaris*.

The species on which this genus is based has a wide flat bill, the width at the base being nearly equal to the length of the exposed portion of the culmen. The wing is rounded, the second, third, and fourth primaries longest and subequal, the first about equal in length to that of the fifth. The tail is square at the tip and about half the length of the wing. The tarsus about three-eighths the length of the tail and the hind toe and claw about equal to the middle toe and claw. Coloration: male and female similar.

Key to the Species.

- A. Under surface fawn-colour, not yellowish or greyish.
- a. Larger, wing 68 mm.; coronal patch white. *P. griseiceps*, p. 143.
 - b. Smaller, wing 53 mm.; coronal patch yellow. *P. insularis*, p. 144.
- B. Under surface yellowish or grey, not fawn-colour.
- c. Larger, wing 59 mm.; coronal patch fiery chestnut *P. saturatus*, p. 145.
 - d. Smaller, wing 56 mm.; coronal patch bright yellow *P. gumia*, p. 146.

441. *Placostomus griseiceps*.

GREY-HEADED FLAT-BILL.

Platyrhynchus griseiceps Salvin, Bull. Brit. Orn. Cl. vii. p. 15, 1897 (Annai); Brabourne & Chubb, B. S. Amer. i. p. 269, no. 2743 1912.

Adult male. Crown of head dark slate-colour with white bases

to the feathers on the middle of the crown, which forms a concealed white patch; back, rump, upper tail-coverts, tail, upper wing-coverts, and innermost secondaries, pale umber-brown, some of the lesser upper wing-coverts edged with buff, centre of coverts, bastard-wing, primary-coverts, and inner webs of the primary and secondary quills blackish, inner edge of flight-quills buffy-white; inner webs of tail-feathers dark brown; sides of the face paler than the crown and showing slightly paler shaft-streaks; lores whitish at the base; rictal bristles black; chin and throat white; remainder of the under surface fawn-colour, including the axillaries and lesser under wing-coverts; greater series of under wing-coverts and quills below brown, the inner edges of the latter buff; lower aspect of tail also brown.

Total length 98 mm., exposed culmen 11, width of bill 13, wing 68, tail 33, tarsus 14.

The male described was collected on the Bonasika River in 1912.

Adult female. Similar to the adult male but the white coronal patch more restricted. Wing 61 mm. The female described was collected on the Makauria River.

Young. Sooty-brown above, including the head, with pale tips to the feathers; under surface whitish with a tinge of fawn-colour. This bird was collected on the Ituribisi River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Makauria River, Abary River (*McConnell collection*); Annai (*Whitely*).

Extralimital Range. North Brazil, Venezuela.

Habits. Unrecorded in British Guiana.

442. *Placostomus insularis*.

TOBAGO YELLOW-CRESTED FLAT-BILL.

Platyrrhynchus mystaceus (nec Vieill.) Salvin, Ibis, 1885, p. 292 (Roraima, 3500 to 6000 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 67, 1888 (Twek-quay).

Platyrrhynchus insularis Allen, Bull. Amer. Mus. ii. p. 143, 1889 (Tobago); Brabourne & Chubb, B. S. Amer. i. p. 270, no. 2750, 1912.

Adult male. General colour of the upper surface dusky olive-

brown with rust-brown edges to the upper wing-coverts and flight-quills, inner edges of the latter isabelline; fore part of the head slightly darker than the back, the feathers on the middle of the crown and nape golden-yellow which forms a more or less concealed patch; lores, a line over the eye, and base of ear-coverts yellow, tips of ear-coverts, hinder-face, and moustachial streak dusky brown; chin and throat lemon-yellow becoming pale umber on the breast and ochreous-yellow on the abdomen, under tail-coverts, sides of body, and under wing-coverts; under surface of quills brown with pale edges; lower aspect of tail bronze-brown.

Total length 85 mm., exposed culmen 9, width of bill 9, wing 53, tail 27, tarsus 17.

The male described was collected at Mount Roraima by Mr. McConnell in October 1898.

Another individual, collected at the same time as the bird described, is very similar in general plumage but there is no coronal patch, and the under surface is rather paler. Wing 53 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima, Mount Twék-quay (*Whitely*).

Extralimital Range. Island of Tobago, Trinidad, Venezuela.

Habits. Unrecorded in British Guiana.

443. *Placostomus saturatus*.

GUIANA FLAT-BILL.

(Plate III. fig. 2.)

Platyrrhynchus saturatus Salvin & Godman, *Ibis*, 1882, p. 78 (Meruné Mts.); Salvin, *Ibis*, 1885, p. 292 (Camacusa); Selater, *Cat. B. Brit. Mus.* xiv. p. 66, 1888 (Meruné Mts., Camacusa); Brabourne & Chubb, *B. S. Amer.* i. p. 270, no. 2747, 1912.

Adult male. General colour above umber-brown somewhat darker and inclining to dusky on the head; primary-coverts and inner webs of the flight-quills dark brown with pale edges to the latter; a dark copper-red patch on the middle of the crown; sides of face and sides of neck similar to the back but somewhat paler; throat white; breast, abdomen, under tail-coverts, sides of body, and under wing-coverts sulphur-yellow more or less tinged with umber-brown on the breast and sides of the body; under surface

of quills pale brown with whitish inner edgings; lower aspect of tail pale brown. "Bill blackish; feet whitish" (Cat. B. Brit. Mus.).

Total length 92 mm., exposed culmen 10, width of bill 10, wing 59, tail 30, tarsus 17.

The description is taken from an example collected on the Bonasika River in 1911.

Adult female. Similar in respect of plumage to the adult male but the coronal patch not so conspicuous. Wing 59 mm. The female was collected at Bartica.

Young in first plumage. Smoke-brown above, including the head, back, and upper wing-coverts with pale tips to the feathers; the breast similar but paler; abdomen sulphur-yellow. Wing 51 mm. This specimen was collected at Bartica in 1912.

There are four other individuals, each from a different locality, which show no trace of the coronal patch and have a wing-measurement of 54 mm. These I presume to be immature birds and, if so, the coronal mark would be the first sign of the approach to maturity.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Bartica, Kamakabra River, Bonasika River, Makauria River, Abary River, Anarica River (*McConnell collection*).

Extralimital Range. Surinam (*Penard*), North-east Brazil.

Habits. Unrecorded in British Guiana.

444. *Placostomus gumia*.

SURINAM GOLDEN-CROWNED FLAT-BILL.

Platyrrhynchus superciliaris (nec Lawr.) Salvin, Ibis, 1885, p. 292 (Bartica Grove); Selater, Cat. B. Brit. Mus. xiv. p. 68, 1888 (Bartica Grove).

Platyrrhynchus coronatus (nec Sc.) Brabourne & Chubb, B. S. Amer. i. p. 270, no 2752 (part), 1912.

Placostomus coronatus gumia Bangs & Penard, Bull. Mus. Comp. Zool. Harvard Coll. lxii. no. 2, p. 74, 1918.

Adult male. Upper surface including the back, wings, and tail dark olive-green inclining to brown on the flight-quills and tail-feathers; primary-coverts and inner webs of primary and secondary quills dark brown with pale edges to the latter; middle of crown yellow skirted on each side with chestnut; base of fore-

head, supraloral streak which extends over the eye and along the sides of the crown, a spot behind the eye and another on the lower cheeks black; lores, a narrow circle round the eye, and a line extending backwards behind the eye yellowish white; ear-coverts, chin, and throat lemon-yellow; remainder of the under surface, including the under tail-coverts, sulphur-yellow more or less mixed with grey on the breast and sides of the body; outer under wing-coverts greyish; quill-lining brown with whitish edges; lower aspect of tail pale brown.

Total length 82 mm., exposed culmen 11, width of bill 9, wing 56, tail 14, tarsus 15.

The male described was collected on the Ituribisi River in February 1907.

Adult female. Differs from the adult male in having the middle of the crown fiery chestnut, instead of yellow, and, in this particular specimen, more yellow on the under surface. Wing 51 mm.

The female was collected on the Bonasika River in August 1910.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Kamakabra River, Arawai River (*McConnell collection*).

Extralimital Range. Surinam (*Penard*), Cayenne.

Habits. Unrecorded in British Guiana.

Genus **CRASPEDOPRION** Hartert.

Craspedoprion Hartert, Nov. Zool. ix. p. 609, 1902. Type *C. æquinoctialis* (Sclater).

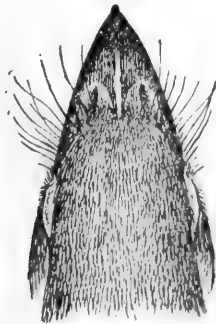


Fig. 59.—*Craspedoprion æquinoctialis*.

This genus is easily distinguished by the broad and flattened bill, the width being about equal to the length of the exposed culmen. The wing is rounded, the third and fourth primaries longest, the second about equal to the sixth, and the first to about that of the eighth. The tail is almost square at the tip and about three-fourths the length of the wing. The hind toe and claw are almost equal in length to that of the middle toe and claw. Coloration : male and female similar.

445. *Craspedoprion guianensis*.

BRITISH GUIANA FLAT-BILL.

Rhynchocyclus olivaceus guianensis McConnell, Bull. Brit. Orn. Club, xxvii. p. 106, 1911 (Arary River).

Craspedoprion guianensis Brabourne & Chubb, B. S. Amer. i. p. 270, no. 2754, 1912.

Adult (type of the species). Head, back, and upper wing-coverts very dark green with pale buff edgings to the outer greater upper wing-coverts and innermost secondary quills; bastard-wing and primary-coverts brown; primary and secondary quills dark brown on the inner webs and edged with buffy-white, some of the outer webs fringed with green; tail-feathers pale brown; sides of face, throat, breast pale slate-grey which extends more or less along the sides of the body; abdomen and under tail-coverts sulphur-yellow; under wing-coverts white; quills below brown with buffy-white inner edges; lower aspect of tail pale brown.

Total length 137 mm., exposed culmen 13, wing 72, tail 57, tarsus 17.

The bird from which the description is taken was collected on the Arary River in September 1906.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Kamakabra River, Makauria River, Anarica River, Arary River (*McConnell collection*).

Extralimital Range. North Brazil, Venezuela.

Habits. Unrecorded in British Guiana.

Genus **RHYNCHOCYCLUS** Cab. & Hein.

Rhynchocyclus Cabanis & Heine, Mus. Hein. ii. p. 56, 1859. Type
R. flaviventris (Wied).

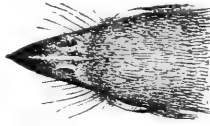


Fig. 60.—*Rhynchocyclus flaviventris*.

The species on which this genus was founded is rather a small bird with a depressed bill which is hooked at the tip of the upper mandible, the width at the base is about equal to the length of the exposed culmen. The rictal bristles are only feebly developed. The wing is rounded, the second, third, fourth, and fifth primaries longest and equal, the first about equal in length to that of the eighth. The tail is long and square at the tip and about five-sixths the length of the wing. The tarsus is about twice the length of the exposed culmen. Coloration: male and female similar.

Key to the Species.

- A. Upper surface dark olive-green; throat greyish; fore-neck yellowish green.
 - a. Larger, wing more than 60 mm.; tail more than 50 mm. *R. s. examinatus*, p. 149.
 - b. Smaller, wing less than 60 mm.; tail less than 50 mm. *R. p. inquisitor*, p. 150.
- B. Upper surface yellowish green; throat and fore-neck ochreous-yellow *R. f. gloriosus*, p. 151.

446. **Rhynchocyclus sulphurescens examinatus.**

PELZELN'S FLAT-BILL.

- Rhynchocyclus assimilis* Pelzeln, Orn. Bras. pp. 110, 181, nom. nud., 1869 (Rio Negro, N. Brazil); Brabourne & Chubb, B. S. Amer. i. p. 271, no. 2759, 1912.
- Rhynchocyclus sulphurescens* (nec Spix) Salvin, Ibis, 1885, p. 295 (Bartica Grove, Camacusa, Merumé Mts., Roraima 3500 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 168 (part), 1888 (Carimang River).
- Rhynchocyclus sulphurescens examinatus* Chubb, Bull. Brit. Orn. Cl. xi. p. 108, March 1920 (Bartica).

Adult male. General colour of upper surface, including the

head, sides of face, back, upper tail-coverts, and lesser upper wing-coverts, dark green with a slate-colour tinge on the head; median and greater upper wing-coverts fringed with greenish-yellow on the outer webs; bastard-wing and primary-coverts blackish; primary and secondary quills blackish fringed with green on the outer webs and whitish on the inner ones; tail also blackish fringed with green on the outer webs of the feathers; the under surface for the most part ash-grey with a greenish tinge and more or less yellow on the abdomen; under wing-coverts whitish, quill-lining dark brown with pale inner edges; lower aspect of tail dark brown with white shafts to the feathers.

Total length 125 mm., exposed culmen 14, wing 67, tail 54, tarsus 18.

The male described was collected at Bartica in 1912.

Adult female. Similar to the adult male. Wing 65 mm.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Ituribisi River, Supenaam River, Bartica, Anarica River, Arawai River, Great Falls Demerara River, Arwey Creek (*McConnell collection*); Mount Roraima, Merumé Mountains, Kamarang River, Kamakusa, Bartica (*Whitely*).

Habits. Unrecorded.

447. *Rhynchocyclus poliocephalus inquisitor*.

SCLATER'S FLAT-BILL.

Rhynchocyclus poliocephalus sclateri Hellmayr, Verh. Ges. Wien, liii. p. 207 (part), 1903 (Barra do Rio Negro); *Brabourne & Chubb*, B. S. Amer. i. p. 272, no. 2767, 1912.

Rhynchocyclus megacephalus (nec Swains.) Selater, Cat. B. Brit. Mus. xiv. p. 170 (part), 1888 (Merumé Mts., Kamarang River).

Rhynchocyclus poliocephalus inquisitor Chubb, Bull. Brit. Orn. Club, xl. p. 108, March 1920 (Bartica).

Adult male. General colour above dark olive-green including the head, back, tail, and lesser upper wing-coverts; median and greater upper wing-coverts dark brown with yellowish tips to the former and outer margins of the latter; bastard-wing and primary-coverts dark brown; primary and secondary quills also dark brown, the outer webs narrowly edged with olive-green and margined with grey on the inner webs; tail-feathers dark brown

edged with olive-green on the outer webs and slightly paler on the margins of the inner webs ; crown of head rather darker than the back ; loreal space and the short feathers above and below the eye greyish white ; throat, breast, and sides of neck yellowish green with a tinge of ash-grey on the chin and throat ; abdomen, under tail-coverts, and under wing-coverts lemon-yellow ; under surface of quills dark brown with pale inner edges ; lower aspect of tail pale brown with a slight indication to paler margins on the inner webs.

Total length 105 mm., exposed culmen 10, wing 58, tail 42, tarsus 16.

The male described was collected at Bartica in 1911.

Adult female. Similar to the adult male but slightly smaller.

Wing 56 mm.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Supenaam River, Bartica, Anarica River, Great Falls Demerara River (*McConnell collection*).

Habits. Unrecorded.

448. *Rhynchocyclus flaviventris gloriosus.*

YELLOW-VENTED FLAT-BILL.

Cyclorhynchus flaviventer Cab. in Schomb. Reis. Guian. iii. p. 700, 1848.

Rhynchocyclus flaviventris Salvin, Ibis, 1885, p. 295 ; Selater, Cat. B.

Brit. Mus. xiv. p. 171, 1888 (British Guiana).

Rhynchocyclus flaviventer Brabourne & Chubb, B. S. Amer. i. p. 272, no. 2770 (part), 1912.

Rhynchocyclus flaviventris gloriosus Chubb, Bull. Brit. Orn. Club, xl. p. 108, March 1920 (Quonga).

Adult. Upper surface yellowish olive-green including the head, entire back, lesser upper wing-coverts, outer edges of the primary-quills, and outer margins of tail-feathers ; median and greater upper wing-coverts and innermost secondary quills dark brown with sulphur-yellow margins to the feathers ; inner webs of flight-quills dark brown edged with white ; inner webs to tail-feathers pale brown ; base of lores, sides of face, throat, and upper breast ochreous-yellow ; sides of breast and sides of body dusky-grey ; abdomen and under tail-coverts lemon-yellow ; under wing-coverts white, those round the margin pale yellow ;

under surface of quills brown with white edges; lower aspect of tail pale brown.

Total length 111 mm., exposed culmen 9, wing 57, tail 47, tarsus 17.

The type described was collected on the Abary River in November 1906.

I have not been able to compare any sexed specimens from British Guiana, but I have examined a male and female from Colombia, in the British Museum, which are identical both in colour of plumage and wing-measurement.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Abary River (*McConnell collection*).

Extralimital Range. East Brazil, Tobago, Trinidad, Venezuela, Colombia.

Habits. Schomburgk states (*Reis. Guian. iii. p. 700*) that this bird lives in the outskirts of the woods, in the plantations, and in the gardens of the natives.

Genus **RAMPHOTRIGON** Bonap.

Ramphotrigon Bonaparte, *teste* Gray, *Gen. & Subgen. B. App. no. 808 d*, 1855. Type *R. ruficauda* (Spix).

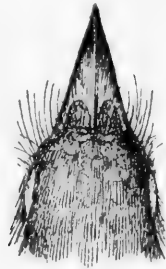


Fig. 61.—*Ramphotrigon ruficauda*.

The species on which this genus was based is conspicuous by its entire rufous tail and the outer aspect of the wings, which are also rufous. The bill is depressed, hooked at the tip of the upper mandible, and furnished with bristles at the base. The wing is

rounded, the second, third, fourth, and fifth primaries longest and subequal, the first about equal to the seventh. The tail is square at the tip and nearly equal to the wing in length. The tarsus only slightly exceeds the length of the middle toe and claw, and the hind toe and claw are about equal in length to that of the exposed culmen. Coloration : male and female similar.

449. *Ramphotrigon ruficauda*.

RUFIOUS-TAILED FLAT-BILL.

Platyrrhynchus ruficauda Spix, Av. Bras. ii. p. 9, pl. xi. fig. 1, 1825 (in sylvis fl. Amazonum).

Elaeena spadicea Cab. in Schomb. Reis. Guian. iii. p. 702, 1848.

Rhynchoicyclus ruficauda Salvin, Ibis, 1885, p. 296 (Bartica Grove, Camacusa, Merumé Mts.); Selater, Cat. B. Brit. Mus. xiv. p. 172, 1888 (Carimang River).

Ramphotrigon ruficauda Brabourne & Chubb, B. S. Amer. i. p. 272, no. 2771, 1912.

Adult male. Head, sides of face, sides of neck, hind-neck, back, scapulars, and lesser upper wing-coverts dark olive-green; bastard-wing and primary-coverts dark brown; median and greater upper wing-coverts, primary and secondary quills brown broadly margined with rufous, more narrowly on the quills, which are edged with cinnamon on the inner webs; upper tail-coverts and tail pale rufous with black shafts to the tail-feathers; lores whitish at the base of the feathers; eyelid pale yellow; throat, sides of body, and abdomen dusky olive-green intermixed with yellow which is more pronounced on the abdomen; under tail-coverts and under wing-coverts cinnamon; axillaries straw-yellow; under surface of quills brown with pale rufous edges; lower aspect of tail pale rufous including the shafts. "Bill plumbeous, base of lower mandible whitish; feet pale brown" (Cat. B. Brit. Mus.).

Total length 152 mm., exposed culmen 14, wing 77, tail 69, tarsus 16.

The male described was collected on the Abary River in September 1906.

Adult female. Similar to the adult male but rather smaller. Wing 73 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Bartica, Abary River, Berbice River, Great Falls Demerara River (*McConnell collection*).

Extralimital Range. Surinam (*Penard*), Venezuela, East Peru.

Habits. Unrecorded in British Guiana.

Genus **TODIROSTRUM** Less.

Todirostrum Lesson, *Traite d'Orn.* p. 384, 1830. Type *T. cinereum* (Linn.).



Fig. 62.—*Todirostrum cinereum*.

This genus is easily distinguished by the peculiar shaped bill which is an elongated spatule, similar to that of a Tody. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second about equal to the sixth. The tail is rounded and graduated and nearly three-fourths the length of the wing. The tarsus is somewhat long, being nearly two-thirds the length of the tail, and the hind toe and claw are almost equal in length to that of the middle toe and claw. Coloration: male and female similar.

Key to the Species.

- | | |
|---|-------------------------------|
| A. Under surface of body uniform yellow, no dark shaft-streaks to the feathers | <i>T. cinereum</i> , p. 154. |
| B. Under surface of body not uniform, but having dark shaft-lines to the feathers. | |
| <i>b.</i> Ear-coverts white; bill entirely black; dark shaft-streaks on throat darker and broader | <i>T. pictum</i> , p. 156. |
| <i>c.</i> Ear-coverts brown; bill partly white; dark shaft-streaks on throat paler and narrower..... | <i>T. maculatum</i> , p. 157. |

450. **Todirostrum cinereum.**

BLACK-CROWNED TODY-TYRANT.

Todus cinereus Linn. *Syst. Nat.* i. p. 178, 1766 (Surinam).

Triccus cinereus Cab. in Schomb. *Reis. Guian.* iii. p. 702, 1848.

Todirostrum cinereum Salvin, Ibis, 1885, p. 292 (Bartica Grove, Merumé Mts., Roraima 3500 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 69, 1888 (Bartica Grove, Roraima); Quelch, Timehri (2) v. p. 91, 1891 (Georgetown); Lloyd, op. cit. xi. p. 4 (nests and eggs); Brabourne & Chubb, B. S. Amer. i. p. 272, no. 2773, 1912.

Todirostrum cinereum cinereum Beebe, Our Search for a Wilderness, p. 131, 1910 (Georgetown).

“Pipitoorie” (Quelch).

Adult male. Entire crown of head, sides of face, and hind-neck black; back dark slate-grey; upper wing-coverts black edged with yellowish-white; primary and secondary quills also black edged on the outer webs with yellow and on the inner ones with buffy-white; tail black both above and below, the two outer feathers tipped and the outermost edged with white on the outer web; lower cheeks and entire under surface bright yellow, rather paler and inclining to whitish on the chin; axillaries and under wing-coverts very pale yellow; under surface of quills brown with pale inner edges. “Bill and feet black” (Cat. B. Brit. Mus.).

Total length 96 mm., exposed culmen 12, wing 46, tail 33, tarsus 21.

The male from which the description is taken was collected on the Bonasika River in 1912.

Adult female. Similar to the adult male but rather smaller. Wing 40 mm.

Breeding-season. Unknown in British Guiana.

Nest. Long and purse-like (*C. A. Lloyd*).

Eggs. Small in size, two in number, and white in colour (*C. A. Lloyd*).

Range in British Guiana. Mount Roraima, Upper Takutu Mountains, Supenaam River, Bonasika River, Mazaruni River, Anarica River, Arawai River (*McConnell collection*).

Extralimital Range. Surinam (*Linné*), Trinidad, Venezuela, Colombia, Ecuador, Peru, Brazil.

Habits. According to Schomburgk (Reis. Guian. iii. p. 702) this species is distributed throughout the Colony, and is most commonly observed on the *Cecropia* trees.

Mr. J. J. Quelch (Timehri (2) v. p. 91) gives the following note in reference to this species at Georgetown:—“Among the large trees with dense foliage, as well as the flowering shrubs which the little Flower-peckers (*Certhiola*) frequent, will also

be often seen the little Broad-billed Tyrant-bird, known also as Pipitoorie (*Todirostrum cinereum*)."

The following note is copied from C. A. Lloyd (Timehri (2) xi. p. 4):—"The Pipiturie (*Todirostrum cinereum*) is remarkable for the manner in which it departs from the generality in the construction of their nests. The Pipiturie builds a long purse-like nest in which to lay its two small white eggs."

451. *Todirostrum pictum*.

PAINTED TODY-TYRANT.

Todirostrum pictum Salvin, Bull. Brit. Orn. Club, vii. p. xv, 1897 (Annai); Brabourne & Chubb, B. S. Amer. i. p. 273, no. 2783, 1912.

Adult (? male). Crown of head, sides of face, and nape black; back dark slate-grey; wings black with yellow margins to the median and greater upper wing-coverts and inner secondary-quills, primary-quills somewhat paler with olive-green edges to the outer webs and whitish margins to the inner webs; tail dark brown with olive-green edges to the outer webs; loreal streak and ear-coverts white; throat white with black longitudinal shaft-streaks to the feathers; remainder of the under surface yellow with black shaft-lines to the feathers on the breast and sides of the body, a slight ochreous tinge on the middle of the breast; under wing-coverts white tinged with yellow; under surface of quills brown with pale inner margins; lower aspect of tail brown.

Total length 86 mm., exposed culmen 14, wing 44, tail 29, tarsus 18.

The bird described was collected on the Makauria River in August 1910.

I have measured the type in the British Museum, which is sexed as female, and from its smaller size (wing 38 mm.) I am inclined to think that the bird described above must be a male.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Makauria River (*McConnell collection*); Annai (*Whitely*).

Extralimital Range. Surinam (*Penard*).

Habits. Unrecorded in British Guiana.

452. *Todirostrum maculatum*.

SPOTTED TODY-TYRANT.

Todus maculatus Desmarest, Hist. Nat. Tanagras, des Manakins et des Todiers, pl. 70, 1805 ("Guiane").

Todirostrum maculatum Salvin, Ibis, 1885, p. 292 (Bartica Grove); Sclater, Cat. B. Brit. Mus. xiv. p. 73, 1888 (Bartica Grove); Bourne & Chubb, B. S. Amer. i. p. 273, no. 2784, 1912.

Adult (? male). Crown of head black with white margins to some of the feathers on the fore part of the head; back and scapulars slate-grey; upper wing-coverts and flight-quills dark brown with pale edgings to the feathers; bastard-wing and primary-coverts uniform dark brown; tail dark brown on the middle feathers, becoming paler on the outer ones, which are slightly tipped with white, the lower aspect similar; the short feathers at the base of the forehead and supraloral streak pale grey; ear-coverts pale brown; cheeks and throat white with dark pear-shaped marks on the middle of the feathers becoming yellow on the breast, abdomen, and under tail-coverts, which have dark shaft-streaks to the feathers on the breast and sides of the body; axillaries and under wing-coverts white with a few dark dots on the latter; under surface of quills dark brown with white inner edges.

Total length 95 mm., exposed culmen 15, wing 47, tail 32, tarsus 19.

The bird from which the description is taken was collected on the Abary River in July 1906.

I have not been able to examine a female bird of this species, as the only ones that are sexed in the British Museum are males.

An individual, collected on the Bonasika River in 1911, which is moulting its primary-quills, has the crown of the head white with dark tips to a few of the feathers.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Bartica, Bonasika River, Abary River, Anarica River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), North Brazil.

Habits. Unrecorded in British Guiana.

Genus **EUSCARTHMUS** Wied.

Euscarthmus Wied, Beitr. Naturg. Bras. iii. p. 45, 1831. Type
E. nidipendulus Wied.



Fig. 63.—*Euscarthmus nidipendulus*.

The species included in this genus are small birds with proportionately long bills, long tails, and long tarsi. The bill is pointed and hooked at the tip of the upper mandible, the width at the base is about half the length of the exposed culmen. The wing is almost square, the second and third primaries longest and equal, the first about equal in length to the innermost secondary. The tail is square at the tip and about three-quarters the length of the wing. Coloration: male and female similar.

453. **Euscarthmus russatus.**

RUDDY TODY-TYRANT.

Euscarthmus russatus Salvin & Godman, Ibis, 1884, p. 445 (Roraima); Salvin, Ibis, 1885, p. 292 (Roraima, 5000 to 6000 ft.); Sclater, Cat. B. Brit. Mus. xiv. p. 82, pl. ix. fig. 1, 1888 (Roraima); Bourne & Chubb, B. S. Amer. i. p. 276, no. 2811, 1912.

Adult. Back, wings, and tail olive-green; upper wing-coverts margined with pale rufous which forms a double wing-bar; outer aspect of flight-quills yellowish green, the inner webs dark brown with pale edgings; tail brown with olive-green margins to the feathers and indistinct blackish bars; crown of head and nape blackish brown; base of forehead, sides of face, throat, and breast pale rufous, becoming much paler and inclining to whitish on the middle of the abdomen; sides of the body dusky olive-green; thighs, under tail-coverts, and under wing-coverts pale rufous; axillaries lemon-yellow; under surface of quills pale brown with paler inner margins; lower aspect of tail also pale brown.

Total length 93 mm., exposed culmen 13, wing 48, tail 33, tarsus 19.

The bird described was collected by Mr. McConnell at Mount Roraima in October 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Extralimital Range. Surinam (*Penard*).

Habits. Unrecorded in British Guiana.

Genus **MICROCOCHLEARIUS** Chubb.

Microcochlearius Chubb, Bull. Brit. Orn. Club, xxxix. p. 98, 1919.

Type *M. josephinæ* (Chubb).



Fig. 64.—*Microcochlearius josephinæ*.

The species on which this genus was founded has the bill flattened, the width at the base is about two-thirds the length of the exposed culmen. The wing is rounded, the third, fourth, fifth, and sixth primaires longest and subequal, the second about equal in length to the seventh and the first to about that of the ninth. The tail is slightly rounded at the tip and about four-fifths the length of the wing. The tarsus is about half the length of the tail and the middle toe and claw are about half that of the tarsus. Coloration : male and female similar.

454. *Microcochlearius josephinae*.

JOSEPHINE'S TODY-TYRANT.

(Plate IV. fig. 2.)

Euscarthmus josephinae Chubb, Bull. Brit. Orn. Club, xxxiii. p. 132, May 28, 1914.

Adult (type of the species). General colour of the upper surface olive-green including the head, back, wings, and tail; inner webs of flight-quills brown with pale inner margins; lores whitish at the base; ear-coverts pale brown; throat and entire under surface lemon-yellow suffused with dusky grey on the throat where the yellow is very pale, becoming deep ochraceous-yellow on the breast, sides of the body, thighs, and under tail-coverts; under wing-coverts rather paler yellow than the abdomen; under surface of quills brown with pale inner edges; lower aspect of tail brown with white shafts to the feathers.

Total length 109 mm., exposed culmen 12, wing 55, tail 44, tarsus 20.

The type was collected on the Supenaam River in 1910.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Supenaam River (*McConnell collection*).

Habits. Unrecorded.

Genus *PERISSOTRICCUS* Oberh.

Perissotriccus Oberholser, Proc. U.S. Nat. Mus. xxv. p. 64, 1892. Type *P. ecaudatus* (d'Orb & Lafr.).



Fig. 65.—*Perissotriccus ecaudatus*.

The species included in this genus are conspicuous by their



1. *Neopipo helencæ*.
Mrs. McConnell's Manakin
2. *Microcochlearius josephincæ*.
Josephine's Tody-Tyrant

small size. The bill is flattened, the width at the base being equal to about half the length of the exposed culmen. The wing is slightly rounded, the second to the fifth primary-quills longest and the first nearly as long as the second. The tail is square at the tip and about equal in length to that of the exposed culmen. The tarsus is about equal to the tail (in *P. ecaudata*) in length, and the hind toe and claw are about equal in length to the middle toe and claw. Coloration: male and female similar.

455. *Perissotriccus ecaudatus miserabilis*.

GUIANA SHORT-TAILED PYGMY TYRANT.

- Todirostrum ecaudatum* d'Orb. & Lafr. Syn. Av. i. p. 47, Mag. de Zool. 1837 (Yuracares, Bolivia).
Orchilus ecaudatus Selater, Cat. B. Brit. Mus. xiv. p. 89, 1888; Bra-bourne & Chubb, B. S. Amer. i. p. 278, no. 2829, 1912.
Perissotriccus ecaudatus miserabilis Chubb, Ann. & Mag. Nat. Hist. (ser. 9) iv. p. 301, Oct. 1919.

Adult. Back, wings, and tail yellowish green; primary-coverts uniform dark brown; flight-quills blackish brown with green margins on the outer webs and pale edges to the inner ones; tail-feathers dark brown fringed with green; head and sides of face dark ash-grey; the short feathers at the base of the bill and surrounding the eye white; throat and entire under surface silky-white with a tinge of yellow on the flanks, edge of wing, and under wing-coverts, and a wash of ash-grey on the sides of the breast; under surface of quills and lower aspect of tail brown.

Total length 58 mm., exposed culmen 8, wing 34, tail 12, tarsus 13.

The bird described was collected on the Bonasika River.

Having compared the four examples of this bird in the McConnell collection with a specimen in the British Museum from Bolivia, which is the type-locality of *P. ecaudatus* (d'Orb. & Lafr.), I find that they are darker green on the back, darker grey on the crown of the head and face, and inclining to grey on the under surface. It differs also in having the lower mandible black and the feet much darker than the Bolivian bird.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Bartica, Bonasika River, Arwye Creek, Arawai River (*McConnell collection*).

Habits. Unrecorded.

Genus **ATALOTRICCUS** Ridgw.

Atalotriccus Ridgway, Proc. Biol. Soc. Washington, xviii. Sept. 2, 1905, p. 208. Type *A. pilaris* (Cab.).

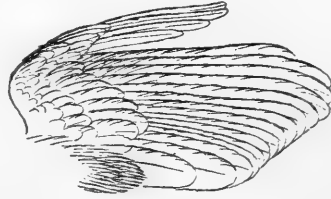


Fig. 66.—*Atalotriccus pilaris*.

This genus is distinguished chiefly by the absence of a crest and in having the four outer primaries very narrow and much reduced in length. Coloration: male and female similar.

456. ***Atalotriccus griseiceps whitelyanus***.

Atalotriccus griseiceps whitelyanus Chubb, Ann. & Mag. Nat. Hist. (ser. 9) iv. p. 301, Oct. 1919.

Adult male. Allied to *A. griseiceps griseiceps* (Hellm.), but differs in having the back uniform green. Total length 97 mm., exposed culmen 10, wing 43, tail 36, tarsus 16.

Adult female. Similar to the adult male but smaller. Wing 38 mm., tail 28.

This form is not represented in the *McConnell collection*, and the material on which this subspecific form was based consists of two fully adult males and one female, which were collected by the late Henry Whitely at Quonga in October and November, 1887, and are now in the British Museum—*Salvin-Godman collection*.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Quonga (*Whitely*).

Habits. Unrecorded.

Genus **COLOPTERYX** Ridgw.

Colopteryx Ridgway, Proc. U.S. Nat. Mus. x. p. 519, 1887. Type
C. pilaris (Cab.).



Fig. 67.—*Colopteryx pilaris*.

This genus is distinguished by having an elongated crest and the three outer primary-quills much reduced in length, but about normal in width. The bill is depressed, the width at the base being about half the length of the exposed culmen. The rectal bristles are well developed. In the wing the fourth, fifth, and sixth primaries are longest and subequal. The tail is proportionately long, being nearly seven-eighths the length of the wing. The hind toe and claw are about equal to the middle toe and claw, which are about two-thirds the length of the tarsus. Coloration: male and female similar.

457. *Colopteryx galeatus macconnelli*.

McCONNELL'S HELMETED PYGMY TYRANT.

Colopterus cristatus Cab. Arch. für Naturg. 1847, i. p. 253; Schomb. Reis. Guian. iii. p. 702, 1848.

Colopterus galeatus (nec Bodd.) Salvin, Ibis, 1885, p. 293 (Bartica Grove, Camacusa); Selater, Cat. B. Brit. Mus. xiv. p. 91 (part), 1888 (Bartica Grove, Camacusa); Brabourne & Chubb, B. S. Amer. i. p. 278, no. 2834 (part), 1912.

Lophotriccus macconnelli Chubb, Bull. Brit. Orn. Club, xxxix. p. 90, June 4, 1919.

Adult. General colour above olive-green, including the head, back, wings, and tail; the crest-feathers on the fore part of the head black with olive-green margins which imparts a squamated appearance; upper wing-coverts dark brown margined with olive-green; primary-coverts uniform brown; flight-quills brown, the outer webs fringed with olive-green, the inner ones narrowly edged with whitish; tail-feathers brown slightly fringed with olive-

green; ear-coverts pale brown; throat pale dusky-brown with yellowish-white margins to the feathers; breast and sides of the body yellowish green; abdomen, under tail-coverts, under wing-coverts, and axillaries very pale lemon-yellow; under surface of quills pale brown with very narrow pale inner edges; lower aspect of tail uniform greyish brown.

Total length 92 mm., exposed culmen 9, wing 46, tail 39, tarsus 17.

The bird from which the description is taken was collected on the Ituribisi River in November 1906.

This bird was wrongly compared with *Lophotriccus spicifer* by me in the 'Bulletin' of the British Ornithologists' Club, xxxix. p. 90, 1919. It should have been compared with *Motacilla galeata* Bodd., which was founded on Daubenton's "Figuier hupé de Cayenne," Pl. Enl. pl. 391, fig. 1, Habitat: Cayenne and Lower Amazonia, from which it differs subspecifically—being larger in measurement and brighter in colour.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Arwey Creek (McConnell collection).

Extralimital Range. ? Venezuela.

Habits. Schomburgk states (Reis. Guian. iii. p. 702) that this bird is distributed throughout British Guiana and is most frequently observed on the *Cecropia* trees.

Genus **HAPALOCERCUS** Cab.

Hapalocercus Cabanis, Archiv für Naturg. 1847, i. p. 254. Type *H. melorhyphus* (Wied).



Fig. 68.—*Hapalocercus melorhyphus*.

This genus is based on birds of small size. The bill is small and narrow, the width about equal to half the length of the exposed

culmen. The wing is rounded, the second to the sixth primary-quills longest and equal, the first about equal to the eighth. The tail is rounded at the tip and about four-fifths the length of the wing. The tarsus is about one-third longer than the exposed culmen. Coloration: male and female similar.

458. *Hapalocercus striaticiceps*.

STRIPED-HEADED PYGMY TYRANT.

Hapalocercus striaticiceps Salvin, Bull. Brit. Orn. Club, vii. p. xvi, 1897 (Annai, British Guiana); Brabourne & Chubb, B. S. Amer. i. p. 280, no. 2849, 1912.

Adult. Crown crested, the feathers dark brown with pale margins, which look like a longitudinal streak along the centre of the crown; forehead more or less rust-brown; lores and a line over the eye smoky-white; nape and sides of neck rust-brown; back and upper tail-coverts yellowish green with a tinge of rust-colour on the rump; lesser upper wing-coverts dark brown with pale rufous margins, which are paler and inclining to whitish on the median and greater series; primary-coverts almost uniform brown; flight-quills dark brown with pale edges to some of the outer webs and slightly paler on some of the inner edges; tail-feathers brown with pale edgings; sides of face for the most part dark brown; throat and entire under surface yellow with a tinge of rufous along the outer edge of the wing below; quills below pale brown, the inner edges slightly paler; lower aspect of tail pale brown with slight rufous edgings on the inner webs.

Total length 103 mm., exposed culmen 10, wing 45, tail 39, tarsus 15.

The bird from which the description is taken was collected on the Abary River in November 1906.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Abary River (*McConnell collection*); Annai (*Whitely*).

Habits. Unrecorded.

Genus **HABRURA** Cab. & Hein.

Habrura Cabanis & Heine, Mus. Hein. ii. p. 53, 1859. Type *H. pectoralis* (Vieill.).



Fig. 69.—*Habrura pectoralis*.

The species on which this genus was founded is a small bird. The bill is narrow, the width being about half the length of the exposed culmen. The wing is almost square, the secondaries being only about 3 mm. shorter than the primaries, the second, third, and fourth primaries longest, and the first about equal in length to the fifth. The tail is proportionately long, being about four-fifths the length of the wing. The tarsus is about half the length of the tail. Coloration : male and female similar.

459. **Habrura brevipennis.**

SHORT-WINGED PYGMY TYRANT.

Polystictus brevipennis Berlepsch & Hartert, Nov. Zool. ix. p. 40, 1902 (Caicara); Brabourne & Chubb, B. S. Amer. i. p. 280, no. 2853, 1912.

Hapalocercus pectoralis (nec Vieill.) Salvin, Ibis, 1885, p. 293 (Roraima, 3500 ft.).

Habrura pectoralis Selater, Cat. B. Brit. Mus. xiv. p. 96 (part), 1888 (Roraima).

Adult male. Fore part of head and sides of face dark brown with white edgings to the feathers ; hind-neck, back, and scapulars rust-brown, rather more rufous on the rump and upper tail-coverts ; upper wing-coverts brown with rufous margins like the innermost secondary-quills ; primary-quills dark brown with pale edgings on both the outer and inner webs ; tail brown with pale margins to the feathers ; short feathers at base of bill whitish ; chin blackish at base with yellowish-white tips to the feathers ; sides of neck, breast, sides of body, and thighs fawn-colour, somewhat paler on the lower throat ; middle of abdomen and under

tail-coverts creamy-white; axillaries and under wing-coverts buff; under surface of quills brown with pale buff on the inner margins; lower aspect of tail pale brown.

Total length 87 mm., exposed culmen 10, wing 42, tail 34, tarsus 17.

The male described was collected in the Upper Takutu Mountains in 1908.

Adult female. Similar to the adult male but differs in the absence of the dark bases to the feathers on the chin. Wing 39 mm.

The female described was collected by Mr. McConnell at Mount Roraima in October 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Upper Takutu Mountains (*McConnell collection*).

Extralimital Range. Venezuela.

Habits. Unrecorded in British Guiana.

Genus **SERPOPHAGA** Gould.

Serpophaga Gould, Voy. Beagle, Zool. iii. p. 49, 1841. Type *S. subcristata* (Vieill.).



Fig. 70.—*Serpophaga subcristata*.

One of the chief characters in this genus is the elongated crest, with white bases to the feathers which form a more or less concealed spot. The bill is small and pointed. The wing is rounded, the second, third, fourth, and fifth primaries longest and almost equal, the first about equal in length to that of the tenth. The tail is long and square at the tip and about equal in length to that of the wing. The hind toe and claw are about half the length of the tarsus. Coloration: male and female similar.

Key to the Species.

- A. Smaller, wing less than 50 mm.; upper surface paler *S. caudata*, p. 168.
 B. Larger, wing more than 50 mm.; upper surface darker..... *S. helena*, p. 169.

460. *Serpophaga caudata*.

ORINOCO TYRANT.

Cypsiempis caudata Salvin, Bull. Brit. Orn. Club, vii. p. xvi, 1897 (Ourumee, British Guiana).

Serpophaga caudata Brabourne & Chubb, B. S. Amer. i. p. 282, no. 2877, 1912.

Adult female. Crown of head, back, scapulars, and lesser upper wing-coverts ochreous-brown; median and greater series hair-brown broadly tipped with buffy-white which form two wing-bars; bastard-wing, primary-coverts, and quills also hair-brown, with pale margins to the last which are wider on the inner webs; tail dark brown paler at the tip, outer web of the outermost feather on each side white; a whitish loreal streak, with dark tips to the feathers, from the nostrils to above the eye; sides of the face paler than the crown; chin, throat, and fore-neck pale buff; breast, abdomen, thighs, and under tail-coverts lemon-yellow, darker and more or less grey on the sides of the body; under wing-coverts and axillaries sulphur-yellow; under surface of flight-quills hair-brown with whitish inner margin; lower aspect of tail dark brown with whitish shafts and tips and outer webs of the outermost feather on each side.

Total length 103 mm., exposed culmen 9, wing 47, tail 46, tarsus 11.

The above description is taken from the type in the British Museum which was in the act of moulting its flight-quills and tail-feathers.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Bartica (*McConnell collection*); Ourumee (*Whitely*).

Extralimital Range. Venezuela, Colombia.

Habits. Unrecorded in British Guiana.

461. *Serpophaga helenæ*.

MRS. MCCONNELL'S FLYCATCHER.

Serpophaga helenæ Chubb, Bull. Brit. Orn. Club, xl. p. 61, Dec. 31, 1919.

Adult male. Crown of head, sides of face, back, lesser upper wing-coverts, and upper tail-coverts dark smoke-brown; median and greater upper wing-coverts tipped with smoke-white; outer edges of flight-quills smoke-white; bastard-wing and primary-coverts blackish brown; flight-quills blackish brown margined with white on the inner webs; tail blackish with whitish tips to the feathers, the outer web of the outermost feather on each side white; lores greyish white at the base, tips blackish; breast dark ochreous-green with a slight tinge of fawn-colour; abdomen, sides of body, and under tail-coverts lemon-yellow; axillaries and under wing-coverts pale sulphur-yellow; under surface of flight-quills dark brown with yellowish-white margins; lower aspect of tail hair-brown with pale tips to the feathers and whitish along the outer web of the outermost feather on each side.

Total length 105 mm., exposed culmen 9, wing 52, tail 50, tarsus 19.

The male from which the description is taken was collected at Bartica, 1912.

Adult female. Similar to the adult male but differs in being everywhere paler. Wing 52 mm.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Bartica, Abary River (McConnell collection).

Habits. Unrecorded.

This species is named in honour of Mrs. F. V. McConnell.

Genus **PIPROMORPHA** Bonap.

Pipromorpha Bonaparte (ex Schiff. MS.), Ann. d. Sci. Nat. Zool. i. p. 134, 1854. Type *P. oleaginea* (Licht.).



Fig. 71.—*Pipromorpha oleaginea*.

The species on which this genus was founded are birds of medium size with scarcely any rictal bristles. The bill is narrow, the width being less than half the length of the exposed culmen. The wing is rounded, the outer primary-quills narrowed at the tips, especially the outermost, and slightly recurving outwards, the second to the fifth longest and equal, the first about equal in length to the sixth. The tail is square at the tip, the feathers are broad, and about five-sevenths the length of the wing. The hind toe and claw are about equal in length to that of the middle toe and claw. Coloration: male and female similar.

Key to the Subspecies.

- A. Larger, wing more than 64 mm.; back dark green; abdomen ochraceous rufous. *P. o. macconnelli*, p. 170.
 B. Smaller, wing less than 64 mm.; back paler green; abdomen orange rufous... *P. o. roraimæ*, p. 172.

462. ***Pipromorpha oleaginea macconnelli***.

McCONNELL'S OILY FLYCATCHER.

Mionectes oleagineus (nec Licht.) Cab. in Schomb. Reis. Guian. iii. p. 702, 1848; Salvin, Ibis, 1885, p. 293 (part) (Bartica Grove and Camacusa); Selater, Cat. B. Brit. Mus. xiv. p. 112 (part), 1888 (Camacusa, Bartica Grove, Cayenne); Brabourne & Chubb, B. S. Amer. i. p. 284, no. 2892, 1912.

Mionectes oleagineus oleagineus Beebe, Trop. Wild Life Brit. Guian. p. 223, 1917.

Pipromorpha oleaginea macconnelli Chubb, Ann. & Mag. Nat. Hist. (ser. 9) iv. p. 303, Oct. 1919.

Adult. General colour above dull dark green including the

head, entire back, scapulars, and lesser upper wing-coverts; median and greater coverts dark brown margined with bronze-green like the primary-coverts; outer aspect of flight-quills also bronze-green, inner webs dark brown edged with buff; tail bronze-green; sides of face, throat, sides of neck, and sides of breast dull green but paler than the back; remainder of the under surface ochreous more or less tinged with green; axillaries and under wing-coverts cinnamon-rufous; under surface of quills brown with rufous edgings; lower aspect of tail bronze-brown.

Total length 119 mm., exposed culmen 11, wing 67, tail 48, tarsus 17.

The bird from which the description is taken was collected on the Anarica River in 1913.

Adult female. Similar to the adult male. Wing 62 mm.

Breeding-season. March (Beebe).

Nest. For description of nest, see Beebe *infra*.

Eggs. For description of eggs, see Beebe *infra*.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Anarica River, Arwye Creek, Great Falls Demerara River, Arawai River (*McConnell collection*); Kamakusa, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne.

Habits. The following notes have been copied from Beebe (*Tropical Wild Life in British Guiana*, p. 223 *et seq.*):—"The nest of this species is really a duplicate of other forest flycatcher hangnests—*Colopterus*, *Rhynchoyetus*, and probably many others whose nests are unknown. Hanging from small vines in the densest forest, usually close to the ground, it looked like some large, mossy, cornucopia-shaped fruit, fastened, pear-like, by its little end. The entrance, near the bottom and to one side, was hidden from sight of the casual observer by overhanging tendrils of living moss which acted effectively as a curtain. Upon entering its home the bird found itself in a narrow, upward slanting tunnel that led to a hole in the roof of the cave in which rested the eggs. It was necessary for her to push through this opening and to drop gently, with the utmost care, upon the eggs below. The parent was then in a tiny cup of a room whose walls were thickly lined with soft hair, backed by fine shreds of jungle bark.

"The body of the nest was composed entirely of living tree moss skilfully woven together to form a waterproof mass. Scattered

through this were a few small roots and strips of bark to give stiffening to the structure. The inner lining was composed entirely of this material, closely packed together until it formed a soft and impenetrable mat. Within this was the lining of animal hair, thicker at the bottom, upon which the two or three white eggs were deposited. The whole nest was about 30 cm. high and 13 cm. wide at the bottom. The interior room had a depth of 9 cm., but the nest-cup proper was only 5 cm. deep with a diameter of 4 cm.

“When placed very low in the undergrowth the nest of the Oily Flycatcher was very hard to find. It agreed so thoroughly with its surroundings in the dull jungle twilight that one would pass it by again and again without noticing the outlines against the dark green background, or, if seen, it would be taken for an over-large, naturally drooping bunch of moss.

“The first nest I discovered was hanging from a small liana about 18 inches from the ground in a dark thicket. My knee accidentally struck against it, but I would have passed on without noticing if the mother bird, startled, had not flown up, seemingly, from beneath my feet. I cautiously moved back behind a conveniently thick bush not ten feet away and waited for her to return. She did so in a very few minutes and quickly disappeared into the hidden tunnel of her home. A few quick steps, and with my hand over the hole, she was my prisoner. This occurred on the last day of March.

“There were three eggs in the nest, all of a dull glossless-white, and rather pointed at the end. The shells were thin and had small striations or corrugations running from the middle to the small end. They measured 21×14.5 , 21×15 , 20×14.5 mm.”

463. *Pipromorpha oleaginea roraimæ*.

RORAIMA OILY FLYCATCHER.

Mionectes oleagineus (nec Licht.) Salvin, Ibis, 1885, p. 293 (part) (Mount Roraima and Merumé Mts. 3500 to 6000 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 112 (part) (Mt. Roraima and Merumé Mts.); Brabourne & Chubb, B. S. Amer. i. p. 284, no. 2892, 1912.

Pipromorpha oleaginea roraimæ Chubb, Ann. & Mag. Nat. Hist. (ser. 9) iv. p. 303, 1919.

Adult male. Similar to *P. o. macconnelli*, but differs in being rather smaller, paler on the upper parts, and more brightly coloured on the abdomen, under tail-coverts, axillaries, and under wing-coverts.

Total length 116 mm., exposed culmen 12, wing 62, tail 45, tarsus 16.

This species is not represented in the McConnell collection, and the above description is taken from the type, which is in the British Museum.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima and Merumé Mountains (*Whitely*).

Habits. Unrecorded.

Genus **LEPTOPOGON** Cab.

Leptopogon Cabanis, Arch. für Naturg. 1844, pt. i. p. 275. Type
L. superciliaris Cab.



Fig. 72.—*Leptopogon superciliaris*.

In this genus the bill is compressed, the width at the hinder portion of the nostrils being about one-third the length of the exposed culmen, the tip of the upper mandible is hooked and the rictal bristles are well developed. The wing is rounded, the third and fourth primaries longest, the second is about equal to the sixth and the first about three-fourths the length of the second; there is an indication of a small spine on the under surface at the base of the first primary. The tail is square at the tip and about five-sixths the length of the wing, and the tarsus is about one-fifth longer than the exposed culmen. Coloration: male and female similar.

464. **Leptopogon amaurocephalus.**

SCHOMBURGK'S FLYCATCHER.

Leptopogon amaurocephalus Cabanis, Arch. für Naturg. 1847, i. p. 251 (Brazil); Salvin, Ibis, 1885, p. 293 (Merumé Mts., Roraima

3500 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 117, 1888 (Roraima, Merumé Mts.); Brabourne & Chubb, B. S. Amer. i. p. 285, no. 2899, 1912.

Adult. Crown of head, back, lesser upper wing-coverts, upper tail-coverts, outer margins of flight-quills and tail-feathers dark olive-green; median and greater upper wing-coverts broadly tipped with buff; outer webs of some of the secondary-quills marked with buffy-white; inner webs of flight-quills blackish margined with white; inner webs of tail-feathers hair-brown; sides of face olive-green with more or less black and greyish white intermixed; lores whitish at the base; chin and throat greyish white; remainder of the under surface including the axillaries and under wing-coverts greenish yellow; under surface of flight-quills dark brown with white margins; lower aspect of tail-feathers brown with white shafts.

Total length 110 mm., exposed culmen 8, wing 60, tail 55, tarsus 15.

The specimen from which the description is taken was collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Merumé Mountains, Mount Roraima (*Whitely*).

Extralimital Range. Brazil, Bolivia, Paraguay.

Habits. Unrecorded in British Guiana.

Genus **CAPSIEMPIS** Cab. & Hein.

Capsiempis Cabanis & Heine, Mus. Hein. ii. p. 56, 1859. Type *C. flaveola* (Licht.).



Fig. 73.—*Capsiempis flaveola*.

In this genus the bill is flattened, the width at the base being about three-fifths the length of the exposed culmen and furnished with rictal bristles. The wing is rounded, the third, fourth, fifth, and sixth primary-quills longest and equal, the second about equal in length to the eighth. The tail is rounded at the tip and graduated and almost equal in length to that of the wing. The tarsus is about one-third longer than the middle toe and claw. Coloration: male and female similar.

465. *Capsiempis flaveola*.

ROUND-WINGED FLYCATCHER.

Muscicapa flaveola Licht. Verz. Doubl. p. 56, 1823 (Bahia).

Capsiempis flaveola Selater, Cat. B. Brit. Mus. xiv. p. 120, 1888;
Brabourne & Chubb, B. S. Amer. i. p. 285, no. 2903, 1912.

Adult. General colour above yellowish green including the head, back, upper wing-coverts, and scapulars; median and greater upper wing-coverts broadly tipped with white, which forms a double wing-band; flight-quills dark brown edged with yellow on the outer webs and fringed with white on the inner ones; tail-feathers brown very slightly edged with yellow; lores and a narrow superciliary streak white; cheeks and throat yellowish white; remainder of the under surface yellow; under wing-coverts silky white; under surface of quills brown with pale inner margins; lower aspect of tail pale brown.

Total length 97 mm., exposed culmen 12, wing 48, tail 46, tarsus 16.

The bird described was collected in the Upper Takutu Mountains, which is the only specimen in the McConnell collection and is in rather bad condition. There are no examples of this species from British Guiana in the National collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Takutu Mountains (*McConnell collection*).

Central limit Range. Brazil, Paraguay, Bolivia, East Peru, Ecuador, Colombia, Venezuela.

Habits. Unrecorded in British Guiana.

Genus **PHYLLOMYIAS** Cab. & Hein.

Phyllomyias Cabanis & Heine, Mus. Hein. ii. p. 57, 1859. Type
P. brevirostris (Spix).



Fig. 74.—*Phyllomyias brevirostris*.

The species on which this genus was founded are birds of somewhat small size. The bill is short and flattened, the width at the base being about half the length of the exposed culmen. The wing is rounded, the second, third, and fourth primaries longest and subequal, the first about equal in length to the sixth. The tail is square at the tip and proportionately long, being nearly as long as the wing. The tarsus is strongly scutellated and about twice the length of the exposed culmen. The hind toe and claw are about equal in length to the middle toe and claw.

466. *Phyllomyias griseiceps*.

GREY-HEADED FLYCATCHER.

Tyranniscus griseiceps Selater & Salvin, P. Z. S. 1870, p. 873 (Babahoyo, Ecuador); Salvin, Ibis, 1885, p. 294 (Bartica Grove, Roraima 3500 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 134, 1888 (Bartica Grove, Roraima).

Phyllomyias griseiceps Brabourne & Chubb, B. S. Amer. i. p. 286, no. 2910, 1912.

Adult female. Back, scapulars, upper tail-coverts, and lesser upper wing-coverts dull olive-green; crown of head and nape tinged with grey; median and greater upper wing-coverts dark brown with olive-grey tips to the feathers; bastard-wing, primary-coverts, and flight-quills blackish with whitish inner margins, outer edges of secondaries also whitish; tail hair-brown with olive margins to the feathers; supraloral streak and eyelids whitish; ear-coverts similar to the crown; a dark spot in front of the eye; cheeks yellowish dotted with black; chin and throat grey with blackish bases to the feathers; breast and sides of breast yellowish olive, inclining to grey on the sides of the

body; abdomen and under tail-coverts lemon-yellow; axillaries and under wing-coverts sulphur-yellow; under surface of flight-quills and lower aspect of tail hair-brown.

Total length 99 mm., exposed culmen 6, width 5, wing 46, tail 40, tarsus 14.

This species is not represented in the McConnell collection, and the female described was collected by the late Henry Whitely at Mount Roraima, 3500 ft., on the 22nd of January, 1884; and a second specimen, also a female, was collected by him at Bartica, December 1879, both of which are in the British Museum—Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Bartica (*Whitely*).

Extralimital Range. Ecuador, Colombia, Venezuela.

Habits. Unrecorded in British Guiana.

Genus **PHÆOMYIAS** Berl.

Phæomyias Berlepsch, Nov. Zool. ix, p. 41, 1902. Type *P. incompta* (Cab. & Hein.).



Fig. 75.—*Phæomyias incompta*.

The species that constitute this genus are birds of small size. The bill is short and flattened, the width at the base being about three-fourths the length of the exposed culmen. The wing is rounded, the second, third, fourth, and fifth primaries longest and subequal. The tail is square at the tip and about three-fourths the length of the wing. The tarsus, which is scutellated, is about twice the length of the exposed culmen. The hind toe and claw are about equal in length to the middle toe and claw. Coloration: male and female alike.

467. **Phæomyias incompta.**

NORTHERN MOUSE-COLOURED FLYCATCHER.

Elainca incompta Cab. & Hein. Mus. Hein. ii. p. 59, 1859 (Cartagena).

Phyllomyias semifusca Salvin, Ibis, 1885, p. 293 (Bartica Grove).

Myiopatris semifusca Sclater, Cat. B. Brit. Mus. xiv. p. 123 (part), 1888 (Bartica Grove).

Phæomyias incompta Brabourne & Chubb, B. S. Amer. i. p. 286, no. 2918, 1912.

Adult. General colour of the upper parts dusky olive-brown somewhat darker on the top of the head; median and greater upper wing-coverts brown broadly tipped with buff; bastard-wing and primary-coverts uniform brown; flight-quills dark brown with pale margins to the outer webs of the inner secondaries which become very narrow on the primary-quills, the inner webs have also pale margins; tail pale brown slightly paler at the tips of the feathers; a slightly indicated pale streak above the eye; ear-coverts similar to the crown; throat pale ash-grey with a tinge of yellow; cheeks and sides of neck dusky olive-yellow becoming paler on the middle of the breast and sides of the body; abdomen, under tail-coverts, axillaries, and under wing-coverts sulphur-yellow, paler on the last; under surface of quills brown with pale edgings; lower aspect of tail pale greyish brown.

Total length 110 mm., exposed culmen 11, wing 62, tail 53, tarsus 19.

The specimen described was collected on the Bonasika River in 1912.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Bonasika River, Abary River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Venezuela, Colombia.

Habits. Unrecorded in British Guiana.

Genus **ORNITHION** Hartl.

Ornithion Hartlaub, J. f. O. 1853, p. 35. Type *O. inermis* Hartl.



Fig. 76.—*Ornithion inermis*.

The members of this genus are also birds of small size. The

bill is short and depressed, the width at the base is about half the length of the exposed culmen. The wing is rounded, the second, third, and fourth primaries longest and equal, the first primary is shorter than the fifth but longer than the sixth. The tail is square at the tip and about three-fourths the length of the wing. The tarsus is scutellated in front and about equal in length to the middle toe and claw. Coloration : male and female similar.

Key to the Species.

- A. Base of forehead white in contrast to the crown of the head; breast and abdomen lemon-yellow *O. inerme*, p. 179.
 B. Base of forehead uniform with the crown of the head; breast and abdomen sulphur-yellow *O. pusillum*, p. 180.

468. **Ornithion inerme.**

HARTLAUB'S FLYCATCHER.

Ornithion inerme Hartl. J. f. O. 1853, p. 35 (Bahia); Salvin, Ibis, 1885, p. 293 (Bartica Grove); Selater, Cat. B. Brit. Mus. xiv. p. 125, 1888 (Carimang River); Brabourne & Chubb, B. S. Amer. i. p. 287, no. 2921, 1912.

Adult. Crown of head and lores dark slate-grey, a conspicuous line of white across the base of the forehead; the short feathers round the eye whitish; sides of face dusky; hind neck, entire back, upper tail-coverts, scapulars, and lesser upper wing-coverts dark green; median and greater upper wing-coverts blackish tipped with yellowish white; bastard-wing and primary-coverts blackish brown; flight-quills similar with pale margins on the inner webs and green edgings on the outer webs of the secondaries; tail dark brown, the feathers slightly fringed with green; chin greyish white; throat grey; breast yellowish green; abdomen, under tail-coverts, axillaries, and under wing-coverts lemon-yellow, rather paler on the last; under surface of flight-quills brown with yellowish-white inner edges.

Total length 80 mm., exposed culmen 7, wing 43, tail 28, tarsus 12.

The specimen from which the description is taken was collected at the Kamakabra River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Kamakabra River (*McConnell collection*); Bartica, Kamarang River (*Whitely*).

Extralimital Range. East Brazil.

Habits. Unrecorded in British Guiana.

469. *Ornithion pusillum*.

LITTLE FLYCATCHER.

Myiopatis pusilla Cab. & Hein. Mus. Hein. ii. p. 58, 1859 (Cartagena).
Ornithion pusillum Salvin, Ibis, 1885, p. 294 (Bartica Grove); Selater,
Cat. B. Brit. Mus. xiv. p. 126, 1888 (Bartica Grove).

Adult male. General colour above olive including the hind-neck, sides of neck, and ear-coverts, back, upper tail-coverts, scapulars, and lesser upper wing-coverts; median and greater upper wing-coverts tipped with whitish which forms a double wing-bar; bastard-wing and primary-coverts brown like the flight-quills, outer webs of the last slightly fringed with olive-green, inner webs of flight-quills whitish; tail similar in colour to the flight-quills with pale margins to the tips of the feathers; crown of head darker than the back and inclining to dusky brown; throat pale grey; breast, abdomen, under tail-coverts, and under wing-coverts sulphur-yellow; under surface of flight-quills hair-brown; lower aspect of tail similar but paler and having white shafts to the feathers.

Total length 94 mm., exposed culmen 8, wing 51, tail 42, tarsus 13.

The male described is in the British Museum, and was collected by the late Henry Whitely at Bartica in June 1880—Salvin-Godman collection.

Adult female. Similar to the adult male. Wing 47 mm. The female measured is from the Arawai River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Arawai River (*McConnell collection*).

Extralimital Range. Surinam (*Burtlett*); Trinidad, Cayenne.

Habits. Unrecorded in British Guiana.

Genus **TYRANNULUS** Vieill.

Tyrannulus Vieillot, Analyse Nouv. Orn. p. 31, 1816. Type *T. elatus* (Lath.).



Fig. 77.—*Tyrannulus elatus*.

The species on which this genus was founded is a small bird and has a crest and patch of yellow in the middle of the crown. The bill is proportionately small, the width being about two-thirds the length of the exposed culmen. The wing is rounded, the second, third, fourth, and fifth primaries longest and equal, the first about equal in length to that of the sixth. The tail, which is square at the tip, is about three-fourths the length of the wing. The tarsus is about twice the length of the exposed culmen. The hind toe and claw are about equal in length to the middle toe and claw. Coloration: male and female similar.

470. **Tyrannulus elatus.**

LATHAM'S FLYCATCHER.

Sylvia elata Lath. Ind. Orn. ii. p. 549, 1790 (Cayenne).

Tyrannulus elatus Cab. in Schomb. Reis. Guian. iii. p. 702, 1848;
Salvin, Ibis, 1885, p. 294 (Partica Grove); Selater, Cat. B. Brit.
Mus. xiv. p. 128, 1888 (Bartica Grove); Brabourne & Chubb,
B. S. Amer. i. p. 287, no. 2927, 1912.

Adult. Back olive-green; upper wing-coverts dark brown with yellowish-white tips to the median coverts and yellowish-white outer edges to the greater series, like the innermost secondary-quills; flight-quills blackish, the outer webs slightly edged with yellowish green and margined with sulphur-yellow on the inner webs; tail dark brown, tipped and margined on the outermost pair of feathers with yellowish white; head black, the feathers long and narrow which form a crest, the central feathers lemon-yellow; sides of face and throat grey, more or less mixed with whitish; breast and sides of the body yellowish olive;

abdomen and under tail-coverts yellow; under wing-coverts and inner edges of quills below pale sulphur-yellow, remainder of quill-lining dark brown; lower aspect of tail brown edged with yellow at the tip.

Total length 92 mm., exposed culmen 7, wing 50, tail 40, tarsus 13.

The bird described was collected at Bartica in 1912.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Bartica (*McConnell collection*); Bartica (*Whitely*).

Extra-limital Range. Cayenne (*Latham*); North-east Brazil, Eastern Peru, Colombia.

Habits. Unrecorded in British Guiana.

Genus **TYRANNISCUS** Cab. & Hein.

Tyranniscus Cabanis & Heine, Mus. Hein. ii. p. 57, 1859. Type *T. nigricapillus* (Lafr.).



Fig. 78.—*Tyranniscus nigricapillus*.

The members of this genus are likewise small birds, but there is no crest and the crown is uniform. The bill is flattened, the width at the base being about equal to half the length of the exposed culmen. The wing is rounded, the second, third, and fourth primaries longest and equal, the first about equal in length to the sixth. Tail square at the tip and about five-sixths the length of the wing. Tarsus about twice the length of the exposed culmen. The hind toe and claw are about equal in length to the middle toe and claw. Coloration: male and female similar.

Key to the Species.

- | | |
|---|--------------------------------|
| A. Throat yellow like the breast | <i>T. gracilipes</i> , p. 183. |
| B. Throat white in contrast to the breast | <i>T. acer</i> , p. 183. |

471. *Tyranniscus gracilipes*.

SLENDER-FOOTED FLYCATCHER.

Tyranniscus gracilipes Selater & Salvin, P. Z. S. 1867, p. 981 (Pebas, E. Peru); Salvin, Ibis, 1885, p. 294 (Roraima, 3500 to 5000 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 133, pl. xi. fig. 2, 1888 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 288, no. 2934, 1912.

Adult male. Back olive-green; head dark slate-colour; wings dark brown or blackish with yellowish-white margins to the outer webs of the median and greater upper wing-coverts and outer edges of the innermost secondaries; inner margins of flight-quills whitish; tail pale brown, the feathers slightly edged with olive-green; the short feathers round the eye greyish white; cheeks, breast, and sides of the body greenish yellow, inclining to white on the chin; abdomen and under tail-coverts lemon-yellow; axillaries and under wing-coverts pale sulphur-yellow, inner edges of the quills below white, remainder of the quill-lining brown; lower aspect of tail greyish brown.

Total length 101 mm., exposed culmen 9, wing 50, tail 44, tarsus 17.

This species is not represented in the McConnell collection, and the male from which the description is taken is in the British Museum and was collected at Mount Roraima by the late Henry Whitely on June 29, 1883—Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*Whitely*).

Extralimital Range. Cayenne (*Brit. Mus.*), Venezuela, Central and Eastern Peru, Bolivia.

Habits. Unrecorded in British Guiana.

472. *Tyranniscus acer*.

GUIANA FLYCATCHER.

Tyranniscus acer Salvin & Godman, Ibis, 1883, p. 206 (Bartica Grove); Salvin, op. cit. 1885, p. 294 (Camacusa, Roraima 3500 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 133, 1888 (Bartica Grove, Camacusa, Roraima); Brabourne & Chubb, B. S. Amer. i. p. 288, no. 2935, 1912; Beebe, Tropical Wild Life in British Guiana, p. 221, 1917.

Adult male. General colour above green; head slate-grey;

median and greater upper wing-coverts blackish brown edged with sulphur-yellow; outer webs of the secondary-quills narrowly fringed with sulphur-yellow; bastard-wing and primary-coverts dusky brown; flight-quills dark brown with white edges to the inner webs; tail pale brown, the feathers slightly edged with green; sides of face like the crown of the head, with whitish shaft-lines to the feathers; throat whitish; breast and sides of the body greyish green; abdomen and under tail-coverts lemon-yellow; under wing-coverts pale sulphur-yellow; quills below brown with pale inner edges; lower aspect of tail pale brown.

Total length 95 mm., exposed culmen 8, wing 48, tail 43, tarsus 17.

The male from which the description is taken was collected on the Anarica River in 1913.

Breeding-season. Unrecorded in British Guiana.

Nest. See Beebe *infra*, p. 185.

Eggs. See Beebe *infra*, p. 185.

Range in British Guiana. Bartica, Anarica River (*McConnell collection*); Mount Roraima, Kamakusa, Bartica (*Whitely*).

Extralimital Range. North Brazil.

Habits. The following notes are copied from Beebe (*Tropical Wild Life in British Guiana*, p. 221):—"Idly I watched a tiny bird, a flycatcher, flitting about overhead, in the very summit of a mango tree. Presently it dived into a bunch of moss, one of a dozen on some dead branches, but did not immediately appear again. I waited and still it remained invisible. From a condition of lazy inattentiveness, I sat up, imbued with concentrated interest, and felt for my glasses, my eyes never leaving the tuft of moss. The closest scrutiny revealed nothing, and I was half tempted to believe that the bird had eluded me. But the insatiable, inexplicable will-to-learn—the fluid life, as Bergson would have it—overcame the sloth of the material body, and up I went. I climbed swiftly, so that I might keep beyond the ever-increasing area of irate ants, and finally tracked the branch. My flycatcher shot out, and raising his diminutive crest, scolded me roundly for my unwarranted intrusion. The nest was most ingeniously hidden, and I could not find the entrance until I had carried it to the ground and examined it carefully. The owner was a Guiana Tyrantlet, one of the most inconspicuous of his great Flycatcher family, and one of the smallest, less than four inches

in length. He was olive and grey, with his wing-feathers touched with yellow; and his voice was sharp, unmelodious, and several sizes too large.

“But what he lacked in splendor of garb and sweetness of tone was more than compensated by his skill in architecture.

“The nest was composed chiefly of fresh growing moss intermixed with the green calyxes of mango blossoms. The whole was bound together with interwoven tendrils of young vines. The interior lining of the deep cup was made up of five consecutive layers of material, making, with the bird on the nest, an absolute waterproof pocket. The outer layer was of coarse fibre, the second of animal hair, the third of wild cotton, the fourth of animal hair, and the fifth, the inner, of wild cotton. The inner layer was very thick, and at the bottom formed an exceptionally soft bed for the eggs.

“The outside diameter of the nest was 10 cm., with a depth of 8 cm. The interior cup was 4 cm. in diameter at the top, by 6 cm. deep.

“The two small, dull-white eggs were rather heavily marked at the larger end with small spots of chestnut, underlaid with specks of lilac, the tendency being to form a ring. A few tiny specks scattered over the entire shell, but were so small as to be scarcely noticeable. The shell was very thin. The two eggs averaged 16 by 12·5 mm.”

Genus **ELÆNEA** Sund.

Elænea Sundevall, K. Vet.-Ak. Handl. 1835, p. 89. Type *E. pagana* (Licht.).

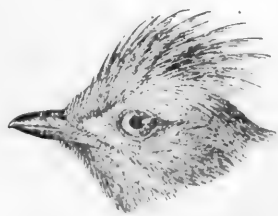


Fig. 79.—*Elænea pagana*.

The species on which this genus was founded has the head crested, the feathers of which are white, or yellow at the base,

and form a more or less hidden coronal patch, which varies in extent, however, in some of the species included in this genus. The bill is short and wide, the width at the base being about equal to the length of the exposed culmen, and the tip of the upper mandible is sharply hooked. Rictal bristles feebly developed. The wing is rounded, the second, third, fourth, and fifth primaries longest and subequal and the first about equal in length to the seventh. The tail is square at the tip and proportionately long, being about six-sevenths the length of the wing. The tarsus is about twice the length of the exposed culmen. The hind toe and claw are almost equal in length to the middle toe and claw. Coloration: male and female similar.

Key to the Subspecies.

- A. Larger, wing more than 70 mm.
- a. Crest white; throat ash-grey, breast olive-green.
- a'. Throat greyish white, back pale olive [p. 186. *E. pagana macconnelli*,
- b'. Throat citron-yellow; back dark ochraceous olive *E. pagana olivina*, p. 187.
- b. Crest rufous; throat and breast dusky grey..... *E. pagana ruficeps*, p. 188.
- B. Smaller, wing less than 70 mm.
- c. Abdomen and under tail-coverts sulphur-yellow [p. 189. *E. cristata whitelyi*,
- d. Abdomen and under tail-coverts greyish [p. 190. *E. cristata parvirostris*,

473. *Elænea pagana macconnelli*.

YELLOW-VENTED CRESTED FLYCATCHER.

Muscicapa flavogaster Thunberg, Mem. Acad. St. Petersb. viii. p. 286, 1822 (Brazil), not *M. flavogaster* Latham, Ind. Orn. Suppl. p. 52, 1801.

Elainea pagana (nec Licht.) Cab. in Schomb. Reis. Guian. iii. p. 701, 1848; Salvin, Ibis, 1885, p. 294 (Bartica Grove, Roraima 3500 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 137, 1888 (Roraima, Bartica Grove); Quelch, Timehri, (2) v. p. 90, 1891 (Georgetown); Beebe, Our Search for a Wilderness, pp. 132 (fig. 67), 192, 1910 (Georgetown).

Elæniu flavogaster Brabourne & Chubb, B. S. Amer. i. p. 288, no. 2938 (part), 1912.

Elænia flavogaster macconnelli Chubb, Ann. & Mag. Nat. Hist. iv. (ser. 9) p. 304, Oct. 1919.

“Muff-bird” (Quelch).

Adult male. Hind-neck, back, lesser upper wing-coverts, and upper tail-coverts dusky olive-brown; bastard-wing and primary-coverts brown like the median and greater wing-coverts and flight-quills, the median and greater series of coverts broadly margined with dull white, as are also the outer edges of the inner secondaries; outer margins of primary-quills yellow; tail pale brown; crown of head, which is crested, similar in colour to the back with yellowish-white bases to the feathers; ear-coverts and sides of neck similar to the back; lores, feathers encircling the eye, and throat greyish white; breast and sides of body yellowish olive-brown; middle of abdomen, vent, under tail-coverts, axillaries, and under wing-coverts sulphur-yellow like the inner margins of the quills below, remainder of quill-lining pale brown, as is also the under surface of the tail.

Total length 155 mm., exposed culmen 9, wing 78, tail 68, tarsus 20.

The male described was collected on the Supenaam River.

Adult female. Similar to the adult male in general plumage, but differs in the much less pronounced white coronal patch. Wing 78 mm.

The female described was collected at Bartica in 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Bonasika River, Abary River (*McConnell collection*); Mount Roraima, Bartica (*Whitely*); Georgetown (*Quelch, Beebe*).

Extralimital Range. Tobago, Trinidad, Venezuela.

Habits. According to Schomburgk (*Reis. Guian.* iii. p. 701), this bird is usually observed in flocks frequenting the outskirts of woods, and the gardens of the natives, where it flies from tree to tree in search of insects.

474. *Elænea pagana olivina*.

GUIANA CRESTED FLYCATCHER.

Elainca olivina Salvin & Godman, *Ibis*, 1884, p. 446 (Roraima);

Salvin, *Ibis*, 1885, p. 294 (Camacusa, Roraima, 5000-6000 ft.);

Sclater, *Cat. B. Brit. Mus.* xiv. p. 146, pl. xii. 1888 (Roraima).

Elænia olivina Brabourne & Chubb, *B. S. Amer.* i. p. 289, no. 2952, 1912.

Adult male. General colour above dark olive-green including the head, back, lesser upper wing-coverts, and upper tail-coverts; median and greater upper wing-coverts tipped with white, forming a double wing-bar; bastard-wing and primary-coverts uniform dark brown; flight-quills dark brown slightly edged on the outer web and more broadly on the inner one with whitish; tail rather paler brown than the flight-quills; crown of head slightly darker than the back with a well pronounced yellowish-white coronal patch; ear-coverts like the back; cheeks, throat, breast, and sides of body pale olive-green; middle of abdomen, under tail-coverts, axillaries, and under wing-coverts sulphur-yellow; quill-lining brown with rather paler inner edges; lower aspect of tail pale brown.

Total length 147 mm., exposed culmen 14, wing 77, tail 70, tarsus 19.

The male described was collected by Mr. McConnell at Mount Roraima in October 1898.

Adult female. Similar to the adult male but rather smaller. Wing 72 mm.

A young female in the British Museum differs from the adult in being coffee-brown on the crown of the head, hind-neck, lesser upper wing-coverts, back, and upper tail-coverts. Paler and less yellow on the under surface with a dark band across the upper breast.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Unrecorded.

475. *Elænea pagana ruficeps*.

RUFIOUS-HEADED CRESTED FLYCATCHER.

Elainea ruficeps Pelzeln, Orn. Bras. pp. 108, 179, 1869 (Borba); Salvin, Ibis, 1885, p. 294 (Merumé Mts.); Sclater, Cat. B. Brit. Mus. xiv. p. 152, 1888 (Merumé Mts.).

Elænia ruficeps Brabourne & Chubb, B. S. Amer. i. p. 289, no. 2945, 1912.

Adult male. Crown of head, sides of face, sides of neck, back, scapulars, upper tail-coverts, and lesser upper wing-coverts dusky

olive-brown; coronal patch, which is more or less obscured, cinnamon-rufous; median and greater upper wing-coverts soot-black with pale greyish tips to the feathers, which form an irregular double wing-bar; bastard-wing, primary-coverts, and flight-quills also soot-black, with pale edges to some of the outer webs of the last and white margins to the inner ones; tail-feathers dark brown becoming paler at the tips; chin, throat, and remainder of under surface dusky grey intermixed with sulphur-yellow, which is much increased on the abdomen and under tail-coverts; axillaries and under wing-coverts sulphur-yellow; under surface of flight-quills dark brown with pale margins; lower aspect of tail hair-brown with white shafts to the feathers. "Bill brown, paler at the base of the lower mandible; feet black" (*Whitely*).

Total length 141 mm., exposed culmen 11, wing 72, tail 64, tarsus 21.

The male from which the description is taken was collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

Adult female. Similar to the adult male but rather smaller. Wing 66 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Merumé Mountains (*Whitely*).

Extralimital Range. Brazil.

476. *Elænea cristata whitelyi*.

WHITELY'S CRESTED FLYCATCHER.

Elænea albiceps (nec d'Orb. & Lafr.) Salvin, Ibis, 1885, p. 294 (Roraima, Merumé Mts.); Sclater, Cat. B. Brit. Mus. xiv. p. 141 (part) 1888 (Merumé Mts. and Roraima).

Elænia cristata Brabourne & Chubb, B. S. Amer. i. p. 289, no. 2941, 1912.

Elænia cristata whitelyi Chubb, Ann. & Mag. Nat. Hist. (ser. 9) iv. p. 304, Oct. 1919.

Adult female. General colour of the upper surface dusky olive-brown including the hind-neck, back, lesser upper wing-coverts, and upper tail-coverts; wings brown, median and greater upper

wing-coverts broadly tipped with whitish, outer webs of flight-quills narrowly edged with the same colour, inner webs more broadly margined with dull white; tail uniform pale brown; head somewhat darker than the back; the feathers of the crest rather long and pointed; no indication of a coronal patch; ear-coverts similar to the back; lores, feathers round the eye, cheeks, and throat greyish white; breast and sides of body olive-grey and more or less tinged with grey; abdomen and under tail-coverts pale sulphur-yellow like the axillaries and under wing-coverts; under surface of quills brown with pale inner edges; lower aspect of tail uniform greyish brown.

Total length 127 mm., exposed culmen 10, wing 65, tail 81, tarsus 18.

The female from which the description is taken was collected on the Abary River in July 1906.

Adult male. Similar to the adult female but slightly larger. Wing 70 mm.

The male compared is in the British Museum, and was collected at Mount Roraima on November 28, 1881, by the late Henry Whitely—Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Abary River (*McConnell collection*); Merumé Mountains, Mount Roraima (*Whitely*).

Extralimital Range. Brazil, Peru, Venezuela.

Habits. Unrecorded in British Guiana.

477. *Elænea cristata parvirostris*.

SHORT-BILLED CRESTED FLYCATCHER.

Elænia parvirostris Pelzeln, Orn. Bras. pp. 107, 178, 1869 (Curytiba);
Brabourne & Chubb, B. S. Amer. i, p. 290, no. 2955, 1912.

Elænea albiceps (nec Lafr. & d'Orb.) Salvin, Ibis, 1885, p. 294
(Merumé Mts., Roraima 3500 ft.); Selater, Cat. B. Brit. Mus. xiv.
p. 141 (part), 1888 (Roraima, Merumé Mts.); Quelch, Timehri (2)
v. p. 90, 1891 (Georgetown).

“Muff-birds” (*Quelch*).

Adult female. General colour of the upper surface olive-brown including the head, back, lesser upper wing-coverts, and upper tail-coverts; median and greater upper wing-coverts, and inner-

most secondaries dark brown edged with white; bastard-wing and primary-coverts uniform pale brown; flight-quills dark brown narrowly edged with white on the outer webs and more broadly on the inner ones; tail dark brown with narrow olive edges to the feathers on the outer webs; a well-marked coronal patch of white; sides of face and ear-coverts similar to the back; throat pale ash-grey; breast and sides of the body yellowish olive-grey; abdomen, under tail-coverts, axillaries, and under wing-coverts very pale sulphur-yellow; quills below brown with pale inner edges; lower aspect of tail pale brown.

Total length 132 mm., exposed culmen 9, wing 71, tail 54, tarsus 17.

The female from which the description is taken was collected on the Abary River in September 1906.

Adult male. Similar to the adult female, but differs in being rather larger. Wing 75 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takatu Mountains, Abary River (*McConnell collection*); Mount Roraima, Merumé Mountains (*Whitely*); Georgetown (*Quelch*).

Extralimital Range. Venezuela, Colombia, Brazil, Paraguay, Argentina.

Habits. Mr. J. J. Quelch (*Timehri* (2) v. pp. 90, 91), who observed this species in Georgetown, remarks:—"Among some of the commonest of the birds seen about the streets and gardens of the town are various species of greyish Tyrant-birds, with rather small flattened bills, commonly known as Muff-birds. These are species of the genus *Elainea*, the two commonest are *E. pagana* and *E. albiceps*.

"These birds feed on seeds and insects, but particularly the latter; and when they have secured some tit-bit are often to be seen chased by the Kiskadees and compelled to drop the treasure. At such times they erect their crests to great advantage as though with a desire to fight, but they have neither strength nor courage to face their tyrants."

NOTE.

"ELAINEA BREVIROSTRIS.

"*Elainea brevirostris* Tsch. Fauna Per. p. 159; Cab. in Schomb. Guiana, iii. p. 701; Tacz. Orn. Per. ii. p. 272.

"According to Dr. Cabanis, specimens of this species were obtained by Schomburgk near the coast which agreed with others from Peru. We have not been able to recognise the bird in Mr. Whitely's collection."—Salvin, Ibis, 1885, p. 295.

I can only add to what Salvin wrote, that I have failed to find any trace of the species in the McConnell collection.—C. C.

Genus **ELAINOPSIS** Ridgw.

Elainopsis Ridgway, Proc. Biol. Soc. Wash. xviii. p. 210, 1905. Type *E. gaimardii* (d'Orb.).



Fig. 80.—*Elainopsis gaimardii*.

The chief character in this genus is the spine at the base of the first, or outer primary on the under surface of the wing. The bill is short and pointed, the upper mandible is hooked, the width at the base is about half the length of the exposed culmen. The wing is rounded; the second, third, and fourth primaries longest and equal, the first about equal in length to that of the sixth. The tail is square at the tip and nearly as long as the wing. The tarsus is about twice the length of the exposed culmen, and the hind toe and claw almost equal in length to the middle toe and claw. Coloration: male and female similar.

478. **Elainopsis guianensis.**

BERLEPSCH'S CRESTED FLYCATCHER.

Elainea elegans Salvin, Ibis, 1885, p. 298 (Bartica Grove, Camacusa, Merumé Mts., Mt. Roraima).

Elainea gaimardi (nec d'Orb. & Lafr.) Sclater, Cat. B. Brit. Mus. xiv. p. 150, 1888 (Mt. Roraima, Merumé Mts., Camacusa, Bartica Grove).

Elania guianensis Berlepsch, Proc. iv. Intern. Orn. Congr. London, 1905, p. 421, 1907 (Camacusa); Brabourne & Chubb, B. S. Amer. i. p. 290, no. 2961, 1912.

Adult male. General colour of the upper parts olive-green, including the hind-neck, back, upper wing-coverts, and upper tail-coverts; median and greater upper wing-coverts edged with whitish; bastard-wing and primary-coverts uniform brown; flight-quills dark brown with green or whitish edgings on the outer web and pale edges on the inner webs; tail-feathers pale brown with olive-green edges; crown of head blackish, with a large white coronal patch; sides of face dusky; loreal streak and short feathers surrounding the eye greyish white; throat pale grey becoming darker on the breast and sides of the neck, where it is more or less intermixed with yellow like the sides of the body; abdomen, under-tail coverts, axillaries, and under wing-coverts yellow, paler on the last; under surface of quills brown with buffy-white inner margins; tail below pale brown.

Total length 119 mm., exposed culmen 12, wing 55, tail 49, tarsus 18.

The male described was collected on the Makauria River in August 1910.

Adult female. Similar to the adult male. Wing 53 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Makauria River, Arawai River (*McConnell collection*); Mount Roraima, Merumé Mountains, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Trinidad, North-east Brazil.

NOTE. I notice that Berlepsch has recorded *Elainoides flavivertex* (Sclater) from Cayenne (Nov. Zool. xv. p. 134), but I have not found any trace of its occurrence in British Guiana.

Genus **LEGATUS** Sel.

Legatus Sclater, P. Z. S. 1859, p. 46. Type *L. albicollis* (Vieill.).



Fig. 81.—*Legatus albicollis*.

This genus is distinguished by the absence of a crest, in having the crown of the head yellow, and by the almost entire absence of rictal bristles. The bill is rather depressed, the width at the base being nearly equal to the length of the exposed culmen. The wing is rounded, the second, third, and fourth primaries longest and subequal, the first about equal in length to that of the fifth. The tail is square at the tip and about five-sevenths the length of the wing. The tarsus is rather less than one-third the length of the tail, and the hind toe and claw are almost equal in length to the middle toe and claw. Coloration: male and female similar.

479. *Legatus albicollis* successor.

LITTLE WHITE-NECKED FLYCATCHER.

Elænia albicollis (nec Vieill.) Cab. in Schomb. Reis. Guian. iii. p. 701, 1848.

Legatus albicollis (nec Vieill.) Salvin, Ibis, 1885, p. 95 (Bartica Grove, Camacusa); Sclater, Cat. B. Brit. Mus. xiv. p. 155 (part), 1888 (Camacusa, Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 292, no. 2977 (part), 1912.

Legatus albicollis successor Chubb. Bull. Brit. Orn. Club, xl. p. 43, Dec. 8, 1919.

Adult male. General colour of the upper surface smoke-brown including the back, wings, and tail; median and greater upper wing-coverts narrowly edged with white like the innermost secondary-quills; inner webs of flight-quills broadly margined

with buffy-white; upper tail-coverts narrowly edged with chestnut, tail-feathers also fringed with the same colour; crown of head black, with a large yellow coronal patch in the middle; a whitish line running from the base of the forehead over the eye along the side of the crown and meeting on the nape; a spot in front of the eye and ear-coverts black or blackish brown; cheeks and throat whitish inclining to pale lemon-yellow on the hinder face; a dark moustachial streak on each side of the throat which joins the dark brown on the breast, the feathers on the latter being margined with pale lemon-yellow—the margins increasing in width on the lower breast and sides of the body—the dark pattern of the feathers lanceolate in form; abdomen paler and inclining to white; under tail-coverts yellow with dark spear-head markings on the centre of the feathers; axillaries and under wing-coverts sulphur-yellow; under surface of quills dark brown with rufous inner edges; lower aspect of tail brown with very narrow rufous edgings to the feathers.

Total length 146 mm., exposed culmen 11, wing 77, tail 57, tarsus 17.

The exact locality in British Guiana of the male described is not given.

Adult female. Similar to the adult male but rather smaller. Wing 71 mm.

The female described was collected on the Ituribisi River in August 1909.

The young bird in its first plumage can always be recognised by the rufous margins to the feathers.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Great Falls Den e-rara River, Arawai River (*McConnell collection*); Bartica, Kamakusa (*Whitely*).

Extralimital Range. Cayenne.

Habits. Schomburgk states (*Reis. Guian.* iii. p. 701) that he found this bird rather common near the coast, and that its habits and mode of life are similar to those of *Myiobius erythrorus* (*q. v.* p. 218).

Genus **MYIOZETETES** Scl.

Myiozetetes Selater, P. Z. S. 1859, p. 46. Type *M. cayennensis* (Linn.).



Fig. 82.—*Myiozetetes cayennensis*.

The type of this genus has the head crested and the feathers on the middle of the crown are orange-yellow. The rictal bristles are numerous but feebly developed. The bill is more or less depressed, the width at the base being about equal to three-fourths the length of the exposed culmen, the tip of the upper mandible is sharply hooked and the nostrils are covered with black bristles. The wing is rounded, the second, third, and fourth primaries longest and the first about equal in length to the seventh. The tail is square at the tip, the feathers rather wide and about three-fourths the length of the wing. The tarsus about one-fourth longer than the middle toe and claw. Coloration: male and female similar.

Key to the Species.

- a.* Smaller, wing less than 90 mm.; a broad white superciliary line; coronal patch orange-red; sides of face black *M. cayennensis*, p. 196.
b. Larger, wing more than 90 mm.; no superciliary streak; coronal patch yellow; sides of face grey *M. sulphureus*, p. 198.

480. Myiozetetes cayennensis.

CAYENNE FLYCATCHER.

Muscicapa cayennensis Linn. Syst. Nat. i. p. 327, 1766 (Cayenne).
Elænea cayennensis Cab. in Schomb. Reis. Guian. iii. p. 701, 1848.

Myiozetetes cayennensis Salvin, Ibis, 1885, p. 295 (Bartica Grove, Roraima, 3500 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 160, 1888 (Roraima, Bartica Grove); Quelch, Timehri (2) v. p. 90, 1891 (Georgetown); Brabourne & Chubb, B. S. Amer. i. p. 292, no. 2981, 1912.

Adult female. General colour above dark smoke-brown including the crown of the head, back, wings, and tail; a concealed patch of orange-red on the middle of the crown; base of forehead and line over each eye, which unites on the nape, white; lores and sides of the face including the ear-coverts black; median and greater upper wing-coverts and outer webs of flight-quills narrowly margined with rufous as are also the upper tail-coverts and tail-feathers, inner webs of flight-quills for the most part rufous on the basal portion; chin and throat white, remainder of the under surface yellow becoming much paler on the vent and under tail-coverts; axillaries and under wing-coverts also yellow; under surface of flight-quills dark brown broadly margined with rufous on the inner edges; lower aspect of tail brown with buff edgings at the tips.

Total length 152 mm., exposed culmen 12, wing 83, tail 62, tarsus 18.

The female from which the description is taken was collected on the Abary River in November 1906.

Adult male. Similar to the adult female but larger in size. Wing 90 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Makauria River, Abary River, Arwee Creek, Arawai River (*McConnell collection*); Bartica, Mount Roraima, 3500 ft. (*Whitely*); Georgetown (*Quelch*).

Extralimital Range. Northern Brazil, Venezuela, Ecuador, Peru.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 701*) this bird is usually met with in flocks on the outskirts of woods and in the gardens of the natives, where it flies from tree to tree in pursuit of insects.

Mr. J. J. Quelch (*Timehri (2) v. p. 90*) observed this species in Georgetown, and remarks:—"A fifth form of Kiskadee (*Myiozetetes cayennensis*) is also fairly common about the city, though chiefly seen on the outlying parts."

481. *Myiozetetes sulphureus*.

SULPHURY FLYCATCHER.

Muscicapula sulphurea Spix, Av. Bras. ii. p. 16, pl. xx., 1825 (Brazil).

Myiozetetes sulphureus Salvin, Ibis, 1885, p. 295 (Bartica Grove);
W. L. Selater, Ibis, 1887, p. 318 (Maccaseema); Selater, Cat. B.
Brit. Mus. xiv. p. 164, 1888 (Bartica Grove); Brabourne & Chubb,
B. S. Amer. i. p. 293, no. 2986, 1912.

Adult female. Entire back and lesser upper wing-coverts and upper tail-coverts olive-green; median and greater upper wing-coverts, bastard-wing, and primary-coverts brown; flight-quills also brown somewhat darker on the inner webs which are broadly fringed with yellowish white, increasing in extent towards the base; tail uniform brown; head and sides of face slate-grey rather darker on the ear-coverts, with a bright yellow patch on the middle of the crown; chin ash-grey, inclining to white on the middle of the throat; sides of breast and sides of body greenish yellow; middle of breast, abdomen, under tail-coverts, axillaries, and under wing-coverts bright yellow.

Total length 182 mm., exposed culmen 16, wing 102, tail 70, tarsus 20.

The female described was collected at Bartica in 1911.

Adult male. Similar to the adult female but rather larger in measurements. Wing 110 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Bartica, Bonasika River, Great Falls Demerara River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Cayenne, Trinidad, Venezuela, North and Central Brazil.

Habits. Unrecorded in British Guiana.

Genus PITANGUS Swains.

Pitangus Swainson, Zool. Journ. iii. p. 165, 1827. Type *P. sulphuratus* (Linn.).



Fig. 83.—*Pitangus sulphuratus*.

The species included in this genus are birds of somewhat large size and distinguished chiefly in having a patch of stiffened black bristles on the forehead and in front of each eye. The bill has the culmen keeled, the gonyes rounded, the upper mandible sharply hooked, and the width at the base about equal to half the length of the exposed culmen. The wing is rounded, the second, third, and fourth primaries longest and equal, the first about equal in length to the sixth. The tail is square at the tip and about eight-elevenths the length of the wing. The tarsus is proportionately short, being slightly shorter in length than the exposed culmen and the hind toe and claw. Coloration: male and female similar.

Key to the Species.

- A. Throat white in contrast with the rest of the under surface.
- a. Larger; wing more than 95 mm., tail more than 75 mm. *P. sulphuratus*, p. 199.
 - b. Smaller; wing less than 95 mm., tail less than 75 mm. *P. lictor*, p. 203.
- B. Throat pale yellow like the rest of the under surface *P. parvus*, p. 204.

482. *Pitangus sulphuratus*.

KISKADEE FLYCATCHER.

Lanius sulphuratus Linn. Syst. Nat. i. p. 137, 1766 (Cayenne).

Saurophagus sulphuratus Cab. in Schomb. Reis. Guian. iii. p. 698, 1848.

Pitangus sulphuratus Salvin, Ibis, 1885, p. 296 (Bartica Grove); Selater, Cat. B. Brit. Mus. xiv. p. 176, 1888 (Georgetown, Bartica Grove); Lloyd Price, Timehri (2) v. p. 61, 1891 (nest and eggs); Queleh, t. c. p. 88 (Georgetown); C. A. Lloyd, op. cit. (2) xi. p. 4, 1897 (nest and eggs); Oates, Cat. Birds' Eggs Brit. Mus. iii. p. 200, 1903; Brabourne & Chubb, B. S. Amer. i. p. 293, no. 2992, 1912.

Pitangus sulphuratus sulphuratus Beebe, Our Search for a Wilderness, pp. 112-131 (Georgetown), p. 135 (Hoorie Creek), p. 247 (Aremu River), p. 392, 1910.

Adult. Head and sides of the face black with a somewhat concealed orange and white patch in the middle of the crown; base of forehead white with black hair-like tips to the feathers; a broad white line over each eye extending along the sides of the crown and joining on the nape; lores and feathers in front of the eye black stiffened shafts only, like the rictal bristles; entire back, scapulars, wings, and tail smoke-brown, darker on the hind-neck where a blackish collar is indicated; upper wing-coverts slightly edged with rufous; bastard-wing, primary-coverts, and flight-quills blackish brown, the last edged on the outer and, much more broadly, on the inner webs with rufous which is increased in extent on the secondaries; tail dark brown, the feathers more or less edged with rufous; chin and throat white which extends on to the sides of the neck; remainder of the under surface including the breast, abdomen, under tail-coverts, axillaries, and under wing-coverts rich yellow; flight-quills below brown with broad rufous margins; lower aspect of tail brown, the middle feathers slightly edged with rufous.

Total length 205 mm., exposed culmen 23, wing 110, tail 80, tarsus 25.

The bird from which the description is taken was collected at Bartica in 1911.

Breeding-season. April (Beebe).

Nest. Built of dry grass, lined with feathers, and very deep; is usually placed in the fork of an outer branch of a small tree, or tall bush near a river (*Schomburgk*). Is an untidy looking object built of dry grasses with an entrance at the side (*Lloyd-Price*). Builds a large globular nest (*C. A. Lloyd*). In Bois Immortelle trees (*Beebe*).

Eggs. Three in number which are creamy-white, spotted with grey and brown, chiefly at the round end (*Lloyd-Price*). Lays

three eggs with blackish-brown spots which are concentrated towards the larger end (*C. A. Lloyd*).

Range in British Guiana. Upper Takutu Mountains, Supenaam River, Bartica, Abary River (*McConnell collection*); Bartica (*Whitely*); Georgetown (*Quelch: Beebe*).

Extralimital Range. Cayenne (*Linné*); North Brazil, Peru, Ecuador.

Habits. Schomburgk gives the following note in regard to this bird (*Reis. Guian. ii. p. 435*):—"It had scarcely dawned before I heard a sound as though it came from a 'Gras-concertina,' it was so beautiful and clear, the intervals were also in perfect time which made it a complete melody. I listened to it perfectly spell-bound and was at a loss to know whether it was a fairy or a bird. My Indian told me that it was the 'Flageolet-bird or Singing Frenchman.'"

According to Schomburgk (*Reis. Guian. iii. p. 698*) this bird is one of the commonest species in the Colony. It is found in plantations where one can see it on almost every tree and hear its loud peculiar voice. It is distributed throughout the settlement. People on their first arrival are immediately attracted by it and, in many cases inquire, in a police-like manner, 'Qu-est-ce-que-dit.'"

In Volume I. of his travels, Schomburgk also writes:—"It is a cantankerous bird and is always on the 'war-path' with its fellow species. As soon as it sees a hawk it immediately starts off in pursuit of it, all the time uttering its loud cries. I have been assured that it takes nestlings from their nest and devours them, but I have never been able to convince myself as to the correctness of this statement. I have, however, noticed that small birds, as soon as they see it, start in pursuit of it as though it had committed some such crime.

"The nest, which is built of dry grass and lined with feathers, is usually placed in the fork of an outer branch of a small tree, or tall bush growing near a river, but I have also seen it in trees on the outskirts of the woods and those in the fields cultivated by natives. The nest is very deep."

Lloyd Price (*Timehri (2) iv. p. 61*), writing on the nests and eggs of some common Guiana birds, remarks:—"One of the most common of birds, and certainly the first to be noticed, is a brown and yellow Tyrant-shrike called the Keskeedie (*Pitangus sul-*

phuratus), a fierce and bold little fellow, who is constantly to be seen flying around and even attacking the numerous hawks and vultures, when they approach too near his dwelling. The nest of this bird is an untidy-looking object, built of dry grasses, and always placed in a conspicuous position; sometimes in a low bush close to the ground; at others on the branch of a high tree. The entrance is at the side, and the eggs, three in number, are of a creamy white, spotted with grey and brown, chiefly at the round end."

J. J. Quelch (Timehri (2) v. pp. 88, 89) observed this species in Georgetown, and remarks:—"One of the most typical and the commonest about town, is the large Kiskadee (*Pitangus sulphuratus*), whose loud, harsh and fierce cry of 'kis-kii-kiskadee' is to be heard at all times of the day and all over the city, though often they give utterance to a more subdued note like a nasal 'tweek.'

"It is a fierce and cruel bird, having special fondness for the young of other birds as food, taking them from the nest when chance offers. Their diet is a liberal one, since they feed on flesh, fruits, seeds, worms, insects, etc.; and while on the one hand they are of use in gardens as insectivorous creatures, on the other they are nuisances as being equally destructive to fruits. Of grapes and peppers they are extremely fond, and they will often be noticed swallowing large quantities of the fruits. They are markedly quarrelsome and pugnacious, and will never hesitate in attacking and driving away larger birds such as vultures and hawks, which they often seem to delight in pursuing. The swallows and humming-birds, however, often attack and pursue them, and occasionally when the Kiskadees are darting and pecking at a hawk or vulture, a humming-bird may be seen pursuing the Tyrant and driving him off."

C. A. Lloyd (Timehri (2) xi. p. 4) writes as follows:—"The Kiskadee (*Pitangus sulphuratus*) is remarkable for the manner in which it departs from the generality in the construction of their nests. The Kiskadee builds a large globular nest, and lays three eggs, spotted with blackish brown, the spots being concentrated towards the larger end. Young Kiskadees are often infested with the larvæ of a species of *Æstrus* (*Dermatobia noxialis*), known here as the 'mosquito worm.' At times these parasites are present in such astonishing numbers that it is difficult to understand how

the birds can live to arrive at maturity. We have seen a young Kiskadee so infested with these disgusting larvæ that it was unable to close its wings, while its body was distorted to such an extent as to be hardly recognizable. The Kiskadee is the commonest Tyrant found in the Colony."

483. *Pitangus lictor*.

LICHTENSTEIN'S FLYCATCHER.

Lanius lictor Licht. Verz. Doubl. p. 49, 1823 (Pará).

Surophagus lictor Cab. in Schomb. Reis. Guian. iii. p. 698, 1848.

Pitangus lictor Salvin, Ibis, 1885, p. 296 (Bartica Grove); Selater, Cat. B. Brit. Mus. xiv. p. 178, 1888 (Bartica Grove); Quelch, Timehri (2) v. p. 89, 1891 (Georgetown); Beebe, Our Search for a Wilderness, p. 116, 1910 (Georgetown), p. 207 (Aremu River), p. 357 (nesting); Brabourne & Chubb, B. S. Amer. i. p. 293, no. 2996, 1912.

Adult female. Head and sides of the face black with a coronal patch of orange and white coloured feathers; base of forehead and lores whitish with black hair-like tips to the feathers; a broad line of white over each eye along the sides of the crown and uniting on the nape; entire back, scapulars, and wings smoke-brown with a slight greenish tinge; bastard-wing and primary-coverts uniform brown; flight-quills dark brown edged with rufous on the outer webs and much more broadly with cinnamon-rufous on the inner ones; upper tail-coverts slightly fringed with rufous; tail-feathers dark brown more or less fringed with rufous; chin and throat white; remainder of under surface pale yellow including the breast, abdomen, under tail-coverts, axillaries, and under wing-coverts; under surface of quills broadly edged with cinnamon-rufous; lower aspect of tail pale brown with paler edgings to the middle feathers.

Total length 166 mm., exposed culmen 19, wing 88, tail 69, tarsus 19.

The female from which the description is taken was collected at the Takutu Mountains in 1908.

Adult male. Similar to adult female but slightly larger. Wing 93 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains (*McConnell*

collection); Bartica (*Whitely*); Georgetown (*Quelch*); Aremu River, Georgetown (*Beebe*).

Extralimital Range. Brazil, Peru, Colombia.

Schomburgk says (Reis. Guian. iii. p. 698) that the habits of this bird are very similar to those of *S. sulphuratus*, but not nearly so aggressive in its manner and more peaceful and, at times, solitary (*supra*, p. 199.)

J. J. Quelch (Timehri (2) v. p. 89) observed this species in Georgetown and remarks:—"The name kiskadie is applied to several different species, all of which utter the same cry; but the above large form (*Pitangus sulphuratus*) is the commonest of all about the town. A smaller bird (*Pitangus lictor*) is also very common. Its habits are similar to the larger species."

The following is taken from Beebe (Our Search for a Wilderness, p. 357):—"The big kiskadees were nesting about every hundred yards. This was the first time in the Colony that we had seen these latter birds nesting away from human habitation, so this open savanna region would appear to be their natural home, while the other yellow Tyrants frequent wooded river-banks."

484. *Pitangus parvus*.

LITTLE YELLOW-BILLED FLYCATCHER.

Pitangus parvus Pelzeln, Orn. Bras. pp. 111, 181, 1869 (Marabitanas); Salvin, Ibis, 1885, p. 296 (Camacusa, Merumé Mts.); Selater, Cat. B. Brit. Mus. xiv. p. 179, 1888 (Merumé Mts., Camacusa, Carimang River); Brabourne & Chubb, B. S. Amer. i. p. 294, no. 2997, 1912.

Adult male. Crown of head and sides of the face black, with a more or less concealed patch of bright yellow on the middle of the crown; base of forehead and a broad streak over each eye which meets on the nape white; lores and feathers in front of the eye black and bristly in texture; back, scapulars, and upper tail-coverts olive-green; upper wing-coverts, bastard-wing, primary-coverts, and flight-quills blackish brown, the outer webs of the innermost secondaries fringed with sulphur-yellow and the inner webs of all the quills margined with the same colour, much more broadly on the secondaries; tail blackish brown with very slight pale edgings to the feathers; chin whitish; throat and remainder of the under surface bright yellow including the breast, abdomen, under tail-coverts, axillaries, and under wing-coverts. It may be observed

that the shafts of some of the feathers on the throat are extended into black hair-like tips. Quills below brown with yellowish-white inner edgings; lower aspect of tail pale brown.

Total length 150 mm., exposed culmen 15, wing 83, tail 67, tarsus 16.

The male described was collected on the Supenaam River in 1910.

Adult female. Similar to the adult male but rather smaller. Wing 77 mm.

The immature bird differs from the adult in having whitish margins to the feathers on the upper parts.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River (*McConnell collection*); Merumé Mountains, Kamarang River, Kamakusa (*Whitely*).

Extralimital Range. Cayenne, Northern Brazil.

Habits. Unrecorded in British Guiana.

Genus **MYIODYNASTES** Bonap.

Myiodynastes Bonaparte, *Comp. Rend. Paris*, xxxviii. p. 667, 1854.
Type *M. maculatus* (P. L. S. Müll.).

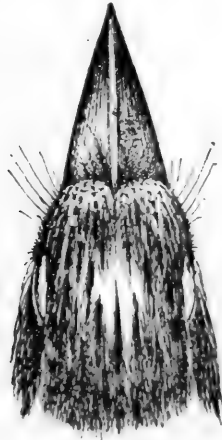


Fig. 84.—*Myiodynastes maculatus*.

The type of this genus has the bill depressed, the width at the

base being about three-fifths the length of the exposed culmen, the upper mandible is sharply hooked at the tip, and the nostrils and loreal space covered with black bristles. The wing is rounded, the second, third, fourth, and fifth primaries longest and subequal, the first about equal in length to the eighth. The tail is square at the tip and about seven-tenths the length of the wing. The tarsus is about equal in length to that of the exposed culmen and only slightly longer than the middle toe and claw. Coloration : male and female similar.

Key to the Species.

- A. Upper surface for the most part brown ; tail for the greater part rufous ; throat and under surface narrowly streaked with brown *M. maculatus*, p. 206.
- B. Upper surface chiefly black ; tail mostly black ; throat and under surface broadly streaked with black [p. 208.
M. solitarius duncani,

485. *Myiodynastes maculatus*.

STREAKED FLYCATCHER.

Muscicapa maculata P. L. S. Müll. Syst. Nat. Suppl. p. 169, 1776 (Cayenne).

Muscicapa audax Gmel. Syst. Nat. i. p. 934, 1789 (Cayenne).

Scapherhynchus audax Cab. in Schomb. Reis. Guian. iii. p. 699, 1848.

Myiodynastes audax Salvin, Ibis, 1885, p. 296 (Bartica Grove) ; Selater, Cat. B. Brit. Mus. xiv. p. 185, 1888 (Bartica Grove).

Myiodynastes maculatus Brabourne & Chubb, B. S. Amer. i. p. 294, no. 3002, 1912.

Myiodynastes maculatus maculatus Beebe, Trop. Wild Life, p. 134, 1917.

Adult female. General colour above dark brown with pale margins to the feathers which imparts a streaked appearance ; an orange-yellow patch on the middle of the crown which is more or less obscured by the dark tips to the feathers ; the short feathers at the base of the forehead and over the eye whitish with dark shaft-streaks ; lores and short feathers in front of the eye black and bristly in texture ; upper portion of ear-coverts blackish, the lower portion and cheeks smoky-white, followed by a dark line along the cheeks ; crown of head dark brown with paler brown margins to the feathers like the hind-neck ;

back also dark brown with slate-grey bases to the feathers and pale grey, or whitish margins to the feathers; upper wing-coverts dark brown with rufous or whitish edges to the feathers like the primary and secondary quills—the last are much more broadly margined with buffy-white on the inner webs; upper tail-coverts and tail-feathers dark brown broadly margined with rufous; throat, breast, abdomen, and sides of the body dull white with dark shaft-lines to the feathers—the dark streaks narrow on the throat and lower abdomen and wider on the breast, upper abdomen, and sides of the body; under tail-coverts, axillaries, and under wing-coverts sulphur-yellow with dark shaft-streaks; quills below brown with ochreous-yellow edgings which become paler on the secondaries; lower aspect of tail rufous with a tinge of grey skirting the shaft-lines, which are white.

Total length 195 mm., exposed culmen 20, wing 100, tail 71, tarsus 17.

The female from which the description is taken was collected on the Abary River in July 1906.

Adult male. Similar to the adult female.

Another example, collected on the Abary in November 1906, appears to be an immature bird and differs from the adult in the absence of the yellow coronal patch where the feathers are broadly margined with rufous, as are also the upper wing-coverts.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Bartica, Abary River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Cayenne (*Jelski*), Trinidad, Tobago, Venezuela, North Brazil, East Peru.

Habits. This bird according to Schomburgk (*Reis. Guian.* iii. p. 699) is rare near the coast and inhabits the more open parts of the interior. He first met with it near Wat-ipukari Bay on the Rupununi River. This bird makes itself conspicuous by its loud voice. Its nesting habits are similar to those of *P. sulphuratus* (*supra*, p. 199.)

486. *Myiodynastes solitarius duncani*.

DUNCAN'S SOLITARY FLYCATCHER.

Myiodynastes solitarius (nec Vieill.) Sclater, Cat. B. Brit. Mus. xiv. p. 185, 1888 (Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 394, no. 3004, 1912.

Myiodynastes maculatus solitarius (nec Vieill.) Beebe, Trop. Wild Life, p. 134, 1917.

Myiodynastes solitarius duncani Chubb, Bull. Brit. Orn. Club, xl. p. 62, Dec. 31, 1919.

Adult male. General colour above blackish with white or rufous margins to the feathers which imparts a more or less streaked appearance; a large coronal patch composed of yellow and white feathers and tipped with black; a line of white feathers with dark shaft-streaks from the base of the forehead over the eye and along the sides of the crown; lores and feathers in front of the eye black and bristly in texture; ear-coverts black; cheeks white followed by a rather broad moustachial streak of black; hind-neck, back, scapulars, and innermost secondaries black with white margins to the feathers and slate-grey bases to the feathers on the back; upper wing-coverts blackish edged with rufous, some of the median and greater series margined with white; flight-quills also blackish edged with rufous on the outer webs and with white on the inner ones; upper tail-coverts and tail-feathers dark brown margined with rufous; throat and entire under surface yellowish white, including the axillaries and under wing-coverts, with broad black shaft-streaks to the feathers; under surface of quills brown with pale inner edges; lower aspect of tail brown with rufous edgings to the feathers.

Total length 196 mm., exposed culmen 21, wing 111, tail 79, tarsus 19.

The male from which the description is taken was collected on the Supenaam River in 1913.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Upper Takutu Mountains, Arawai River, Supenaam River (*McConnell collection*); Bartica (*Whitely*).

Habits. Unrecorded.

This subspecies is named in honour of Mrs. F. V. McConnell's second surviving son.

Genus **MEGARHYNCHUS** Thunb.

Megarhynchus Thunberg, Diss. de Gen. Megarh., Upsala, 1824. Type
M. pitangua (Linn.).

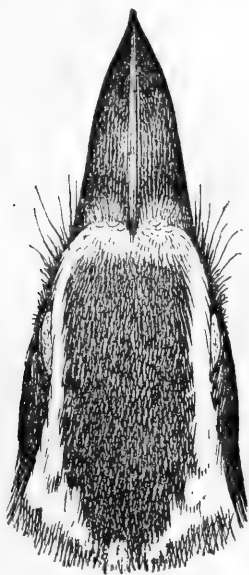


Fig. 85.—*Megarhynchus pitangua*.

This genus is distinguished chiefly by the peculiar shape of the bill, which is more or less boat-shaped, the upper mandible is hooked, the width at the base being about two-thirds the length of the exposed culmen. The wing is rounded, the second, third, and fourth primaries longest and equal, the first intermediate in length between the sixth and seventh. Tail square at the tip and about seven-ninths the length of the wing. The tarsus, which is proportionately short, is about equal in length to that of the middle toe and claw. Coloration: male and female similar.

487. *Megarhynchus pitangua*.

PITANGUA FLYCATCHER.

Lanius pitangua Linn. Syst. Nat. i. p. 136, 1766 (Brazil).

Megarhynchus pitangua Salvin, Ibis, 1885, p. 296 (Roraima, 3500 ft.)

Selater, Cat. B. Brit. Mus. xiv. p. 189, 1888 (Roraima); Quelch, Timehri (2) v. p. 89, 1891 (Georgetown); Brabourne & Chubb, B. S. Amer. i. p. 295, no. 3006, 1912.

Megarhynchus pitangua pitangua Beebe, Our Search for a Wilderness, pp. 247 (Mazaruni River), 392, 1910.

Immature. General colour of the upper surface smoke-brown including the back, wings, and tail; upper wing-coverts and flight-quills narrowly edged with rufous and the latter more broadly on the inner webs; upper tail-coverts and tail also edged with rufous; crown of head and sides of face black; a broad line of white from the base of the bill over the eye to the sides of the hinder crown; chin and throat white; remainder of the under surface bright yellow, paler on the under tail-coverts and under wing-coverts; quills below brown broadly edged with rufous; lower aspect of tail brown with narrow rufous edgings to the feathers.

The bird described above was collected by Mr. McConnell at Mount Roraima in October 1898.

Adult male. Crown of head blackish brown with a concealed coronal patch of yellow; a broad white line from the base of the bill which joins on the nape; lores and sides of face black; back and scapulars olive-brown; upper wing-coverts paler than the back; bastard-wing and primary-coverts uniform dark brown; flight-quills hair-brown narrowly edged with rufous or white on the outer webs and broadly margined with buff or white on the inner ones; tail also hair-brown with rufous fringes to the feathers; chin and throat white; remainder of under surface bright yellow, somewhat paler on the under tail-coverts, axillaries, and under wing-coverts; under surface of quills pale brown with rufous inner margins; lower aspect of tail similar with white shafts to the feathers. "Bill and feet black" (Cat. B. Brit. Mus.).

Total length 212 mm., exposed culmen 30, wing 123, tail 86, tarsus 20.

The male from which the description is taken was collected on Mount Roraima.

Adult female. Similar to the adult male but slightly smaller. Wing 119 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Ituribisi River

(*McConnell collection*); Mount Roraima (*Whitely*); Georgetown (*Quelch*); Mazaruni River (*Beebe*).

Extralimital Range. Venezuela, Colombia, Ecuador, Peru, Brazil, Paraguay, Panama to Mexico.

Habits. Mr. J. J. Quelch (*Timehri* (2) v. p. 89), who observed this species in Georgetown, remarks:—"A third kiskadie (*Megarhynchus pitangua*) is also often met with, commonly among the tamarind trees. This is the largest of all. The cry of this bird is harsher and deeper than the common species (*Pitangus sulphuratus*), but not so loud and piercing. It is altogether a less fierce and pugnacious bird, and will often be seen perched in the same attitude for long periods."

Genus **ONYCHORHYNCHUS** Fischer.

Onychorhynchus Fischer, *Zoognosia*, p. 31, 1814. Type *O. coronatus* (P. L. S. Müll.).

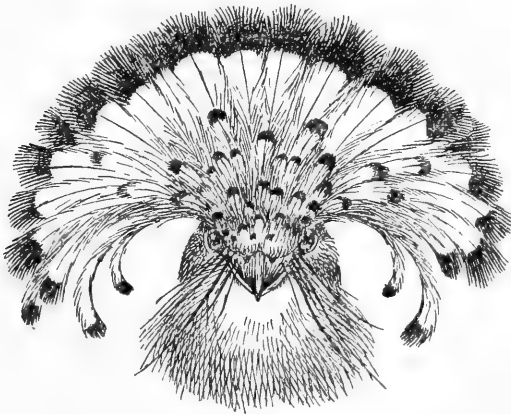


Fig. 86.—*Onychorhynchus coronatus*.

This genus is easily distinguished by the long and erectile crest, which covers the whole of the crown and nape. The bill is wide and flattened, the width being about half the length of the exposed culmen, the tip of the upper mandible sharply hooked, and the gape furnished with largely developed rictal bristles. Coloration; male and female similar.

488. *Onychorhynchus coronatus*.

ROYAL GREAT-CREST.

Muscicapa coronata P. L. S. Müller, Syst. Nat. Suppl. p. 168, 1776 (Cayenne).

Muscivora regia Sclater, Cat. B. Brit. Mus. xiv. p. 192, 1884 (Camacusa); Salvin, Ibis, 1885, p. 297 (Camacusa).

Onychorhynchus coronatus (P. L. S. Müll.) Brabourne & Chubb, B. S. Amer. i. p. 295. no. 3008, 1912.

Adult male. Crown of head, back, sides of face, and sides of breast dark olive-brown; darker on the upper wing-coverts, which have minute whitish spots at the tips; flight-quills olive-brown on the outer webs, dark brown on the inner ones, which are margined with yellowish buff; a narrow band across the rump cinnamon-buff; upper tail-coverts rufous-buff with dark markings towards the tips; tail chestnut; a fan-shaped crest on the fore part of the head deep red with steel-blue tips to the feathers; throat whitish with a tinge of lemon-yellow; breast, abdomen, axillaries, and under wing-coverts ochreous-buff barred with olive-brown on the breast and sides of the abdomen; under tail-coverts pale fawn-colour; under surface of flight-quills brown edged with yellowish buff; lower aspect of tail rufous-brown.

Total length 141 mm., exposed culmen 24, wing 73, tail 59, tarsus 14.

The specimen from which the above description is taken was collected by Mr. McConnell on the Cotinga River in November 1898.

Adult female. Similar to the adult male, but differs in having the crest orange with steel-blue tips instead of deep red. Wing 73 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Cotinga River, Tiger Creek (*McConnell collection*); Kamakusa (*Whitely*).

Extralimital Range. Northern Brazil, Eastern Peru.

Habits. Unrecorded in British Guiana.

Genus **HIRUNDINEA** d'Orb. et Lafr.

Hirundinea d'Orb. et Lafr. Syn. Av. i. p. 46, Mag. de Zool. 1837
Type *H. bellicosa* (Vieill.).

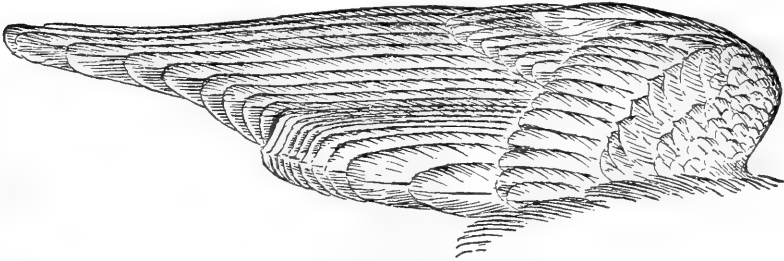


Fig. 87.—To show the formation of the wing.

This genus is distinguished by its long and more or less swallow-like wings. The bill is flat and wide, the width at the base being about three-fourths the length of the exposed culmen. The wing is rather pointed, the second and third primaries longest and subequal, and the first primary shorter than the third but longer than the fourth. The tail is square at the tip and about two-thirds the length of the wing. The tarsus is short, being only about equal in length to the middle toe and claw. Coloration: male and female alike.

489. **Hirundinea ferruginea.**

CAYENNE SWALLOW FLYCATCHER.

Todus ferrugineus Gmel. Syst. Nat. i. p. 446, 1788 (Cayenne).

Hirundinea ferruginea Selater, Ibis, 1869, pl. v. fig. 2; Salvin, Ibis, 1885, p. 297 (Roraima, 5000 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 195, 1888 (Twek-quay Mt.); Brabourne & Chubb, B. S. Amer. i. p. 295, no. 3012, 1912.

Adult male. General colour of the upper parts including the head, back, tail, and outer aspect of the wings dark smoke-brown; inner and basal portions of the flight-quills rufous-chestnut; loreal streak, fore part of cheeks, and throat greyish white barred with brown; remainder of the under surface deep chestnut but much paler on the axillaries, under wing-coverts, and quill-lining; lower aspect of tail and tips of quills below dark brown.

Total length 172 mm., exposed culmen 15, wing 113, tail 73, tarsus 18.

Adult female. Similar to the adult male. Wing 108 mm.

This species is not represented in the McConnell collection, and the above descriptions are taken from specimens in the British Museum collected by the late Henry Whitely on Mount Roraima and Tweek-quay Mountains—Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima and Tweek-quay Mountains (*Whitely*).

Extralimital Range. North Brazil.

Habits. Unrecorded in British Guiana.

Genus **MYIOBIUS** Gray.

Myiobius Gray, List Gen. Birds, first edition, p. 30, 1840. Type *M. barbatus* (Gmel.).



Fig. 88.—*Myiobius barbatus*.

The members of this genus are small birds with flat bills, the width at the basal portion being about half the length of the exposed culmen; the upper mandible is sharply hooked at the tip and the base is furnished with well-developed rictal bristles. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second shorter than the fifth but much longer than the sixth. The tail is proportionately long, being nearly six-sevenths the length of wing, and is square at the tip. The tarsus is about one-fourth longer than the exposed culmen, and the hind toe and claw are about equal in length to the middle toe and claw. Coloration: male and female similar.

Key to the Species.

- A. Rump sulphur-yellow *M. barbatus*, p. 215.
 B. Rump coffee-brown.
 a. Larger; wing more than 65 mm., tail
 more than 60 mm. *M. roraimæ*, p. 216.
 b. Smaller; wing less than 65 mm., tail less
 than 60 mm. *M. fasciatus*, p. 217.
 C. Rump rufous *M. erythrurus*, p. 218.

490. *Myiobius barbatus*.

WHISKERED FLYCATCHER.

Muscicapa barbata Gmel. Syst. Nat. i. p. 933, 1789 (Cayenne).

Myiobius barbatus Cab. in Schomb. Reis. Guian. iii. p. 701, 1848; Salvin, Ibis, 1885, p. 297 (Roraima, 3500 ft., Merumé Mts., Camacusa, River Atapurau, Bartica Grove); Selater, Cat. B. Brit. Mus. xiv. p. 199, 1888 (Bartica Grove, Camacusa, Roraima, River Atapurau); Brabourne & Chubb, B. S. Amer. i. p. 296, no. 3017, 1912.

Adult male. Head, back, and upper wing-coverts dark green with a yellow crest on the middle of the crown, some of the feathers tipped with green; flight-quills blackish on the inner webs with pale inner edges; lower back and rump sulphur-yellow like the abdomen and under wing-coverts; upper tail-coverts and tail blackish; throat greyish white; breast dusky-grey; under tail-coverts ochraceous buff; lower surface of flight-quills dark brown with pale inner edges; lower aspect of tail blackish. "Bill dark brown, base of lower mandible white; feet pale brown" (Cat. B. Brit. Mus.).

Total length 120 mm., exposed culmen 11, wing 70, tail 57, tarsus 17.

The male described was collected on the Ituribisi River in November 1906.

Adult female. Similar to the adult male. Wing 61 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Bonasika River, Makauria River, Abary River, Berbice River, Arwey River, Great Falls Demerara River (*McConnell* collection); Mount Roraima, Merumé Mountains, Kamakusa, Kamarang River, Bartica (*Whitely*).

Extralimital Range. Northern Brazil, Venezuela.

Habits. According to Schomburgk (Reis. Guian. iii. p. 701, this bird frequents the outskirts of woods on the river-sides and in the plantations.

491. *Myiobius roraimæ*.

RORAIMA FLYCATCHER.

Myiobius roraimæ Salvin & Godman, Ibis, 1883, p. 207 (Mount Roraima, 3500 ft.); Salvin, Ibis, 1885, p. 297; Selater, Cat. B. Brit. Mus. xiv. p. 268, pl. xviii., 1888 (Twek-quey Mt., Carimang River); Brabourne & Chubb, B. S. Amer. i. p. 298, no. 3039, 1912.

Adult male. Crown of head, hind-neck, back, wings, and upper tail-coverts coffee-brown; the base of the feathers on the crown of the head bright orange-rufous; median and greater upper wing-coverts cinnamon-rufous; primary-coverts and flight-quills dark brown, outer margins of the latter similar in colour to that of the back, inner margins orange-buff; tail-feathers dark brown fringed on the outer webs with coffee-brown; rictal bristles black inclining to white at the base; lores yellowish white at the base; cheeks, ear-coverts, and sides of neck dusky olive-green; chin and throat yellowish white; breast and sides of body olive-green; abdomen yellow, becoming paler and inclining to white on the vent and under tail-coverts; thighs coffee-brown; axillaries, edge of wing, and under wing-coverts sulphur-yellow; under surface of quills hair-brown broadly margined with buff on the inner edges; lower aspect of tail hair-brown. "Bill dusky on the upper mandible, yellowish on the lower mandible" (*Salvin & Godman*).

Total length 137 mm., exposed culmen 10, wing 70, tail 63, tarsus 19.

Adult female. Similar to the adult male but rather smaller. Wing 65 mm.

This species is not represented in the McConnell collection, and the above descriptions have been taken from material in the British Museum which includes the original specimens obtained by Whitely at Mount Roraima in 1881—Salvin-Godman collection.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima, Twek-quey Mountain, Kamarang River, Takutu River (*II. Whitely*).

Habits. Unrecorded.

492. *Myiobius fasciatus*.

LITTLE BROWN FLYCATCHER.

Muscicapa fasciata P. L. S. Müll. Syst. Nat. Suppl. p. 172, 1776 (Cayenne).

Myiobius navius Salvin, Ibis, 1885, p. 297 (Roraima, 3500 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 209, 1888.

Myiobius fasciatus Brabourne & Chubb, B. S. Amer. i. p. 298, no. 3040, 1912.

Adult male. General colour of the upper surface smoke-brown becoming rust-brown on the upper tail-coverts; middle of crown bright lemon-yellow, inclining to white on the nape, with smoke-brown tips to the feathers; median and greater upper wing-coverts dark brown with buffy-white tips to the feathers; bastard-wing, primary-coverts, and flight-quills blackish brown, the inner margins of the last and some of the outer edges of the secondaries whitish; tail hair-brown; lores whitish; rictal bristles black; hinder face and sides of neck similar to that of the hind-neck; throat greyish white; fore-neck tinged with fawn-colour as are also the thighs; remainder of under surface yellowish white with brown shaft-streaks to the feathers on the breast and sides of the body; axillaries sulphur-yellow; under wing-coverts and inner edges of quills below buff; remainder of the quills below hair-brown; lower aspect of tail similar but rather paler.

Total length 121 mm., exposed culmen 11, wing 59, tail 53, tarsus 16.

Adult female. Differs from the adult male in being more rust-brown on the upper parts and in having the coronal patch orange in front and yellowish white on the hinder part which forms a nape patch. Wing 55 mm.

This species is not represented in the McConnell collection, and the descriptions are taken from examples in the British Museum collected by Whitely on Mount Roraima at an altitude of 3500 feet—Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*Whitely*).

Extralimital Range. Trinidad, Venezuela, Colombia, Brazil, Bolivia, and Argentina.

Habits. Unrecorded in British Guiana.

493. *Myiobius erythrurus*.

RED-TAILED FLYCATCHER.

Myiobius erythrurus Cab. Arch. für Naturg. 1844, i. p. 249, pl. 5, fig. 1 (Guiana); id. in Schomb. Reis. Guian. iii. p. 701, 1848; Salvin, Ibis, 1885, p. 297 (Camacusa, Bartica Grove); Selater, Cat. B. Brit. Mus. xiv. p. 203, 1888 (Carimang River); Brabourne & Chubb, B. S. Amer. i. p. 296, no. 3025, 1912.

Terenotricus erythrurus Beebe, Our Search for a Wilderness, pp. 313, 392, 1910 (Aremu River).

Buff-tailed Tyrantlet (*Beebe*).

Adult male. Head, hind-neck, and upper back slate-grey becoming paler grey on the sides of the face and sides of the neck—still paler and inclining to whitish on the chin; wings dull rufous including the median and greater under wing-coverts and innermost secondaries; outer edge of wing with the bastard-wing and primary-coverts blackish, as are also the inner webs of the flight-quills which are margined with pale rufous; lower back, upper tail-coverts, and tail cinnamon-rufous; breast, abdomen, under tail-coverts, and under wing-coverts pale cinnamon-rufous; under surface of flight-quills dark brown with rufous edgings which increase in width on the inner ones; lower aspect of tail the same as above.

Total length 93 mm., exposed culmen 8, wing 51, tail 38, tarsus 16.

The specimen from which the description is taken was collected on the Anarica River in 1913.

Adult female. Similar to the adult male but rather smaller. Wing 45 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Anarica River, Arawai River, Great Falls Demerara River (*McConnell* collection); Bartica, Kamakusa, Kamarang River (*Whitely*); Aremu River (*Beebe*).

Extralimital Range. Venezuela.

Habits. Schomburgk states (Reis. Guian. iii. p. 701) that this bird is usually found in flocks in the outskirts of the woods and gardens of the natives, where it may be seen flying from tree to tree in search of insects.

The following note has been copied from Beebe (Our Search for a Wilderness, p. 313):—"A Buff-tailed Tyrantlet. This waif

of the upper air was less than three and a half inches in length with rather unusual coloring, the fore part of the body gray, the back, wings, lower breast, and tail rufous. Its claim to the Flycatcher family was proved by the broad beak and remarkably long bristles.”

Genus **PYROCEPHALUS** Gould.

Pyrocephalus Gould, Voy. ‘Beagle,’ Zool. iii. p. 44, 1841. Type
P. rubineus (Bodd.).



Fig. 89.—*Pyrocephalus rubineus*.

The species on which this genus was founded is easily distinguished by the bright and contrasting colours in the male. The bill is somewhat flattened and rather wide at the base, the width being slightly more than half the length of the exposed culmen, the upper mandible is sharply hooked, and the base is furnished with rictal bristles but only feebly developed. The wing is rounded, the second, third, and fourth primaries longest and equal, the first about equal in length to the sixth. The tail is long, nearly square at the tip, and about five-sevenths the length of the wing. The tarsus is about one-fourth longer than the exposed culmen and the hind toe and claw intermediate in length between the outer and middle toe and claw. Coloration: male and female different.

494. **Pyrocephalus saturatus.**

DUSKY RUBY FLYCATCHER.

Myiarchus coronatus (nec Gmel.) Cab. in Schomb. Reis. Guian. iii. p. 700, 1848.

Pyrocephalus rubineus (nec Bodd.) Salvin, Ibis, 1885, p. 297; Sclater, Cat. B. Brit. Mus. xiv. p. 211, 1888 (British Guiana).

Pyrocephalus saturatus Berlepsch & Hartert, Nov. Zool. ix. p. 34, 1902 (Altagracia, Venezuela); Brabourne & Chubb, B. S. Amer. i. p. 298, no. 3045, 1912.

Adult male. Back, wings, tail, and sides of the face sooty-black

somewhat paler on the flight-quills, lateral tail-feathers also paler than the middle ones, the outermost pair narrowly edged on the outer webs and at the tips with white, as are also the tips of the middle feathers; entire crown of head and nuchal crest bright scarlet; throat and entire under surface also scarlet but not so bright as the head; axillaries and under wing-coverts blackish with a slight admixture of scarlet on the latter; quills below and lower aspect of tail brown with white tips to some of the latter.

Total length 118 mm., exposed culmen 10, wing 71, tail 48, tarsus 17.

The example from which the description is taken was collected in the Upper Takutu Mountains in 1908.

Adult female. Differs from the adult male in having the crown of the head earth-brown like the back, the throat dull white, the breast streaked with brown, and the abdomen paler red. Wing 68 mm.

The young of both sexes are dark brown on the upper surface with buffy white edgings to the feathers, the outermost pair of tail-feathers white on the outer webs. Throat and fore-neck white, breast and sides of body brown with whitish margins to the feathers; abdomen and under tail-coverts white or buffy white. The red on the under surface usually appears first on the under tail-coverts and increases towards the throat.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains (*McConnell collection*); Annai (*Whitely*).

Extralimital Range. Venezuela.

Habits. Schomburgk states (*Reis. Guian.* iii. p. 700) that this species is found only in the higher and dry savannas, where the male and female sit in pairs waiting to catch insects flying past. He also says that the natives of Brazil regard this bird as a token of love. When young couples become engaged, they are presented with a sun-dried specimen which is worn on the breast, and it is believed that, as long as this is done, the lovers will be true to each other at whatever distance they may be apart. Joyful and confident, the young man will walk any distance to meet his sweetheart so long as he wears his token. Schomburgk did not observe the bird nesting. The "Macusis" and the "Arekunas" call this bird *Waitakuri*.

Genus **EMPIDochANES** Sclater.

Empidochanes Sclater, Catalogue of American Birds, p. 228, 1862.
Type *E. fuscatus* (Wied).



Fig. 90.—*Empidochanes fuscatus*.

In this genus the bill is entirely black and depressed, the width at the base is about two-thirds the length of the exposed culmen, the upper mandible is sharply hooked, and the rictal bristles well developed. The wing is rounded, the third, fourth, and fifth primaries longest, the second about equal to the sixth and the first rather shorter than the eighth. The tail is rounded at the tip and about equal in length to the wing, and the tarsus about one-third longer than the exposed culmen. Coloration: male and female similar.

Key to the Species.

- A. Throat, under tail-coverts, axillaries, and under wing-coverts yellowish white *E. cabanisi*, p. 221.
B. Throat dusky; under tail-coverts, axillaries, and under wing-coverts cinnamon *E. salvini*, p. 222.

495. **Empidochanes cabanisi.**

LEOTAUD'S DUSKY FLYCATCHER.

Empidonax cabanisi Léotaud, Ois. Trinid. p. 232, 1866.

Empidochanes olivus Salvin, Ibis, 1885, p. 297 * (Bartica Grove).

Empidochanes cabanisi Brabourne & Chubb, B. S. Amer. i. p. 299, no. 3050, 1912.

Adult male. General colour above olive-brown including the head, sides of face, back, scapulars, and lesser upper wing-coverts; median and greater upper wing-coverts dark brown tipped with fulvous which forms a double wing-bar; bastard-wing, primary-coverts, and quills dark brown with whitish

* I have been unable to find any quotation of this reference in vol. xiv. of the 'Catalogue of Birds,' nor can I trace any specimen from Bartica Grove in the British Museum.

edgings to the inner webs of the last which become buff on the inner secondaries, the outer webs on some of the primaries also have pale edges; rump and upper tail-coverts inclining to dark ochraceous; tail brown; the feathers on the lores dusky and bristly in texture with a pale line running to above the eye; throat yellowish white; remainder of the under surface sulphur-yellow, including the axillaries and under wing-coverts, with a dusky band across the breast which is darker on the sides; under surface of quills brown with pale inner margins; lower aspect of tail pale brown.

Total length 144 mm., exposed culmen 13, wing 73, tail 76, tarsus 16.

The bird described was collected at Bartica in 1911.

There are no specimens of this species from British Guiana in the British Museum.

Young. Head, back, and tail rust-brown; wings dark brown with fulvous tips to the median and greater upper wing-coverts and outer edges of some of the flight-quills and buffy-white margins on the inner webs of the latter; the pale loral streak slightly indicated; remainder of the under surface including the under wing-coverts whitish tinged with yellow.

The bird mentioned above was collected on the Ituribisi River in August 1909.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Bonasika River, Makauria River, Abary River, Anarica River (*McConnell collection*).

Extralimital Range. Trinidad, Tobago, Venezuela, Colombia.

496. *Empidochanes salvini*.

SALVIN'S RORAIMA FLYCATCHER.

Empidochanes salvini Selater, Cat. B. Brit. Mus. xiv. p. 218, 1888 (Mount Roraima); Brabourne & Chubb, B. S. Amer. i. p. 299, no. 3053, 1912.

Empidochanes pæcilurus Salvin (nec Selater), Ibis, 1885, p. 298 (Roraima, 5000 ft.).

Adult. Head, back, scapulars, and lesser upper wing-coverts dark slate-colour; greater upper wing-coverts, bastard-wing, and

primary-coverts dark brown with pale edges to some of the feathers; flight-quills also dark brown with buff margins to the inner webs; tail dark brown inclining to rufous on the inner webs on the basal portion; sides of face like the crown of the head; throat ash-grey becoming slate-grey on the breast and sides of the body; abdomen whitish; under tail-coverts, axillaries, and under wing-coverts fulvous; under surface of quills brown with buff inner edges; lower aspect of tail pale brown.

Total length 137 mm., exposed culmen 16, wing 78, tail 61, tarsus 16.

The bird described was collected by Mr. McConnell at Mount Roraima in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Unrecorded.

Genus **HORIZOPUS** Oberh.

Horizopus Oberholser, Auk, xvi. p. 331, 1899. Type *H. virens* (Linn.).

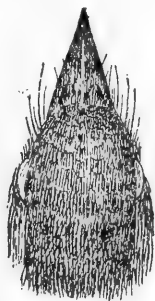


Fig. 91.—*Horizopus virens*.

This genus has no very strong character by which to distinguish it. It has, however, the usual flattened bill, which is sharply hooked at the tip of the upper mandible; the width at the base is about two-thirds the length of the exposed culmen. The wing is somewhat pointed, the second and third primaries longest, the first almost equal to the fourth and much longer than the fifth. The tail is square at the tip and more than two-thirds the length of the wing, and the tarsus about equal in length to the exposed culmen. Coloration: male and female similar.

497. *Horizopus ardesiacus*.

LAFRESNAYE'S PEEWEE.

Tyrannula ardesiaca Lafresnaye, Revue Zoologie, 1844, p. 80 (Colombia).*Contopus ardesiacus* Salvin, Ibis, 1885, p. 298 (Roraima, 5000-6000 ft.);
Slater, Cat. B. Brit. Mus. xiv. p. 237, 1888 (Twek-quey Mt.,
Kamarang River).*Horizopus ardesiacus* Brabourne & Chubb, B. S. Amer. i. p. 301,
no. 3069, 1912.

Adult female. General colour above and below dark slate-grey; greater upper wing-coverts dark brown edged with slate-colour at the tips; bastard-wing, primary-coverts, and flight-quills blackish brown, the last paler on the edges of the inner webs; tail dark brown; crown of head darker than the back and inclining to black; under surface of body rather paler than the back; axillaries and under wing-coverts dusky brown.

Total length 154 mm., exposed culmen 17, wing 85, tail 70, tarsus 12.

The specimen from which the description is taken was collected by Mr. McConnell at Mount Roraima in October 1898.

Adult male. Differs from the adult female in being darker in colour and rather larger in measurement. Wing 90 mm.

The male, which is in the British Museum, was collected by the late Henry Whitely at Twek-quey Mountain, Kamarang River, January 25, 1886—Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima, Mount Twek-quey, Kamarang River (*Whitely*).

Extralimital Range. Venezuela, Colombia, Ecuador, Peru, Bolivia.

Habits. Unrecorded in British Guiana.

Genus **BLACICUS** Cab.

Blacicus Cabanis, Journ. für Ornith. 1855, p. 480. Type *B. caribæus* (d'Orb.).

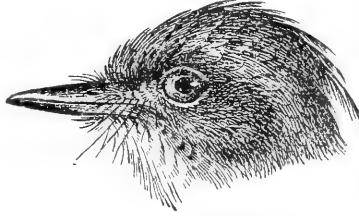


Fig. 92.—*Blacicus andinus*.

This genus is distinguished by having the lower mandible white; the width of the bill at the base is equal to about three-fifths the length of the exposed culmen. The wing is rounded, the second, third, and fourth primaries longest—the first is rather shorter than the fifth, but longer than the sixth. The tail is square at the tip and about six-sevenths the length of the wing. The tarsus is rather longer than the exposed culmen, and the middle toe and claw are about equal in length to the hind toe and claw. Coloration: male and female similar.

498. **Blacicus andinus.**

BLACK-HEADED PEEWEE.

Empidonax andinus Tacz. P. Z. S. 1874, p. 539 (Lake Junin, Peru).

Contopus brachytarsus (nec Sc. Ibis, 1859, p. 414) Sclater, Cat. B. Brit. Mus. xiv. p. 240, 1888 (Guiana).

Blacicus andinus Brabourne & Chubb, B. S. Amer. i. p. 301, no. 3074, 1912.

Adult. General colour of the upper surface dark earth-brown with a tinge of slate-grey, darker and inclining to blackish brown on the top of the head; wings blackish brown with pale edges to some of the feathers, including the inner webs of the flight-quills; tail pale brown; lores whitish at the base; sides of face and breast pale earth-brown; throat, abdomen, under tail-coverts, axillaries, and under wing-coverts white with a tinge of yellow on the abdomen; under surface of quills and tail-feathers pale brown.

Total length 136 mm., exposed culmen 11, wing 71, tail 60, tarsus 14.

The specimen from which the description is taken was collected on the Abary River in July 1906.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Abary River (*McConnell collection*).

Extralimital Range. Venezuela, Colombia, Ecuador, Peru, Bolivia.

Habits. Unrecorded in British Guiana.

NOTE.—I have not found any trace of the following species in British Guiana:—*Muscicapa fusca* Boddaert, Tabl. Pl. Enl. d'Hist. Nat. p. 34, 1783, founded on *Gobemouche brun*, Pl. Enl. v. pl. 574. fig. 1. "*Planchesia fusca* (Bodd.)," Brabourne & Chubb, B. S. Amer. i. p. 302, no. 3078, 1912.

Genus **MYIARCHUS** Cab.

Myiarchus Cabanis in Tschudi's Faun. Peru., Aves, p. 152, 1845. Type *M. ferox* (Gmel.).

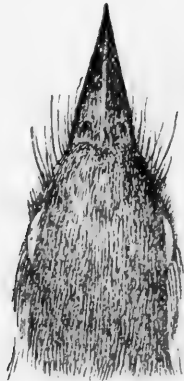


Fig. 93.—*Myiarchus ferox*.

The members of this genus are rather large birds with somewhat flattened bills, which have a keeled culmenal ridge. The width of the bill at the base is about half the length of the exposed culmen, the upper mandible is sharply hooked at the tip, and the base is furnished with rictal bristles, though not particularly numerous. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second about equal to the sixth and the first about equal to the eighth. The tail is nearly equal

in length to the wing and almost square at the tip. The tarsus is slightly longer than the exposed culmen, and the hind toe and claw are intermediate in length between the outer and middle toes and claws. Coloration: male and female similar.

Key to the Species.

- | | |
|---|--------------------------------|
| A. The inner webs of the tail-feathers margined with rufous | <i>M. tyrannulus</i> , p. 227. |
| B. The inner webs of the tail-feathers not margined with rufous. | |
| <i>b.</i> Larger; wing more than 85 mm., tail more than 80 mm. | |
| <i>b'.</i> Crown of head and back dusky olive-brown | <i>M. ferox</i> , p. 228. |
| <i>c'.</i> Crown of head and back blackish..... | <i>M. phæonotus</i> , p. 229. |
| <i>c.</i> Smaller; wing less than 85 mm., tail less than 80 mm..... | <i>M. nigriceps</i> , p. 230. |

499. *Myiarchus tyrannulus*.

RUSTY-TAILED FLYCATCHER.

Muscicapa tyrannulus P. L. S. Müller, Syst. Nat. Suppl. p. 169, 1776 (Cayenne).

Myiarchus tyrannulus Selater, Cat. B. Brit. Mus. xiv. p. 251, 1888; Brabourne & Chubb, B. S. Amer. i. p. 302, no. 3080, 1912.

Adult. General colour of the upper surface olive-brown with a greyish tinge, darker and inclining to earth-brown on the head; median and greater upper wing-coverts and secondary-quills dark brown with pale ash-grey margins to the feathers; bastard-wing, primary-coverts, and primary-quills also dark brown, the last slightly edged with rufous on the outer webs and margined with pale buff on the inner ones; upper tail-coverts slightly tinged with rust-brown; tail dark brown, all the feathers, except the two middle ones, broadly margined with rufous on the inner webs; ear-coverts like the back; throat and breast pale ash-grey; abdomen, under tail-coverts, sides of body, axillaries, and under wing-coverts lemon-yellow; under surface of flight-quills brown with pale inner edges; lower aspect of tail for the most part rufous, brown on the middle feathers and near the shafts of the lateral ones.

Total length 173-mm., exposed culmen 19, wing 90, tail 84, tarsus 23.

The bird described was collected on the Abary River in July 1906.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Takutu River, Abary River (*McConnell collection*); Bartica, Kamakusa (*Whitely*).

Extralimital Range. Venezuela, Testigos and Margarita Islands, Colombia.

Habits. Unrecorded in British Guiana.

500. *Myiarchus ferox*.

FIERCE FLYCATCHER.

Muscicapa ferox Gmel. Syst. Nat. i. p. 934, 1789 (Cayenne).

Myiarchus ferox Cab. in Schomb. Reis. Guian. iii. p. 700, 1848; W. L. Slater, Ibis, 1887, p. 318 (Maccassemma, Pomeroun River); P. L. Slater, Cat. B. Brit. Mus. xiv. p. 253, 1888 (Bartica Grove, Camacusa); Brabourne & Chubb, B. S. Amer. i. p. 302, no. 3085, 1912; Beebe, Tropical Wild Life Brit. Guiana, p. 134, 1917.

Myiarchus tyrannulus (nec Müll.) Salvin, Ibis, 1885, p. 298 (Camacusa, Bartica Grove).

Adult female. Back, scapulars, and lesser upper wing-coverts olive; crown of head and ear-coverts dark brown; wings also dark brown, with pale margins to the median and greater upper wing-coverts and outer webs of the flight-quills, inner webs of the last margined with whitish; tail uniform dark brown; throat and breast ash-grey; abdomen, under tail-coverts, axillaries, and under wing-coverts lemon-yellow; under surface of quills brown with pale inner edges; lower aspect of tail pale brown.

Total length 173 mm., exposed culmen 21, wing 87, tail 87, tarsus 22.

The specimen from which the description is taken was collected on the Supenaam River in 1910.

Adult male. Similar to the adult female but rather larger. Wing 92 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Supenaam River, Bartica, Kamakabra River, Great Falls Demerara River

(*McConnell collection*); Pomeroun River (*W. L. Selater*); Bartica, Kamakusa (*Whitely*).

Extralimital Range. Brazil, Paraguay, Argentina.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 700*) this bird frequents the coast, the river borders, and the plantations.

501. *Myiarchus phænotus*.

WHITELY'S FLYCATCHER.

Myiarchus phænotus Salvin & Godman, *Ibis*, 1883, p. 207 (Merumé Mts.); Salvin, *op. cit.* 1885, p. 298 (Roraima, 3500 ft.); Selater, *Cat. B. Brit. Mus. xiv. p. 255*, 1888 (Merumé Mts., Roraima); Brabourne & Chubb, *B. S. Amer. i. p. 303*, no. 3090, 1912.

Adult male. Crown of head, wings, and tail dark soot-brown, with pale margins to the median and greater upper wing-coverts and outer webs of the inner secondary-quills, inner webs of flight-quills more broadly edged with whitish; outer tail-feathers slightly paler on the outer edges; hind-neck, sides of neck, entire back, scapulars, and lesser upper wing-coverts dark olive-green; lores more or less grey at the base; ear-coverts brown; throat and breast pale ash-grey; abdomen, under tail-coverts, axillaries, and under wing-coverts sulphur-yellow; quills below brown slightly paler on the inner edges; lower aspect of tail brown, rather paler on the outer web of the outermost feather.

Total length 184 mm., exposed culmen 20, wing 92, tail 83, tarsus 18.

Adult female. Similar to the adult male but rather smaller. Wing 88 mm.

The male and female described were collected by Mr. McConnell at Mount Roraima in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

NOTE.

MYIARCHUS PELZELNI.

Myiarchus pelzelni Berlepsch, *Ibis*, 1883, p. 139 (Bahia); Selater, *Cat. B. Brit. Mus. xiv. p. 255*, 1888 (Cayenne); Brabourne & Chubb, *B. S. Amer. i. p. 303*, no. 3089, 1912.

Although this species has been known to occur in Cayenne, I can find no trace of its occurrence in British Guiana.

Range confined to British Guiana. Mount Roraima, Upper Takutu Mountains (*McConnell collection*); Mount Roraima and Merumé Mountains (*Whitely*).

Habits. Unrecorded.

502. *Myiarchus nigriceps*.

SCLATER'S BLACK-HEADED FLYCATCHER.

Myiarchus nigriceps Sclater, P. Z. S. 1860, p. 68 (Pallatanga, Ecuador); Salvin, Ibis, 1885, p. 298 (Roraima, 3500 ft., Merumé Mts., Camacusa); Sclater, Cat. B. Brit. Mus. xiv. p. 258, 1888 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 203, no. 3093, 1912.

Adult male. Crown of head black; back olive-green; outer edges of the greater upper wing-coverts and secondary-quills inclining to green; under surface for the most part yellow.

Total length 172 mm., exposed culmen 20, wing 81, tail 74, tarsus 18, middle toe and claw 14.

Adult female. Similar to the adult male but smaller. Wing 73 mm.

The specimens from which the descriptions are taken were collected on the Ituribisi River, 1908 and 1909.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Arawai River (*McConnell collection*).

Extralimital Range. North Brazil, Venezuela, Colombia, Ecuador.

Habits. Unrecorded in British Guiana.

Genus **EMPIDONOMUS** Cab. & Hein.

Empidonomus Cabanis & Heine, Mus. Hein. ii. p. 76, 1859. Type *E. varius* (Vieill.).



Fig. 94.—*Empidonomus varius*.

In this genus the bill is flattened, its width at the base is about

two-thirds the length of the exposed culmen, and the tip of the upper mandible is sharply hooked. The wing is inclined to be pointed, the second, third, and fourth primaries are longest and incised on the inner webs at the tips, and the first is almost equal in length to the fifth. The tail is square at the tip and about three-fourths the length of the wing. The tarsus is about one-fifth longer than the exposed culmen, and the hind toe and claw about equal in length to the middle toe without claw. Coloration: male and female similar.

503. *Empidonomus varius parvirostris*.

GUIANA STREAKED FLYCATCHER.

Tyrannus rufinus (nec Spix) Cab. in Schomb. Reis. Guian. iii. p. 700
1848.

Empidonomus varius Salvin, Ibis, 1885, p. 298 (Roraima 3500 ft.,
Bartica Grove); Selater, Cat. B. Brit. Mus. xiv. p. 265, 1888 (Bar-
tica Grove, Roraima); Brabourne & Chubb, B. S. Amer. i. p. 303,
no. 3098, 1912.

Empidonomus varius varius (nec Vieill.) Beebe, Trop. Wild Life Brit.
Guiana, p. 225, 1917.

Empidonomus varius parvirostris Chubb, Bull. Brit. Ornith. Club, xl.
p. 75, January 1920.

Adult male. General colour above dusky-brown with whitish edges to many of the feathers; crown of head, lores, and ear-coverts dark brown with a concealed patch of orange-yellow on the middle of the crown; base of forehead and a broad line over each eye white very slightly tinged with sulphur-yellow; back dusky-brown, with grey bases and rather paler edges to the feathers; general aspect of the upper wing-coverts dark brown, the marginal coverts narrowly edged with rusty-brown, the inner ones margined with white on the outer webs like the median and greater series and secondary-quills; bastard-wing and primary-coverts almost uniform brown; flight-quills also dark brown, fringed with yellowish white on the inner webs; upper tail-coverts and tail dark brown with dark rufous margins to the feathers; cheeks and throat greyish white; breast and sides of neck pale dusky-brown, with dark shaft-lines and pale margins to some of the feathers—the margins becoming sulphur-yellow on the lower abdomen, vent, and under tail-coverts; axillaries and under wing-coverts almost uniform sulphur-yellow; under sur-

face of flight-quills pale brown, the inner edges yellowish white ; lower aspect of tail also pale brown.

Total length 160 mm., exposed culmen 12, wing 97, tail 76, tarsus 15.

The specimen from which the description is taken was collected on the Kamakabra River in 1911.

Adult female. Similar to the adult male in coloration but rather smaller in measurements. Wing 86 mm.

The young bird differs from the adult in having the feathers of the upper surface edged with rufous and in the absence of the yellow coronal patch.

Breeding-season. April (*Beebe*).

Nest. Vide *Beebe infra*.

Eggs. Vide *Beebe infra*.

Range in British Guiana. Kamakabra River, Bonasika River, Abarý River, Arawai River (*McConnell collection*) ; Bartica, Mount Roraima (*Whitely*).

Habits. Schomburgk states (*Reis. Guian. iii. p. 700*) that the mode of life and habits of this bird are similar to those of *Tyrannus melancholicus* (q. v. p. 234).

The following notes are quoted from *Beebe*, 'Tropical Wild Life in British Guiana,' p. 225 :—

"Though the eggs of this species have been collected, no description of the nest has been given. The genus *Empidonomus* is very closely allied to *Tyrannus*, so one would expect corresponding nests. They proved to be somewhat similar, but the nest of *Tyrannus*, though rather a shabby affair, was much more specialised than that of the bird in question. In *Tyrannus* the nest hollow was cup-shaped and well lined with grass, and the whole structure was more skilfully put together with a more careful gradation of material.

"A nest of the Varied Flycatcher was taken on April 20, from one of the outer branches of a small dead guava tree. At first sight it appeared to be merely a weak flimsy platform of twigs fashioned like the nest of a dove and placed in an exposed position. If the parent birds had not been seen, it might easily have been taken for the nest of a dove. It was built in a small fork and was partly supported by a dead branch that grew close by. Every puff of wind caused it to sway and shake, and it was difficult to believe that it would not soon fall to pieces. The basic

material was small twigs and vine stems. In the centre was a shallow depression for the eggs, which was lined with coarse stems of a common weed that grew hereabouts. The depth of the depression was 2 cm. and the platform was 13 cm. in diameter, by 8 cm. in height.

“There were two eggs in the nest, one of which was infertile. Measurements averaged 23×16 mm.”

Genus **TYRANNUS** Lacépède.

Tyrannus Lacépède, Tabl. Ois. p. 5, 1799 Type *T. tyrannus* (Linn.).

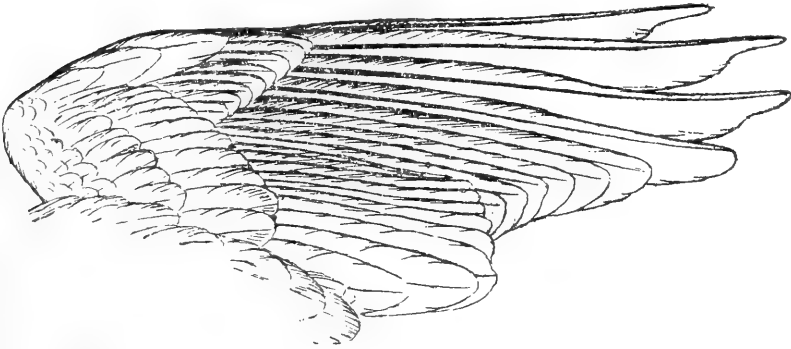


Fig. 95.—To show the incised tips of the outer primary-quills.

The members of this genus are some of the largest birds of the family. The bill is depressed, the width at the base is about two-thirds the length of the exposed culmen, the upper mandible is sharply hooked, and the base is furnished with bristles. The wing is more or less pointed, the second and third primaries are longest, the first is intermediate in length between the sixth and seventh, the three outer primaries are sharply incised on the inner webs at the tips. The tail is slightly emarginate at the tip and the feathers rather broad, and the tarsus is about equal in length to the middle toe and claw. Coloration : male and female similar.

Key to the Species.

- | | |
|--|------------------------------|
| A. Back slate-grey; head black; under surface, for the most part, white | <i>T. tyrannus</i> , p. 234. |
| B. Back olive-green; head grey; under surface, for the most part, yellow | <i>T. satrapa</i> , p. 234. |

504. *Tyrannus tyrannus*.

COMMON KING-BIRD.

Lanius tyrannus Linn. Syst. Nat. i. p. 94, 1758 (Carolina).

Tyrannus tyrannus Brabourne & Chubb, B. S. Amer. i. p. 304, no. 3100, 1912.

Adult female. Head and sides of face black with a slaty-grey tinge; a concealed bright orange-red patch on the middle of the crown; hind-neck, sides of neck, back, lesser upper wing-coverts, and scapulars dark slate-colour; median and greater upper wing-coverts, bastard-wing, primary-coverts, and flight-quills dark brown with pale edges to many of the feathers; upper tail-coverts black, narrowly fringed with white; tail-feathers also black, rather broadly tipped with white; throat, abdomen, and under tail-coverts white; breast pale ash-grey; axillaries and under wing-coverts pale brown; under surface of quills similar but paler; lower aspect of tail dark brown tipped with white.

Total length 187 mm., exposed culmen 16, wing 116, tail 83, tarsus 21.

The female described above was collected on the Abary River in November 1906.

Adult male. Similar to the adult female, but the coronal patch more extensive, and slightly larger in measurements. Wing 122 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Abary River (*McConnell collection*).

Extralimital Range. Peru, Ecuador, Colombia. North through Central America and the United States to Canada.

505. *Tyrannus satrapa*.

LESSER YELLOW-BREASTED KING-BIRD.

Tyrannus melancholicus (nec Vieill.) Cab. in Schomb. Reis. Guian. iii. p. 700, 1848; Salvin, Ibis, 1885, p. 299 (Roraima, Merumé Mts., Camacusa, Bartica Grove); W. L. Slater, Ibis, 1887, p. 318 (Mac-cassema); P. L. Slater, Cat. B. Brit. Mus. xiv. p. 273, 1888 (Roraima, Camacusa, Bartica Grove); Lloyd-Price, Timehri, (2) v. p. 61, 1891 (nest and eggs); Queleh, tom. cit. p. 90, 1891 (Georgetown); Beebe, Our Search for a Wilderness, pp. 137, 392, 1910 (Barima River).

Laphyetes satrapa Cab. et Hein. Mus. Hein. ii. p. 77, 1859 (Caracas).

Tyrannus satrapa Brabourne & Chubb, B. S. Amer. i. p. 304, no. 3104, 1912.

“Kiskadie” (*Quelch*).

Adult male. Head and sides of face ash-grey; a large concealed patch of orange-red on the top of the head; back, scapulars, and lesser upper wing-coverts olive-green; bastard-wing uniform dark brown; median and greater upper wing-coverts brown, edged with olive-green like the primary-coverts; flight-quills dark brown, slightly edged on the primaries and more broadly on the secondaries with olive-green, the inner webs margined with yellowish white; upper tail-coverts and tail dark brown, with olive-green fringes to the former and pale edges to the latter; cheeks and throat pale ash-grey; breast greenish yellow; abdomen and sides of body bright yellow; under tail-coverts, axillaries, and under wing-coverts lemon-yellow; marginal under wing-coverts and under surface of flight-quills pale brown with sulphur-yellow margins to the feathers; lower aspect of tail uniform brown.

Total length 200 mm., exposed culmen 25, wing 113, tail 91, tarsus 19.

The description is taken from a male collected at Bartica in 1911.

Adult female. Similar to the male in coloration but slightly smaller in measurements. Wing 110 mm.

The young bird differs from the adult in the absence of the concealed orange-red patch on the crown of the head, which is represented by lemon-yellow, in having the upper wing-coverts, upper tail-coverts, and tail-feathers fringed with rufous, and the throat and fore-neck white.

The young bird described above was collected on the Ituribisi River in 1909.

Breeding-season. Unrecorded in British Guiana.

Nest. A small round nest made of dry sticks, lined with grass, and generally placed in the upper branches of low trees (*H. Lloyd Price*).

Eggs. Three in number; white spotted with red-brown and grey (*H. Lloyd Price*).

Range in British Guiana. Mount Roraima, Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Abary River, Tiger Creek (*McConnell collection*); Mount Roraima,

Merumé Mountains, Kamakusa (*Whitely*); Pomeroon River (*W. L. Slater*); Barima River (*Beebe*).

Extralimital Range. Trinidad, Tobago, Venezuela, Margarita Islands, Colombia.

Habits. Schomburgk states in his *Reis. Guian.* iii. p. 700 that the habits of this species are similar to those of *Saurophagus* = *Pitangus sulphuratus*, but is a much more quiet and sedate bird.

The following note is quoted from Mr. H. Lloyd Price, "The Nests and Eggs of some common Guiana Birds" (*Timehri*, (2) v. p. 61) :—" *Tyrannus melancholicus* makes a small round nest of dry sticks, lined with grass, generally found in the upper branches of low trees; the number of eggs laid are three, which are white, thickly spotted with red-brown and grey."

Mr. J. J. Quelch, who observed this species in Georgetown, remarks (*Timehri*, (2) v. p. 90) : "A fourth kiskadee (*Tyrannus melancholicus*) is also very plentiful about the city. This bird is much more active than the preceding form (*Megarhynchus pitangua*), and is stronger on the wing than *P. sulphuratus* owing to its longer pinions. It is, however, much less lively, noisy and quarrelsome than this common form."

Genus **MUSCIVORA** Lacép.

Muscivora Lacépède, *Tabl. Ois.* 1799, p. 5. Type *M. tyrannus* (Linn.).

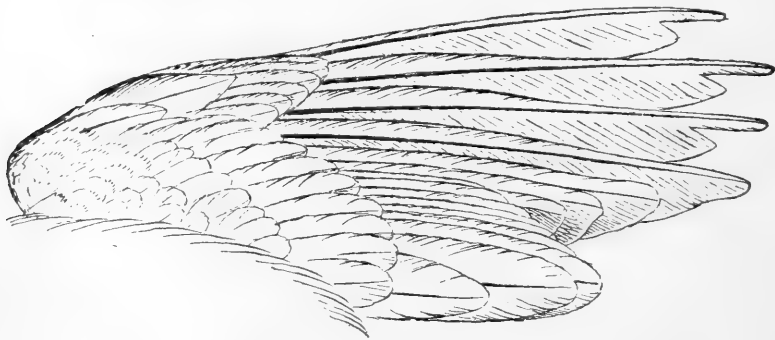


Fig. 96.—To show the incisions on the three outer primary-quills.

This genus is easily distinguished by the peculiarly shaped tips of the first three primary-quills and the scissor-shaped tail with the very long outer feathers. Coloration: male and female similar.

506. *Muscivora tyrannus*.

FORK-TAILED FLYCATCHER.

Muscicapa tyrannus Linn. Syst. Nat. i. p. 325, 1766 (Cayenne).

Milvulus tyrannus Cab. in Schomb. Reis. Guian. iii. p. 699, 1848;
Salvin, Ibis, 1885, p. 299 (Roraima 3500 ft., Bartica Grove);
Slater, Cat. B. Brit. Mus. xiv. p. 277, 1888 (Camacusa).

Muscivora tyrannus Brabourne & Chubb, B. S. Amer. i. p. 304,
no. 3107, 1912.

Adult male. Entire head and sides of face black with a large concealed patch of lemon-yellow on the crown of the head; back, scapulars, and lesser upper wing-coverts ash-grey, somewhat darker on the last; bastard-wing dark brown; median and greater upper wing-coverts, primary-coverts, and flight-quills dark brown with pale edges to some of the feathers, inner webs of flight-quills whitish on the basal portion; upper tail-coverts and tail black, the outer pair of tail-feathers, which are elongated and much extended beyond the others, white, for a considerable distance, along the basal portion of the outer web; cheeks, throat, and entire under surface of body pure white, including the axillaries and under wing-coverts; under surface of flight-quills brown with white inner edges; lower aspect of tail blackish brown, the long outermost pair of feathers edged with white on the outer webs of the basal portion.

Total length, to tips of middle tail-feathers 181 mm., to tips of long outermost feathers 374, exposed culmen 18, wing 117, tail—middle feathers 70, penultimate pair 110, outer pair 258, tarsus 18.

The male described was collected on the Abary River in November 1906.

Adult female. Similar to the adult male in the colour of the plumage, but differs in the smaller measurements.

Total length, to tips of middle tail-feathers 171 mm., to tips of long outermost feathers 298, exposed culmen 15, wing 107, tail—middle feathers 66, penultimate pair 105, outer pair 199, tarsus 17.

The young bird differs from the adult in the absence of the yellow coronal patch, in having the wings very pale brown, and the short tail-feathers.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Takutu River, Bonasika River, Makauria River, Lower Mazaruni River, Demerara River, Arawai River (*McConnell collection*); Mount Roraima, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Throughout South America to Argentina and Central America to Mexico.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 699*) this species inhabits the Savannas, where it may be observed in large flocks sitting on the Curatella-trees and other lower bushes, where they dart out in pursuit of passing insects. Towards the evening they all rise simultaneously and fly to their roosting-place, and return to the savannas in the morning. After the rainy season—September and October—he observed for several days in succession, countless numbers of these birds pass over Georgetown; they approached from the north and proceeded southward. It was remarkable that the flocks always arrived at Georgetown regularly in the afternoon between three and five o'clock, and settled in the tall trees in the vicinity of the town, remaining there until the morning, when they continued their journey, according to the Colonists, to the savannas. This is the only time that the bird is met with near the coast. The migration takes place at the same time every year; and the Colonists regard it as a sure sign that the rainy season is over. Schomburgk was unable to learn anything about its nidification. He thought it quite probable that the species did not breed in the Colony, and the large flocks that passed through seem to confirm it. Schomburgk mentions that during the months of May, June, July, and August, he only met with solitary individuals in the savannas.

Family OXYRUNCIDÆ.

This family, which consists of one genus and four species only, is represented in British Guiana by one of the species, which appears to be rare, and restricted to the higher altitudes in the western portion of the Colony.

Genus OXYRUNCUS Temm.

Oxyruncus Temm. Man. d'Orn. i. p. lxxx, 1820. Type *O. cristatus* (Temm.).



Fig. 97.—*Oxyruncus hypoglaucus*.



Fig. 98.

Section of outer primary-quill to show the hooked barbs on the outer web.

In this, the only genus of the family, the head is crested with narrow and brightly coloured feathers. The bill is proportionately long, narrow, and sharply pointed but not hooked. The wing is rounded, the second, third, and fourth primaries longest and equal, and the first about equal in length to the fifth. The tail is square at the tip, the feathers ten in number, and its length about two-thirds that of the wing. The tarsus is about equal to the exposed culmen in length, and the hind toe and claw about equal in length to the middle toe and claw. Coloration: male and female similar.

507. *Oxyruncus hypoglaucus*.

WHITE-BELLIED SHARPBILL.

Oxyrhamphus hypoglaucus Salvin & Godman, Ibis, 1883, p. 206 (Mount Roraima); Salvin, op. cit. 1885, p. 291 (Merumé Mts.); Sclater, Cat. B. Brit. Mus. xiv. p. 282, 1888 (Mount Roraima, Merumé Mts.); Brabourne & Chubb, B. S. Amer. i. p. 305, no. 3110, 1912.

Adult male. General colour of the upper surface green including the head, back, wings, and tail; the short feathers on the forehead, above the eye, and sides of the face barred with white and tipped, or otherwise marked with blackish; middle of crown more or less blackish, with a somewhat concealed crest of narrow silky-red feathers; the feathers on the hind-neck dark at the tips, by which a narrow dark collar is indicated; the bases of the feathers on the back are pale grey which sometimes show through; some of the median and greater upper wing-coverts have dark centres and pale edges to the feathers like the innermost secondaries; bastard-wing, primary-coverts, and quills blackish edged with green, inner webs of quills margined with white towards the base; tail-feathers blackish, margined with green and tipped with white; throat, breast, and abdomen white with dark ovate spots; sides of body and under tail-coverts similar but washed with sulphur-yellow; axillaries and inner under wing-coverts uniform sulphur-yellow, the outer or marginal coverts tipped with brown; under surface of quills brown with sulphur-yellow inner edges; lower aspect of tail pale greyish brown with pale tips to the feathers.

Total length 146 mm., exposed culmen 17, wing 91, tail 57, tarsus 20.

The specimen described was collected by Mr. McConnell at Mount Roraima in October 1898.

Adult female. Similar to the adult male. Wing 88 mm.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima, Merumé Mountains (*Whitely*).

Habits. Unrecorded.

Family PIPRIDÆ.

This family consists of twenty genera and, at the time that Brabourne and Chubb published their 'List of the Birds of South America,' about ninety species. Ten of the genera and about sixteen of the species are represented in British Guiana.

Genus PIPRA Linn.

Pipra Linn. Mus. Adol. Fred. Prodr. ii. p. 32, 1764. Type *P. aureola* (Linn.).



Fig. 99.—*Pipra aureola*.

The species included in this genus are birds of small size with bright plumages of varied colours. The bill is slightly hooked at the tip of the upper mandible, the depth of the bill, at the base of the feathers on the culmen, is about half its width and the width about four-fifths the length of the exposed culmen. The wing is rounded, the third and fourth primaries longest and equal, the second about equal to the fifth, and the first about equal to the sixth. Tail short and square at the tip. Tarsus about one-third longer than the exposed culmen. Hind toe and claw about equal in length to the inner toe and claw. Coloration : male and female entirely different.

Key to the Species.

- A. Throat red ; crown of head and nape also red ; upper tail-coverts black ... *P. aureola*, p. 242.
- B. Throat black.
 - b. Crown of head and nape orange ; upper tail-coverts black *P. erythrocephala*, p. 245.
 - c. Crown of head and nape white ; upper tail-coverts black *P. leucocilla*, p. 246.
 - d. Crown of head white ; nape black ; upper tail-coverts blue *P. suavissima*, p. 247.

- C. Throat olive-green streaked with dull white; crown of head olive-green with a yellow coronal patch *P. virescens*, p. 248.

508. *Pipra aureola*.

ORANGE-HEADED MANAKIN.

Black and Yellow Manakin Edwards, Nat. Hist. B. ii. p. 83, pl. 83. fig. 2, 1747 (South America).

Parus aureola Linn. Syst. Nat. i. p. 191, 1758 ("Hab. in America").

Pipra aureola Linn. Syst. Nat. i. p. 339, 1766 ("Hab. in America australi"); Schomb. Reis. Guian. iii. p. 696, 1848 (Barima River); Salvin, Ibis, 1885, p. 299 (Bartica Grove); Selater, Cat. B. Brit. Mus. xiv. p. 293, 1888 (Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 305, no. 3111, 1912.

Pipra aureola aureola Hellmayr in Wytsman's Gen. Av., Fam. Pipridæ, 9, p. 6, pl. 2. fig. 7, 1910; Beebe, Tropical Wild Life in British Guiana, p. 234, 1917.

Adult male. Crown of head, hind-neck, breast, and middle of abdomen bright red; forehead, cheeks, and throat paler and more orange-red; back, wings, tail, above and below, sides of the body, and under tail-coverts velvety-black; inner webs of flight-quills marked with white, which begins with a small spot on the outer primary, increasing in extent towards the inner secondaries where it covers almost the whole of the inner web; outer edge of wing orange-yellow; axillaries and under wing-coverts white with dark tips to the former; quills below black, with a large white patch across the middle.

Total length 106 mm., exposed culmen 10, wing 63, tail 27, tarsus 15.

The specimen described was collected on the Abary River in September 1906.

Adult female. General colour above yellowish olive-green including the head, back, wings, and tail; sides of body and under tail-coverts similar but paler; throat, middle of breast, and middle of abdomen orange-yellow. Wing 63 mm.

The female described was collected on the Abary River in November 1906.

Immature male. Similar to the adult female. The first approach of the male plumage is usually seen by the red on the ear-coverts and breast.

Nestling. Described by Beebe, *infra*, pp. 244-245.

Breeding-season. March (*Beebe*).

Nest. See Beebe, *infra*.

Eggs. See Beebe, *infra*.

Range in British Guiana. Bartica, Bonasika River, Anarica River, Abary River (*McConnell collection*); Merumé Mountains and Mount Roraima (*Whitely*).

Extralimital Range. Trinidad, Venezuela, Colombia, East Ecuador, North-east Peru, North Brazil.

Habits. According to Schomburgk (*Reis. Guian.* iii. p. 696) this bird inhabits the light coast-woods and feeds chiefly on juicy fruits. Schomburgk says that he had a good opportunity of observing it during a stay at the mouth of the Barima River. He writes:—"Close to the camp stood a fig-tree full of small ripe fruit, which was visited all day by numbers of this bird for the purpose of feeding on the fruit." He did not observe it breeding. The "Warraus" call it *Ohles*.

The following notes have been copied from Beebe (*Tropical Wild Life in British Guiana*, pp. 234-237):—

"These charming little birds were abundant, and often seen in the jungle, either in pairs or in company with small flocks of other birds. But their life-history as noted in our records was as fragmentary as the brief glimpses we had of them. Then came a series of lucky birds' nesting days and we discovered four nests of the orange-headed manakins.

"The first was close to an animal trail in heavy reedy second growth about a mile from Kalacoon. The nest was in a small, slender-stemmed bush, only three feet from the ground, in the fork of a branch. There were two eggs, and as we did not get a chance to secure the female we disturbed neither eggs nor nest.

"Three days later the bird left as we approached. Backing off some distance, we squatted and waited for her reappearance. In five minutes she returned, settled on the nest, caught sight of us, and flew up scolding harshly. She was uniformly dark olive-green, with lighter throat, dark bill, and bright red legs and feet. At this moment, without warning, a full-grown jaguar rushed us, growling, turning aside when about eight feet away, only when we stood up and he perceived that we were other than deer or whatever jungle prey he had evidently expected. After the excitement had passed, one of our number shot a bird from near the nest, only to find that he had killed a helmeted flycatcher by mistake. Ultimately the rightful owner returned and was secured.

“One egg had disappeared. The nest was Vireo-like, cup-shaped, suspended from the forked twigs. It was not very firm, light showing through it everywhere. The material was coarse grasses and thin rootlets. Cobweb was used where the nest was in contact with the twigs, and several dead leaves were loosely attached with this material to the outside of the nest. The diameters of the nest were, 70 mm. outside and 50 mm. inside; the depths, 50 mm. outside and 40 inside.

“The egg measured 21×15.5 mm. The ground colour was dull yellowish white, with numerous pale brown and lilac markings, mostly linear, running lengthways, and more numerous around the larger end.

“Two days later, on March 10, I sat down in a small glade near the same animal trail. It was early morning and the sun was not near its full strength. I listened to the chirps of birds drinking at a black jungle creek near by, and watched a humming-bird pick cobweb in the intervals of violent battle with another species. Then a female manakin whirred past, and I followed her as she fed on small berries near the tops of some saplings. After fifteen minutes of this fitful occupation she swooped downward, straight to a tiny nest, which to this moment had been invisible to me. Here, suspended from a slender fork just over a pool of black water, she brooded two eggs.

“A week later the young birds hatched, and on March 20, I photographed and examined the three-days-old young. One of them, a female, was reddish flesh-colour, with yellow gape and yellowish-brown legs and feet. The eyes and the upper surface of the wings were dark leaden.

“The down was sparse, long, and whitish grey in colour, there was none on the hind leg, but a line of six, strong feather-sheaths with long down attached along the outer aspect of the side of the body, with traces of at least three covert-sheaths. These all lay along the femur.

“Ten primaries were apparent, looking like small, nearly straight claws, giving to the posterior side of the forewing a saw-like appearance. The outer four feathers were somewhat larger and perfectly straight; the succeeding six were quite distinct, being curved forward. Only a single claw-like feather-tip appeared on the thumb.

"In the crop of the nestling were two kinds of small, fleshy seeds, two-inch worms, and a small brilliant green beetle.

"A week later, on March 27, I examined the second nestling, a male. It sat silently crouched far down in the nest until disturbed, when it uttered a shrill chirp. The flight-feathers were almost full-grown, but quite unbroken from their sheaths. Even a kingfisher does not exhibit such long continued sheathing. In the crop was a single, sharp-studded, flattened, circular seed with the flesh all dissolved away."

509. *Pipra erythrocephala*.

GOLDEN-HEADED MANAKIN.

Golden-headed Black Tit-Mouse Edwards, Nat. Hist. Birds, i. p. 21, pl. 21. fig. 2, 1743 (Surinam).

Parus erythrocephalus Linn. Syst. Nat. 10th ed. i. p. 191, 1758 ("America australi" = Surinam).

Pipra erythrocephala Linn. Syst. Nat. 12th ed. i. p. 339, 1766 (Brasilia); Hellmayr in Wytsman's Gen. Av., Fam. Pipridæ, 9, p. 7, 1910; Beebe, Our Search for a Wilderness, pp. 342, 343, 348, 1910 (Aremu River); Brabourne & Chubb, B. S. Amer. i. p. 305, no. 3116, 1912.

Pipra aurocapilla Cab. in Schomb. Reis. Guian. iii. p. 696, 1848; Salvin, Ibis, 1885, p. 300 (Bartica Grove, Camacusa, Merumé Mountains, Atapurau River, Roraima 3500 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 296, 1888 (Georgetown, Bartica Grove, Camacusa, Attapuro River, Roraima).

Adult male. General colour above and below glossy blue-black; crown of head, sides of face, and hind-neck orange-yellow, fringed with red on the latter; thighs red.

Total length 79 mm., exposed culmen 10, wing 55, tail 19, tarsus 14.

The male described was collected by Mr. McConnell on the Lower Mazaruni River during his expedition to Mount Roraima in 1898.

Adult female. General colour above and below olive-green, somewhat paler and inclining to whitish on the lower abdomen, vent, under tail-coverts, and under wing-coverts. Wing 59 mm.

Immature male. The young male first assumes the plumage of the female and then changes, as the present bird was doing, to the male plumage first, by assuming the orange-yellow on the sides of the face and the dark feathers on the breast and wings.

This specimen was also collected on the Lower Mazaruni River by Mr. McConnell in 1898.

Breeding-season. Unknown in British Guiana.

Nest. See Schomburgk, *infra*.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ireng River, Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Lower Mazaruni River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. North-east Venezuela, Northern Brazil.

Habits. According to Schomburgk (Reis. Guian. iii. p. 696) the habits of this bird are very similar to those of *C. pareola*, though he met with it more often solitary or in pairs, and nearly always in dense woods or shrubs, especially along the banks of rivulets in the woods. Its nest is also like that of *C. pareola*, p. 256.

510. *Pipra leucocilla*.

WHITE-CROWNED BLACK MANAKIN.

Parus leucocilla Linn. Mus. Ad. Frid. Prodr. ii. p. 33, 1764 (Surinam).

Pipra leucocilla Cab. in Schomb. Reis. Guian. iii. p. 697, 1848; Salvin,

Ibis, 1885, p. 300 (Bartica Grove, Camacusa, Merumé Mts.);

W. L. Selater, Ibis, 1887, p. 318 (Maccasseema); P. L. Selater,

Cat. B. Brit. Mus. xiv. p. 297, 1888 (Bartica Grove, Camacusa);

Beebe, Our Search for a Wilderness, p. 311, 1910 (Aremu River);

Brabourne & Chubb, B. S. Amer. i. p. 306, no. 3120, 1912.

Adult male. Crown of head and nape white; remainder of the plumage velvety blue-black.

Total length 91 mm., exposed culmen 11, wing 64, tail 24, tarsus 16.

The male described was collected by Mr. McConnell on the Mazaruni River in 1898 during his expedition to Mount Roraima.

Adult female. General colour above green, with a slaty tinge on the head; under surface grey, including the under wing-coverts and axillaries; a band of green across the breast. Wing 63 mm.

The description of the female is taken from an example collected on the Ituribisi River in February 1907.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Cotinga River, Ituribisi River,

Supenaam River, Bartica, Bonasika River, Mazaruni River, Kamakabra River, Makauria River, Anarica River, Arwee Creek, Great Falls Demerara River, Arawai River (*McConnell collection*); Bartica, Kamaskusa, Merumé Mountains (*Whitely*); Maçcasseema (*W. L. Sclater*); Aremu River (*Beebe*).

Extralimal Range. Surinam, Cayenne, Venezuela, North Brazil, North Peru.

Habits. According to Schomburgk (*Reis. Guian.* iii. p. 697) this species frequents the dense woods, and consequently he had but little opportunity of observing its habits. He observed it singly and in pairs when it came out into the bushes growing along the rivulets in the woods.

The following note is quoted from Beebe (*Our Search for a Wilderness*, p. 311):—"Exquisite white-capped Manakins, clad in shining black save for their snowy caps. Their flight, unlike their white-breasted cousins which we met in Venezuela, was noiseless. They were far from silent however, twanging their little vocal chords in an apology for a song—a wheezy, grass-hopper-like buzz. The females were silent, sombre little beings—dull olive-green above, with a grayish cap and paler below."

511. *Pipra suavissima*.

ORANGE-BELLIED MANAKIN.

Pipra serena (nec Linn.) Cab. in Schomb. *Reis. Guian.* iii. p. 697, 1848.
Pipra suavissima Salvin & Godman, *Ibis*, 1882, p. 79, pl. i. (Merumé Mts.); Salvin, *Ibis*, 1885, p. 300 (Atapurau River, Bartica Grove, Roraima, 3500–4000 ft.); Sclater, *Cat. B. Brit. Mus.* xiv. p. 300, 1888 (Merumé Mts., River Attapurow, Roraima, Bartica Grove); Brabourne & Chubb, *B. S. Amer.* i. p. 307, no. 3132, 1912.

Adult male. General colour, both above and below, for the most part velvety-black; fore part of head white, fringed with blue on the posterior margin; upper tail-coverts blue; abdomen rich orange. Total length 83 mm., exposed culmen 9, wing 58, tail 24, tarsus 15.

The male described was collected on the Kamakabra River in 1911.

Adult female. General colour above green; throat greyish; breast dusky green; abdomen and under tail-coverts yellow; under wing-coverts and axillaries greyish white. Wing 58 mm.

The female described was collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range confined to British Guiana. Mount Roraima, Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Makauria River, Anarica River, Arwye Creek, Great Falls Demerara River, Tiger Creek, Arawai River (*McConnell collection*); Mount Roraima, Merumé Mountains, Kamarang River, Bartica (*Whitely*).

Habits. Schomburgk states (*Reis. Guian.* iii. p. 697) that he first met with this bird in the vicinity of the Roraima Mountain, where it frequented the tall trees as well as the low bush. Its nidification is unknown to him.

512. *Pipra virescens*.

OLIVE-GREEN MANAKIN.

Pipra virescens Pelzeln, *Orn. Bras.* pp. 128, 187, 1869 (Barra do Rio Negro); Salvin & Godman, *Ibis*, 1883, p. 208 (Bartica Grove); Salvin, *Ibis*, 1885, p. 300 (Camacusa); Selater, *Cat. B. Brit. Mus.* xiv. p. 302, 1888 (Bartica Grove, Carimang River); Brabourne & Chubb, *B. S. Amer.* i. p. 307, no. 3136, 1912.

Tyrannetes brachyurus Selater & Salvin, *Ibis*, 1881, p. 269 (Bartica Grove); Salvin & Godman, *Ibis*, 1883, p. 208.

Pipra brachyura Beebe, *Our Search for a Wilderness*, pp. 342, 348, 392, 1910.

Adult male. General colour above olive-green including the head, back, upper wing-coverts, and upper tail-coverts; a large concealed patch of yellow on the middle of the crown; bastard-wing, primary-coverts, and flight-quills brown on the inner webs, the last having pale inner edges; tail pale brown; sides of face, sides of neck, and sides of the body similar to the upper surface; throat streaked with whitish; middle of breast, middle of abdomen, and under tail-coverts sulphur-yellow; axillaries and under wing-coverts pale sulphur-yellow; greater under wing-coverts and under surface of flight-quills dark brown with pale inner edges; under surface of tail pale brown.

Total length 76 mm., culmen 10, wing 54, tail 18, tarsus 13.

The male described was collected on the Mazaruni River in October 1907.

Adult female. Similar to the adult male, but differs in having scarcely any concealed yellow patch on the crown. Wing 50 mm.

The female described was collected on the Supenaam River in 1911.

Breeding-season. Unknown in British Guiana.

Nest. See Beebe *infra*, p. 249.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribiri River, Supenaam River, Mazaruni River, Bartica, Bonasika River, Kamakabra River, Makauria River, Anarica River, Tiger Creek, Arawai River (*McConnell collection*); Kamakusa, Kamarang River, Bartica (*Whitely*).

Extralimital Range. North Brazil.

Habits. The following notes are copied from Beebe (*Our Search for a Wilderness*, p. 342) :—

“It was a veritable mite of a bird, the Golden-crowned Manakin clad in forest green with a tiny crown spot of yellow. From head to tail he measured less than three inches, and of all the marvels which we have encountered in our travels the most remarkable was how such a tiny creature, considerably smaller than our Ruby-crowned Kinglet, could produce such a tremendous volume of sound. His chuckle-de-deé! can easily be heard a hundred yards away through dense forest.

“We discovered the nest of one of these birds a short distance from the mine clearing in a sapling about seven feet from the ground, a very frail affair suspended in the fork of a branch. It was merely a thin cup of fine bush-threads and rootlets, while two or three small leaves were fastened to the bottom with strands of cobweb. One could see through it anywhere. It was only $1\frac{3}{4}$ inches across and $\frac{3}{4}$ of an inch deep.”

Genus **CHLOROPIPO** Cab. & Hein.

Chloropipo Cabanis & Heine, Mus. Hein. ii. p. 90, 1859. Type *C. flavicapilla* (Schlatter).



Fig. 100.—*Chloropipo uniformis*.

In this genus the bill is somewhat wide and short, the width at

the base being about four-fifths the length of the exposed culmen, and the upper mandible is hooked at the tip. The wing is rounded; the third, fourth, and fifth primary-quills longest and equal, the second about equal in length to the sixth, and the first slightly shorter than the eighth. The tail is square and rather more than five-eighths the length of the wing. The tarsus exceeds the length of the exposed culmen by about three-eighths.

513. *Chloropipo uniformis*.

RORAIMA GREEN MANAKIN.

Chloropipo uniformis Salvin & Godman, Ibis, 1884, p. 427 (Mount Roraima); Salvin, Ibis, 1885, p. 299 (Merumé Mts.); Selater, Cat. B. Brit. Mus. xiv. p. 286, 1888 (Twek-quey Mt., Carimang River); Brabourne & Chubb, B. S. Amer. i. p. 308, no. 3145, 1912.

Adult male. General colour of the upper parts dark olive-green; inner webs of flight-quills dark brown; tail-feathers blackish; chin and throat inclining to dark grey; breast and sides of the body dark olive-green, becoming paler and inclining to yellow on the abdomen and under tail-coverts; axillaries and under wing-coverts pale sulphur-yellow.

Total length 140 mm., exposed culmen 10, wing 81, tail 55, tarsus 16.

Adult female. Similar to the adult male, but paler on the under surface. Wing 76 mm.

This species is not represented in the McConnell collection, and the descriptions are taken from the types in the British Museum, which were collected at Mount Roraima by the late Henry Whitely—Salvin-Godman collection.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima, Merumé Mountains, Twek-quey Mountain, Kamarang River (*Whitely*).

Habits. Unrecorded.

Genus **PIPRITES** Cab.

Piprites Cabanis, Archiv für Naturg. xiii. part i. p. 234, 1847. Type
P. pileatus (Temm.).



Fig. 101.—*Piprites pileatus*.

The species on which this genus was based are larger than the average sized birds in the family Pipridæ. The bill is sharply hooked at the tip of the upper mandible; the depth immediately behind the nostrils is equal to about half the length of the exposed culmen and about two-thirds the width of the bill. The wing is rounded, the second, third, and fourth primaries longest and equal, the first is shorter than the fifth but much longer than the sixth. The tail is slightly rounded and about three-fifths the length of the wing. The hind toe and claw nearly equal in length to the middle toe and claw. Coloration: male and female similar.

514. *Piprites chlorion*.

GREEN MANAKIN.

Hemipipo chlorion Cab. Archiv für Naturg. xiii. pt. i. p. 234, 1847 (Cayenne); id. in Schomb. Reis. Guian. iii. p. 697, 1848.

Piprites chlorion Salvin & Godman, Ibis, 1882, p. 78; Salvin, Ibis, 1885, p. 299 (Bartica Grove, Merumé Mts., Roraima, 3500 ft.); Sclater, Cat. B. Brit. Mus. xiv. p. 285, 1888 (Roraima, Bartica Grove, Merumé Mts.); Brabourne & Chubb, B. S. Amer. i. p. 308, no. 3152, 1912.

Adult ? male. General colour above yellowish green, including the fore part of the head, entire back, and lesser upper wing-coverts; hinder crown, nape, hinder face, sides of neck, breast, and sides of body pale slate-grey; median upper wing-coverts black with green margins, the greater series similar but inclining to yellow at the tips, especially on the inner ones which are like the innermost secondaries; bastard-wing, primary-coverts, and flight-quills black, more or less fringed with green on the outer webs; the flight-quills fringed with yellowish white on the inner webs;

tail-feathers black fringed with green, pale earth-brown at the tips and on the outermost pair of feathers; base of forehead, lores, and a slight tinge on the throat rust-brown; eye-ring yellowish; fore part of cheeks, throat, and under tail-coverts lemon-yellow; middle of abdomen whitish; edge of wing, axillaries, and under wing-coverts sulphur-yellow like the inner margins of the quills below; greater series of under wing-coverts and quills below blackish on the former and brown on the latter; lower aspect of tail pale brown.

Total length 121 mm., exposed culmen 13, wing 70, tail 47, tarsus 17.

The specimen described was collected on the Ituribisi River in 1909.

Adult female. Similar to the adult male.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica (*McConnell collection*); Mount Roraima, Meruné Mountains, Bartica (*Whitely*).

Extralimital Range. Northern Brazil.

Habits. Unrecorded in British Guiana.

Genus **CERATOPIPRA** Bonap.

Ceratopipra Bonaparte, *Anteoo Italiano*, vol. 2, No. 11, p. 316, Aug. 1854 (*Consp. Volucrum Anisodactylorum*, p. 6, 1854). Type *C. cornuta* (Spix).



Fig. 102.—To show the divided crest.

The chief character in this genus is the divided nuchal crest. The bill is short and rather wide at the base, the exposed culmen being only slightly longer than the width. The wing is rounded, the second, third, and fourth primaries longest

and subequal, the first intermediate in length between the fourth and fifth. The tail is square at the tip and nearly two-thirds the length of the wing. The tarsus is slightly less than half the length of the tail, and the hind toe and claw about equal in length to the middle toe and claw. Coloration: male and female entirely different.

Key to the Species.

- A. Throat red *C. cornuta*, p. 253.
 B. Throat black..... *C. iracunda*, p. 254.

515. *Ceratopippa cornuta*.

SCARLET-HEADED MANAKIN.

Pippa cornuta Spix, Aves Brasiliensis, ii. p. 5, pl. 7. fig. 2, 1825 ("in sylvis fl. Amazonum"); Cab. in Schomb. Reis. Guian. iii. p. 696, 1848; Salvin, Ibis, 1885, p. 299 (Roraima, 3500-3700 ft.).

Ceratopippa cornuta Bonap. Vol. Anisod. p. 6, 1854; Sclater, Cat. B. Brit. Mus. xiv. p. 288, 1888 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 309, no. 3153, 1912.

Adult male. General colour above and below glossy blue-black; crown of head, occipital crest, sides of face, throat, and thighs bright red; inner webs of flight-quills dark brown; axillaries and under wing-coverts yellowish olive-green slightly tinged with red on the outer margin of the wing below; under surface of flight-quills and tail-feathers blackish.

Total length 125 mm., exposed portion of culmen 9, wing 68, tail 41, tarsus 18.

The male described was collected by Mr. McConnell during his expedition to Mount Roraima in October 1898.

Adult female. General colour above olive-green; inner webs of flight-quills dark brown margined with white; breast dull olive-green; throat and under tail-coverts dull lemon-yellow; middle of abdomen, axillaries, and under wing-coverts whitish yellow; under surface of flight-quills and lower aspect of tail pale brown. Wing 67 mm.

The description of the female is taken from an example also collected at Mount Roraima by Mr. McConnell during his expedition in October 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Extralimital Range. North Brazil (Rio Negro district).

Habits. Schomburgk states (Reis. Guian. iii. p. 696) that he first met with this beautiful species in the neighbourhood of Mount Roraima at an altitude of 4000 feet. Its habits are like those of its congeners of the same genus. It is found chiefly in low bush, though occasionally in taller trees, and is a gregarious species. The "Arekunas" call it *Kerepika*.

516. *Ceratopipra iracunda*.

RORAIMA MANAKIN.

Pipra iracunda Salvin & Godman, Ibis, 1884, p. 447 (Mount Roraima);
Salvin, Ibis, 1885, p. 300.

Ceratopipra iracunda Selater, Cat. B. Brit. Mus. xiv. p. 288, pl. xix.,
1888 (Mount Roraima); Brabourne & Chubb, B. S. Amer. i.
p. 309, no. 3154, 1912.

Adult male. Wings, back, tail, throat, breast, abdomen, under tail-coverts, and under wing-coverts black; crown of head, nape, sides of face, and thighs scarlet-red.

Total length 111 mm., exposed culmen 8, wing 65, tail 35, tarsus 18.

This species is not represented in the *McConnell collection*, and the description is taken from the type which is in the British Museum, and was collected by the late Henry Whitely on Mount Roraima, at an altitude of 3500 feet, on the 20th of June, 1883—*Salvin-Godman collection*.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*Whitely*).

Habits. Unrecorded.

Genus **XENOPIPO** Cab.

Xenopipo Cabanis, Archiv für Naturg. xiii. pt. i. p. 235, 1847. Type
X. atronitens Cab.



Fig. 103.—*Xenopipo atronitens*.

The chief character in this genus is the exposed mesorhinium. The upper mandible is slightly hooked, the width of the bill at the base being equal to about four-fifths the length of the exposed culmen. The wing is rounded, the second, third, fourth, and fifth primaries longest, the first about equal in length to the seventh. The tail is slightly emarginate and about two-thirds the length of the wing. The tarsus is about two-thirds the length of the tail and the hind toe and claw about equal to the middle toe and claw. Coloration: male and female different.

517. **Xenopipo atronitens.**

BLACK MANAKIN.

Xenopipo atronitens Cab. Archiv für Naturg. xiii. pt. i. p. 235, 1847 (British Guiana); id. in Schomb. Reis. Guian. iii. p. 697, 1848; Salvin, Ibis, 1885, p. 299 (Merumé Mts., Roraima); Selater, Cat. B. Brit. Mus. xiv. p. 287, 1888 (Merumé Mts.); Brabourne & Chubb, B. S. Amer. i. p. 309, no. 3155, 1912.

Adult male. General colour above and below glossy steel-blue; flight-quills and tail-feathers blackish above and pale brown below. "Bill plumbeous; feet black" (*Whitely*).

Total length 119 mm., exposed culmen 13, wing 72, tail 45, tarsus 15.

The specimen described was collected on the Berbice River.

Adult female. General colour of the upper surface dark green, rather darker on the fore part of the head; flight-quills and tail-feathers blackish brown above and pale brown on their under surface; under surface of the body paler and more yellowish green; axillaries and under wing-coverts greyish white. Wing 71 mm.

The female described above was collected on the Abary River in September 1906.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Berbice River, Abary River (*McConnell collection*); Merumé Mountains and Mount Roraima (*Whitely*).

Extralimital Range. Central and Northern Brazil.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 697*) this bird lives on the borders of the coast-woods frequenting trees and low bush.

Genus **CHIROXIPHIA** Cab.

Chiroxiphia Cabanis, *Archiv für Naturg.* xiii. pt. i, p. 235, 1847. Type *C. pareola* (Linn.).



Fig. 104.—*Chiroxiphia pareola*.

The species on which this genus was based has a short bill which is hooked at the tip, and the width at the base exceeds the length of the exposed culmen. The wing is rounded, the primaries are obliquely cut at the tips, which are most conspicuous in the males. The tail is slightly rounded and about three-fifths the length of the wing. The tarsus is nearly half the length of the tail, and the hind toe and claw rather shorter than the middle toe and claw. Coloration: male and female different.

518. **Chiroxiphia pareola.**

BLUE-BACKED MANAKIN.

Pipra pareola Linn. *Syst. Nat.* i. p. 339, 1766 ("Brasilia").

Chiroxiphia pareola Cab. in Schomb. *Reis. Guian.* iii. p. 695, 1848; Salvin, *Ibis*, 1885, p. 300; Selater, *Cat. B. Brit. Mus.* xiv. p. 307 (British Guiana); Brabourne & Chubb, *B. S. Amer.* i. p. 309, no. 3160, 1912.

Chiroxiphia longicauda (nec Vieill.) Cab. in Schomb. *Reis. Guian.* iii. p. 695, 1848.

Adult male. Forehead, lores, sides of crown, nape, hind-neck,

sides of face, throat, and entire under surface of body, including the axillaries and under wing-coverts, black like the upper surface of the wings, upper tail-coverts, and tail; mantle, back, and inner portion of the lesser upper wing-coverts wedgwood-blue; a silky red V-shaped patch on the crown of the head.

Total length 113 mm., exposed culmen 7, wing 76, tail 43, tarsus 20.

The specimen described was collected on the Abary River in September 1906.

Adult female. General colour above and below green, paler on the under surface of the body; inner webs of the flight-quills brown; pale and inclining to grey on the base of the forehead and throat; abdomen and under tail-coverts yellowish green; axillaries and under wing-coverts greyish white; under surface of flight-quills and lower aspect of tail pale brown. Wing 70 mm.

The female from which the description is taken was collected on the Mazaruni River in July 1906.

Immature male. Similar in colour of plumage to that of the adult female. The first approach of male plumage in this individual is an outline of the triangular red patch on the crown of the head.

Another young male, but more advanced, has the red patch on the top of the head fully developed, the forehead, sides of the crown, nape, sides of face, and throat black, and the remainder of the plumage green, showing here and there traces of black.

Both these individuals were collected on the Abary River in September 1906.

Breeding-season. "April and May" (*Schomburgk*).

Nest. "The nest is built in a tall bush, being a slight structure, composed of mosses and plant-wool" (*Schomburgk*).

Eggs. "Two in number" (*Schomburgk*).

Range in British Guiana. Upper Takutu Mountains, Mazaruni River, Abary River (*McConnell collection*); Annai (*Whitely*).

Extralimital Range. Cayenne (*Brit. Mus.*), Eastern Brazil.

Habits. *Schomburgk* states (*Reis. Guian. iii. p. 695*) that he met with this pretty species on the Rupununi River in the vicinity of the Wai-ipukari-bay in dense low bush, mostly in pairs but sometimes in small flocks. In habits it much resembles our Tits; it is a lively species and haunts the low bush, through which it moves with great agility in search of insects; but when the smaller

Ficus species are ripe it feeds on the fruit. In nearly all the species of this family the female has a sober and modest plumage.

The nest is built in a tall bush, being a light structure, composed of mosses and plant-wool, and contains two eggs. The "Macusis" call it *Warikuiyeh* and the "Warraus" call it *Ponoromih*.

Genus **CORAPIPO** Bonap.

Corapipo Bonaparte, Anteneo Italiano, vol. 2, No. 11, p. 316, Aug. 1854 (Conspectus Volucrum Anisodactylorum, p. 6, 1854). Type *C. gutturalis* (Linn.).



Fig. 105.—To show the narrow primary-quills.

The species on which this genus was based is somewhat small in size. The bill has scarcely any hook at the tip of the upper mandible, and the width at the base is very slightly less than the length of the exposed culmen. The wing is rounded, the third primary longest, the second and fourth about equal, and the first intermediate in length between the fifth and sixth. The tail is square at the tip and nearly half the length of the wing. The tarsus is about three-fifths the length of the tail, and the hind toe and claw are about equal in length to the outer toe and claw. Coloration : male and female entirely different.

519. *Corapipo gutturalis*.

WHITE-THROATED MANAKIN.

Pipra gutturalis Linn. Syst. Nat. i. p. 340, 1766 (Cayenne); Salvin, Ibis, 1885, p. 300 (Bartica Grove, Camacusa, Merumé Mts., Roraima); Selater, Cat. B. Brit. Mus. xiv. p. 301, 1888 (Bartica Grove, Merumé Mts., Camacusa).

Corapipo gutturalis Brabourne & Chubb, B. S. Amer. i. p. 310, no. 3169, 1912.

Adult male. General colour above and below black glossed with steel-blue especially on the crown of the head, back, and wings; throat, fore-neck, and middle of upper breast pure white, as are also a portion of the primary and secondary flight-quills; under surface of flight-quills brown with a white patch on the inner portion; lower aspect of tail dark brown. "Bill brown, base of lower mandible whitish; feet brown" (*Whitely*).

Total length 84 mm., exposed culmen 7, wing 55, tail 26, tarsus 15.

Adult female. General colour of the upper surface grass-green, flight-quills dark brown on the inner webs and margined with white; throat, middle of breast, middle of abdomen, and under tail-coverts white more or less tinged with green; sides of body green; axillaries, under wing-coverts, and inner edges of quills below greyish white, remainder of the quills below and lower aspect of tail pale brown. Wing 55 mm.

The description is taken from a female collected on the Ituribisi River in October 1908.

The young male in its first plumage is very similar to that of the adult female, but differs in having more white on the under surface. The first appearance of the male plumage is marked by the black on the forehead and lores which extends to below the eye.

The immature bird mentioned above was collected on the Bonasika River in 1912.

Another young male, which is much more advanced, has nearly attained the full plumage of the adult bird, only a few green feathers on the upper surface and a similar number of white ones on the abdomen remain.

This specimen was collected on the Ireng River during Mr. Mc'onnell's expedition to Mount Roraima in October 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ireng River, Mazaruni River, Ituribisi River, Supenaam River, Bartica, Bonasika River, Makauria River, Abary River, Arwye River, Arawai River, Tiger Creek (*McConnell* collection); Mount Roraima, Merumé Mountains, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Cayenne (*Linné*).

Habits. Unrecorded in British Guiana.

Genus **CHIROMACHÆRIS** Cab.

Chiromachæris Cabanis, Archiv für Naturg. xiii. pt. i. p. 235, 1847.

Type *C. manacus* (Linn.).



Fig. 106.—To show the narrow and curved primaries.

The chief character in this genus is the wing formula. The bill is short and very slightly hooked at the tip, the width at the base being about three-fourths the length of the exposed culmen. The wing is rounded, the primary-quills very narrow and bent inwards, the fifth primary longest, the second, third, fourth, and sixth subequal, and the first rather shorter than the seventh. The tail is square at the tip and about half the length of the wing. The tarsus is about two-thirds the length of the tail, and the hind toe and claw almost equal in length to the middle toe and claw. Coloration: male entirely different to the female.

520. *Chiromachæris manacus*.

WHITE-BREADED MANAKIN.

Pipra manacus Linn. Syst. Nat. i. p. 340, 1766 (Cayenne); Cab. in Schomb. Reis. Guian. iii. p. 696, 1848; Salvin, Ibis, 1885, p. 301 (Bartica Grove, Camacusa); Selater, Cat. B. Brit. Mus. xiv. p. 313 (Bartica Grove, Camacusa); Brabourne & Chubb, B. S. Amer. i. p. 310, no. 3171, 1912.

Manacus manacus manacus Beebe, Our Search for a Wilderness, p. 392, 1910.

Adult male. Forehead, lores, and crown of head blue-black like the upper back, scapulars, wings, and tail; outer primaries brown with pale edges on the inner webs which become white on the secondary-quills; lower back, rump, and upper tail-coverts dark lavender-grey; lesser marginal upper wing-coverts, ear-coverts, hinder face, and hind-neck white, the feathers minutely marked with dark brown or blackish; throat and sides of neck, upper breast, sides of body, axillaries, and inner under wing-coverts white; lower breast, abdomen, lower flanks, and under tail-coverts lead-grey; the outer or marginal under wing-coverts blackish; under surface of flight-quills pale brown on the apical portion, white at the base; lower aspect of tail dark brown.

Total length 105 mm., exposed culmen 11, wing 50, tail 31, tarsus 21.

The description of the male is based on a specimen collected on the Abary River in July 1906.

Adult female. Entire upper surface grass-green; inner webs of flight-quills brown with pale margins; under surface of body yellowish green; throat more or less tinged with grey; axillaries and under wing-coverts pale grey, inclining to whitish on the inner edges of the flight-quills. Wing 53 mm.

The specimen described was collected on the Supenaam River.

The young male in its first plumage is like the female. The first appearance of the male dress may be seen on the throat and sides of the face and the black on the crown of the head.

Breeding-season. Unknown in British Guiana.

Nest. According to Schomburgk, the nest is similar to that of *Chiroxiptia pareola* (q. v.), p. 256.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Abary River, Arwey Creek, Great

Falls Demerara River, Arawai River (*McConnell collection*);
Bartica, Kamakusa (*Whitely*).

Extralimital Range. Northern Brazil, Venezuela, East Ecuador,
North Peru.

Habits. Schomburgk states (Reis. Guian. iii. p. 696) that he more often met with this species in the sand-hills on the Demerara River in light woods and usually in small flocks. In flying it utters a note exactly like the humming of a top after which follows a sound like the cracking of a hazel-nut, finishing up with a booming which appears to be peculiar to this species.

The nest is similar to that of *Chiroxiphia pareola*, and is usually found in low bush, which led to the supposition that its food consisted of insects rather than fruits.

Genus **NEOPIPO** ScL. & Salv.

Neopipo Selater & Salvin, P. Z. S. 1869, p. 438. Type *N. cinnamomea* (Lawr.).

The species on which this genus was based is one of the smallest of the family. The bill is slightly hooked on the upper mandible, the width at the base being rather more than half the length of the exposed culmen. The wing is rounded, the second, third, and fourth primaries longest and equal, the first about equal in length to the fifth. The tail is slightly rounded at the tip and about three-fourths the length of the wing. The tarsus is rather more than one-third the length of the tail, and the hind toe and claw are nearly equal in length to the middle toe and claw. Coloration: male and female similar.

521. *Neopipo helenæ*.

Mrs. McCONNELL'S MANAKIN.

(Plate IV. fig. 1.)

Neopipo cinnamomea (nec Lawr.) Salvin, Ibis, 1885, p. 301 (Camacusa);
Selater, Cat. B. Brit. Mus. xiv. p. 303 (part), 1888 (Camacusa).

Neopipo helenæ McConnell, Bull. Brit. Orn. Club, xxvii. p. 105, 1911
(Supenaam River); Brabourne & Chubb, B. S. Amer. i. p. 311,
no. 3180, 1912.

Adult male. Lower back, rump, upper tail-coverts, tail, above and below, under tail-coverts, breast, axillaries, and under wing-

coverts cinnamon-rufous; throat, cheeks, and lores greyish white; top of head olive-brown, with a partly concealed patch of yellow on the middle of the crown; lower hind-neck similar to the crown but tinged with grey; sides of face grey; upper back and outer aspect of wing rufous-chestnut; inner webs of upper wing-coverts and flight-quills blackish; primary-coverts uniform blackish.

Total length 91 mm., exposed culmen 8, wing 50, tail 36, tarsus 14.

The description is taken from the type of the species, which was collected on the Ituribisi River in October 1908.

Adult female. Similar to the adult male, but differs in having the sides of the crown and nape dusky grey and the middle of the crown rufous. Wing 47 mm.

The female described was collected on the Makauria River in August 1910.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Makauria River (McConnell collection).

Extralimital Range. Cayenne.

Habits. Unrecorded in British Guiana.

Genus SCOTOTHORUS Oberh.

Scotothorus Oberholser, Proc. Acad. Nat. Sci. Philad. 1899, p. 208.

Type *S. turdinus* (Wied).

The birds of this genus are larger, compared with the rest of the family, and dull in colour. The bill is sharply hooked at the tip of the upper mandible, the width at the anterior portion of the nostril being about half the length of the exposed culmen and about equal to the depth. Rictal bristles numerous but only feebly developed. The wing is rounded, the third, fourth, and fifth primaries longest, the second shorter than the sixth but longer than the seventh. The tail is square at the tip and about three-fourths the length of the wing and the tarsus about twice the length of the exposed culmen. Coloration: male and female similar.

522. *Scotothorus olivaceus*.

RIDGWAY'S MANAKIN.

Heteropelma amazonum Salvin, Ibis, 1885, p. 301 (Roraima, Camacusa, Bartica Grove).

Heteropelma wallacii (nec Sl. & Salv. 1837) Sclater, Cat. B. Brit. Mus. xiv. p. 319, pl. xx., 1888 (Bartica Grove, Camacusa, Roraima).

Scotothorus olivaceus Ridgw. Proc. Biol. Soc. Washington, xix. p. 118, 1906 (Rio Mato, Venezuela); Brabourne & Chubb, B. S. Amer. i. p. 312, no. 3184, 1912.

Scotothorus wallacii (nec Sl. & Salv.) Beebe, Our Search for a Wilderness, p. 322, 1910 (Aremu River).

Adult. Head, sides of the face, hind-neck, back, lesser upper wing-coverts, scapulars, and upper tail-coverts dark olive-green; wings and tail golden brown with a tinge of the same colour on the crown of the head; inner webs of flight-quills dark brown, paler on the inner edges; under surface paler than above and pervaded by a yellowish tinge—especially on the under wing-coverts; under surface of flight-quills and lower aspect of tail pale brown. "Bill and feet horn-colour" (Cat. B. Brit. Mus.).

Total length 154 mm., exposed culmen 14, wing 87, tail 64, tarsus 21.

The specimen described was collected on the Ituribisi River in October 1908.

There appears to be no difference of plumage between the male and female.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Ituribisi River, Supenaam River, Bartica, Kamakabra River, Makauria River, Abary River, Arwey Creek, Tiger Creek (*McConnell collection*); Mount Roraima, Kamakusa, Bartica (*Whitely*); Aremu River (*Beebe*).

Extralimital Range. Venezuela.

Habits. Unrecorded in British Guiana.

Genus **NEOPELMA** Sl.

Neopelma Sclater, P. Z. S. 1860, p. 467. Type *N. aurifrons* (Wied).

This genus is easily distinguished by its orange-yellow crest.

The bill is short and slightly hooked at the tip of the upper mandible. The rictal bristles are numerous and strongly developed. The wing is rounded, the third, fourth, and fifth primaries longest, the second is intermediate in length between the sixth and seventh. The tail is square at the tip and about five-sixths the length of the wing. The feet are weak in structure, and the tarsus is about twice the length of the exposed culmen. Coloration: male and female similar.

523. *Neopelma chrysocephala*.

GOLDEN-CROWNED MANAKIN.

Elaenia aurifrons (nec Wied) Cab. in Schomb. Reis. Guian. iii. p. 701, 1848.

Heteropelma chrysocephalum Pelzeln, Orn. Bras. pp. 125, 185, 1869 (Marabitanas, Rio Içanna).

Heteropelma igniceps Salyin, Ibis, 1885, p. 301 (Camacusa, Roraima); Sclater, Cat. B. Brit. Mus. xiv. p. 322, pl. xxii., 1888 (Camacusa, Essequibo River).

Scotothorus chrysocephalus Brabourne & Chubb, B. S. Amer. i. p. 312, no. 3191, 1912.

Adult male. Entire back, wings, and tail olive-green; inner webs of flight-quills dark brown with pale edgings; inner webs of tail-feathers also brown; sides of the crown dusky olive-green; middle of crown from the forehead to the nape rich orange; lores greyish; sides of face green with a greyish shade; sides of neck and sides of breast olive-green; chin, throat, and fore-neck grey with sulphur-yellow centres to the feathers; breast greyish olive-green, more or less streaked with yellow like the sides of the body; abdomen, flanks, and under tail-coverts lemon-yellow; axillaries and under wing-coverts sulphur-yellow—the greater series of the latter and under surface of quills brown with pale inner margins to the last; lower aspect of tail pale brown.

Total length 119 mm., exposed culmen 14, wing 71, tail 47, tarsus 17.

The specimen described was collected on the Abary River in September 1907.

Adult female. Similar to the adult male but slightly smaller. Wing 67 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Lower Mazaruni River, Bartica, Anarica River, Berbice River (*McConnell collection*); Kamakusa, Roraima (*Whitely*).

Extralimital Range. Cayenne (*Sclater*), North Brazil.

Habits. Unrecorded in British Guiana.

Family COTINGIDÆ.

This family, which consists of many peculiar forms, is distributed in Central America, some of the West India Islands, and the tropical portion of South America. When Brabourne and Chubb published their 'List of the Birds of South America' it was represented by twenty-nine genera and one hundred and twenty-two species; twenty of the genera and thirty-two of the species occur in British Guiana.

Genus TITYRA Vieill.

Tityra Vieillot, Anal. nouv. Orn. p. 39, 1816. Type *T. cayana* (Linn.).

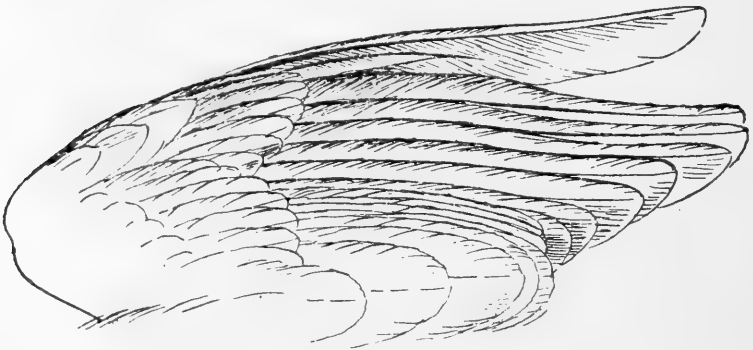


Fig. 107.—To show the miniature second primary.

This genus is easily distinguished by the somewhat stout bill with its rounded and exposed nostrils and sharply hooked upper mandible, also by the bare space round the eye and almost entire absence of rictal bristles. The wing is rounded, the third and fourth primaries longest and equal, the first about equal in length to the fifth and the second very short and sharply attenuated. The tail is almost square at the tip and rather more than half the length of the wing. The tarsus is about equal in length to that

of the exposed culmen. The hind toe and claw are nearly equal in length to the middle toe and claw. Coloration: male and female only slightly different.

524. *Tityra cayana*.

CAYENNE TITYRA.

Lanius cayanus Linn. Syst. Nat. i. p. 137, 1766 (Cayenne).
Tityra cayana Cab. in Schomb. Reis. Guian. iii. p. 697, 1848; Salvin, Ibis, 1885, p. 301 (Bartica Grove, Camacusa, Merumé Mts., Roraima 3500 ft.); Sclater, Cat. B. Brit. Mus. xiv. p. 328, 1888 (Camacusa, Bartica Grove, Roraima); Lloyd, Timehri (2) xi. p. 9, 1897 (nesting); Beebe, Our Search for a Wilderness, pp. 177, 179, 1910 (Hoorie River); Brabourne & Chubb, B. S. Amer. i. p. 313, no. 3200, 1912.

“Black-tailed Tityra,” “Frog-birds” (*Beebe*).

Adult male. Head, sides of face, chin, upper wing-coverts, flight-quills, and tail black, inner webs of flight-quills inclining to whitish; back, scapulars, innermost secondaries, upper tail-coverts, breast, abdomen, under tail-coverts, and under wing-coverts very pale ash-grey inclining to white on the throat and axillaries; outer edge of wing speckled with black and white; under surface of tail black.

Total length 205 mm., exposed culmen 24, wing 122, tail 73, tarsus 24.

The male described was collected on the Ituribisi River in 1909.

Adult female. Differs from the adult male in having the back, scapulars, and upper tail-coverts darker grey with black shaft-streaks to the feathers, the chin as well as the throat pure white; breast, abdomen, under tail-coverts, and under wing-coverts grey with dark shaft-streaks to the feathers. Wing 115 mm.

The specimen described was collected at Bartica in 1911.

Breeding-season. December (*C. A. Lloyd*).

Nest. It nests in holes of trees made by Woodpeckers (*Schomburgk*). Cf. *Beebe, infra*, p. 268.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Upper Takutu Mountains, Ituribisi River, Supenaam River, Mazaruni River, Bartica, Bonasika River, Great Falls Demerara River (*McConnell collection*); Mount Roraima, Merumé Mountains, Kamakusa, Bartica (*Whitely*); Hoorie River (*Beebe*).

Extralimital Range. Cayenne (*Linné*), Trinidad, Venezuela, Colombia, North Brazil, E. Peru.

Habits. According to Schomburgk (*Reis. Guian.* iii. p. 697) this bird frequents the outskirts of the woods and is especially fond of isolated trees in the cultivated fields close to the Indian settlements. It is very partial to places where a forest fire has occurred, where it prefers to sit on the dead trees, and is usually met with in pairs. It nests in holes of trees made by Woodpeckers. He never saw them on the ground nor in low bush. The "Macusis" and "Arakunas" call it *Owehma*.

The following note has been copied from Beebe (*Our Search for a Wilderness*, p. 177):—"Black-tailed Tityra . . . Strange Frog-birds . . . had begun to nest in a small dead stub standing alone in the centre of the vegetable garden. The birds were having a hard time of it, carrying stiff, four-inch twigs into a three-inch hole, but they were succeeding, showing that they knew better than to hold the twig by the centre. The whole head to below the eyes and including the upper nape was black, while the bare skin of the face and the basal two-thirds of the beak were bright red. The male was uniformly pale bluish-white, while his mate was distinguished by many rather faint streaks of black on the breast, sides, and under parts. Both birds alternated in carrying the nesting material and in arranging it . . . the nesting stub was about six inches in diameter and the hole thirty feet above the ground.

"These birds lack the bright hues of most of their relatives, but have the family trait of possessing some queer trick of plumage. While the first flight-feather of the wing is perfectly normal, measuring about three and a half inches in length, the second is a mere parody of a feather, tapering to a point and reaching a length of less than two inches. Only the true lover of birds will realize what an effort it took to tear ourselves away from this pair of birds, whose eggs and young appear to be as yet undescribed."

Genus **PLATYPSARIS** Sclater.

Platypsaris Sclater, P. Z. S. 1857, p. 74. Type *P. aglaia* (Lafr.).

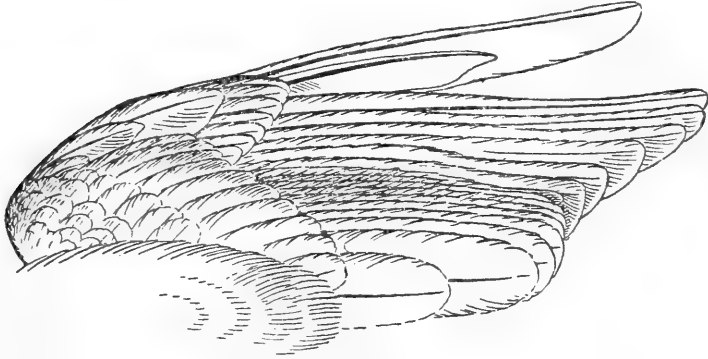


Fig. 108.—To show the short and peculiar form of the second primary.

In this genus the bill is keeled, the width at the base is about one-third the length of the exposed culmen, the upper mandible is sharply hooked, and the nostrils are almost covered. The rictal bristles are feebly developed. The region of the eye is feathered. The wing is rounded, the third and fourth primaries longest and equal, the first about equal in length to the fifth. The tail is slightly rounded at the tip and about three-fourths the length of the wing. The feet are slender, the tarsus is about one-third the length of the tail, and the hind toe and claw are almost equal in length to the middle toe and claw. Coloration : male and female entirely different.

525. *Platypsaris minor*.

Querula minor Less. *Traité d'Orn.* p. 363, 1830 (Cayenne).

Hadrostomus minor Salvin, *Ibis*, 1885, p. 302 (Bartica Grove, Camacusa);
Sclater, *Cat. B. Brit. Mus.* xiv. p. 337, 1888 (Camacusa, Bartica
Grove).

Platypsaris minor Brabourne & Chubb, *B. S. Amer.* i. p. 315, no. 3214,
1912.

Adult male. General colour of the upper surface, including the head, back, wings, and tail, glossy black ; base of scapulars white which forms a more or less concealed patch ; greater upper wing-coverts and flight-quills dark brown, the latter white at the base ;

base of forehead and sides of face dark brown ; chin, upper throat, breast, abdomen, sides of body, and under tail-coverts dull slaty-black ; a patch of rose-red on the lower throat ; under wing-coverts and terminal portion of flight-quills below dark brown ; base of quills and a portion of the outer under wing-coverts white, the latter extending on to the edge of the wing ; lower aspect of tail dark brown.

Total length 166 mm., exposed culmen 18, wing 84, tail 60, tarsus 19.

The specimen described was collected on the Mazaruni River in 1905.

Adult female. Head and back slate-grey ; outer aspect of wings rufous ; bastard-wing and inner webs of primary-coverts dark brown ; inner webs of flight-quills, approximate to the shafts, also dark brown which is confined to the tips on the inner secondaries, which latter are almost entirely rufous ; upper tail-coverts and tail-feathers uniform rufous ; sides of face, throat, and entire under surface of body including the under tail-coverts cinnamon-rufous ; under wing-coverts, inner edges of quills below, and lower aspect of tail also rufous but deeper in colour ; terminal portion of the quills below dark brown. Wing 91 mm.

The female from which the description is taken was collected on the Bonasika River.

Immature male. In its first plumage is like that of the female, and the first appearance of the male plumage is shown, in a specimen collected by Whitely at Camacusa, by an indication of the red collar on the fore-neck.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Mazaruni River, Bartica, Bonasika River, Great Falls Demerara River (*McConnell* collection) ; Kamakusa, Bartica (*Whitely*).

Extralimital Range. Venezuela, Colombia, Ecuador, Peru, Northern Brazil.

Habits. Unrecorded in British Guiana.

Genus **PACHYRHAMPHUS** Gray.

Pachyrhamphus Gray, List Gen. B. p. 31, 1840. Type *P. viridis* (Vieillot).



Fig. 109.—To show the abortive and incised tip of the second primary.

In this genus the bill is more or less depressed, the width at the base being about four-fifths the length of the exposed culmen, and the upper mandible hooked at the tip. The rictal bristles are only slightly developed. The wing is rounded, the third and fourth primary-quills longest and equal, the second abortive and incised on the inner web at the tip, and the first about equal in length to the fifth. The tail is rounded at the tip, the outermost feather on each side about 5 mm. shorter than the middle ones, and about three-fifths the length of the wing. The tarsus is about twice the length of the exposed culmen. Coloration: male and female different.

Key to the Species.

- | | |
|---|------------------------------------|
| A. Under surface greyish white. | |
| a. Larger; crown of head black; back green | <i>P. griseigularis</i> ♂, p. 272. |
| a'. Crown of head green like the back | <i>P. griseigularis</i> ♀, p. 272. |
| b. Smaller; crown of head black; back ash-grey, sometimes tinged with green | <i>P. rufus</i> ♂, p. 273. |
| b'. Crown of head and back rufous. | <i>P. rufus</i> ♀, p. 273. |
| B. Under surface slate-black. | |
| c. Crown of head and back black | <i>P. macconnelli</i> ♂, p. 274. |
| d. Crown of head and back olive-green; under surface lemon-yellow | <i>P. macconnelli</i> ♀, p. 274. |

C. Under surface pale slate-grey.

e. Crown of head black; back dark slate-grey intermixed with black. *P. atricapillus* ♂, p. 275.

f. Crown of head and back ochreous brown; under surface pale sulphur-yellow *P. atricapillus* ♀, p. 276.

526. *Pachyrhamphus griseigularis*.

GREY-THROATED THICK-BILL.

Pachyrhamphus griseigularis Salvin & Godman, Ibis, 1883, p. 208 (Mount Roraima, 3500 feet), 1884, p. 448; Salvin, Ibis, 1885, p. 302, pl. viii.; Selater, Cat. B. Brit. Mus. xiv. p. 339, 1888 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 315, no. 3217, 1912.

Adult male. Crown of head and nape uniform black; hinder cheeks, ear-coverts, back, scapulars, and upper tail-coverts yellowish green; wings black with whitish or yellowish-white margins to the feathers, which are much wider on the inner webs of the flight-quills; tail greyish brown fringed with green on the outer webs and whitish on the inner ones; throat, breast, abdomen, and under tail-coverts pale ash-grey; axillaries, under wing-coverts and inner margins of quills below pale sulphur-yellow; remainder of the quills below blackish brown; lower aspect of tail pale greyish-brown, with white shafts to the feathers and pale inner edges. "Bill and feet dark plumbeous" (Cat. B. Brit. Mus.).

Total length 137 mm., exposed culmen 13, wing 76, tail 51, tarsus 22.

Adult female. Differs from the adult male in having the crown of the head green and the upper wing-coverts broadly margined with chestnut. Wing 73 mm.

This species is not represented in the McConnell collection, and the descriptions are taken from the types in the British Museum—Salvin-Godman collection.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*Whitely*).

Habits. Unrecorded.

527. *Pachyrhamphus rufus*.

CINEREOUS THICK-BILL.

Pipra rufus Boddaert, Tabl. Pl. Enl. p. 27, 1783 (Cayenne).

Pachyrhamphus cinereus Sclater, Cat. B. Brit. Mus. xiv. p. 341, 1888.

Pachyrhamphus rufus Brabourne & Chubb, B. S. Amer. i. p. 315, no. 3221, 1912.

Adult male. Entire crown of head and nape black; back, scapulars, lesser upper wing-coverts, upper tail-coverts, and tail green more or less tinged with grey; median and upper wing-coverts and secondaries greyish brown with whitish edgings; tail-feathers fringed with white; sides of the face grey; base of forehead, throat, abdomen, and under tail-coverts white; breast and sides of body grey with a tinge of sulphur-yellow; axillaries, under wing-coverts, and inner edges of quills below very pale yellow, apical portion of quills below dark brown; lower aspect of tail grey with whitish edgings.

Total length 124 mm., exposed culmen 14, wing 67, tail 47, tarsus 18.

The specimen described was collected on the Bonasika River in 1911.

Adult female. General colour above and below cinnamon-rufous, darker on the head where it forms a cap; bastard-wing, primary-coverts, and inner webs of flight-quills blackish; under surface of body much paler and inclining to white on the abdomen. Wing 70 mm.

The female described was also collected on the Bonasika River.

Immature male. Differs entirely from the adult male and female in having the crown of the head ochreous-brown intermixed with black on the nape and sides of the crown, the back, lesser upper wing-coverts, sides of neck, upper tail-coverts, and a band across the breast ochreous-yellow much paler on the last, the tail inclining to cinnamon-rufous, the sides of the face, throat, abdomen, and under tail-coverts white, more or less tinged with yellow, and the bastard-wing, primary-coverts, and flight-quills black, with yellow margins on the outer webs and white edgings to the inner ones of the last.

The young male from which the description is taken was collected on the Supenaam River in 1910.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Mazaruni River, Bartica, Bonasika River, Great Falls Demerara River (*McConnell collection*).

Extralimital Range. Surinam (British Museum), Venezuela, North Brazil, Colombia.

Habits. Unrecorded in British Guiana.

528. *Pachyrhamphus macconnelli*.

MCCONNELL'S THICK-BILL.

Bathmidurus niger (nec Spix) Cab. in Schomb. Reis. Guian. iii. p. 698, 1848.

Pachyrhamphus niger (nec Spix) Salvin, Ibis, 1885, p. 302 (Roraima, 3500 to 4000 feet); Selater, Cat. B. Brit. Mus. xiv. p. 343, 1888 (Roraima).

Pachyrhamphus cinereiventris (nec Selater) Brabourne & Chubb, B. S. Amer. i. p. 316, no. 3227 (part), 1912.

Pachyrhamphus macconnelli Chubb, Bull. Brit. Orn. Club, xl. p. 73, January 30, 1920.

Adult male. General colour of the upper surface black, with white edgings to the feathers of the wings and white tips to the tail-feathers; upper tail-coverts slate-grey; the feathers on the crown of the head glossy blue-black which imparts a spotted appearance; sides of the face black; throat and remainder of the under surface blackish slate-grey, somewhat paler on the lower abdomen and under tail-coverts; under wing-coverts speckled with black and white; under surface of flight-quills blackish brown, with paler inner edges; lower aspect of tail black, with white tips to the feathers. "Bill and feet dark plumbeous" (Cat. B. Brit. Mus.).

Total length 145 mm., exposed culmen 12, wing 73, tail 54, tarsus 18.

The male bird from which the description is taken was collected on the Bonasika River in 1911.

Adult female. Crown of head, sides of the face, sides of the neck, entire back, scapulars, and upper tail-coverts yellowish olive-green, rather darker on the head; lesser upper wing-coverts olive-brown, median and greater series brown, broadly fringed with buff;

bastard-wing and primary-coverts uniform dark brown; flight-quills also dark brown, with buffy-white edges more broadly on the inner webs; middle tail-feathers olive-brown slightly tipped with buff, which increases in extent towards the outermost, where it occupies about one-third of the entire feather, the remainder or basal portion of the outer feathers dark brown; a ring of short white feathers encircles the eye; the short feathers at the base of the forehead pale rust-colour; throat, middle of breast, abdomen, and under tail-coverts lemon-yellow; axillaries and under wing-coverts sulphur-yellow; under surface of flight-quills pale brown with buffy-white inner edges; lower aspect of tail olive, subterminally brown, and broadly tipped with buff. Wing 70 mm.

The female described was collected at the Takutu Mountains in 1909.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Essequibo River, Bonasika River (*McConnell collection*); Mount Roraima, 3500 to 4000 ft. (*Whitely*).

Extralimital Range. Trinidad, Tobago, Venezuela, Colombia.

Habits. According to Schomburgk (*Reis. Guian.* iii. p. 698) this bird lives in the coast-woods and often visits the isolated trees near the plantations.

529. *Pachyrhamphus atricapillus*.

BLACK-CAPPED THICK-BILL.

Lanius atricapillus Merrem, *Aves Icon. et Descr.* p. 26, 1784 (Surinam).
Pachyrhamphus atricapillus Cab. in Schomb. *Reis. Guian.* iii. p. 689, 1848; Salvin, *Ibis*, 1885, p. 302 (Merumé Mts., Camacusa, Bartica Grove); Selater, *Cat. B. Brit. Mus.* xiv. p. 347, 1888 (Bartica Grove, Camacusa, Merumé Mts.); Beebe, *Our Search for a Wilderness*, p. 131, 1910 (Georgetown); Brabourne & Chubb, *B. S. Amer. i.* p. 316, no. 3232, 1912.

Adult male: Crown of the head black, with glossy blue-black tips to the feathers; hind-neck, back, scapulars, and upper tail-coverts dark slate-grey, with more or less blue-black intermixed on the upper back; lesser and median upper wing-coverts blue-black, the latter margined with white; greater coverts and inner

secondaries black margined with white; bastard-wing, primary-coverts, and primary-quills black, the inner webs margined with white; tail black tipped with white, much more broadly on the outer feathers; loreal space and a narrow ring of short feathers round the eye white, a patch of black hair-like feathers in front of the eye; ear-coverts greyish brown; throat, breast, abdomen, and under tail-coverts ash-grey, somewhat darker on the sides of the body; axillaries, under wing-coverts, and inner edges of quills below pale sulphur-yellow, the remainder of the under surface of the quills pale brown; lower aspect of tail black, with white tips to the feathers.

Total length 127 mm., exposed culmen 13, wing 68, tail 46, tarsus 17.

The male described was collected on the Supenaam River. It may be observed that in this specimen the flight-quills are somewhat worn and pale in colour. The other male birds in the collection are moulting.

Adult female. Entirely different from the adult male—having the crown of the head dark chestnut, the back, scapulars, upper tail-coverts, sides of face, and sides of breast dull olive-green, the upper wing-coverts black margined with ferruginous, the outer margins of the secondary-quills buff, the middle tail-feathers ochreous, with a dark brown subterminal spot and narrowly tipped with buff, the outer feathers blackish broadly tipped with buff, the throat ochreous-yellow, the remainder of the under surface pale yellow, including the under wing-coverts, the under surface of the quills brown with buff inner edges, and the lower aspect of the tail blackish, with buff tips to the feathers. Wing 65 mm.

The female from which the description is taken was collected on the Makauria River in August 1910.

The young male is similar to the adult female in the early stages of its plumage. It can usually be distinguished, however, in having the crown of the head dusky instead of chestnut, and the back ochreous instead of green. The breast very soon becomes darker, lead-coloured feathers being intermixed with yellow, and glossy blue-black feathers appear on the crown of the head. One of the latest remains of youth appears to be the buff tips to the tail-feathers.

This series of four young birds was collected on the Mazaruni and Bonasika Rivers.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Mazaruni River, Bartica, Bonasika River, Makauria River, Arawai River, Great Falls Demerara River, Arwee Creek (*McConnell collection*); Merumé Mountains, Kamakusa, Bartica (*Whitely*); Georgetown (*Beebe*).

Extralimital Range. Surinam (*Merrem*), Venezuela, Ecuador, East Peru.

Habits. Unrecorded in British Guiana.

Genus LATHRIA Swains.

Lathria Swainson, *Classif. B. ii.* p. 255, 1837. Type *L. cinerea* (Vieill.).



Fig. 110.—*Lathria cinerea*.

The members of this genus are birds of rather large size with proportionately small feet. The bill, which is keeled and sharply hooked at the tip of the upper mandible, is wide and depressed at the base, where the width is about two-thirds the length of the exposed culmen. The rictal bristles are moderately developed. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second about equal in length to the sixth, and the first about equal to the seventh. The tail is almost square at the tip and about ten-twelfths the length of the wing. The tarsus is about equal to the middle toe and claw in length. Coloration: male and female similar.

Key to the Species.

- A. Fore-neck, hind-neck, and under tail-coverts uniform with the rest of plumage *L. cinerea*, p. 278.
- B. Fore-neck, hind-neck, and under tail-coverts not uniform with the rest of the plumage.
- a.* A collar that encircles the neck and under tail-coverts rose-red *L. streptophora*, ♂, p. 280.
- b.* No red collar on the neck; under tail-coverts chestnut *L. streptophora*, ♀, p. 280.

530. *Lathria cinerea*.

GREY SCREAMING PIHA.

Ampelis cinerea Vieill. N. Dict. d'Hist. Nat. viii. p. 162, 1817 (Cayenne).

Lipangus cineraceus Cab. in Schomb. Reis. Guian. iii. p. 693, 1848.

Lathria cinerea Salvin, Ibis, 1885, p. 302 (Bartica Grove, Camacusa, Merumé Mts., Roraima, 3500 ft.); Selater, Cat. B. Brit. Mus. xiv. p. 352, 1888 (Roraima, Merumé Mts., Camacusa, Bartica Grove); Quelch, Timehri (2) ii. p. 375, 1888 (Abary River); id. op. cit. iv. p. 115, 1890 (Great Falls Demerara River); Beebe, Our Search for a Wilderness, pp. 188, 246, 307, 342, 392, 1910 (Aremu River); Brabourne & Chubb, B. S. Amer. i. p. 317, no. 3238, 1912.

“The Gold or Greenheart Bird” (Beebe); “Pi-pi-yo” or “Green-heart Bird” (Quelch).

Adult male. Head, sides of neck, back, scapulars, and upper tail-coverts slate-grey; wings and tail brown; throat and under surface also grey, but much paler than the upper surface, the feathers on the throat showing pale shaft-lines; axillaries and under wing-coverts pale ash-grey; under surface of flight-quills and lower aspect of tail greyish brown.

Total length 243 mm., exposed culmen 24, wing 121, tail 107, tarsus 22.

The male described was collected on the Supenaam River in 1910.

Adult female. Similar to the adult male, and differing only in having the outer aspect of the wing and tips of the tail-feathers tinged with rufous. Wing 116 mm.

The description of the female is taken from an example collected on the Ituribisi River in October 1908.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Mazaruni River, Berbice River, Arawai River, Great Falls Demerara River, Arwyo Creek (*McConnell collection*); Mount Roraima, Merumé Mountains, Kamakusa, Bartica (*Whitely*); Hoorie River (*Beebe*).

Extralimital Range. Cayenne (*Vieillot*), Brazil, East Peru, Ecuador.

Habits. Schomburgk states (*Reis. Guian. iii. p. 693*) in regard to this bird that the first time he heard its note it made him most curious to know the bird. It lived in flocks in tall trees, over the tops of which it roamed about. In the low bush it was never seen. It was very difficult to obtain, for, in spite of its shrill voice, its habit of sitting still and its sober ash-grey colour made it almost impossible to be seen. As a rule, when one bird uttered a note, the entire flock repeated the same cry. He was continually hearing this concert all the day long. He once attempted to pick up a winged bird which startled him to a degree by its "ear-splitting" note. Although this bird was so common, its nidification was still unknown to him. The "Warraus" called it *Paia-paia*, and the "Macusis" and "Arekunas" *Pai-paischo*.

The following notes are quoted from Mr. J. J. Quelch (*Timehri* (2) ii. p. 375), who observed this bird during a collecting trip on the Abary River, and writes:—"In the forest the shrill piercing whistle of the 'Pi-pi-yo' or green-heart bird (*Lathria cinerea*) alone could be heard, and this the only bird seen." He also met with it at the Great Falls, and observes (*Timehri* (2) iv. p. 115):—"On all sides the green-heart birds incessantly rang out their piercing 'pi-pi-yo.'"

The following note has been taken from Beebe (*Our Search for a Wilderness*, p. 188):—"The Gold or Greenheart Bird, another member of the Cotingas or Chatterers, which is as remarkable for its voice as it is lacking in brilliant colours. Loud as the call is, it is very ventriloquial and difficult to locate. When directly beneath the sound, it seems to come from the tops of the highest trees, a hundred feet up, whereas in all probability the bird is not more than twenty-five feet above our heads. It sits motionless,

but the violence of its utterance makes the whole branch vibrate. The male Goldbird is uniformly ashy or slate-coloured, slightly darker above, very solitaire-like both in colour and size. The female is distinguished by a shade of rufous on the wing-coverts and the tips of the flight-feathers."

The following note has also been copied from Beebe (Our Search for a Wilderness, p. 342):—"The Goldbirds, although the size of large Thrushes, are absolutely indistinguishable in their garb of dull brown in the shadowy mid-forest, neither descending to the ground nor ascending to the sun-lit tree-tops."

531. *Lathria streptophora*.

PINK-COLLARED PIHA.

Lathria streptophora Salvin & Godman, Ibis, 1884, p. 448, pl. xiv. (Roraima, 5000 ft.); Salvin, Ibis, 1885, p. 303, 1886, p. 502 (description of female); Selater, Cat. B. Brit. Mus. xiv. p. 352, 1888 (Twek-quey Mt.); Brabourne & Chubb, B. S. Amer. i. p. 317, no. 3239, 1912.

Adult male. General colour above and below dark slate-grey; flight-quills black, white on the margins of the inner webs towards the base; tail black, with grey edgings to the outer webs of the feathers; under tail-coverts and a collar that completely encircles the neck rose-red; throat and under surface slate-grey, but paler than on the upper parts, particularly on the abdomen; axillaries, under wing-coverts, and inner edges of quills below pale ash-grey, remainder of the quills below and lower aspect of tail dark brown.

Total length 222 mm., exposed culmen 21, wings 130, tail 91, tarsus 21.

The male described was collected at Mount Roraima by Mr. McConnell during his expedition in October 1898.

Adult female. Differs from the adult male in the absence of red on the hind-neck and fore-neck and in having the under tail-coverts chestnut. Wing 123 mm.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima and Twek-quey Mountains (*Whitely*).

Habits. Unrecorded.

Genus **LANIOCERCA** Less.

Laniocerca Lesson, Rev. Zool. 1840, p. 353. Type *L. hypopyrrha* (Vieill.).



Fig. 111.—*Laniocerca hypopyrrha*.

This genus is distinguished by the Shrike-like bill, proportionately long tail, and small feet. The bill is somewhat compressed, the width at the base is about three-fifths the length of the exposed culmen. Rictal bristles only feebly developed. The wing is rounded, the third and fourth primaries longest and equal, the second being equal in length to the fifth and the first about equal to the sixth. The tail is slightly rounded at the tip and nearly four-fifths the length of the wing, the middle toe and claw nearly equal in length to the tarsus. Coloration: male and female similar.

532. *Laniocerca hypopyrrha*

RED-BREASTED MOURNER.

Ampelis hypopyrrha Vieill. N. Dict. d'Hist. Nat. viii. p. 164, 1817 (Guiana).

Aulia hypopyrrha Salvin, Ibis, 1885, p. 303 (Bartica Grove, Camacusa);
 Selater, Cat. B. Brit. Mus. xiv. p. 354, 1888 (Camacusa, Bartica Grove).

Laniocerca hypopyrrha Brabourne & Chubb, B. S. Amer. p. 317, no. 3243, 1912.

Adult male. General colour above and below slate-grey with a hoary tinge; median and greater upper wing-coverts dark brown, with ferruginous tips to some of the feathers; bastard-wing, primary-coverts, and flight-quills also dark brown, some of the inner secondaries slightly tipped with buff and with pale edges to the inner webs; tail-feathers brown, tipped with buff and tinged with grey on the outer webs; throat and under surface of

the body rather paler than the upper parts, especially on the abdomen, vent, and under tail-coverts, with pale shaft-lines to the feathers; axillaries and a patch on the sides of the body rich chestnut; under wing-coverts grey, with an admixture of pale rufous and white; under surface of flight-quills pale brown like the lower aspect of the tail, the latter fringed with buff at the tips.

Total length 191 mm., exposed culmen 18, wing 111, tail 82, tarsus 19.

The specimen described was collected on the Ituribisi River in August 1909.

Adult female. Differs from the adult male in having the upper wing-coverts darker, the buff spots to the feathers larger, and the elongated patch of ferruginous feathers tipped with black on the middle of the abdomen. Wing 106 mm.

The female described was collected on the Supenaam River in 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Lower Mazaruni River, Bartica, Bonasika River, Makauria River, Tiger Creek (*McConnell collection*); Bartica, Kamakusa (*Whitely*).

Extralimital Range. Cayenne, Eastern Brazil, Eastern Peru, Eastern Ecuador.

Habits. Unrecorded in British Guiana.

Genus **LIPANGUS** Boie.

Lipangus Boie, Isis, 1828, p. 318. Type *L. simplex* (Licht.).

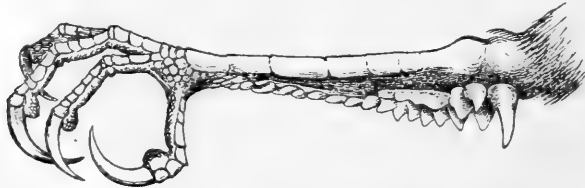


Fig. 112.—To show upper portion of tarsus, hinder aspect.

The species on which this genus was based are somewhat large for Passerine birds. The bill is depressed laterally at the base, the

width being rather more than half the length of the exposed culmen, and the tip of the upper mandible is sharply hooked. The rictal bristles are strongly developed. The wing is rounded, the second, third, fourth, and fifth primaries longest and subequal, the first about equal in length to that of the eighth. The tail is square at the tip and about eight-ninths the length of the wing. The tarsus is sharply serrated on the upper portion of the hinder aspect, and the middle toe and claw are about equal in length to the exposed culmen. Coloration: male and female similar.

533. *Lipangus simplex*.

GREYISH MOURNER.

Muscicapa simplex Lichtenstein, Verz. Doubl. p. 53, 1823 (Bahia).

Lipangus simplex Cab. in Schomb. Reis. Guian. iii. p. 694, 1848; Salvin, Ibis, 1885, p. 303 (Bartica Grove, Camacusa, Merumé Mts.); Sel.

Cat. B. Brit. Mus. xiv. p. 356, 1888 (Bartica Grove, Camacusa).

Lipangus simplex Brabourne & Chubb, B. S. Amer. i. p. 318, no. 3246, 1912.

Adult male. Head, back, upper wing-coverts, scapulars, rump, and upper tail-coverts slate-grey like the throat and breast; bastard-wing, primary-coverts, and quills blackish brown, with slate-grey on the outer webs and pale margins to the inner ones of the last; tail-feathers somewhat paler than the flight-quills fringed with lead-grey; abdomen paler and more so on the under tail-coverts, axillaries, and under wing-coverts; lower surface of quills brown with pale inner edges; lower aspect of tail similar but paler.

Total length 190 mm., exposed culmen 19, wing 98, tail 90, tarsus 22.

The male specimen was collected at the Great Falls Demerara River in August 1913.

Adult female. Similar to the adult male, but differs in having the greater upper wing-coverts, flight-quills, and apical portion of tail-feathers margined with rufous. Wing 92 mm.

The female described was collected on the Ituribisi River in 1909.

An immature bird from the Kamakabra River like the female, but more rufous on the wings and tail, and the under wing-coverts and under tail-coverts inclining to buff.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Makauria River, Great Falls Demerara River, Tiger Creek (*McConnell collection*); Merumé Mountains, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Colombia, Ecuador, East Peru, Eastern Brazil.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 694*) this bird has similar habits to those of *Lathria cineraceus*, but not the same shrill note. See p. 278.

Genus **ATTILA** Less.

Attila Lesson, *Traité d'Orn.* p. 360, 1830. Type *A. brasiliensis* Less.



Fig. 113.—To show bill and rictal bristles.

The birds that comprise this genus are of medium size. The bill is compressed and sharply hooked at the tip of the upper mandible, the width at the base is about two-thirds the length of the exposed culmen. The rictal bristles, though short, are strongly developed. The wing is rounded, the third and fourth primaries are longest and equal, the second is rather shorter than the fifth but much longer than the sixth, and the first is about equal in length to the secondary-quills. The tail is square at the tip, the feathers rather wide and about five-sevenths the length of the wing. The tarsus is about one-third longer than the exposed culmen. Coloration: male and female similar.

Key to the Species and Subspecies.

- | | |
|--|-------------------------------------|
| A. Throat and breast rufous; abdomen buffy-white | [p. 285. |
| B. Throat and breast olive-brown streaked with yellow; abdomen pale cream-colour | [p. 286. |
| C. Throat and breast grey streaked with white; abdomen white | [p. 288. |
| D. Throat, breast, and abdomen uniform cinnamon-rufous | <i>A. thamnophiloides</i> , p. 289. |

534. *Attila spadiceus spadiceus*.

CAYENNE ATTILA.

Yellow-rumped Flycatcher Lath. Gen. Syn. ii. pt. 1, p. 354, 1783 (Cayenne).

Muscicapa spadicea Gmel. Syst. Nat. i. p. 937, 1769 (Cayenne).

Attila spadiceus Selater, Cat. B. Brit. Mus. xiv. p. 362 (part), 1888 (Cayenne); Berlepsch, Nov. Zool. xv. p. 142, 1908 (Cayenne); Brabourne & Chubb, B. S. Amer. i. p. 258, no. 3253, 1912.

Adult. General colour of the upper surface chestnut-brown, including the top of the head, sides of the face, hind-neck, sides of neck, back, and tail; rump and upper tail-coverts orange-yellow; upper wing-coverts dark brown fringed with rufous; primary-coverts and flight-quills also dark brown, with chestnut-brown margins to the outer webs of the secondaries and buffy-white fringes to the inner ones; the forehead covered with stiffened black bristles; throat, breast, and sides of body paler than the back, showing dark obsolete shaft-lines to the feathers; abdomen and under tail-coverts cream-colour; axillaries, under wing-coverts, and inner margins of flight-quills below cinnamon-rufous, remainder of quills dark brown.

Total length 158 mm., exposed culmen 19, wing 80, tail 62, tarsus 24.

This description is taken from an example in the British Museum, and is said to have come from Cayenne, whence Latham obtained the bird which he described.

?*Immature.* Similar to the Cayenne bird described, but the colours on the upper surface not so bright and the throat and breast ochreous-brown with whitish fringes to the feathers; abdomen silky-white and the lower flanks and under tail-coverts yellowish buff; axillaries and under wing-coverts pale buff.

Total length 160 mm., exposed culmen 18, wing 84, tail 63, tarsus 22.

The specimen described was collected on the Supenaam River in 1913. There is a second example of this form which was collected by Mr. McConnell on the Lower Mazaruni River in 1898, and differs but slightly from the one described from the Supenaam River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Lower Mazaruni River (*McConnell collection*).

Extralimital Range. Cayenne.

Habits. Unrecorded in British Guiana.

535. *Attila spadiceus uropygialis*.

SCHOMBURGK'S ATTILA.

Dasycephala uropygialis Cab. in Schomb. Reis. Guian. iii. p. 686, 1848 (British Guiana).

Attila uropygialis Salvin, Ibis, 1885, p. 303 (Bartica Grove); Selater, Cat. B. Brit. Mus. xiv. p. 360, 1888 (Camacusa, Carimang River, Bartica Grove).

Attila brasiliensis (nec Less.) Salvin, Ibis, 1885, p. 303 (Bartica Grove, Camacusa); Brabourne & Chubb, B. S. Amer. i. p. 318, no. 3251 (part), 1912.

Adult male. Crown of head, back, scapulars, and lesser upper wing-coverts reddish brown; median and greater upper wing-coverts blackish brown, with buffy-white margins to the feathers; bastard-wing and primary-coverts uniform dark brown; flight-quills blackish brown, inclining to ochreous-brown on the outer margins and white or buffy-white on the inner ones; rump and upper tail-coverts yellow; tail rufous-brown, becoming darker towards the tip; base of forehead, lores, and feathers above the eye yellow at the base, with black hair-like bristles; sides of face and ear-coverts ochreous; chin grey, with black hair-like shafts to the feathers; fore-neck and breast ochreous-brown, the feathers fringed with yellow; abdomen, lower flanks, and vent white; under tail-coverts, axillaries, and under wing-coverts yellow; the greater series of the last and inner margins of the flight-quills below buff; remainder of the quill-lining dark brown; lower aspect of tail rufous-brown. "Bill blackish and feet dark" (*Schomburgk*).

Total length 165 mm., exposed culmen 18, wing 85, tail 62, tarsus 23.

The specimen described was collected on the Lower Mazaruni River by Mr. McConnell during his expedition to Mount Roraima in 1898, and is in similar plumage to that described by Cabanis in Schomb. Reis. Guian. iii. p. 686.

Adult female. Similar to the adult male but rather smaller. Wing 82 mm.

Although I have examined a fairly large series (between twenty and thirty individuals), the number of sexed and dated specimens is insufficient to arrive at a satisfactory conclusion in regard to the sequence of plumages. It appears to me desirable, therefore, to uphold the two species that have been described from the colony until the time when there is sufficient material to solve the problem; but from the variety of plumages exhibited in this series, I should not be surprised to learn that there is a third species even, as there are two specimens in the McConnell collection which are quite different from the rest.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Lower Mazaruni River, Bartica, Bonasika River, Makauria River, Arawai River, Berbece River (*McConnell collection*); Bartica, Kamakusa, Kamarang River (*Whitely*).

Extralimital Range. Cayenne, Surinam (*Penard*), Trinidad, Venezuela.

Habits. Unrecorded in British Guiana.

When Brabourne & Chubb compiled their 'List of the Birds of South America' they followed some of the previous authors in supposing that Lesson's bird—*Attila brasiliensis*—came from Cayenne, not from "Brasil" as he himself stated. On looking up the literature again, however, I see no direct evidence why Lesson's locality should be made to read Cayenne, as his original description appears to apply equally well to *Muscivora uropygata* Wied, and I notice, too, that the late Dr. P. L. Selater was of that opinion also, as he has marked one of the specimens in the British Museum from South-East Brazil, which was previously in his collection, "*Attila brasiliensis* compared with type in Mus. Par. P. L. S."

I suggest, therefore, that Lesson's name *Attila brasiliensis*, which has priority over *M. uropygiata* Wied, be used for the Brazilian bird, while I continue to use *Attila uropygialis*, which is without doubt the correct name, for the British Guiana bird.

536. *Attila spadiceus spodiostethus*.

GREY-BREASTED ATTLA.

Attila spodiostethus Salvin & Godman, Ibis, 1883, p. 209 (Bartica Grove); Salvin, Ibis, 1885, p. 304 (Bartica Grove); Selater, Cat. B. Brit. Mus. xiv. p. 360, 1888.

Attila brasiliensis (nec Less.) Brabourne & Chubb, B. S. Amer. i. p. 318, no. 3251 (part), 1912.

Adult male. Crown of head, sides of face, and hind-neck slate-grey, with dark shaft-lines to the feathers on the top of the head; back, scapulars, and lesser upper wing-coverts dark bronze-green; rump and upper tail-coverts bright lemon-yellow; wings blackish, with whitish outer margins to the median and greater upper wing-coverts, becoming olive-grey on the outer edges of the primary and secondary quills, which are margined with dull white on the inner webs; tail rufous-brown, becoming darker at the tip; base of forehead, lores, and eyelids greyish white, with short and stiffened black bristles on the lores and base of forehead; throat, sides of neck, breast, and sides of breast slate-grey, with whitish margins to the feathers, which increase in width towards the abdomen and become uniform whitish on the lower flanks, vent, and under tail-coverts; axillaries and under wing-coverts lemon-yellow; under surface of flight-quills dark brown with pale inner edges; lower aspect of tail cinnamon-rufous at the base, becoming darker towards the tip.

Total length 168 mm., exposed culmen 18, wing 88, tail 63, tarsus 24.

The specimen described was collected on the Ituribisi River in February 1907.

Adult female. General colour above rust-brown, including the crown of the head, sides of face, hind-neck, back, scapulars, lesser upper wing-coverts, innermost secondaries, and tail; bastard-wing, primary-coverts, median and greater upper wing-coverts, and flight-quills black, with ferruginous margins to the median and greater coverts and flight-quills, the inner edgings of the

last buffy-white; lower back inclining to chestnut; rump and upper tail-coverts lemon-yellow; a supraloral streak, which is continued over to behind the eye, and eyelids yellowish white; throat, breast, sides of neck, and sides of breast yellowish green, with pale margins to the feathers on the middle of the throat and middle of the breast; the feathers on the upper abdomen inclining to slate-grey; lower abdomen, lower flanks, and under tail-coverts dull white more or less tinged with yellow; axillaries and under wing-coverts and inner margins of quills below buff. Wing 80 mm.

The female described was collected at Bartica Grove in 1911.

Immature male. Differs from the adult male in its shorter bill and in having the axillaries and under wing-coverts white. It also differs in having the top of the head, hind-neck, and back dark coffee-brown, not grey, and the rump and upper tail-coverts buff instead of lemon-yellow.

The immature male described was collected on the Supenaam River in 1910.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Ituribisi River, Supenaam River, Bartica (*McConnell collection*); Bartica (*Whitely*).

Habits. Unrecorded.

537. *Attila thamnophiloides*.

SPIX'S ATTILA.

Muscicapa thamnophiloides Spix, Av. Bras. ii. p. 19, pl. 26, fig. 1, 1825 ("in locis sylvaticus fl. Amazonum").

Dasycephala thamnophiloides Cab. in Schomb. Reis. Guian. iii. p. 686, 1848.

Attila thamnophiloides Salvin, Ibis, 1885, p. 304; Sclater, Cat. B. Brit. Mus. xiv. p. 364, 1888 (Demerara); Brabourne & Chubb, B. S. Amer. i. p. 319, no. 3263, 1912.

Adult female. General colour above and below cinnamon-rufous, paler on the tail and inclining to yellowish buff on the abdomen and under tail-coverts; median and greater upper wing-coverts dark brown, margined with rufous like the flight-quills; bastard-wing and primary-coverts uniform dark brown; flight-quills dark brown, with pale rufous margins to the inner webs; under wing-coverts pale cinnamon; under surface of quills brown with pale inner edges; lower aspect of tail similar to that above but paler.

Total length 191 mm., exposed culmen 24, wing 84, tail 84, tarsus 22.

The specimen described was collected on the Ituribisi River in August 1909.

Adult male. Similar to the adult female but slightly larger. Wing 88 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Mazaruni River, Bartica, Bonasika River, Abary River, Anarika River (*McConnell collection*).

Extralimital Range. Northern Brazil, East Peru.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 686*) this bird was met with by him in the woods near the coast. He observed it on the ground as well as in the low bushes, and usually in the vicinity of rivers. This note applies also to *A. uropygialis*, *supra*, p. 286.

Genus **PHÆNICOCERCUS** Swains.

Phœnicocercus Swainson, *Faun. Bor.-Amer. ii. p. 491, 1831.* Type *P. carnifex* (Linn.).



Fig. 114.—To show the peculiar form of the fourth primary.

This genus is easily distinguished by the brilliant coloration of

the male, the short bill, and the peculiar wing formula. Female much less bright.

538. *Phœnicocercus carnifex*.

RED CHATTERER.

Ampelis carnifex Linn. Syst. Nat. i. p. 298, 1766 (Surinam).

Phœnicocercus carnifex Cab. in Schomb. Reis. Guian. iii. p. 695, 1848; Brown, Canoe and Camp Life in British Guiana, p. 40, 1876 (Puruni River); Salvin, Ibis, 1885, p. 304 (Bartica Grove, Camacusa); Selater, Cat. B. Brit. Mus. xiv. p. 367, 1888 (Demerara); Brabourne & Chubb, B. S. Amer. i. p. 320, no. 3267, 1912.

Adult male. Crown of head bright red; lores, a ring of short feathers round the eye, nape, hind-neck, and upper back black; upper wing-coverts chestnut-brown, with dark margins to the feathers; innermost secondaries also chestnut-brown; bastard-wing, primary-coverts, and flight-quills dark brown, with white margins to the inner webs of the primaries and pale rufous to those of the secondaries, with chestnut-brown edges to the outer webs of the latter; tips of tail-feathers ruddy brown; rump, upper tail-coverts, tail, abdomen, flanks, and under tail-coverts bright scarlet-red; throat umber-brown; ear-coverts and breast dark maroon; under wing-coverts cinnamon-rufous; flight-quills below pale brown with paler edgings; lower aspect of tail-feathers bright pink, darker at the tips.

Total length 201 mm., exposed culmen 23, wing 92, tail 73, tarsus 26.

The specimen described was collected on the Ituribisi River in October 1908.

Adult female. Differs from the adult male in being olive-green above, crown of head and tail dull brick-red, throat olive-green tinged with red, middle of abdomen and under tail-coverts inclining to pink, breast and sides of abdomen red, axillaries and under wing-coverts pale yellow, and the lower aspect of the tail slightly tinged with dull red. Wing 109 mm.

The female from which the description is taken was collected on the Ituribisi River in 1909.

The young male assumes the plumage of the female on the upper surface, but is brighter and more uniform red on the lower parts, and the axillaries and upper wing-coverts inclining to orange-colour.

Another example more advanced in age has the bright red upper tail-coverts and the approach of dark feathers on the back and upper wing-coverts.

The two specimens mentioned above were collected on the Mazaruni River—one by Mr. McConnell himself during his expedition to Mount Roraima in 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Mazaruni River, Tiger Creek, Arwye River, Great Falls Demerara River, Arawai River (*McConnell collection*); Puruni River (*Brown*); Kamakusa, Bartica (*Whitely*).

Extralimital Range. North Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 685*) that this gorgeous bird is seen throughout the year in the woods of the whole of British Guiana; and yet he was unable to learn anything about its nidification. It lives solitary or in pairs in the woods and is rather fond of *Ficus*-trees. The female is larger than the male, but she has not the brilliant colours by which he is distinguished. The "Macusis" call it *Ischararia*, the "Arekunas" *Ischaranare*, and the settlers *Firebird*.

Genus RUPICOLA Briss.

Rupicola Brisson, *Orn. iv. p. 437, 1760.* Type *R. rupicola* (Linn.).

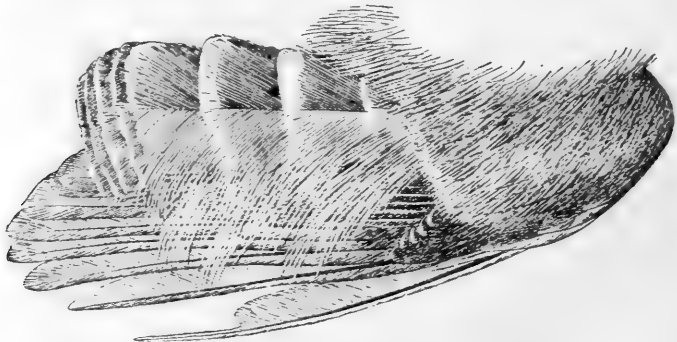


Fig. 115.—To show wing formula.

This genus differs from the allied genera by the large and

compressed, crest which reaches from the tip of the bill to the nape, the unusual formation of the upper tail-coverts, the peculiar formation of the first or outer primary-quill, the partially feathered tarsi, and the large feet. Coloration : male and female different.

539. *Rupicola rupicola*.

COCK OF THE ROCK.

Pipra rupicola Linn. Syst. Nat. i. p. 338, 1766 (Surinam).

Rupicola crocea Cab. in Schomb. Reis. Guian. i. p. 442, iii. p. 695, 1848; Salvin, Ibis, 1885, p. 304 (Camacusa, Merumé Mts., Atapurau River); Selater, Cat. B. Brit. Mus. xiv. p. 369, 1888 (Carang River, Merumé Mts., Atapurou River, Camacusa); Lloyd, Timehri (2) xi. p. 9, 1897 (nesting).

Rupicola cayanna Brown, Canoe and Camp Life in British Guiana, p. 228, 1876 (Upper Essequibo).

Rupicola rupicola Brabourne & Chubb, B. S. Amer. i. p. 304, no. 3269, 1912.

Adult male. General colour above and below bright orange-red; the feathers of the crest are darker subapically and form a semicircular line; some of the greater upper wing-coverts brown fringed with orange; bastard-wing white, with more or less smoke-brown on the apical portion; primary-coverts uniform brown tipped with buffy-white; flight-quills dark brown, with a large amount of white on the inner webs, the second, third, fourth, fifth, sixth, and seventh more or less white on the outer webs, the inner primary and secondary quills edged with white at the tips, becoming orange on the innermost, where the outer webs are elongated and disintegrated and also orange-colour; tail dark brown with an orange tinge, the feathers orange on the outer webs at the base, and pale orange or white at the tips; a ring of short white feathers encircles the eye; greater under wing-coverts and under surface of flight-quills brown, the latter broadly fringed with white on the inner webs; lower aspect of tail also brown tipped with pale orange.

Total length 259 mm., culmen (from the base of skull) 26, wing 175, tail 84, tarsus 35.

The specimen described was collected on the Curubung River by Mr. McConnell during his expedition to Mount Roraima in September 1898.

Adult female. General colour above and below paler and inclining to golden brown on the innermost secondaries and tail-feathers; axillaries and under wing-coverts pale orange. Wing 160 mm.

The female described was also collected by Mr. McConnell during his expedition to Mount Roraima in September 1898.

The young male in its first plumage is like the female, and the first sign of male attire is usually seen by the approach of orange-coloured feathers on the middle of the abdomen, under tail-coverts, and upper tail-coverts. In another specimen, which is in a more advanced stage, the remains of female plumage may be observed on the sides of the head, hind-neck, and scapulars.

The young male mentioned above was also collected by Mr. McConnell in September 1898 during his expedition to Mount Roraima.

Breeding-season. Chiefly in May (Schomburgk, Reis. Guian. i. p. 432). "On the Savannah the Cock-of-the-Rock lays in March" (C. A. Lloyd).

Nest. The nest is placed in deep fissures of the rocks, and is pasted on the walls of the fissures in the same manner as the European Swallows' nests are, and often in a sheltered place. It is composed of fibres of plants and made adhesive by the use of a somewhat solid resin, which is also used in fixing the nest to the sides of the rock. The whole of the outside structure is covered with this glutinous substance. It appears, like many other birds, to use the same nest year after year by adding only another layer of plant fibres and a few feathers each season, as several other nests were observed with numerous layers in each (Schomburgk, Reis. Guian. i. p. 432).

Eggs. Two in number; white dotted with black (Schomburgk, Reis. Guian. i. p. 432).

Range in British Guiana. Curubung River (McConnell collection); Upper Essequibo River (Brown); Kamakusa, Merumé Mountains, Kamarang River (Whitely).

Extralimital Range. Surinam (Linné); Cayenne, Northern Brazil, Venezuela.

Habits. In reference to this bird, Schomburgk writes (Reis. Guian. i. p. 442):—"We suddenly heard at some distance the well-known call of the 'Cock of the Rock.' We crawled most carefully and noiselessly for about a thousand steps through the

bush, which led us to a somewhat open space, and, peering most carefully through the bushes, we were fortunate enough to see the 'dance' of this bird. There were about twenty birds—male and female—perched on the bushes surrounding the level ground in the open space uttering their encouraging cries to a male, this bird with lowered wings and outspread tail, which it moved up and down, now and then scratching the ground, walking round and round, and jumping into the air until apparently exhausted it flew back to join those sitting on the bushes. This was immediately followed by another that went through the same performance. The females remained perched all the time uttering their notes of encouragement. The bird appears to be very delicate, as the slightest touch of a shot seems to kill it."

Schomburgk states (Reis. Guian. iii. p. 694) that he only met with this gorgeous bird in two localities in British Guiana—viz., on the rocky Canuku Mountains and on the *Sand-stone rocks*, Awarimatta on Wenamu, a tributary of the Upper Cuyuni River. They were in large numbers in both localities. It has been said that it inhabits and breeds in the caves in these places, but this is not correct as far as *R. crocea* is concerned. The only time he saw it on the ground was when it was dancing. He never found it nesting on trees—as *R. peruviana* does according to Tschudi—but it builds its nests on the rock-walls like the Martins. It lives in flocks and has a very unpleasant call. Its food appears to consist of fruit only, if one may judge by the contents of the stomachs of those examined. It does not live long in confinement, for though he had often seen immature birds in cages, he had never seen one in the orange plumage of the adult. He was of opinion, therefore, that they died at an early age. The nidification is not restricted to any particular season of the year, as he had seen immature birds in the possession of the natives during the months of April and May and also of December. The full plumage of the adult bird reaches its perfection in March. Its flesh, which is good-flavoured, has a peculiar yellow-orange colour.

The natives call it *Kabanaru*, and use its feathers for adornments.

Brown (Canoe and Camp Life, p. 228) gives the following note on this bird:—"Cocks of the Rock (*Rupicola cayana*) were numerous in the surrounding thickets, where their sharp disagreeable cry was frequently heard. They are so restless, jumping

from bough to bough and tree to tree, that Paulie, who was trying to shoot them, started five, but only succeeded in obtaining one specimen. He found a dancing place of these birds in a thicket, the ground being beaten down quite smooth by their feet; and on visiting it early in the morning with Ben, the two together succeeded in shooting two cocks and a hen bird. They told me that there were numbers around the dancing place, and that the two cocks they shot were strutting about with their feathers distended, showing themselves off before the rest."

Genus **EUCLORNIS** de Fil.

Euchlornis de Filippi, Mus. Mediol. An. Vert. cl. ii. p. 31, 1847. Type *E. riefferi* (Boiss.).



Fig. 116.—*Euchlornis riefferi*.

In this genus the bill is depressed at the base, sharply hooked at the tip, and the posterior portion of the nostrils feathered. The wing is rounded, the fourth and fifth primaries longest and subequal, the third about equal to the sixth and the second about equal to the seventh. The tail is square at the tip and about three-fourths the length of the wing. The tarsus is about twice the length of the exposed culmen. Coloration: male and female different.

540. **Euchlornis whitelyi**.

WHITELY'S CHATTERER.

Pipreola whitelyi Salvin & Godman, Ibis, 1884, p. 449 (Roraima, 6000 ft.); Salvin, Ibis, 1885, p. 304, 1886, p. 502, pl. xii. (Twekquey Mt., 3000 ft.).

Euchlornis whitelyi Brabourne & Chubb, B. S. Amer. i. p. 322, no. 3290, 1912.

Adult male. Crown of head, nape, and sides of face dark slate-grey; back, scapulars, and upper tail-coverts olive-green; outer

aspect of wing ochreous-brown; bastard-wing, inner webs of the greater coverts and primary-coverts blackish; inner webs of flight-quills blackish brown, broadly margined, on the basal portion with buffy-white; tail dark bronze-brown; lores, superciliary streak, collar on hind-neck, and sides of breast dark orange-yellow; breast scarlet; throat, abdomen, sides of body, and thighs olive-grey; vent pale sulphur-yellow; under tail-coverts and quill-lining pale dusky brown like the under surface of the tail. "Bill dark red; eye reddish hazel; legs, toes, and claws red" (*H. Whitely*).

Total length 177 mm., exposed culmen 11, wing 95, tail 64, tarsus 22.

The male described was collected by H. Whitely on Mount Twek-quey, Kamarang River, 3000 feet, January 18, 1886, and is now in the British Museum—Salvin-Godman collection.

Adult female. General colour above green; outer aspect of wing and tail inclining to golden green, inner webs of bastard-wing, primary-coverts, flight-quills, and tail-feathers dark brown; sides of the neck yellowish green, with whitish margins to the feathers; throat white, with blackish shaft-lines to the feathers; remainder of the under surface pale lemon-yellow, with broad black shaft-streaks to the feathers; greater under wing-coverts, quill-lining, and lower aspect of tail greyish brown.

Total length 180 mm., exposed culmen (from base of skull) 16, wing 93, tail 61, tarsus 24.

The female described was collected at Mount Roraima in October 1898 by Mr. McConnell.

Immature male. Similar to the adult female on the upper surface, but differs in having the top of the head dusky, with buff shaft-lines, which terminate in pear-shaped marks to the feathers on the crown and hind-neck; the tips of the upper wing-coverts golden; the feathers of the lower back and upper tail-coverts have whitish tips; under surface for the most part grey, varied by dark margins to some of the feathers and yellowish white on the throat, breast, abdomen, flanks, and under wing-coverts; under tail-coverts yellowish; a few red feathers approaching on the middle of the breast.

The young male described above was also collected by Mr. McConnell during his expedition to Mount Roraima in 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima, Mount Tweek-quey (*Whitely*).

Habits. Unrecorded.

Genus **COTINGA** Briss.

Cotinga Brisson, Ornith. ii. p. 340, 1760. Type *C. cotinga* (Linn.).

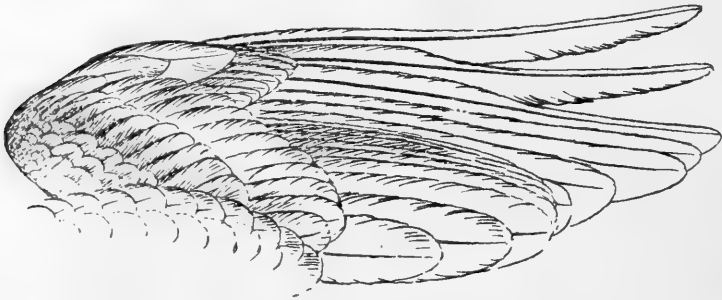


Fig. 117.—To show the attenuated outer primaries.

The chief character in this genus is the attenuated outer primaries of the males. The bill is short, the width at the base being almost equal to the length of the exposed culmen. The wing is somewhat pointed, the second and third primaries longest and subequal, the first shorter than the fifth but much larger than the sixth. The tail is square at the tip and nearly three-tenths the length of the wing. The tarsus is about equal in length to the middle toe and claw. Coloration: male and female entirely different.

Key to the Species.

- | | |
|---|--------------------------------|
| A. Head, back, vent, and under tail-coverts dark blue; throat and breast purple | <i>C. cotinga</i> , ♂, p. 299. |
| <i>a.</i> Upper and under surface darker; throat grey, with dark centres to the feathers ... | <i>C. cotinga</i> , ♀, p. 299. |
| B. Head, back, breast, abdomen, and under tail-coverts pale blue; throat only purple ... | <i>C. cayana</i> , ♂, p. 300. |
| <i>b.</i> Upper and under surface paler; throat uniform grey, without black centres to feathers | <i>C. cayana</i> , ♀, p. 300. |

541. *Cotinga cotinga*.

PURPLE-BREASTED CHATTERER.

Ampelis cotinga Linn. Syst. Nat. i. p. 298, 1766; Cab. in Schomb. Reis. Guian. iii. p. 693, 1848.

Ampelis cærulea Cab. in Schomb. Guian. iii. p. 693, 1848.

Cotinga cærulea Salvin. Ibis, 1885, p. 304 (Bartica Grove, Atapurau River); Selater, Cat. B. Brit. Mus. xiv. p. 382, 1888 (Carimang River, Atapurow River, Bartica Grove).

Cotinga cotinga Brabourne & Chubb, Birds S. Amer. i. p. 322, no. 3291, 1912.

Adult male. Head, sides of face, hind-neck, entire back, upper wing-coverts, scapulars, upper and under tail-coverts, lower abdomen, and flanks ultramarine blue, with black bases to the feathers; base of forehead and a ring of short feathers round the eye black; greater upper wing-coverts, bastard-wing, primary-coverts, flight-quills, and tail-feathers uniform black; throat, breast, and abdomen rich purple, with white bases to the feathers; axillaries and under wing-coverts black, some of the feathers tipped with blue, especially those round the edge of the wing; under surface of flight-quills and lower aspect of the tail silky black.

Total length 170 mm., exposed culmen 12, wing 109, tail 62, tarsus 19.

The specimen described was collected on the Ituribisi River.

Adult female. General colour above, including the head, back, wings, and tail, blackish brown, with white or buffy-white edges to the feathers, more broadly on the inner margins of the flight-quills; throat grey, with rather darker centres to the feathers; remainder of under surface dark brown, with white edgings to the feathers becoming creamy-buff on the abdomen and flanks, where the margins are increased in width; under tail-coverts, axillaries, and under wing-coverts uniform buff, the small coverts on the outer edge of the wing dark brown margined with buff; inner edges of the quills and tail-feathers also buff; the remaining portion of the quill-lining, greater, under wing-coverts, and lower aspect of tail greyish brown.

Wing 109 mm.

The female described was also collected on the Ituribisi River.

The young male in its first plumage is similar to the adult female but somewhat darker.

An immature example collected on the Mazaruni River in 1905 shows the approach of male attire in having blue feathers scattered on the upper surface and under tail-coverts and purple ones appearing on the breast and abdomen.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Kako River, Ituribisi River, Supenaam River, Mazaruni River, Bartica, Bonasika River (*McConnell collection*); Kamarang River, Atapurau River, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*); Cayenne, North Brazil.

Schomburgk (*Reis. Guian. iii. p. 693*) mentions this bird as being common near Demerara in the months of January and February in large flocks. The "Macusis" called it *Tarika*.

542. *Cotinga cayana*.

CAYENNE CHATTERER.

Ampelis cayana Linn. *Syst. Nat. i. p. 298, 1766* (Cayenne); Cab. in Schomb. *Reis. Guian. iii. p. 693, 1848*.

Cotinga cayenna Brown, *Canoe and Camp Life, British Guiana, p. 395, 1876* (Upper Mazaruni River).

Cotinga cayana Salvin, *Ibis, 1885, p. 305* (Bartica Grove); Sclater, *Cat. B. Brit. Mus. xiv. p. 385, 1888* (Bartica Grove); Brabourne & Chubb, *B. S. Amer. i. p. 322, no. 3293, 1912*.

Adult male. Crown of head, sides of face, entire back, and upper tail-coverts pale blue like the breast, abdomen, sides of body, and under tail-coverts; wings and tail black; upper and under wing-coverts edged with blue; flight-quills and tail-feathers narrowly margined with blue, but somewhat darker; throat purple; under surface of flight-quills blackish, cream-white on the inner edges; lower aspect of tail black.

Total length 191 mm., culmen (from base of skull) 18, wing 109, tail 70, tarsus 21.

Adult female. Head, back, and wings brown, with pale narrow edges to the feathers; greater upper wing-coverts, inner edges of primary and secondary quills edged with fulvous; tail-feathers pale brown, with a ruddy tinge on the inner webs; ear-coverts grey, with pale shaft-streaks to the feathers; throat uniform lead-grey; breast, abdomen, sides of body, and under tail-coverts pale brown, with buffy-white edges to the feathers; axillaries, under wing-coverts, and inner margins of the quill-lining rufous-

buff; remainder of quill-lining dark brown; lower aspect of tail pale brown with a ruddy tinge. Wing 110 mm.

The specimens described were collected on the Ituribisi River in October 1908.

The young male of this species, as in *C. cotinga*, in its first plumage is similar to the adult female but rather darker, and the first appearance of the male dress is usually noticed by the scattered blue feathers on the head, mantle, abdomen, upper and under tail-coverts, and the approach of purple on the throat.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Mazaruni River, Bartica, Great Falls Demerara River, Arawai River (*McConnell collection*); Upper Mazaruni River (*Brown*); Bartica (*Whitely*).

Extralimital Range. Venezuela, East Ecuador, East Peru, North Brazil.

Habits. The following note has been copied from C. Barrington Brown (*Canoe and Camp Life*, p. 395):—"Numbers of purple-throated Cotingas (*Cotinga cayenna*) were to be seen feeding on the berries of shrubs about the houses, and on the seeds of the silver-bally tree in the adjacent bush."

Genus XIPHOLENA Gloger.

Xipholena Gloger, Hand-u. Hilfsb. d. Nat. p. 320, 1842. Type *X. punicea* (Pall.).

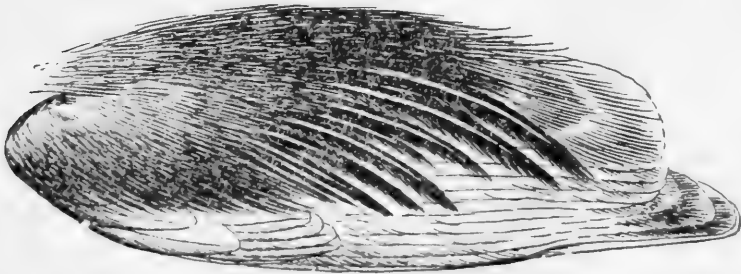


Fig. 118.—To show the formation of the major-coverts.

This genus is distinguished chiefly by the elongation and peculiar

shape of the greater upper wing-coverts, which have stiffened shafts. The bill is depressed at the base and hooked at the tip of the upper mandible, the width at the base is about four-fifths the length of the exposed culmen. The wing is rounded, the second, third, fourth, and fifth primaries longest, the first about equal in length to that of the sixth. The tail is proportionately short and square at the tip and the tarsus about equal in length to the middle toe and claw. Coloration: male and female entirely different.

543. *Xipholena punicea*.

POMPADOUR CHATTERER.

Turdus puniceus Pallas, Adumbr. Vroeg's Catal. p. 2, no. 99, 1764.

Xipholena pompadora Cab. in Schomb. Reis. Guian. iii. p. 693, 1848; Salvin, Ibis, 1885, p. 305 (Bartica Grove, Camacusa, Merumé Mts., River Atapurau); Selater, Cat. B. Brit. Mus. xiv. p. 387, 1888 (Camacusa, Atapurou River, Bartica Grove); Beebe, Our Search for a Wilderness, p. 176, 1910 (Hoorie Creek).

Xipholena punicea Brabourne & Chubb, B. S. Amer. i. p. 323, no. 3297, 1912.

Adult male. Head, entire back, upper wing-coverts, tail, throat, and entire under surface deep glossy purple, rather paler on the innermost secondaries and tail; bastard-wing, primary-coverts, and flight-quills, above and below, pure white, with blackish-brown tips to some of the primary-quills; axillaries and under wing-coverts also pure white; lower aspect of tail rose-pink.

Total length 188 mm., exposed culmen 21, wing 125, tail 70, tarsus 22.

The specimen from which the above description is taken was collected by Mr. McConnell on the Cako River in October 1898 during his expedition to Mount Roraima.

Adult female. General colour above dark earth-brown, including the head, back, upper wing-coverts, and upper tail-coverts; bastard-wing, primary-coverts, and flight-quills darker and inclining to black; outer edges of the major upper wing-coverts and secondary-quills fringed with white, inner webs of flight-quills margined with white; tail dark brown; sides of face, throat, and under surface greyish brown, darker on the breast and paler on the vent; under tail-coverts pale grey; under surface of flight-quills pale brown with pale inner edges; lower aspect of tail also pale brown. Wing 117 mm.

The female described was collected at Bartica in 1911.

The young male is similar to the adult female in its first plumage. The first appearance of the male dress I notice in one example is the approach of purple on the scapulars and middle of the abdomen, while in another specimen which has nearly attained the full plumage of the adult male it still retains, for the most part, the blackish-brown flight-quills of the female.

The young bird referred to was collected at the Great Falls Demerara River in August 1913.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Cako River, Ituribisi River, Bartica, Great Falls Demerara River (*McConnell collection*); Bartica, Kamakusa, Merumé Mountains, Kamarang River (*Whitely*); Hoorie Creek (*Beebe*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Brit. Mus.*), North Brazil.

Habits. According to Schomburgk (*Reis. Guian. ii. p. 90*) this bird is not found in the woods during the months from March to October, but is common in November, December, and to about the middle of January. He did not know the time of its nidification.

Schomburgk also writes (*op. cit. iii. p. 693*):—This gorgeous bird is also of sporadic occurrence in British Guiana. Near Demerara it is found during the months of December, January, and February, and near the Upper Takutu River in April. Its favourite food is the red fruits of the small *Ficus*, also the *Brosimum* species. I have never seen quite young birds, but only those in the transit plumage of an approximate age of two to three years. The "Arawaaks" call it *Wallaba*.

Genus IODOPLEURA Less.

Iodopleura Lesson, *Rev. Zool.* 1839, p. 45. Type *I. pipra* (Less.).

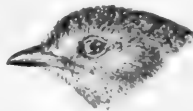


Fig. 119.—*Iodopleura pipra*.

The species on which this genus was found are birds of small

size. The width of the bill at the base is about equal to the length of the exposed culmen, and the nostrils are covered with feathers. The wing is rounded, the second and third primaries longest, and the first is about equal to the fourth. The tail is square at and about half the length of the wing. The tarsus is about twice the length of the exposed culmen.

Key to the Species.

- A. Smaller, wing less than 65 mm.; throat and under tail-coverts cinnamon *I. leucopygia*, p. 304.
 B. Larger, wing more than 65 mm.; throat dark smoke-brown; under tail-coverts white. *I. fusca*, p. 305.

544. *Iodopleura leucopygia*.

WHITE-RUMPED CHATTERER.

Iodopleura pipra (nec Less.) Cab. in Schomb. Reis. Guian. iii. p. 697, 1848.

Iodopleura leucopygia Salvin, Ibis, 1885, p. 305 (British Guiana);
 Sclater, Cat. B. Brit. Mus. xiv. p. 393, pl. xxvi, 1888; Brabourne &
 Chubb, B. S. Amer. i. p. 323, no. 3305, 1912.

Adult. General colour of the upper surface dusky brown, including the top of the head, back, wings, and tail; rump white; inner webs of flight-quills margined with white; ear-coverts, sides of neck, and hind-neck inclining to dark slate-grey; throat and under tail-coverts cinnamon; breast and sides of body white with dark edges to the feathers; abdomen white; axillaries lilac; under wing-coverts and base of quills white; marginal under wing-coverts and apical portion of quills and lower aspect of tail dark brown.

Total length 93 mm., exposed culmen 6, wing 54, tail 27, tarsus 15.

This species is not represented in the McConnell collection, and the description is taken from the type in the British Museum — Salvin-Godman collection.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. "British Guiana" (*Whitely*).

Habits. Unrecorded.

545. *Iodopleura fusca*.

DUSKY CHATTERER.

- Ampelis fusca* Vieill. N. Diet. d'Hist. Nat. viii. p. 162, 1817 (Guiana).
Iodopleura pipra (nec Less.) Cab. in Schomb. Reis. Guian. iii. p. 697,
 1848 (near Demerara).
Iodopleura fusca Salvin, Cat. Strickl. Coll. p. 330, 1882 (Guiana); id.
 Ibis, 1885, p. 305 (Bartica Grove); Selater, Cat. B. Brit. Mus. xiv.
 p. 393, 1888 (Demerara); Brabourne & Chubb, B. S. Amer. i.
 p. 324, no. 3307, 1912.

Adult female. General colour above black, including the top of the head, sides of the face, entire back, wings, and tail; inner margins of flight-quills white; rump white; upper tail-coverts and tail black; sides of face and sides of breast blackish; throat, breast, and sides of body dark smoke-brown; middle of abdomen, under tail-coverts, a patch on the sides of the body, axillaries, under wing-coverts, and inner edges of quills below white; outer edge of wing black; flight-quills dark brown on the under surface like the lower aspect of the tail.

Total length 107 mm., exposed culmen 5, wing 75, tail 36, tarsus 13.

The specimen described was collected on the Makauria River in August 1910.

Adult male. Differs from the adult female in having the patch on the sides of the lower breast violet, instead of white, and in being slightly larger. Wing 80 mm.

The male described was collected in "Demerara" and is now in the British Museum—Gould collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Makauria River, Demerara River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*British Museum*).

Habits. According to Schomburgk (Reis. Guian. iii. p. 697) this bird is supposed to be migratory near Georgetown. It appears at the same time as the *Ampelis* species, feeds on the same fruits, and disappears with them. Its nidification was unknown to him.

Genus **HÆMATODERUS** Bonap.

Hæmatoderus Bonap. Ann. Sc. Nat. (sér. 4), Zool. t. i. p. 134, 1854.
Type *H. militaris* (Lath.).



Fig. 120.—*Hæmatoderus militaris*.

This monotypic genus is conspicuous by its large size and gorgeous colour. The bill is proportionately short, wide at the base, and hooked at the tip. The wing is nearly twice the length of the tail, and the middle toe and claw exceed the length of the tarsus. Coloration : male and female different.

546. **Hæmatoderus militaris.**

CRIMSON FRUIT-EATER.

Coracias militaris Lath. Ind. Orn. Suppl. p. xxvii, 1801 (Cayenne).

Threnoëdes militaris Cab. in Schomb. Reis. Guian. iii. p. 690, 1848.

Hæmatoderus militaris Salvin, Ibis, 1885, p. 305 ; Selater, Cat. B. Brit. Mus. xiv. p. 395, 1888 ; Brabourne & Chubb, B. S. Amer. i. p. 324, no. 3309, 1912.

Adult male. General colour above and below crimson-red, with white bases to the feathers ; bastard-wing, primary-coverts, flight-quills, and tail-feathers blackish brown ; under surface of quills and lower aspect of tail greyish brown.

Total length 350 mm., exposed culmen 25, wing 221, tail 127, tarsus 28.

The exact locality in British Guiana of the male described is not known.

Adult female. Differs from the adult male in having the entire back, scapulars, and greater portion of the upper wing-coverts blackish brown; under surface paler and inclining to rose-pink. Wing 216 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Tiger Hill, Demerara River (*McConnell collection*); Canuka Mountains (*Schomburgk*).

Extralimital Range. Cayenne (*Latham*), North Brazil.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 690*) this bird is only a migrant in British Guiana and very local in its distribution. He met with it in the Canuku Mountains, but only during the months of June and July, when the fruits on which it feeds were ripe. Schomburgk did not observe it breeding. The "Macusis" called it *Warara-tarika*.

Genus⁴ QUERULA Vieill.

Querula Vieillot, *Analyse nouv. Orn. p. 37, 1916.* Type *Q. purpurata* (P. L. S. Müll.).



Fig. 121.—*Querula purpurata*.

This monotypic genus is easily distinguished by its almost entire black plumage. The bill is short and wide—its width at the base

exceeds the length of the exposed culmen, and the upper mandible is sharply hooked. The rictal bristles are only feebly developed. The tarsus is about equal in length to the middle toe and claw. Coloration : male and female different.

547. *Querula purpurata*.

PURPLE FRUIT-CROW.

Muscicapa purpurata P. L. S. Müll. Nat. Syst. Suppl. p. 169, 1776 (Cayenne).

Threnoëdus rubricollis Cab. in Schomb. Reis. Guian. iii. p. 691, 1848.

Querula cruenta Salvin, Ibis, 1885, p. 305 (Bartica Grove); Selater, Cat. B. Brit. Mus. xiv. p. 396, 1888 (Bartica Grove).

Querula purpurata Brabourne & Chubb, B. S. Amer. i. p. 324, no. 3310, 1912.

Adult male. General colour above and below black, with a large crimson patch on the throat and fore-neck.

Total length 281 mm., exposed culmen 19, wing 185, tail 129, tarsus 23.

The specimen described was collected on the Mazaruni River in 1905.

Adult female. Similar to the adult male, and differs only in its smaller size and the absence of the crimson throat-patch, the throat and fore-neck being uniform black like the rest of the plumage. Wing 166 mm.

The female described was collected on the Supenaam River in 1905.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Mazaruni River, Bartica, Great Falls Demerara River (*McConnell collection*); Bartica (*Whitely*); Canuku Mountains (*Schomburgk*).

Extralimital Range. Colombia, Ecuador, Peru.

Habits. According to Schomburgk (Reis. Guian. iii p. 691) this bird, after the breeding-season was over, roamed in flocks through the woods of fairly high altitudes in search of food, which consisted of juicy fruits and berries. It preferred coast woods to those inland; it was also rather common in the well-wooded portions of

the Canuku Mountains. Its presence in the thickly-foliaged trees was always betrayed by its peculiarly harsh note, which was remarkably well imitated by the Indians. When the bird became excited it would raise the feathers on its head and neck. Its nidification was unknown to Schomburgk. The "Warraus" called it *Naikamaraku* and the "Macusis" *Townwa*.

Genus **PYRODERUS** Gray.

Pyroderus Gray, List Gen. B. p. 38, 1840. Type *P. scutata* (Shaw).

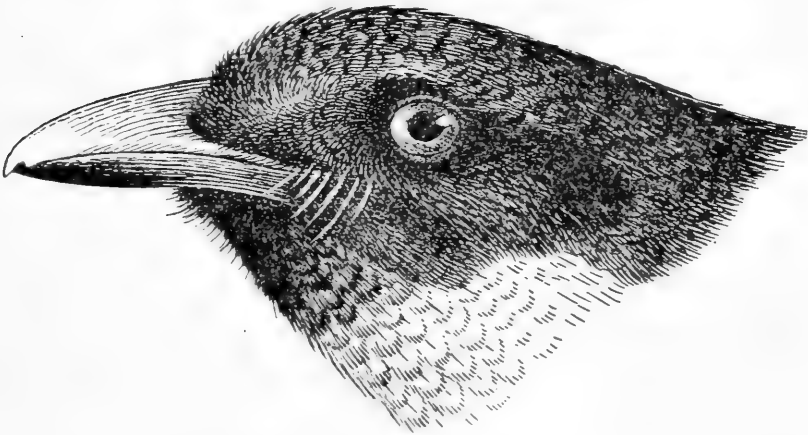


Fig. 122.—*Pyroderus scutata*.

The species on which this genus was based are large birds and distinguished by their black, red, and chestnut plumage. The bill is compressed, the culmen is keeled and hooked at the tip of the upper mandible. The hinder portion of the nostrils is feathered, and the rictal bristles, though not numerous, are strongly developed. The wing is rounded, the third, fourth, fifth, and sixth primary-quills are longest and subequal, the second is about equal in length to the seventh and the first about equal to the tenth. The tail is rounded at the tip and about two-thirds the length of the wing, and the tarsus exceeds the length of the exposed culmen by about one-fourth. Coloration: male and female similar.

548. *Pyroderus orenocensis*.

ORENOCO FRUIT-CROW.

Coracina orenocensis Lafr. Rev. Zool. 1846, p. 277 (Orenoco).

Pyroderus orenocensis Salvin, Ibis, 1885, p. 306 note; Selater, Cat. B. Brit. Mus. xiv. p. 398, 1888; Brabourne & Chubb, B. S. Amer. i. p. 324, no. 3313, 1912.

Pyroderus scutatus (nec Shaw) Quelch, Timehri (2) iv. p. 102, 1890 (Great Falls Demerara River).

Adult. General colour of the upper surface black, which includes the top of the head, sides of the face and chin, back, wings, and tail; throat and fore-neck bright red, with blackish bases to the feathers; breast, abdomen, sides of the body, axillaries, and under wing-coverts chestnut; thighs and under tail-coverts black; under surface of quills and lower aspect of tail greyish brown. "Bill dark plumbeous; feet black" (Cat. B. Brit. Mus.).

Total length 380 mm., exposed culmen 47, wing 216, tail 141, tarsus 38.

The specimen described was collected on the Cuyuni River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Cuyuni River, Demerara River (McConnell collection); Mallali, Demerara River (Quelch).

Extralimital Range. Venezuela, Colombia.

Habits. Unrecorded in British Guiana.

Genus **CEPHALOPTERUS** Geoff.

Cephalopterus Geoffroy, Ann. Mus. Paris, xiii. p. 235, 1809. Type *C. ornatus* Geoff.

This genus is distinguished chiefly by the large tuft of ornamental feathers on the top of the head and the large dependent lappet on the throat. Coloration: male and female similar.

549. *Cephalopterus ornatus*.

UMBRELLA-BIRD.

Cephalopterus ornatus Geoff. Ann. Mus. Paris, xiii. p. 235, pl. 17, 1809 ("Brésil"); Cab. in Schomb. Reis. Guian. iii. p. 691, 1848; Salvin, Ibis, 1885, p. 306 (British Guiana); Selater, Cat. B. Brit. Mus. xiv. p. 399, 1888; Brabourne & Chubb, B. S. Amer. i. p. 325, no. 3315, 1912.

Adult male. General colour on both the upper and under surface black, with glossy steel-blue margins to the feathers on the upper back and throat-wattle; crest steel-blue, with white shafts to the feathers on the fore part of the head; flight-quills blackish brown; tail similar but darker.

Total length 480 mm., exposed culmen 45, wing 288, tail 160, tarsus 57.



Fig. 123.—*Cephalaopterus ornatus*.

Adult female. Similar to the adult male but smaller in size, the crest and throat-wattle much less developed, and the under wing-coverts mottled with white and smoke-brown.

Total length 405 mm., exposed culmen 45, wing 240, tail 153, tarsus 45.

This species is not represented in the McConnell collection, and the above descriptions were taken from examples in the British Museum.

The only record of the Umbrella-bird that I have been able to find in British Guiana is that of Schomburgk.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Only recorded by Schomburgk.

Extralimital Range. Venezuela, Colombia, Ecuador, Peru, Bolivia, Brazil.

Habits. Unrecorded in British Guiana.

According to Schomburgk (Reis. Guian. iii. p. 691) this species is only a straggler in British Guiana. He only received one specimen during his stay in the colony.

Genus **CALVIFRONS** Daud.

Calvifrons Daudin, Ann. Mus. Hist. Nat. Paris, iii. p. 146, 1804.

Type *C. calvus* (Gmel.).



Fig. 124.—*Calvifrons calvus*.

This monotypic genus is easily distinguished by having the upper portion of the head unfeathered, in having long wings, short tail, strong feet, sharply curved claws, and a peculiar colour of plumage. Coloration: male and female similar.

550. *Calvifrons calvus*.

CAPUCHIN-BIRD.

Corvus calvus Gmel. Syst. Nat. i. p. 372, 1788 (Cayenne).

Gymnocephalus calvus Cab. in Schomb. Reis. Guian. iii. p. 690, 1848; Salvin, Ibis, 1885, p. 306 (Roraima, 3500 ft., Camacusa, Bartica Grove); Selater, Cat. B. Brit. Mus. xiv. p. 401, 1888 (Bartica Grove, Camacusa, Roraima); Quelch, Timehri (2) iv. p. 115, 1890 (Great Falls Demerara River); p. 334 (Upper Berbice River).

Calvifrons calvus Beebe, Our Search for a Wilderness, p. 332, 1910 (Aremu River); Brabourne & Chubb, B. S. Amer. i. p. 325, no. 3317, 1912.

“Bare-headed Chatterer” (Quelch); “Quow-birds” (Quelch); “Calf-birds” (Quelch).

Adult. Head naked (black in skin). Hind-neck, sides of neck, back, scapulars, and upper wing-coverts umber-brown, rather paler on the hind-neck; bastard-wing, primary-coverts, and quills black, the last fringed with white on their inner edges; upper tail-coverts and tail also black; sides of face and throat umber-brown; breast, abdomen, sides of the body, and under tail-coverts rufous-chestnut; axillaries, under wing-coverts, and basal portion of quill-lining white; remainder of the quills below pale brown; lower aspect of tail blackish. Iris blue; bill and feet dark slate-colour.

Total length 340 mm., exposed culmen 43, wing 205, tail 99, tarsus 41.

The specimen from which the description is taken was collected on the Ituribisi River.

Breeding-season. Unrecorded in British Guiana.

Nest. It nests in tall trees (*Schomburgk*).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Kyuni River (*McConnell collection*); Roraima, Kamakusa, Bartica (*Whitely*); Great Falls Demerara River, Upper Berbice River (*Quelch*); Aremu River (*Beebe*).

Extralimital Range. Cayenne (*Gmelin*).

Habits. Schomburgk states (Reis. Guian. iii. p. 690) that he found this peculiar bird up to an altitude of 1200 feet; it never leaves the woods in which it lives, and one may always observe pairs resting on tall trees beside each other. Its far-sounding note very much resembles the bellowing of a calf. The bare

head is a sign of age. The young bird has the head covered with soft fine down. Its nidification is unknown. The "Maculis" called it *Kotaranoa*, the "Warraus" *Quow*, and the "Arekunas" *Watarua*.

Mr. J. J. Quelch, who met with this species at the Great Falls on the Demerara River, gives the following note (Timehri (2) iv. p. 115):—"The Bare-headed Chatterer or Quow-birds (*Gymnocephalus calvus*) bellowed, with a sound as though from a herd of oxen grazing in the forest. The notes of this last bird are astonishingly loud, but when heard from a distance, through the forest, they are remarkably like the more musical sounding Campanero (*Chasmorhynchus niveus*), and might often be mistaken for it." He also remarks on the bird from the Upper Berbice River (*tom. cit.* p. 334):—"The Quow or Calf-birds (*Gymnocephalus calvus*) were heard far off in the forest, their bellowings mingled with the hoarse caws of the Bultata Hawks (*Ibycter americanus*)."

The following note is copied from Beebe (Our Search for a Wilderness, p. 332):—"Bare-headed Cotinga or Calf-bird. The note has been compared to the lowing of a cow, but to me it seemed much more musical resembling the humming of a goblet when one's moistened finger is rubbed around the rim. The bird is yellowish brown with a bare head, and keeps to the tops of the trees."

Genus **GYMNODERUS** Geoffr.

Gymnoderus Geoffroy, Ann. Mus. Paris, xiii. p. 237, 1809. Type *G. fætidus* (Linn.).



Fig. 125.—*Gymnoderus fætidus*.

This genus is easily distinguished by the soft black velvety

feathers on the top of the head, the almost naked throat and neck, and the lappets on the sides of the throat. Coloration : male and female similar.

551. *Gymnoderus foetidus*.

BARE-NECKED GRACKLE.

Gracula foetidus Linné, Syst. Nat. i. p. 164, 1766 (Guiana).

Gymnoderus foetidus Cab. in Schomb. Reis. Guian. iii. p. 691, 1848 ;
Salvin, Ibis, 1885, p. 306 ; Selater, Cat. B. Brit. Mus. xiv. p. 402,
1888 ; Brabourne & Chubb, B. S. Amer. i. p. 325, no. 3318, 1912.

Adult male. General colour above and below black, including the head where the feathers are very short and velvety, entire back, upper tail-coverts, and tail on the upper surface, and the throat where the feathers are short and sparsely distributed, breast, abdomen, under tail-coverts, axillaries, and under wing-coverts on the under parts ; the small marginal upper wing-coverts and outer webs of the bastard-wing black ; remainder of the upper wing-coverts, innermost secondaries, and outer webs of flight-quills silvery grey ; inner primary-coverts black, the outer ones hoary grey ; inner webs of flight-quills dark hoary grey ; under surface of quills and lower aspect of tail dark lead-colour.

Total length 360 mm., exposed culmen 31, wing 215, tail 138, tarsus 33.

The bird described was collected in the Upper Takutu Mountains in 1909.

Adult female. Differs from the adult male in having the back blackish tinged with dark slate-colour, the absence of silver-grey on the wings (which are like the back), and its smaller size. Wing 192 mm.

The specimen described is in the British Museum, and was collected at Obidos, Lower Amazons, in June 1906 by F. Santos.

Immature male. General colour both above and below bluish black, with the white bases to the feathers on the back showing through more or less, and the whitish margins to the upper wing-coverts and the feathers on the under surface where the bases are also white. This specimen was also collected on the Berbice River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Berbice River (*McConnell collection*); Canuku Mountains (*Schomburgk*).

Extralimital Range. Venezuela, Ecuador, Peru, Central and North Brazil.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 691*) this species visits the Canuku Mountains, but only as a straggler, and it was not known to breed in the Colony. The "Macusis" called it *Yackami* or *Yackeng*, and the "Warraus" *Sachia*.

Genus **PROCNIAS** Ill.

Procnias Illiger, *Prodr. p. 228, 1811.* Type *P. carnobarba* (Less.).



Fig. 126.—*Procnias carnobarba*.

This genus is distinguished by the string-like wattles on the throat and fore-neck, which are black in the dried skin. The bill is flattened, the width at the base is about three-fourths the length of the exposed culmen, the nostrils are rounded and exposed. The wing is rounded, the third primary longest, the second, fourth, and fifth about equal, and the first about equal to the seventh. The

tail is square at the tip, and measures rather more than half the length of the wing. The tarsus is scutellated in front and about twice the length of the exposed culmen. Coloration: male and female different.

552. *Procnias carnotarba*.

BLACK-WINGED BELL-BIRD.

Averano carnotarba Less. Traite d'Orn. p. 365, pl. 52. fig. 1, 1830 (Trinidad); Hellm. Nov. Zool. xxvii. p. 330, note, 1920.

Procnias lumbriciferus Gistel in Gistel & Bromme, Handb. Naturg. aller drei Reiche, Stuttgart, 1850, p. 295.

Casmorhynchus variegatus (nec Gmel.) Brown, Canoe and Camp Life, p. 123, 1876 (Cotinga River to Roraima); Brabourne & Chubb, B. S. Amer. i. p. 325, no. 3321, 1912.

Chasmorhynchus variegatus (nec Gmel.) Salvin, Ibis, 1885, p. 306 (Roraima, 3500 ft.); Sclater, Cat. B. Brit. Mus. xiv. p. 405, 1888.

Adult male. Crown of head, nape, and sides of face coffee-brown; throat and fore-neck covered with string-like wattles, which are black in skin; back, scapulars, and rump silver-grey like the breast, abdomen, and sides of the body; upper and under tail-coverts and tail, both above and below, ivory-white with a tinge of yellow; upper and under wing-coverts black, as are also the flight-quills, inclining to dark brown on some of the feathers; under surface of quills uniform dark brown. "Bill and feet black" (Sclater, Cat. Brit. Mus.).

Total length 260 mm., exposed culmen 18, wing 166, tail 90, tarsus 31.

The male of this species is not represented in the McConnell collection, and the specimen described was collected by H. Whitely on Mount Roraima in January 1882, and is now in the British Museum—Salvin-Godman collection.

Adult female. General colour of the upper surface dark green, somewhat paler on the tail and outer aspect of the major upper wing-coverts and flight-quills; the inner webs of the bastard-wing blackish; inner webs of the primary-coverts and flight-quills also blackish, margined with white on the inner edges; fore part of head and sides of the face much darker and inclining to blackish; the feathers on the forehead, hind-neck, and sides of neck have pale shaft-lines; throat dusky-grey with pale shaft-streaks; breast, abdomen, sides of the body, and under wing-

coverts green, broadly lined and streaked with yellow, becoming uniform sulphur-yellow on the thighs and under tail-coverts; basal portion of quills below pale grey, and pale brown on the apical portion; lower aspect of tail greyish.

Total length 235 mm., exposed culmen 19, wing 138, tail 85, tarsus 25.

The specimen from which the description is taken was collected by Mr. McConnell at Mount Roraima in October 1898.

Immature male. Similar to the adult female both above and below, but differs in having the throat black, the head and sides of the face also black more or less intermixed with dark earth-brown, and by its larger size. Exposed culmen 21 mm., wing 157, tail 92.

The young male described was collected on the Cotinga River by Mr. McConnell during his expedition to Mount Roraima in October 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Cotinga River (*McConnell collection*); Mount Roraima (*Whitely*); Cotinga River to Mount Roraima (*Brown*).

Extralimital Range. Trinidad and Venezuela.

Habits. Brown (*Canoe and Camp Life*, p. 123) gives the following interesting note:—"In the small groves bordering the Arapu River were numbers of birds of a kind allied to the Bell-bird (*Casmorhynchus carunculatus*), whose singular call attracted my attention. They utter a repetition of one metallic-sounding note, not unlike that produced by repeated blows of a hammer on an anvil, with great rapidity. A specimen of this bird which I procured was submitted to Dr. Sclater, who identified it as *Casmorhynchus variegatus*. The peculiarity of this bird consists in the extraordinary long black leather-like filaments hanging in a fringe from the sides of its large mouth and throat. Its body is white, head brown, and wings black. These birds are very numerous from the Cotinga River to Roraima, but east of that river only one or two individuals were met with."

Genus VAVASOURIA, Chubb.

Vavasouria Chubb, Bull. Brit. Ornith. Club, xl. p. 107, March 31, 1920.
Type *V. alba* (Herm.).

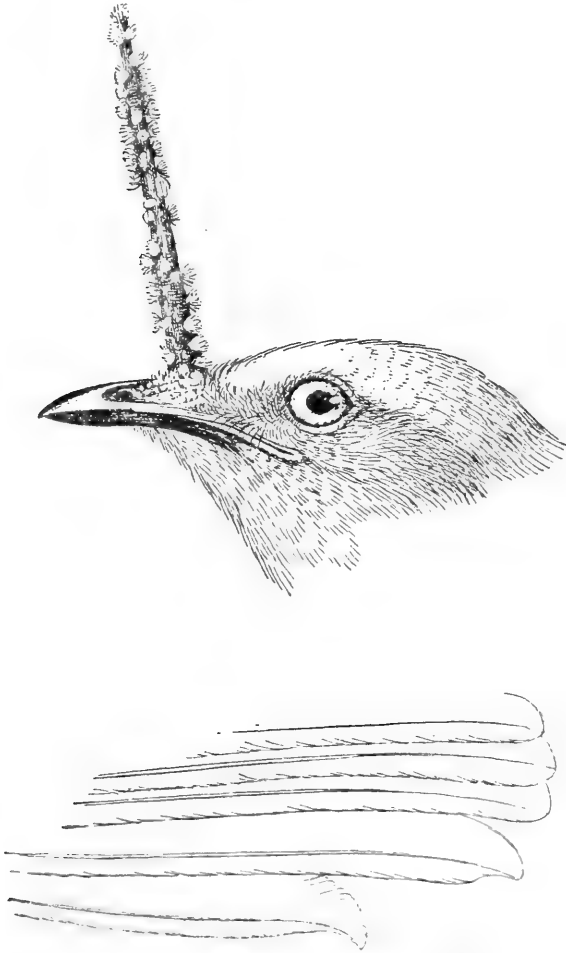


Fig. 127.—To show the wattle on the forehead and the peculiar form of the two outer primaries.

This genus is easily distinguished by the wattle on the forehead, the feathered lores, and the peculiar shape of the two outer primary-quills. Coloration: male and female different.

553. *Vavasouria alba*.

WHITE BELL-BIRD.

- Ampelis alba* Hermann, Tab. Affinit. Animal, p. 213, 1783.
Ampelis nivea Bodd. Tabl. Pl. Enl. p. 49, after December 1783 (Cayenne).
Chasmorhynchus carunculatus Cab. in Schomb. Reis. Guian. iii. p. 692, 1848.
Casmorhynchus carunculatus Brown, Canoe and Camp Life, p. 123 (Roraima), p. 181 (Burro-Burro), 1876.
Chasmorhynchus niveus Salvin, Ibis, 1885, p. 306 (Bartica Grove, Merumé Mts., Atapurau River, Roraima, 3500 ft.); Sclater, Cat. B. Brit. Mus. xiv. p. 403, 1888 (Camarang River); Quelch, Timehri (2) iv. p. 320, 1890 (Upper Berbice River).
Casmorhynchus niveus Brabourne & Chubb, B. S. Amer. i. p. 325, no. 3319, 1912.
Procnias alba Stresem. Nov. Zool. xxvii. p. 330, 1920.

“Campanero” (Quelch).

Adult male. General colour both above and below pure white.

Total length 277 mm., exposed culmen 18, caruncle on fore part of head 58, wing 163, tail 96, tarsus 20.

There is one specimen in the collection which has the caruncle 94 mm.

The male described was collected by Mr. McConnell on the Cotinga River during his expedition to Mount Roraima in October 1898.

Adult female. General colour above yellowish green, including the head, back, wings, and tail; some of the upper wing-coverts have pear-shaped pale tips; flight-quills dark brown on the inner webs and margined with white; tail-feathers pale brown on the inner webs; sides of the face similar to the upper surface; throat, breast, abdomen, and sides of body white; the feathers broadly margined with green, becoming uniform yellow-lemon on the vent and under tail-coverts; axillaries, under wing-coverts, and inner edges of quills below cream-white; remainder of the under surface of the quills and lower aspect of the tail pale brown. Wing 136 mm.

The description of the female is taken from an example collected on the Supenaam River in 1911.

Immature male. Upper surface a mixture of white, grey, green, and brown. The feathers, which are for the most part white at the base, have obsolete green or brown tips and others pale yellow, and as the white increases in extent towards the tips, the colours break up into fine mottlings. On the under surface these

mottlings do not appear, but the feathers have grey margins which are sometimes tinged with yellow. Caruncle 75 mm.

The specimen described above was collected on the Cotinga River.

The young male in its first plumage is similar to the adult female.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Cotinga River, Supenaam River (*McConnell collection*); Mount Roraima and Burro-Burro River (*Brown*); Mount Roraima, Merumé Mountains, Kamarang River (*Whitely*); Upper Berbice River, Great Falls Demerara River (*Quelch*).

Extralimital Range. Cayenne (*Boddaert*); Surinam (*Bartlett*); Venezuela.

Habits. Brown (Canoe and Camp Life, p. 181) gives the following note on his experience of this bird on the Burro-Burro River:—"On the way we heard numbers of Bell-birds (*Casmerynchus carunculatus*) calling in the surrounding forest; wishing to obtain one, I landed, and, guided by their calls to their vicinity, stood for some time under a tree in which one was perched before I discovered its whereabouts. The one I shot proved to be a male in full plumage, of a snow-white colour, with black beak and eyes, and with a black, leathery excrescence of nearly an inch in length, rising up from the top of the base of its bill. When close to these birds the sounds they produce are of two kinds—one resembling the word *Dór-òng* and the other *Kóng-kày*, the latter syllable of each being prolonged. There is a sort of ventriloquism about the utterance of *Dor-ong*, which is made when the bird holds its head up, that renders it almost impossible to find the exact whereabouts of the bird when using this form of call; when, however, it puts its bill and head downwards, and calls *Kong-kay*, it can be seen at once."

Concerning this bird Schomburgk wrote (Reis. Guian. i. p. 430): "I once tried a long shot at an individual of this species. It was resting and singing on a dead twig of a very tall tree, but the bird flew away unhurt. I was much annoyed at having failed, but the Indian suggested that I should wait, as the bird, he said,

would return. I had scarcely selected a better position when the bird returned, and I secured it."

Schomburgk states (Reis. Guian. iii. p. 692) that the natives maintained that this bird did not breed in British Guiana. He could not, however, agree with them on that point, as he had met with the species himself in the Canuku Mountains at all times of the year, and, moreover, had obtained young males in the transition plumage. Near the coast it roams about from place to place. Near Demerara and Berbice it appears in May and July, but never visits the coast. Its favourite haunts appeared to be the woods of the higher altitudes—for instance, it was very numerous in the Canuku Mountains, though the altitude was not more than 12–1500 feet. He did not meet with it in the neighbourhood of Roraima nor on the mountain itself. On the topmost dried branch of a *Mora*-tree you may see it; and from there it pours forth its enchanting bell-clear notes. Schomburgk says that he had never heard two males singing on the same tree, but he had often heard them answer each other from different trees some little distance apart. At dawn it greets the coming day by its clear metallic notes, and is the last to leave off when the sun goes down. The Siskin-coloured females flit about lower down the trees, and are very obtuse. He saw but little of them, the reason being their silence and their plumage, which assimilates with the foliage. The "Macusis" called it *Dara* or *Parandorai*.

Family HIRUNDINIDÆ.

When Brabourne and Chubb published their 'List of the Birds of South America' in 1912, this family was represented by seven genera and twenty-four species. Six of the genera and eleven of the species are represented in British Guiana.

Genus RIPARIA Foster.

Riparia Foster, Synop. Cat. Brit. B. p. 17, 1817. Type *R. riparia* (Linn.).

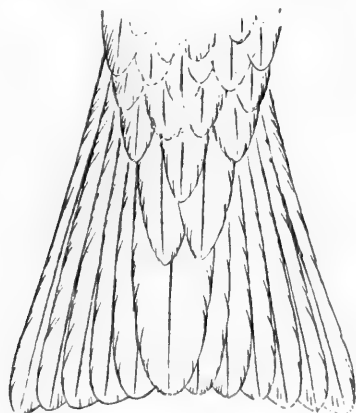


Fig. 128.—To show the tail, which is almost square.

In this genus the toes are unfeathered, a superior membrane to the nostrils is present, there is no indentation on the inner web of the outer tail-feathers, a distinct longitudinal membrane overhanging the nasal aperture is present, and the outer toe and claw are superior to the hind toe and claw. Coloration: male and female similar.

554. *Riparia riparia*.

BANK-SWALLOW.

Hirundo riparia Linn. Syst. Nat. i. p. 192, 1758 (Sweden).

Cotile riparia Salvin, Ibis, 1885, p. 206 (Bartica Grove); Sharpe, Cat. B. Brit. Mus. x. pp. 96, 630, 1885 (Bartica Grove).

Riparia riparia Quelch, Timehri (2) x. p. 262, 1896 (migration); Brabourne & Chubb, B. S. Amer. i. p. 326, no. 3326, 1912.

Sand Martin (*Quelch*).

Adult male. General colour of the upper parts dark brown,

with pale edgings to the feathers on the lower back, rump, and upper tail-coverts; innermost secondaries margined with white at the tips; wings rather darker than the back; tail similar in colour to the back with narrow white margins to some of the feathers; sides of face, a band across the breast, axillaries, sides of body, and under wing-coverts similar in colour to the back; under surface of flight-quills with white shafts to the feathers; throat, abdomen, and under tail-coverts white; lower aspect of tail pale brown.

Total length 119 mm., exposed culmen 6, wing 100, tail 49, tarsus 11.

Adult female. Similar to the adult male, but rather smaller. Wing 97 mm.

Immature male. Differs from the adult male and female in being pale smoke-brown on the crown of the head, back, scapulars, upper tail-coverts, sides of face, band across the breast, axillaries, and under wing-coverts.

This species is not represented in the McConnell collection, and the descriptions are taken from specimens in the British Museum—Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Bartica (*Whitely*).

Extralimital Range. Brazil, Peru, Jamaica, Central and North America, Europe, Africa, and Asia.

Habits. According to Queleh (Timehri (2) x. p. 262) this bird is a winter migrant in British Guiana.

Genus **TACHYCINETA** Cab.

Tachycineta Cabanis, Mus. Hein. i. p. 48, 1850. Type *T. thalassinus* (Swains.).

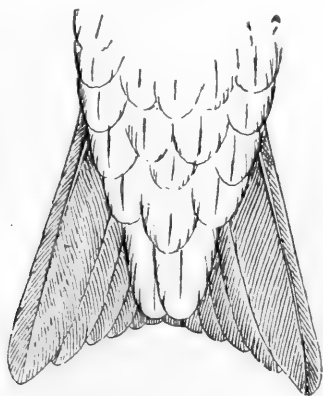


Fig. 129.—To show the long under tail-coverts.

In this genus the tail is short and only slightly emarginate, its length is about four-ninths the length of the wing, and the hind toe and claw are superior in size to the outer toe and claw. Coloration: male and female similar.

555. *Tachycineta albiventris*.

WHITE-VENTED TREE-SWALLOW.

Hirundo albiventris Bodd. Tabl. Pl. Enl. p. 32, 1783 (Cayenne).

Hirundo leucoptera Cab. in Schomb. Reis. Guian. iii. p. 672, 1848.

Tachycineta albiventris Salvin, Ibis, 1885, p. 205 (Bartica Grove, Camacusa); Sharpe, Cat. B. Brit. Mus. x. pp. 113, 631, 1885 (Demerara); Beebe, Our Search for a Wilderness, pp. 247, 265, 378, 379, 381, 1910 (Arenu River, Abary Savannas); Brabourne & Chubb, B. S. Amer. i. p. 326, no. 3327, 1912.

? *Tachycineta bicolor* Beebe, Our Search for a Wilderness, p. 370, 1910 (Abary Savannas).

Adult male. Head, back, wings, and tail glossy steel-blue, the bases of the feathers on the back white; greater upper wing-coverts and secondary-quills broadly margined with white; rump and upper tail-coverts with narrow black shaft-lines, some of the long upper tail-coverts are steel-blue and others have an arrow

head mark of steel-blue at the tips; flight-quills steel-blue with dull black inner webs; tail similar, with white at the base on the lateral feathers; cheeks, throat, sides of neck, breast, sides of body, under tail-coverts, axillaries, and under wing-coverts pure white; abdomen white, faintly lined with dark shaft-streaks; under surface of flight-quills and lower aspect of tail blackish brown.

Total length 124 mm., exposed culmen 11, wing 108, tail 43, tarsus 11.

The bird described was collected on the Abary River in November 1906.

Adult female. Similar to the adult male, but rather smaller. Wing 110 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Abary River, Great Falls Demerara River, Arawai River (*McConnell collection*); Kamakusa and Bartica (*Whitely*); Aremu River and Abary Savannas (*Beebe*).

Extralimital Range. Cayenne (*Boddaert*), Brazil, Peru, Ecuador, Colombia.

Habits. Schomburgk remarks (*Reis. Guian. iii. p. 672*) that this beautiful Swallow is met with in thousands near waterfalls and whirlpools, where they perch on the leafless branches of trees which had fallen into the river. He did not find it nesting.

Genus **HIRUNDO** Linn.

Hirundo Linn. Syst. Nat. i. p. 191, 1758. Type *H. rustica* Linn.

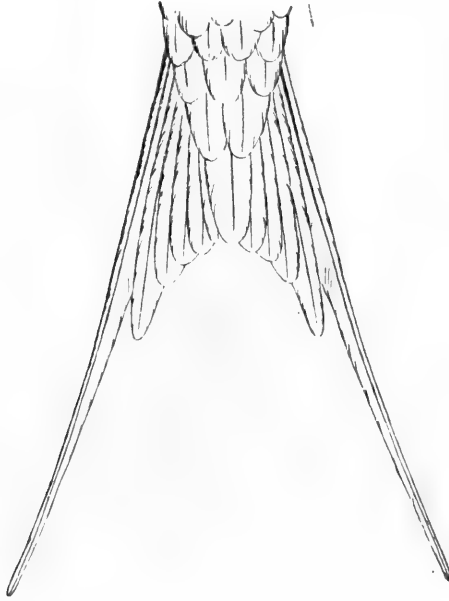


Fig. 130.—To show the long outer tail-feathers.

This genus is distinguished chiefly by the long outer tail-feathers, which are incised more or less, on the inner webs. Coloration: male and female similar.

556. *Hirundo erythrogaster*.

BARN SWALLOW.

Hirundo erythrogaster Bodd. Tabl. Pl. Enl. p. 45, 1783 (Cayenne); Salvin, Ibis, 1885, p. 205 (Bartica Grove, Roraima, 3500 ft.); Sharpe, Cat. B. Brit. Mus. x. pp. 137, 632, 1885 (Roraima); Quelch, Timehri (2) x. p. 262, 1896 (migration); Beebe, Our Search for a Wilderness, pp. 247, 379, 1910 (Aremu River, Abary Savannas); Brabourne & Chubb, B. S. Amer. i. p. 327, no. 3331, 1912.

“Red-breasted” or “Barn Swallow” (*Quelch*).

Adult female. General colour of the upper surface glossy steel-blue with purplish reflections, including the head, back, upper

tail-coverts, and upper wing-coverts; the bases of the feathers on the back being white are sometimes exposed, which gives a spotted or streaked appearance; bastard-wing, primary-coverts, and flight-quills dark brown, the secondaries steel-blue on the outer webs; tail dark brown with a white subapical mark on the inner webs of the lateral feathers; sides of face and sides of neck steel-blue; chin and throat pale chestnut; breast and abdomen white washed with fawn-colour; under tail-coverts, axillaries, and under wing-coverts pale fawn-colour; under surface of flight-quills and tail-feathers blackish brown, marked with white on the inner webs of the latter near the tips.

Total length 149 mm., exposed culmen 9, wing 111; tail—middle feathers 40, outer feathers 68; tarsus 12.

Adult male. Similar to the adult female in colour and measurements.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Abary River (*McConnell collection*); Mount Roraima and Bartica (*Whitely*); Aremu River and Abary Savannas (*Beebe*).

Extralimital Range. South America generally in winter, Central and North America to North Europe and Asia south to Burma.

Habits. According to Quelch (*Timehri* (2) x. p. 262) this species is a winter migrant to British Guiana.

Genus **PROGNE** Boie.

Progne Boie, *Isis*, 1826, p. 971. Type *P. purpurea* (Linn.), 1766 =
P. subis (Linn.), 1758.

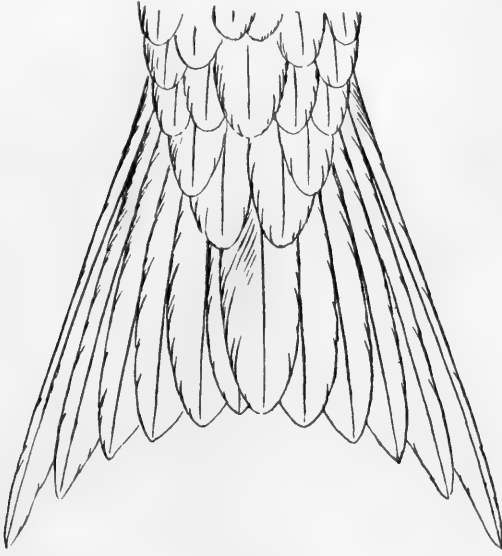


Fig. 131—To show the form of the tail.

This genus contains the largest of the Swallows. The bill is depressed at the base, the width being about four-fifths the length of the exposed culmen; the nostrils are without any superior membrane, rounded, and exposed. The wing is pointed and nearly twice the length of the tail. The feet are strong and the claws sharply curved; the middle toe and claw are about one-third longer than the tarsus. Coloration: male and female similar.

Key to the Species.

- A. Upper surface purplish blue.
 - a.* Larger, wing more than 140 mm.; abdomen purplish blue *P. subis*, p. 330.
 - b.* Smaller, wing less than 140 mm.; abdomen white *P. chalybea*, p. 331.
- B. Upper surface smoke-brown *P. tapera*, p. 342.

557. *Progne subis*.

PURPLE MARTIN.

Hirundo subis Linn. Syst. Nat. i. p. 192, 1758 (Hudson Bay).

Progne purpurea Cab. in Schomb. Reis. iii. p. 671, 1848; Salvin, Ibis, 1885, p. 205; Sharpe, Cat. B. Brit. Mus. x. p. 173, 1885; Quelch, Timehri (2) x. p. 262, 1891 (migration).

Progne subis Brabourne & Chubb, B. S. Amer. i. p. 327, no. 3332, 1912.

Adult male. Upper and under surface glossy steel-blue, with a purplish gloss on the upper parts; inner webs of flight-quills dull blackish brown, paler on the inner edges; tail-feathers dark brown on the inner webs; a more or less obscured patch of white on the sides of the back, where the feathers have white bases and dark tips; lores velvety-black; marginal under wing-coverts edged with white; the feathers on the vent and thighs white at the base; under tail-coverts margined with white. "Bill deep brownish black; feet purplish black; iris dark brown" (Cat. B. Brit. Mus.).

Total length 195 mm., exposed culmen 11, wing 150, tail 84, tarsus 17.

The specimen from which the description is taken was collected on the Ituribisi River in August 1909.

Adult female. Similar to the adult male on the upper parts; cheeks and throat pale dusky-brown, with black shaft-lines to the feathers, paler on the fore-neck where the feathers are edged with white; breast and sides of the body silvery grey and the shaft-streaks more pronounced; abdomen and under tail-coverts white with conspicuous dark shaft-lines; axillaries and under wing-coverts brown tipped with white; under surface of flight-quills and lower aspect of tail dark brown. Wing 139 mm.

The female described was collected on the Ituribisi River in August 1909.

This bird breeds in North America and is a winter migrant to British Guiana.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River (*McConnell collection*).

Extralimital Range. Brazil, Venezuela, Cuba, Central and North America.

Habits. Schomburgk states (Reis. Guian. iii. p. 671) that this bird is distributed all along the coast and is a common species in the Colony, but he did not find its nest.

558. *Progne chalybea*.

GREY-BREASTED MARTIN.

Hirundo chalybea Gmel. Syst. Nat. i. p. 1026, 1789 (Cayenne).

Progne chalybea Salvin, Ibis, 1885, p. 205 (Bartica Grove); Sharpe, Cat. B. Brit. Mus. x. pp. 178, 633, 1885 (Bartica Grove); Quelch, Timehri (2) v. p. 76, 1891 (Georgetown); Brabourne & Chubb, B. S. Amer. i. p. 327, no. 3335, 1912; Beebe, Trop. Wild Life in Brit. Guian. p. 328, 1917.

Progne chalybea chalybea Beebe, Our Search for a Wilderness, pp. 112, 244-247, 379, 1910 (Georgetown, Aremu River, Abary Savannas).

Adult male. Head, back, upper tail-coverts, upper wing-coverts, scapulars, sides of face, sides of neck, and sides of the breast glossy-purple, like the lower flanks; a more or less concealed white patch on the sides of the lower back; outer aspect of flight-quills and tail-feathers steel-blue; inner margins of flight-quills, on the basal portion, pale brown; lores velvety-black; throat and breast dusky-brown, the feathers minutely edged with white; abdomen greyish white with dark shaft-lines to the feathers, becoming uniform white on the vent and under tail-coverts; axillaries and under wing-coverts blackish; under surface of flight-quills and lower aspect of tail dark brown.

Total length 179 mm., exposed culmen 11, wing 130, tail 63, tarsus 16.

The male described was collected on the Mazaruni River in 1905.

Adult female. Upper surface similar to that of the adult male, but not nearly so bright; lores, sides of face, sides of neck, and sides of breast soot-brown; paler on the throat and middle of the breast, becoming white on the abdomen and under tail-coverts, both of which have dark shaft-lines to the feathers; axillaries and under wing-coverts dark brown with white edgings to the feathers; under surface of flight-quills and lower aspect of tail brown, a slight mark of whitish on the inner webs of the outer tail-feathers near the tips. Wing 127 mm.

The female described was collected on the Abary River in September 1907.

Breeding-season. March and April (*Beebe*).

Nest. About the eaves of houses and sheds (*Quelch*); composed of sticks, straws, dried grass, string, cloth, etc. (*Beebe*).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mazaruni River, Bonasika River, Abary River (*McConnell collection*); Bartica (*Whitely*); Georgetown (*Quelch*); Georgetown and Abary Savannas (*Beebe*).

Extralimital Range. Trinidad, Venezuela, Colombia, Ecuador, Peru, Bolivia, Brazil to Central America.

Habits. Mr. J. J. Quelch (*Timehri* (2) v. p. 76, 1891), who observed this species in Georgetown, remarks:—"Perhaps some of the commonest of our birds are the Swallows. Of these there are four species about the city, one or more of which may always be seen flying about overhead or perching on the roofs of the houses and sheds, about the eaves of which they generally make their nests. The commonest is the white-breasted purple Swallow (*Progne chalybea*)."

Mr. Quelch (*Timehri* (2) x. p. 262, 1896), writing on the migratory birds in British Guiana, says:—"The Purple Martin, on the other hand, appears to be one of our true migrants. In the case of the Swallows, all of them birds of great flight, and many of them preferring the haunts of man, the question becomes a simpler one. In the White-breasted Purple Martin (*Progne chalybea*), and the Common Martin (*P. tapera*), we know that the birds are constant residents, being abundant throughout the year, and nesting usually under the eaves or on the ledges and supports of the houses."

The following note has been copied from Beebe (*Our Search for a Wilderness*, p. 245):—"A pair of Grey-breasted Martins accompanied us, and we found that they were nesting in an angle between two beams of the main deck covering. Young birds were in the nest, so the Martins must have accompanied the steamer on many of the alternate day trips between Georgetown and Bartica."

The following notes are quoted from Beebe (*Tropical Wild Life in British Guiana*, pp. 328-341):—"In all civilized districts from Rio northwards this is the first bird to greet the traveller. As the

steamer warps up to the pier there are always a few perched on the ridge of a nearby roof or garrulously hovering over the deck. Proceeding inland by water or on foot one will see them always present, where human habitations exist.

“The Grey-breasted Martins, like their relatives of the north, thrive whenever there is a house and a clearing. They are one of the many birds that have adapted themselves to the advances of civilization, and, like others, find the new conditions congenial. They are extremely tame and unafraid, and because of this courage and pugnacity they are one of the most useful birds that gather about the homestead. No low-flying Hawk will for long withstand the vicious onslaughts of the many Martins that gather about him. Thus the life of many a seed-eating Finch and caterpillar-destroying Wren has been preserved.

“The windows of Kalakoon House always remained open, and soon after our arrival several Martins took advantage of this to roost on the rafters over our head, entering through a window close beneath the peak of the roof. On the rare occasions when it had to be closed on account of the rain which poured in gusts, the birds gathered outside in numbers, some on the sill and others on the eaves above, and tried to express their troubles in a loud bubbling and chatter. Though there were other open windows nearby, they never used them, but always, if their own private entrance were closed, sought other roosting places for the night. They roosted in pairs and never allowed a third to encroach upon what they considered their own territory.

“Later on, near the end of March—the middle of the short dry season—mating instincts became uppermost and the Martins commenced to consider sites for their nests. Unfortunately for us, one pair decided that their roosting place on the rafters was an ideal situation; so for the next few weeks there was a continual shower of sticks and straws from above. Fortunately they gave it up after a month of vain attempt and sought a new spot.

“A small box with four compartments had been erected a short time before, on a pole, with the hope that some of the birds would take advantage of it. Immediately a pair of Palm Tanagers took possession. This was too much for our pair of Martins, which at once—incited by jealousy and need for a new home—drove away the Tanagers and appropriated the partially completed nest as

their own. The occupation was not accomplished, however, without many a scuffle with the original tenants and other pairs of Martins who had nesting ideas of their own. The building did not commence immediately after possession had been obtained, but, either to make sure that the new house was safe—it swayed very much in the wind—or more firmly to establish their right, it was well on towards the middle of May before the mother laid her first egg.

“In the meantime other pairs had commenced to build, selecting various portions of the huge beams that acted as plates for Kalacoon House. The nests were composed of sticks, straws, dried grass, string, cloth, and anything that would act as building material. They were placed back from the edge of the beam usually in a corner next to a floor joist. The spot, where the birds had been regularly roosting, was usually selected for the home site, for when they find an ideal location they remain there all their lives, or at least until the conditions change. Unlike the Purple Martin, the too near company of others was not desired, and it went hard with the individual who inadvertently overstepped his neighbour's territory. In this respect they resembled some human beings.

“The Kalacoon Martins commenced to lay about the first of April. Every bird had been busy for the two preceding weeks collecting material, courting, and fighting. Sometimes a dozen or more would gather on the ground in front of the house and sort over the little twigs and dried grass blades lying there. This was always attended with perfect harmony until two birds would decide that they both liked the same stick. They resorted then to force in the dispute that followed, and the fight would go on up in the air or down on the ground, until both were exhausted. In the meantime the object of their differences was usually spirited away by a third party. At any rate they always forgot what they were fighting about and never returned to the spot to look for it. Again, one would be sitting alone awaiting her mate by the prospective nest. Suddenly, after many beautiful evolutions in the air, he would join her, and their admiration for one another was shown by wide open bills and a perfect babble of warbles. They would sit thus for a few moments each with its mouth open, or they snapped bills at imaginary insects, as if one

was urging the other to feed it. Then each would seek to relieve its feelings in flight, only to return later to repeat the whole performance. After eight or ten days of repeated journeys to and from the gathering grounds, the bulky nests were about finished and the females made ready for their household duties. The several homes beneath the house soon held full quota of little white eggs. Two held three and another five. During the period of incubation, which lasted from fifteen to sixteen days, the male showed much solicitude for his mate. He sat for hours by her side near the nest and chirped and twittered in low, sweet tones as if striving to enliven the monotony of his somewhat irksome position. Several times each day, though only for a few minutes, she took journeys in search of food.

“At hatching time a busy season commenced for both birds. The business for carrying food for the youngsters went on all day long, from early morning till late at night. The little flesh-coloured babies with tight shut eyes and gaping mouths needed much looking after, for their demands for food never abated. After every third or fourth trip, one of the parents cleaned the nest with its bill, carrying away the excrement incased in its thin shiny sack, to drop it a safe distance from the home so that the prowling marauder might find no tell-tale evidence.

“When a week old, the nestlings presented a curious appearance with their half-open eyes, vast stomachs, and shining transparent skin thickly striated with the black sheaths of young feathers, for there is no down until about the tenth day, when the feather-sheaths break. Their food consisted entirely of insects—flying ants, termites, ant-lions and dragon-flies. Sometimes a dragon-fly was brought of too large dimensions to be easily swallowed whole. Then the wings were severed, one by one from the body, which was well-crushed by the bill of the parent. The youngster would seize it fiercely and swallow it with incredible rapidity, undergoing terrible contortions, gasping and choking for several minutes after it had gone down.

“The young birds were lined up on the edge of the beam twenty-two days after hatching, ready to begin their trials of flight. They returned to their nests for a few nights and then, having partly learned to care for themselves, departed elsewhere to roost. Every morning, together with others that had been reared in less

auspicious places, they gathered on the roof of the house with their parents. Invariably at 6.15, at a seemingly preconceived signal, they launched forth into the air with one great rush and chatter, swooping and sailing about the house for a few minutes before departing over the bush to seek their morning meal.

“The art of catching their meal did not come quite so easily as the first flights. They had to be fed for a week or more after they were dodging and darting about in the air, and some even clamoured for food after their parents were nesting again. The old birds at first perched beside their offspring, to feed them, but soon—the young birds learning to grasp the insects with their bills instead of having it crammed down their throats—hovered above and forced the young to reach up to seize it when they passed by. Becoming expert in this and being greedy, the youngsters quickly learned to sally forth to meet their parents and take the food from them in the air. It gradually dawned upon them, as time went on, that they might secure their food themselves, as well as from their parents. But this came only after the elders had dropped one or two insects which made the youngsters scramble to secure them before they escaped.

“A few days later the old birds were nesting again.

“To return to the Martins of the bird-house: the young hatched, they were cared for in the orthodox fashion. The entrance to their home was a round opening about two inches in diameter. A cross stick, that projected a foot or more beyond the side of the box, was nailed there, about an inch below, for a perch.

“I watched for the three little ones to make their first appointed trip into the air on the twenty-second day. One finally perched on the doorway and looked about in a dazed fashion at this new world never before discovered. Casting a look downward, he decided that it was beyond his ability to ever trust himself to the great emptiness beneath. It was far too perilous to attempt the scramble and climb that were necessary to gain the outer perch. So there he remained, while his two brothers or sisters vainly pushed and squeezed to get a glimpse, too.

“The parents hovered about, chirping and urging him to chance it, but he remained immovably placed and answered all entreaties with weak little noises. They gave it up and brought food. When he had received a full share, they tried to push him back

into the nest, so as to make room for another, but he would not be pushed. They fed him more until, filled to repletion, he rejected what they brought ; but still, regardless of the protest of his hungry brethren, he blocked the passage, filled with wonder at the new outlook of life. He remained thus for nearly two hours, when a change of mind suddenly came over him, and, through no forcible persuasion, he suddenly backed into the hole. His place was taken at once by another, who relinquished to the third, only after taking his fill of the outdoor surroundings. The third remained to be fed for the space of ten minutes or so, and before it could do more than look around, was violently replaced by the first claimant for the position, who squeezed into the opening and pushed his companion down into the nest. He held the position most of the day, except when the others, driven to desperation by hunger succeeded in ousting him for a few moments.

“The performance was repeated daily for several days, a youngster always being at the entrance. The strongest spent most of his time there. His parents tried every means in their power to inveigle him forth, but for a long time without avail. They brought him nice large dragon-flies, which were held tantalizingly a few inches away ; they called to him to follow them as they moved farther and farther along the perch ; and finally, clinging to the edge of the hole, they fluttered to the perch to show how easy it was. As his courage increased he gradually leaned farther out of the door to follow their movements or to make an attempt at securing the morsels they brought. One day—the sixth—he leaned too far and lost his balance. With an effort he managed to clutch the stick and with a mighty flutter of wings found himself safe and sound on the out-hanging perch. At first he scarcely dared to breathe for every little movement upset his equilibrium, and it was only by hard fluttering that he could regain his balance. He commenced uncertainly, after the first fright wore off, to preen his feathers of the small flakes of down still adhering and to stretch his wings. The mother sat close by, chirping to give him confidence, or made short flights to instruct in the first rudiments. The father busily fed the others, for the mother had no time to spare.

“Soon the little Martin commenced to take interest in his surroundings and looked about with much craning of neck, glancing

this way and that, both up and down. Once he lost courage and scrambled back to the hole, but soon returned as if thoroughly ashamed of himself. At last, upon casting a convulsive look downward, he lost his balance, and away he went, bravely struggling to keep in the air, at a slant towards the ground. Suddenly the knowledge seemed to come, and he rose above the bushes, a little uncertainly at first, but acquiring more confidence as he progressed. And, before disappearing from sight, he had essayed the first waving soar.

“Instead of making for the nearest perch, he flew around and around for more than ten minutes, always gaining in skill and steadiness, so that it was a hard matter to tell their flight apart when he returned unaccompanied by his mother. He alighted on the roof of the box, for the perch at first looked too difficult, and made that the base for other practice flights. Finally time arrived to seek the nest, but then came the perplexing question: which of the four holes was it? Two laborious attempts at wrong ones at length pointed out the right one.

“The second bird left the nest on the following day, but several days elapsed before the third made its escape, having remained in the nest for more than a month. The general delay was undoubtedly due to the environmental change in locality of the nest. They are ordinarily placed in such a position that the young may at least sit on the edge of the nest and exercise their wings preparatory to the first flight. In this case, in their cramped quarters, there was no such advantage, and, at flight time, the young birds were entirely unprepared for the new problem that confronted them. They awaited, therefore, their full strength and feather growth before making the attempt, and, when flight time did come, it was not a weak flutter to a nearby roof or friendly bush, but a strong sally which almost rivalled that of their parents.

“For ten days or more the birds used the box as their home and doubtless would be using yet, if, while they prepared to rear a second brood, the elders had not driven them away. During their second occupancy, I became interested in their evident inability to remember or disregard of which of the four openings in the box really was their true home. Even after a week of exploration and investigation the question seemed to be somewhat in doubt, for they seldom, until near the end, made their way

directly to the proper spot, but first tried several holes as on the first day of departure. At length, after many trips, the proper method of approach suddenly dawned upon their consciousness, and thereafter they made it with unerring skill. At that time there was, under the house, a second nest with three slightly incubated eggs, which I thought might be put to some use. By watching the other birds I realized that many actions were the result of newly acquired habits, and therefore might be influenced by outside agencies. How far, though, did these habits control instinct? Up to the present, evidence showed that young birds with undeveloped intellect, ignorant of the life struggle before them, even though homing instinct was predominant, were able, only by repeated trials, to recognise their home among several others of similar appearance. Similarly their parents, upon first taking possession, had carried straw to each of the four holes until they discovered that four nests were building instead of one; even then they would often carry to the next hole before discovering their mistake. At length, after many trips, they became so used to the proper location that no further errors were made. Thus, even they were dependent upon a habit to point out their permanent home; a habit credited by repeated trials through which sense of exact location became, at length, indelibly fixed upon their brains.

“The nest containing the three eggs in question, though placed out of any direction rays of the sun, was exposed to the light of day, so that the eggs were in plain view of the parent bird when approaching the nest. One day, I carefully marked the eggs with blotches of red ink, leaving uncoloured the large ends with their air chambers, and placed them back in the nest as nearly as possible in the same old position. At first the Martins were much excited and looked at the eggs askance, peering this way and that, as if they might find the lost originals hidden away in some darkened corner. In a few minutes, however, deciding that, though they did look different, they were still the same eggs, one of the birds hesitatingly crouched upon them and the incubation proceeded as if nothing had occurred.

“The following day I removed both nests and eggs, putting them in a prominent spot, only a few feet away from their original resting place. The parent bird, disturbed by my efforts, flew excitedly about, and, the instant I left the ladder, flew to

where her home had been. She almost upset herself in vain efforts to alight on the nest, where the nest was not. Only after crouching for a full minute among the few straws that were left, did she realize that it was gone. She rushed to the edge of the beam, looked around and then back to where the nest ought to be, dragging the straws about as if the nest might be hidden beneath them; then to the edge to look at the ground below, and then back. She repeated all these movements several times, and, at last, thinking that some terrible mistake had been made, flew about for a few minutes before returning to repeat her former operations. Again she returned, this time with her mate, who in turn, showed excitement, and to whom the mystery was as inexplicable as to her. Finally they perched together on the beam edge. Their eyes searched in all directions, though chiefly downward, as if the nest had fallen and rolled to some obscure hiding place. Then they flew away only to return again and again, hoping each time to find the nest in its old position. The nest remained in plain sight, but, though they often passed close by, the idea never occurred to them to investigate it.

“At last, deciding that it was not on the ground and not thinking to search elsewhere, they went to roost on the original site. Doubtless it was instinct that caused them to search below, but it must have been the habit of finding the nest in the same place day after day, which prompted them to seek only in the one spot above, although the nest stood in plain view before them.

“Instinct and actual habit are so closely associated that at times it is scarcely possible to distinguish between them. What often is taken for instinct really is a newly acquired habit which, under other conditions, might be altered. Thus it happened, on the following day, that the Martins instinctively commenced to build a new nest, but, from habit, used the old site. From habit they roosted there, even though they knew some enemy to be about that had the knowledge of their hiding place, and though an innate instinct must have urged them to choose another location.

“I do not pretend to intimate that newly formed habit runs contrary to instinct among all birds and animals, for such is not the case. If it were, there would soon be no animals or birds left, nor other intelligent life. If the weak inoffensive bird in the bush did not instinctively change its abode after that abode had

been pillaged, a second outrage from the same source would soon follow. The same prompting causes that bird to change its abode from season to season, for, if the home were permanent, it would not long survive the encroachments of its enemies, and once discovered, would immediately become a prey to repeated marauding expeditions. On the other hand, there are certain birds, which, because they build in protected localities, have no need to change, and so, season after season and year after year, return to the same spot to nest.

“To such class belong the Martins. They have been protected for hundreds of generations, first by tree holes and then by the buildings of civilization. The instinct of protective change of home has gradually become dormant and the habit—now nearly an instinct—of permanency has become dominant, just as the habits of civilization dominate our own savage instincts, which often burst forth in times of crisis. If repeatedly disturbed, the birds will change, often at terrible cost, as has been the case of many of our own game birds, ducks, and even song birds, and the old instinct of natural preservation against enemies, never really absent—only dormant—becomes uppermost. They will learn new habits with which to combat most effectively the new enemy, and these habits, in turn, will finally become practically an instinct to them.

“But to return to our Martins; when I had destroyed the second nest a few days later, they did not attempt a third, but still continued to roost there each night. Penard tells us of taking four sets of eggs from the nest of a pair of these birds and still they would not leave. In this instance the habit of living in one place was supreme and clearly dominated the instinctive idea of seeking a safer home. Undoubtedly the idea would become uppermost if the persecutions kept up.

“As has been said, individual habit and instinct are so closely allied that it is hard to distinguish between them, but, nevertheless, there are certain points where the line may be drawn, of instinct as subordinate to new habit. Thus the young Martins, in spite of all their homing instincts, could not find their home until they had determined, through repetition, in which of the four holes it was located. Such knowledge was acquired only after many trials or trips whereby a habit of arriving at the right point was created. The results of the experiment with coloured eggs may

be put down to either instinct or habit, as the birds must have realized that the eggs were different, it may have been habit more than instinct, that caused them to continue the incubation. There can be no doubt, however, that from habit only, they roosted and started a new nest in the same place, after the old had been destroyed. This habit would have proved costly if the nest had been destroyed by an enemy which, after new eggs were laid, would have returned to repeat its performance.

“Evidence also points out that a certain few of their daily actions in the round of life are due, not so much to inborn instinct, as many believe, but to habits acquired from a youthful training from their parents, from experience, and from a wide sense of imitating their elders. For instance, the young bird has been taught how to catch insects. He knows that they are his proper food, because he has so been fed from the time of hatching, and he finally learns how to catch them, only after instruction by and imitation of his parents.

“These observations show, in this bird at any rate—though probably in many others—that certain habits have been acquired, due to the protection afforded by the advance of civilization which, if the bird were transplanted from civilization to ancient conditions, would be of great detriment to it. These newly-acquired habits dominate its natural instincts.”

559. *Progne tapera*.

TREE-MARTIN.

Hirundo tapera Linn. Syst. Nat. i. p. 345, 1766 (Brazil).

Progne tapera Cab. in Schomb. Reis. Guian. iii. p. 672, 1848; Salvin, Ibis, 1885, p. 205; Sharpe, Cat. B. Brit. Mus. x. p. 180, 1885 (Corentyn River); Brabourne & Chubb, B. S. Amer. i. p. 327, no. 3336, 1912.

Adult male. General colour above including the head, back, wings, and tail smoke-brown; bastard-wing, primary-coverts, flight-quills, and tail-feathers darker and inclining to black; inner webs of flight-quills paler on the inner edges and some of the tail-feathers paler on the margins at the tips; lores and ear-coverts smoke-brown; throat, lower breast, and under tail-coverts white; breast and sides of the body earth-brown; axillaries and under wing-coverts dark brown, edged with white; under surface of quills and lower aspect of tail brown.

Total length 170 mm., exposed culmen 11, wing 134, tail 65, tarsus 14.

The description of the male is taken from an example collected on the Ituribisi River in November 1906.

Adult female. Similar to the adult male, but differs in being smaller in wing-measurement and in having a line of dark feathers on the middle of the lower breast and abdomen. Wing 125 mm.

The female described above was also collected on the Ituribisi River in August 1909.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River (*McConnell collection*); Corentyn River (*British Museum*).

Extralimital Range. Brazil, Venezuela, Colombia, Peru, Bolivia, Argentina.

Habits. Schomburgk states (*Reis. Guian.* iii. p. 672) that he found this bird in large numbers near the waterfalls and whirlpools of the Essequibo River, where they usually rest on the leafless branches of the tall trees on the banks. Sometimes solitary birds would leave the nest, fly round, and settle again, when all of a sudden the whole flock would fly about for some time and again return to its resting place. Its nidification was not known to him.

Genus **ATTICORA** Boie.

Atticora Boie, Isis, 1844, p. 172. Type *A. fasciata* (Gmel.).



Fig. 132.—To illustrate the form of the tail.

In this genus the bill is flat at the base, where the width is about equal to the length of the exposed culmen; the nostrils are rounded and exposed. The wing is pointed, the first primary is longest, and exceeds the length of the tail by about one-fourth. The tail is forked, the middle feathers about half the length of the outer ones. The feet are weak, the middle toe and claw exceed the length of the tarsus by about one-sixth. Coloration: male and female similar.

Key to the Species.

- A. Upper surface glossy blue-black.
a'. Throat and abdomen blue-black..... *A. fasciata*, p. 345.
b'. Throat and abdomen white.....
a''. Fore-neck banded with blue-black, dividing the white of the throat from that of the abdomen..... *A. melanoleuca*, p. 346.
b''. Throat, fore-neck, and abdomen uniform white..... *A. cyanoleuca*, p. 347.
B. Upper surface earth-brown; throat, breast, and nuchal collar pale rufous like the sides of the face..... *A. fucata roraimæ*, p. 348.

560. *Atticora fasciata*.

WHITE-BANDED SWALLOW.

Hirundo fasciata Gmelin, Syst. Nat. i. p. 1022, 1789 (Cayenne).

Atticora fasciata Cab. in Schomb. Reis. Guian. iii. p. 672, 1848; Salvin, Ibis, 1885, p. 205 (Roraima, 3500 ft.); Sharpe, Cat. B. Brit. Mus. x. pp. 183, 634, 1885 (River Atapuro, Merumé Mts.); Beebe, Our Search for a Wilderness, pp. 162, 175, 200, 265, 379, 1910 (Hoorie Creek, Aremu River, Abary Savannas); Brabourne & Chubb, B. S. Amer. i. p. 327, no. 3337, 1912.

Adult male. Glossy steel blue-black both above and below; inner webs of flight-quills and tail-feathers dull black; thighs and a wide band across the breast white; under surface of flight-quills and lower aspect of tail dusky-brown.

Total length 135 mm., exposed culmen 6, wing 92; tail—middle feathers 41, outer ones 63; tarsus 11.

The exact locality of the bird described is unknown.

Adult female. Similar to the adult male. Wing 101 mm.

A young bird, collected by Mr. McConnell on the Kurubung River during his expedition to Mount Roraima in October 1898, differs from the adult in being less glossy on the upper surface and in having the throat, fore-neck, abdomen, and under tail-coverts dusky-black, some of the feathers on the fore-neck minutely tipped with hoary-grey.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana Kurubung River (*McConnell collection*); Mount Roraima, 3500 ft., Kamarang River, Merumé Mountains (*Whitely*); Hoorie River, Aremu River, Abary Savannas (*Beebe*)

Extralimital Range. Cayenne (*Gmelin*), Brazil, Ecuador, Peru, Bolivia.

Habits. Schomburgk states (Reis. Guian. iii. p. 672) that he found this beautiful Swallow flying to and fro over the surface of the Barima and Barama Rivers. It was also fond of perching on the twigs of trees fallen into the rivers. Its nidification was unknown to him.

The following notes have been copied from Beebe (Our Search for a Wilderness):—

P. 200.—“Swallows were seen in numbers, small, dark steel-blue in colour with a striking band of white across the breast.

These beautiful banded Swallows kept at first to two levels in the air; close to the water, fairly skimming its surface, and high up above the tallest trees—marking, I suppose, the early morning distribution of gnats and other insects. Most delicate and fairy-like they appeared when perched on some great orchid-hung dead branch protruding from the water.”

P. 175.—“Early in the evenings, about six o’clock, all the Banded Swallows of the surrounding region passed overhead in a dense flock, two or three hundred in all, soaring with a steady, half-sailing flight very different from the dashing swoops which carry them over the lake when feeding during the day. Now they are headed northward to some safe roosting-place and with no thought of passing gnats, the myriads of graceful, glossy blue forms, each crossed on the breast with a band of white, made a most beautiful sight. In the morning their return flight was by twos and threes, with rapid darts here and there.”

P. 200.—“White-banded Swallows now hovering before a trunk and snatching a spider, now dipping at full speed for a floating gnat.”

561. *Atticora melanoleuca*.

BELTED SWALLOW.

Hirundo melanoleuca Wied, Reis. Bras. i. p. 345, 1820 (Rio Grande de Belmonte); Cab. in Schomb. Reis. Guian. iii. p. 672, 1848.

Atticora melanoleuca Salvin, Ibis, 1885, p. 206; Sharpe. Cat. B. Brit. Mus. x. p. 185, 1885; Brabourne & Chubb, B. S. Amer. i. p. 328, no. 3341, 1912.

Adult male. Head, entire back, lesser and median upper wing-coverts, upper tail-coverts, a band across the upper breast, and under tail-coverts glossy blue-black; throat and abdomen pure white; base of forehead and lores velvety-black; bastard-wing, greater upper wing-coverts, primary-coverts, and flight-quills soot-black, the last paler on the inner webs; tail similar in colour to the flight-quills; axillaries, under wing-coverts, under surface of quills, and lower aspect of tail pale brown; marginal under wing-coverts edged with white.

Total length 135 mm., exposed culmen 5, wing 89; tail—middle feathers 30, outer ones 69; tarsus 11.

The specimen described was collected on the Ituribisi River in October 1908.

Young. Upper surface, band on upper breast, under wing-coverts, and under tail-coverts earth-brown, somewhat darker on the upper back, the brown band on the upper breast and under tail-coverts have white edges to the feathers, and the marginal under wing-coverts are also edged with white, throat and abdomen white.

The young described was collected on the Makauria River in August 1910.

This bird appears to be very local in British Guiana as, although recorded by Schomburgk, it was not obtained by Whitely on either of his journeys.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ireng River, Ituribisi River, Arawai River, Kamakabra River, Makauria River (*McConnell collection*).

Extralimital Range. Brazil, Venezuela.

Habits. Schomburgk states (*Reis. Guian.* iii. p. 672) that he met with this bird in thousands near the waterfalls and whirlpools, where they perched on the branches of leafless trees which had fallen into the river. He did not observe it breeding.

562. *Atticora cyanoleuca*.

HALF-BELTED SWALLOW.

Hirundo cyanoleuca Vieill. N. Dict. d'Hist. Nat. xiv. p. 509, 1817 (Paraguay).

Atticora cyanoleuca Salvin, Ibis, 1885, p. 206 (Camacusa, Roraima, 3500 ft.); Sharpe, Cat. B. Brit. Mus. x. pp. 186, 634, 1885 (Camacusa, Roraima); Brabourne & Chubb, B. S. Amer. i. p. 328, no. 3342, 1912.

Adult male. Crown of head, hind-neck, back, lesser upper wing-coverts, scapulars, and upper tail-coverts glossy steel-blue; median and greater upper wing-coverts, bastard-wing, primary-coverts, flight-quills, and tail soot-black; throat, breast, and abdomen white; under tail-coverts blackish with steel-blue tips to the feathers; sides of the body smoke-brown like the axillaries, under wing-coverts, under surface of flight-quills, and lower aspect of the tail; the marginal under wing-coverts fringed with white.

Total length 112 mm., exposed culmen 4, wing 91, tail 52, tarsus 10.

This species is not represented in the McConnell collection, and the specimens described are in the British Museum.

Adult female. Similar to the adult male. Wing 90 mm.

The immature plumage of both sexes is smoke-brown on the upper surface. Under surface white with a pale brown band across the breast, and more or less smoke-brown on the sides of the body and under tail-coverts.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima and Kamakusa (*Whitely*).

Extralimital Range. Venezuela, Colombia, Ecuador, Peru, Bolivia, Brazil, Paraguay.

Habits. Unrecorded in British Guiana.

563. *Atticora fucata roraimæ*.

BROWN SWALLOW.

Cotile fucata (nec Temm.) Salvin, *Ibis*, 1885, p. 206 (Roraima, 300 ft.).

Atticora fucata Sharpe, *Cat. B. Brit. Mus.* x. pp. 188, 635 part, 1885 (Roraima); Brabourne & Chubb, *B. S. Amer.* i. p. 328, no. 3344, 1912.

Atticora fucata roraimæ Chubb, *Bull. Brit. Ornith. Club*, xl. p. 155, June 1920.

Adult male. Fore part of head earth-brown, with rufous edgings to the feathers; nape, sides of face, throat, and breast pale rufous with white bases to the feathers on the throat; hind-neck, entire back, upper tail-coverts, scapulars, upper wing-coverts, and innermost secondaries earth-brown, with pale edges to the feathers; bastard-wing, primary-coverts, flight-quills, and tail-feathers darker and more blackish brown, the inner webs of the flight-quills paler on the inner edges; abdomen, flanks, and under tail-coverts white; thighs, axillaries, under wing-coverts, under surface of quills, and tail-feathers pale dusky-brown; marginal under wing-coverts tinged with rufous.

Total length 105 mm., exposed culmen 5, wing 96; tail—middle feathers 36, outer ones 42; tarsus 10.

The specimen from which the description is taken was collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

Adult male. Similar to the adult female. Wing 93 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Extralimital Range. Venezuela, Brazil, Argentina.

Habits. Unrecorded in British Guiana.

Genus **STELGIDOPTERYX** Baird.

Stelgidopteryx Baird, Birds N. Amer. p. 312, 1858. Type *S. serripennis* (Audub.).

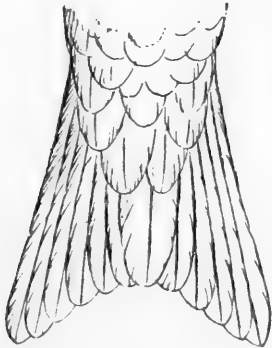


Fig. 133.—To illustrate the form of the tail.

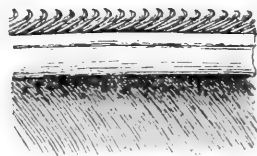


Fig. 134.—To show outer web of first primary.

This genus is chiefly distinguished by the serrations on the outer web of the first or outer primary-quill. The bill is depressed, the width at the base of the forehead is about equal to the length of the exposed culmen, and the nostrils are rounded and exposed. The wing is pointed, the first or outer primary longest. The tail is nearly square at the tip and about half the length of the wing. The tarsus is about equal in length to the middle toe and claw. Coloration: male and female similar.

564. *Stelgidopteryx æqualis*.

BANGS'S ROUGH-WINGED SWALLOW.

Stelgidopteryx uropygialis (nec Lawr.) Sharpe, Cat. B. Brit. Mus. xi. p. 209, 1885 (Roraima).

Stelgidopteryx ruficollis (nec Vieill.) Salvin, Ibis, 1885, p. 206 (Roraima, 3500 ft.); Quelch, Timehri (2) v. p. 277, 1891 (Georgetown); Beebe, Our Search for a Wilderness, pp. 379, 393, 1910 (Abaré Savannas).

Stelgidopteryx æqualis Bangs, Proc. New Engl. Zool. Club, ii. p. 58, 1901 (Santa Marta); Brabourne & Chubb, B. S. Amer. i. p. 328, no. 3358, 1912.

Adult female. Entire back, scapulars, upper wing-coverts, and upper tail-coverts smoke-brown, with whitish edgings to the upper tail-coverts; bastard-wing, primary-coverts, and flight-quills blackish, paler on the inner margins of the last; innermost secondaries and inner greater-coverts edged with white at the tips; tail dark smoke-brown, the feathers very narrowly edged with whitish; crown of head, hind-neck, sides of face, throat, and breast pale chestnut, the feathers on the middle of the crown have dark brown bases which impart a more or less scalloped appearance; lower breast and sides of body smoke-brown tinged with chestnut; abdomen and under tail-coverts white; thighs dusky-brown; axillaries and inner under wing-coverts pale smoke-brown; outer, or marginal-coverts chestnut intermixed with white and dark brown; under surface of flight-quills and lower aspect of tail pale brown, with white shafts to the feathers.

Total length 109 mm., exposed culmen 7, wing 100, tail 44, tarsus 9.

The specimen described was collected by Mr. McConnell at Mount Roraima, October 1898.

Adult male. Similar to the adult female but rather larger. Wing 108 mm.

An immature bird collected in the Upper Takutu Mountains in 1908, differs from the adult in having the crown of the head and nape soot-black, the feathers on the back and wings margined with chestnut, the breast darker and less chestnut, abdomen and under tail-coverts cream-white, and the thighs pure white.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Upper Takutu Mountains (*McConnell collection*): Mount Roraima (*Whitely*).

Extralimital Range. Venezuela, Trinidad, Colombia.

Habits. The following note has been copied from Mr. Quelch (Timehri (2) v. p. 77, 1891), who observed this species in Georgetown and remarks:—"A much smaller bird, swifter and more bat-like on the wing, is often seen sweeping overhead. This is the Red-throated Swallow (*Stelgidopteryx ruficollis*). A very curious feature in connection with these birds is the presence, in the males, of a very stiff and roughened outer edge to the first quill of the wing, so that it is distinctly serrated and hard to the touch. They are brown-coloured above, passing into a bright yellow on the under centre, while the throat is of a brick-red.

"The Swallows are bold and fearless little birds, domineering even over the pugnacious Tyrant Shrikes or Kiskadees. They seem to frequent special houses where by their greater elevation or isolation they are less disturbed; and about these they are found plentifully, chattering and quarrelling with special emphasis at nesting time. They are always to be met with in the river, and generally before heavy rain they are to be seen circling overhead in considerable numbers in the gloomy sky."

Family MUSCICAPIDÆ.

This family, which is almost entirely restricted to the Old World, is represented by one genus in the New, which is distributed in North, Central, and South America. When Brabourne and Chubb published their 'List of the Birds of South America,' 1912, thirteen species were known to occur, one of which is represented in British Guiana.

Genus POLIOPTILA Selater.

Polioptila Selater, P. Z. S. 1855, p. 11. Type *P. cærulea* (Linn.).



Fig. 135.—To show the bill and nostrils.

This genus is easily distinguished by its somewhat long and

pointed bill. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second slightly shorter than the eighth, and the first about half the length of the second. The tail is rounded at the tip, the outer feather on each side being about one-fourth shorter than the middle ones. The tarsus exceeds the length of the exposed culmen by about one-third. Coloration: male and female similar.

565. *Polioptila innotata*.

HELLMAYR'S GNAT-CATCHER.

Polioptila buffoni Sharpe, Cat. B. Brit. Mus. x. p. 449, part specimen, c, 1885 (Demerara).

Polioptila innotata Hellmayr, Nov. Zool. viii. p. 359, 1901 (Rio Branco); Brabourne & Chubb, B. S. Amer. i. p. 329, no. 3358, 1912.

Adult male. Crown of head, lores, and nape black; back, scapulars, and upper wing-coverts lavender-grey; bastard-wing, primary-coverts, and flight-quills black, the last edged with white on the inner webs, innermost secondaries margined with white on the outer webs, some more broadly than others; upper tail-coverts and four central tail-feathers black, the next pair tipped with white, and the two outer ones almost entirely white, the black being restricted to the basal portion; sides of face, throat, abdomen, under tail-coverts, axillaries, and under wing-coverts white; breast very pale grey; under surface of quills blackish, inner edges white; lower aspect of tail white, black on the middle feathers.

Total length 108 mm., exposed culmen 10, wing 48, tail 42, tarsus 16.

The exact locality of the specimen described above is unknown.

Adult female. Differs from the adult male in the absence of the black on the crown of the head and nape. Wing 45 mm.

The female described was collected on the Abary River in July 1906.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Bonasika River, Abary River, Berbice (*McConnell collection*).

Extralimital Range. North Brazil.

Habits. Unrecorded in British Guiana.

Family TROGLODYTIDÆ.

When Brabourne and Chubb published their 'List of the Birds of South America' in 1912, this family was represented by ten genera and one hundred and fifteen species. Seven of the genera and ten of the species are known to occur in British Guiana.

Genus **HELEODYTES** Cab.

Heleodytes Cabanis, Mus. Hein. i. p. 80, 1851. Type *H. griseus* (Swains.).



Fig. 136.—To show the form of the bill.

The species on which this genus was founded is one of the largest of the Wrens. The bill is long and compressed, the width at the posterior part of the nostrils is about equal to its depth, the nostrils are oval in shape and have a superior membrane. The wing is almost square, the third to the seventh primaries longest and subequal, the second about equal in length to the eighth. The tail is rounded at the tip and nearly as long as the wing. The middle toe and claw are about equal in length to the exposed culmen. Coloration: male and female similar.

566. *Heleodytes griseus*.

LARGE MARSH-WREN.

Furnarius griseus Swains. Anim. in Menag. p. 325, 1838 (Savannas of Guiana).

Campylorhynchus griseus Cab. in Schomb. Reis. Guian. iii. p. 674, 1848; Sharpe, Cat. B. Brit. Mus. vi. p. 186 (part), 1881.

Campylorhynchus bicolor (nec Pelz.) Sharpe, Cat. B. Brit. Mus. vi. p. 188, 1881 (British Guiana).

Heleodytes griseus Brabourne & Chubb, B. S. Amer. i. p. 330, no. 3369, 1912.

Adult. Crown of the head, nape, and a line from the lores through the eye backward to the sides of the neck blackish; entire back, wings, scapulars, and upper tail-coverts clay-brown; inner webs of the bastard-wing, primary-coverts, and flight-quills blackish

with pale inner edges to the last, some of the upper wing-coverts and innermost secondaries marked with blackish towards the base, which sometimes assume the form of bars; tail-feathers blackish, irregularly marked with white on the apical portion; a supraloral streak which extends over the eye and along the sides of the crown white like the chin, throat, breast, abdomen, under tail-coverts, axillaries, and under wing-coverts, the long under tail-coverts having black shaft-lines; under surface of flight-quills brown with paler inner edges; lower aspect of tail blackish, rather extensively marked with white on the apical portion.

Total length 215 mm., exposed culmen 24, wing 85, tail 78, tarsus 28.

The specimen from which the description is taken was collected on the Takutu River in 1907.

Breeding-season. Unknown in British Guiana.

Nest. The nest is built among bushes or in small trees on the Savannas (*Schomburgk*).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Takutu River and Upper Takutu Mountains (*McConnell collection*.)

Extralimital Range. Venezuela, North Brazil.

Habits. In regard to this species *Schomburgk* writes (*Reis. Guian. iii. p. 674*):—This shy bird is an inhabitant of the Savannas only, where it roams about in pairs, settling on the low *Curatella*-trees and the solitary growing bushes. It is a most agile bird and always on the move. It was a long time before I could secure a specimen, for as soon as it sees a suspicious looking object, it immediately utters a grating noise. The nest is built among bushes or in small trees on the Savannas. Its food consists chiefly of insects.

Genus **THRYOPHILUS** Baird.

Thryophilus Baird, *Review Amer. B.* p. 127, 1864. Type *T. rufalbus* (*Lafr.*).



Fig. 137.—To illustrate the formation of the head and bill.

The species included in this genus are medium-sized Wrens.

The bill is comparatively long and pointed, the width at the posterior part of the nostrils about equal to its depth, and the nostrils oval in shape. The wing is rounded, the fourth, fifth, and sixth primaries longest, and the third about equal to the seventh. The tail is rounded and graduated, the outer feather on each side about seven-tenths the length of the middle ones. The tarsus is about one-third longer than the exposed culmen. Coloration: male and female similar.

567. *Thryophilus albipectus*.

SCHOMBURGK'S WHITE-FACED WREN.

Thryothorus albipectus Cab. in Schomb. Reis. Guian. iii. p. 673, 1848
(British Guiana).

Thryophilus leucotis (nec Lafr.) Sharpe, Cat. B. Brit. Mus. x. p. 207,
1881.

Thryophilus albipectus Brabourne & Chubb, B. S. Amer. i. p. 332,
no. 3390, 1912.

Adult male. Crown of the head, sides of the neck, lesser upper wing-coverts, and entire back rufous-brown; greater upper wing-coverts, bastard-wing, primary-coverts, and flight-quills blackish barred with rufous, the inner edges of the last paler; tail also black barred with rufous, rather brighter and more broadly than on the wing-quills; lores, a ring of short feathers round the eye, and a line behind the latter white; cheeks and ear-coverts also white, more or less marked with blackish; throat white; breast and abdomen isabelline-buff, becoming darker and inclining to rufous on the flanks and under tail-coverts; under wing-coverts white tinged with buff; under surface of flight-quills dark brown with buff edgings; lower aspect of tail similar to its upper surface.

Total length 131 mm., exposed culmen 16, wing 64, tail 51, tarsus 23.

The specimen described was collected at Bartica in 1911.

Adult female. Similar to the adult male but rather smaller. Wing 59 mm.

Breeding-season. Unrecorded in British Guiana.

Nest. It nests in low bush or small trees in the Savannas (Schomburgk).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Bonasika River, Abary River (McConnell collection).

Extralimital Range. Venezuela, North Brazil, ? Peru.

Habits. Schomburgk states (Reis. Guian. iii. p. 674)* that this is a shy bird and that it inhabits the Savannas, where it may be seen in pairs on the low Curatella-trees or on the ground beneath isolated bushes. It is most agile, and creeps with astonishing ease and great rapidity through the branches of the undergrowth. He had the greatest trouble in procuring a specimen, for as soon as it discovers what it thinks to be a suspicious object, it keeps up a scratching noise. It nests in low bush or small trees in the Savannas. Its food consists chiefly of insects.

Genus **PHEUGOPEDIUS** Cab.

Pheugopedius Cabanis, Mus. Hein. i. p. 79, 1851. Type *P. genibarbis* (Swains.).

In this genus the bill is compressed and pointed, the depth at the nostrils being about one-third the length of the exposed culmen. The wing is rounded, the fourth, fifth, sixth, seventh, and eighth primaries longest and subequal, the third about equal in length to the secondaries, and the first about half the length of the third. Tail slightly rounded at the tip and about five-sixths the length of the wing. The tarsus exceeds the length of the hind toe and claw by about one-third. Coloration : male and female similar.

568. *Pheugopedius griseigula.*

BRITISH GUIANA WREN.

Thryothorus coraya (nec Gmel.) Cab. in Schomb. Reis. Guian. iii. p. 674, 1848; Sharpe, Cat. B. Brit. Mus. vi. p. 234, 1881 (Bartica Grove); Salvin, Ibis, 1885, p. 201 (Merumé Mts., Roraima, 3500 to 6000 ft.); Queleh, Timehri (2) v. pp. 75, 76, 1891 (Georgetown).

Thryothorus griseigula Lawr. Ann. New York Acad. Sci. ii. p. 282, May 25, 1883 (British Guiana); Brabourne & Chubb, B. S. Amer. i. p. 335, no. 3417, 1912.

Thryothorus ridgwayi Berlepsch, J. f. O. 1889, p. 293 (British Guiana).

Thryothorus berlepschi Brabourne & Chubb, Ann. & Mag. Nat. Hist. (ser. viii.), x. p. 262, 1912.

Thryothorus ituribisciensis Brabourne & Chubb, tom. cit. p. 262.

“Black-faced Wren,” “God-bird,” “Rain-bird” (*Queleh*).

Adult. Crown of head and nape slaty-black; entire back, upper wing-coverts, and outer aspect of the wing dark chestnut; inner webs of flight-quills blackish brown; tail blackish, with pale markings on the edges of the outer webs; a circle of short feathers round the eye; and a line along the sides of the crown

from behind the eye white; lores and sides of the face black, streaked with white on the ear-coverts and hinder face; throat white; breast and abdomen whitish washed with umber-brown; the sides of the body darker umber-brown; under tail-coverts blackish with pale tips to the feathers; under wing-coverts whitish, with buff on the inner edges to the feathers; under surface of quills brown; lower aspect of the tail blackish with pale markings.

Total length 129 mm., exposed culmen 15, wing 61, tail 52, tarsus 22.

The specimen from which the description is taken was collected on the Supenaam River.

Juv. Upper and the under surface for the most part umber-brown; throat and sides of the face dark lead-grey. Tail about half-grown.

This specimen was collected on the Anarika River.

Immature. Brighter umber-brown both above and below. The slate-grey of the throat more restricted. Collected on the Supenaam River.

Immature. This specimen is further advanced, and has the head slaty-black, a white line approaching behind the eye. A few whitish feathers appearing on the throat, and the tail almost fully-grown.

This specimen was collected on the Ituribisi River.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Ituribisi River (type of *T. ituribisiensis*), Supenaam River, Bartica (type of *T. berlepschi*), Kamakabra River, Bonasika River, Anarika River, Great Falls Demerara River, Arawai River (*McConnell collection*); Mount Roraima, Merumé Mountains, Bartica (*Whitely*); Georgetown (*Quelch*).

Habits. Schomburgk states (Reis. Guian. iii. p. 674) that the habits and mode of life of this species, as well as the localities that it frequents, are similar to those of *Leucolepis arada*, p. 365.

Mr. Quelch (Timehri (2) v. pp. 75, 76) observed this species in Georgetown, and remarks:—"The Black-faced Wren (*Thryothorus coraya*) is occasionally to be seen, but it is much less common than the white-bellied species. The Wrens are known among the common people by the name 'God-bird' and 'Rain-bird.'"

Genus **CISTOTHORUS** Cab.

Cistothorus Cabanis, Mus. Hein. i. p. 77 note, 1851. Type *C. stellaris* (Naum.).



Fig. 138.—To illustrate the short bill.

The species that constitute this genus are birds of small size with pointed bills, streaked backs, and barred wings and tails. The bill is about two-thirds the length of the tarsus and the tail about two-thirds the length of the wing. Coloration: male and female alike.

569. *Cistothorus alticola*.

RORAIMA GRASS-WREN.

? *Thryothorus platensis* (nec Lath.) Cab. in Schomb. Reis. Guian. iii. p. 673, 1848.

Cistothorus alticola Salvin & Godman, Ibis, 1883, p. 204 (Roraima); Salvin, op. cit. 1885, p. 202 (Roraima, 3500 ft.); Brabourne & Chubb, B. S. Amer. i. p. 336, no. 3433, 1912.

Adult male (type of the species). General colour above fawn-brown, with white shaft-streaks and blackish margins to the feathers on the back and dark brown cross-bars to the wing- and tail-feathers; the inner webs of the flight-quills hair-brown; sides of face, sides of body, and under tail-coverts fawn-colour; lores and a slightly indicated superciliary streak whitish; throat, breast, and abdomen cream-white, with a tinge of fawn-colour across the breast; axillaries and under wing-coverts silk-white; quills below similar in colour to the inner webs on their upper surface; lower aspect of tail like its upper surface.

Total length 110 mm., exposed culmen 11, wing 44, tail 40, tarsus 16.

Adult female. Similar to the adult male. Wing 41 mm.

This species is not represented in the McConnell collection; the specimens described were collected by the late Henry Whitely at Mount Roraima, and are now in the British Museum, Salvin-Godman collection.

Breeding-season. Unknown.

Nest. It builds its nest on the outside of houses (*Schomburgk*).

Eggs. The eggs are white and four is the usual number of each clutch (*Schomburgk*).

Range confined to British Guiana. Mount Roraima (*Whitely*).

Habits. Schomburgk writes (*Reis. Guian. iii. p. 673*) that this beautiful songster is chiefly found in the vicinity of human dwellings, especially near the settlements of colonists. It builds its nest even on the outside of the houses. Owing to the sweetness of its song it is encouraged by hanging up empty bottles, etc. in the halls and other suitable places, which are very quickly utilised by the bird. The eggs are white, four is the usual number of each clutch, and two or three broods are reared during the year.

Genus **TROGLODYTES** Vieill.

Troglodytes Vieillot, Ois. d'Amér. Sept. ii. p. 52, pl. 107, 1807. Type *T. aedon* (Vieill.).



Fig. 139.—To show the long bill.

The species on which this genus was founded are also small birds with barred wings and tail but no longitudinal streaks on the back, which is uniform or slightly barred. The bill is pointed and compressed, its depth at the base being about one-third the length of the exposed culmen. The wing is rounded, the third, fourth, fifth, and sixth primaries are longest and equal, and the second about equal in length to the eighth. The tail is rounded at the tip and about four-fifths the length of the wing. The tarsus exceeds the length of the exposed culmen by about one-third, and the hind toe and claw are about equal in length to the middle toe and claw. Coloration: male and female alike.

Key to the Species.

- | | |
|--|-----------------------------|
| A. Upper surface greyish brown..... | <i>T. clarus</i> , p. 360. |
| B. Upper surface chocolate-brown | <i>T. rufulus</i> , p. 362. |

570. *Troglodytes clarus*.

VENEZUELAN HOUSE-WREN.

Troglodytes rufulus (nec Cab.) Sharpe, Cat. B. Brit. Mus. vi. p. 258 1881 (Bartica Grove).

Troglodytes furvus Salvin, Ibis, 1885, p. 201 part (Bartica Grove); Lloyd Price, Timehri (2) v. p. 66, 1891 (nest and eggs); Quelch, t. c. p. 74 (Georgetown).

Troglodytes clarus Berl. & Hart. Nov. Zool. ix. p. 8, 1902 (Bartica Grove, British Guiana); Brabourne & Chubb, B. S. Amer. i. p. 337, no. 3443, 1912.

Troglodytes musculus clarus Beebe, Our Search for a Wilderness, pp. 112, 120, 142, 247, 307, 379, 1910 (Georgetown, Hoorie Creek, Aremu River, Abary Savannas).

Adult female. General colour above, including the top of the head, hind-neck, back, scapulars, and wings mouse-brown, barred with dull rufous-brown on the wings; upper tail-coverts rufous; tail rufous-brown barred with black; throat, breast, and abdomen isabelline; flanks and under tail-coverts pale fawn-colour, barred with black on the latter; under wing-coverts silky-white.

Total length 109 mm., exposed culmen 14, wing 52, tail 36, tarsus 20.

The specimen described was collected in the Upper Takutu Mountains in 1908.

Adult male. General colour of the upper parts greyish brown, including the head, back, scapulars, and upper wing-coverts, with obsolete dark bars which are much more bold and contrasting on the outer aspect of the wings; inner webs of flight-quills dark brown with pale inner edges; upper tail-coverts and tail rufous-brown, conspicuously barred with black on the latter; lores, a line over the eye, and sides of the face isabelline-buff more or less intermixed with greyish brown; throat white like the middle of the abdomen, with a wash of pale fawn-colour on the breast, becoming deeper on the sides of the body; under tail-coverts orange-buff barred with black; under wing-coverts buffy-white with dark shaft-streaks to the feathers; under surface of quills brown; lower aspect of tail similar to the upper side but paler in colour.

Total length 111 mm., exposed culmen 12, wing 54, tail 36, tarsus 18.

The description is taken from an example collected on the Abary River in July 1907.

Juv. Differs from the adult described in being much darker on

the upper surface. The distribution of the colour is much the same, but much more minute. Throat and abdomen dull white. Flanks and under tail-coverts orange-buff.

Breeding-season. Unrecorded in British Guiana.

Nest. "Consists of dry sticks and placed under the rafters of inhabited houses" (*H. Lloyd Price*); "they build their little nests in all sorts of places" (*J. J. Quelch*).

Eggs. "Brownish-white, closely speckled with red" (*H. Lloyd Price*).

Range in British Guiana. Upper Takutu Mountains (*McConnell collection*).

Extralimital Range. Venezuela.

Habits. Mr. H. Lloyd Price (*Timehri* (2) v. p. 66), writing on the nests and eggs of some common Guiana birds, remarks:—"A small wren of a brownish-red colour (*Troglodytes furvus*) is frequently to be seen, especially near inhabited houses, under the rafters of which it builds a nest of dry sticks; the eggs are brownish-white, closely speckled with red. This bird has a pleasant warble very uncommon amongst the colonial birds."

Mr. Quelch (*Timehri* (2) v. p. 74) observed this species in Georgetown, and remarks:—"Throughout the town, in the gardens and in the galleries of the houses, the little warbling wrens (*Troglodytes furvus*) are to be heard at all times of the year and at all hours of the day. They are fearless little things, jumping about the window-sills, peering into nooks and crannies careless of the presence of man, and enlivening and cheering with their melodious warblings. They build their little nests in all sorts of places—in the galleries, in the bed-rooms, under the house, along ledges, under the eaves, within empty flower-pots, inside old pipes, and in other odd situations, often approached by apertures to be passed only by small objects like themselves.

"Unfortunately, as a race, they are subjected to the parasitic nesting habits of the Icterine lazy-birds (*Molothrus atro-nitens*), which are often to be seen spying out the homes of the wrens; and the little creatures, in finding out places inaccessible to the larger bodied lazy-birds, often seem to be all alive to the risks of careless building. When the eggs of the parasite are once deposited, the destruction of the brood of wrens is secured, the lazy-birds hatching sooner than the young wrens and causing their displacement.

“The solicitude of the parent wrens for their forced foster-children is almost painful to witness, the large and voracious chicks being at any time but merely excited by the small quantities of food brought, quantities that would be all sufficient for little-bodied wrens. The little foster-parents are thus kept constantly on the move, seeking for moths, spiders, and small insects generally, while the appealing cry of the young lazy-bird is a constant incentive to fresh efforts.”

Beebe (Our Search for a Wilderness, p. 307) writes:—
“Suddenly we hear the sweet, rollicking song of the little House-Wren, man’s follower, filling the deserted glade with sweetness.”

571. *Troglodytes rufulus*.

SCHOMBURGK’S HOUSE-WREN.

Troglodytes rufulus Cab. in Schomb. Reis. Guian. iii. p. 672, 1848 (Mount Roraima); Brabourne & Chubb, B. S. Amer. i. p. 338, no. 3449, 1912.

Thryothorus rufulus Salvin, Ibis, 1885, p. 201 (Mt. Roraima, 5000–6000 feet).

Adult. General colour of the upper surface chocolate-brown including the top of the head, sides of the face, sides of neck, hind-neck, entire back, wings, and tail; outer webs of flight-quills narrow barred with blackish, the inner webs uniform blackish brown; tail also narrowly barred with blackish; a pale chestnut line above the eye which extends backward along the sides of the crown; throat and lower cheeks also pale chestnut or dark fawn-colour; middle of fore-neck and breast inclining to whitish; sides of body, thighs, and under tail-coverts similar to the upper surface; axillaries and under wing-coverts cinnamon; under surface of flight-quills greyish brown; lower aspect of tail similar to its upper surface.

Total length 118 mm., exposed culmen 10, wing 58, tail 40, tarsus 24.

There are three examples of this species in the McConnell collection, but without any data whatever to either. I am strongly of opinion, however, that they were collected at Mount Roraima during Mr. McConnell’s expedition in October 1898, as the skins are made up so exactly like the many others that were collected at that time.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima? (*McConnell collection*); Mount Roraima, 5000 to 6000 feet (*Whitely*).

Habits. Schomburgk states (*Reis. Guian. iii. p. 672*) that he obtained this bird in the dense woods in the neighbourhood of Mount Roraima, where it frequented the ground and low bush.

The "Arekunas" called it *Kamarasikarore*.

Genus **HENICORHINA** ScL. & Salv.

Henicorhina Sclater & Salvin, P. Z. S. 1868, p. 170. Type *H. leucosticta* (Cab.).



Fig. 140.—To show the length of tail in comparison to the wing.

This genus is distinguished by its slender and almost straight bill which is comparatively long, and the nostrils are feathered on the posterior portion. The wing is rounded, the fourth and fifth primaries longest, the exposed portion of the first primary about equal to the length of the tarsus. The tail is rounded at the tip and about three-sevenths the length of the wing. The tarsus is about one-third longer than the exposed culmen. Coloration: male and female similar.

572. *Henicorhina leucosticta*.

CABANIS'S BLACK-CAPPED WREN.

Cyphorhinus leucosticta Cab. Arch. für Naturg. 1847, p. 206 (Guiana); id. in Schomb. Reis. Guian. iii. p. 673, 1848.

Henicorhina leucosticta Sharpe, Cat. B. Brit. Mus. vi. p. 287, 1881 (Bartica Grove); Salvin, Ibis, 1885, p. 200 (Merumé Mts., Camacusa); Brabourne & Chubb, B. S. Amer. i. p. 338, no. 3455, 1912.

Adult. Crown of head, sides of face, and hind-neck black with

a white supraloral streak which is continued over the eye and backward along the sides of the crown on to the sides of the neck ; sides of the face also black with white shaft-lines to the feathers which terminate in a pear-shaped mark ; back, wings, and tail chestnut, outer webs of flight-quills and tail-feathers barred with black ; bastard-wing and outer edge of wing black marked with white ; inner webs of flight-quills blackish, paler on the inner edges : throat and middle of breast white becoming slate-grey on the sides of the latter ; flanks, abdomen, and under tail-coverts chestnut ; under wing-coverts and quill-lining dark brown.

Total length 93 mm., exposed culmen 13, wing 56, tail 26, tarsus 22.

The specimen from which the description is taken was collected at Bartica Grove.

Adult female. Similar to the adult male. Wing 54 mm.

Immature male. Differs from the adult in having the top of the head like the back and the white on the under surface more restricted.

The young male was collected on the Makauria River in August 1910.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Bonasika River, Makauria River, Tiger Creek, Arawai River (*McConnell*) ; Merumé Mountains, Kamakusa (*Whitely*).

Extralimital Range. Colombia.

Habits. According to Schomburgk (*Reis. Guian.* iii. p. 673) the habits and mode of life and the localities frequented by this bird are similar to those of *Leucolepis arada*, p. 365.

Genus **LEUCOLEPIS** Reichenb.

Leucolepis Reichenb. Avium Syst. Nat. pl. lvii. March 1850. Type
L. musica (Bodd.).

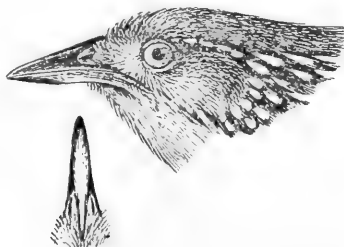


Fig. 141.—To show the peculiar formation of the bill.

This genus is distinguished by the compressed bill and sharply ridged culmen; the height at the nostrils slightly exceeds the width. The wing is rounded, the fourth, fifth, and sixth primaries longest and about equal, the third about equal to the seventh, the second about equal to the ninth, and the exposed first primary about equal in length to the tarsus. The tail is rounded at the tip and about half the length of the wing. The tarsus is about one-fourth longer than the exposed culmen. Coloration: male and female similar.

573. *Leucolepis arada*.

MUSICAL WREN.

Myrmornis arada Herm. Tab. Affin. Anim. p. 211, note 1783.

Formicarius musicus Bodd. Tabl. Pl. Enl. p. 44, 1783 (Cayenne).

Cyphorhinus cantans Cab. in Schomb. Reis. Guian. iii. p. 673, 1848
(Upper Pomeroon and Wenamu Rivers).

Cyphorhinus musicus Sharpe, Cat. B. Brit. Mus. vi. p. 290, 1881
(British Guiana); Salvin, Ibis, 1885, p. 200 (Merumé Mts.,
Camacusa, Atapurau River); W. L. Sclater, Ibis, 1887, p. 318
(Maccasseema, Pomeroon River).

Leucolepia musica Beebe, Our Search for a Wilderness, pp. 188, 309,
310, 321, 330, 1910 (Hoorie Creek, Arimu River); Brabourne &
Chubb, B. S. Amer. i. p. 339, no. 3462, 1912; Beebe, Trop. Wild
Life in British Guiana, p. 233, 1917.

Leucolepis arada Stresem. Nov. Zool. xxvii. p. 329, 1920.

“Necklaced Jungle Wren” or “Quadrille-bird” (Beebe).

Adult male. General colour of the upper surface rust-brown including the back, wings, and tail, the wings and tail barred with black; a black collar on the hind-neck, with ovate white spots to the feathers, which are more profuse on the sides of the neck;

hinder crown and nape somewhat more rufous than the back; fore part of head deep rufous; sides of face and throat ferruginous; the feathers towards the sides of neck slightly fringed with black; middle of breast and middle abdomen whitish; sides of body dusky-brown; thighs, under tail-coverts, and under wing-coverts pale ferruginous; under surface of flight-quills pale brown; lower aspect of tail similar but rather darker than above.

Total length 113 mm., exposed culmen 14, wing 65, tail 35, tarsus 21.

The specimen from which the description is taken was collected on the Kamakabra River in 1911.

Adult female. Similar to the adult male but everywhere paler. Wing 60 mm.

Breeding-season. July (*Beebe*).

Nest. "Composed almost entirely of leaf skeletons, bound tightly together with fine fibres and a few blades of coarse grass. The entrance passage was quite large and opened upon the small inner cavity near the top" (*Beebe*).

Eggs. "Pure white with very little gloss. Dimensions 22 x 15.5 mm." (*Beebe*).

Range in British Guiana. Mount Roraima, Mazaruni River, Ituribisi River, Supenaam River, Bartica, Kamakabra River, Makauria River, Arawai River (*McConnell collection*); Upper Pomeroun and Wenamu Rivers (*Schomburgk*); Maccasseema, Pomeroun River (*W. L. Sclater*); Merumé Mountains, Kamakusa, Kamarang River (*Whitely*); Aremu and Hoorie Rivers (*Beebe*).

Extralimital Range. Surinam (*Bartlett*), Cayenne (*Boddaert*), North Brazil.

Habits. In regard to this species Schomburgk (*Reis. Guian. iii. p. 673*) makes the following remarks:—This "the tropics" magnificent songster was met by him most frequently in the dense coast woods, especially on the Upper Pomeroun River and its tributaries. He and his brother met with it near the River Wenamu, a tributary of the Upper Cuyuni, at an altitude of three thousand feet. This beautiful bird commences to sing immediately at sunrise but appears to be perfectly silent during the day. It lives in flocks and during the day flies from bush to bush, but never more than one or two feet from the ground, in search of food; it hops about also on the ground for the same purpose. Its food consists of insects and berries. Its nidification was unknown to him.

The following notes are quoted from Beebe (Our Search for a Wilderness, p. 310):—"The Necklaced Jungle Wren, or Quadrille-bird as the natives know it, is a true Wren, barely four inches in length, brown above, with a black collar spangled with white. The face, throat, and breast are rich rufous, with the lower parts pale brown. This is the singer. The song no man may describe."

Id. t. c. p. 330:—"Two of the Jungle Wrens or Quadrille-birds sang their incomparable strains, each with a theme of its own. There is absolutely no other bird song with which to compare it. The timbre, when heard at a distance, is that of the Wood-Thrush quality—sweet, liquid, and altogether ethereal."

The following notes are quoted from Beebe (Tropical Wild Life in British Guiana, p. 233):—"I placed my hand against a small sapling to steady myself, while watching further developments, and carelessly gave it a little shake. The flash of a tiny pair of wings almost in my face was the result, and the view of a little brown bird as it rapidly disappeared into the undergrowth. I looked at the sapling and saw a small bundle of leaves resting upon a small branch about four feet from the ground. It had passed unnoticed in the excitement of watching the parrot and the monkey. Then from the bushes came a few cheerful notes from the most wonderful musical instrument of all, the throat of the Quadrille-bird, and I felt that I had really discovered something worth while.

"As my hiding place was too close to the nest, I chose another position and sat down to await what would happen. From behind a friendly screening bush the nest looked like a leafy vase held by a twist of the funnel-shaped neck over a supporting branch. The wily little bird was fully two hours in making up its mind to enter its curious home, but it could be seen dodging in and out among the bushes close by, always too wary to take any chances while the enemy was about. It did not scold as they usually do, but every few minutes burst into song as if thus to find a vent for its increasing excitement. Finally, about noon, when a heavy shower of rain commenced, it entered to protect the eggs from a wetting.

"The nest was composed almost entirely of leaf skeletons, bound tightly together with a fine fibres and a few blades of coarse grass. The entrance passage was quite large and opened upon the small

inner cavity near the top. The cavity in which the eggs lay was lined with several big feathers of the large Guiana great tinamou and the Guiana Partridge. The whole structure was very compact and neatly put together, the leaf veins giving it a very strange appearance.

“The two fresh eggs were pure white with little gloss. Their dimensions were 22×15.5 mm.

“The nest was found on July 5, at the height of the great rainy season. I think it probable that they nest twice a year, as several newly vacated nests, apparently of this species, were found during March.”

Genus **MICROCERCULUS** Baird.

Microcerculus Baird, Review Amer. Birds, p. 113, 1864. Type *M. bambla* (Boddaert).

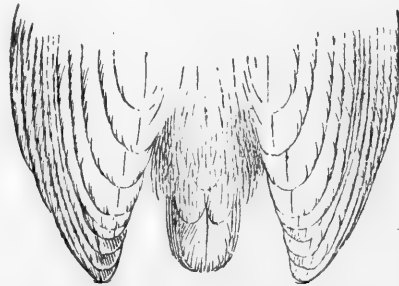


Fig. 142.—To show the length of wings in comparison with the tail.

In this genus the bill is proportionately long, somewhat depressed at the base, and the exposed culmen about equal in length to the hind toe and claw. The wing is rounded, the fourth, fifth, and sixth primaries longest, the third about equal to the seventh, the second about equal in length to the outer secondaries, and the exposed first primary about equal in length to the tarsus. The tail is rounded at the tip and rather more than one-third the length of the wing. The tarsus is nearly one-third longer than the exposed culmen. Coloration: male and female similar.

Key to the Species.

- A. Greater upper wing-coverts subterminally barred with white in contrast with the rest of the plumage..... *M. bambla*, p. 369.
 B. No white bar on the greater upper wing-coverts, which are uniform with the rest of the plumage..... *M. ustulatus*, p. 370.

574. *Microcerculus bambla*.

WHITE-BANDED WREN.

Formicarius bambla Bodd. Tabl. Enl. p. 44, 1783 (Cayenne).

Microcerculus bambla Sharpe, Cat. B. Brit. Mus. vi. p. 296, 1881 (Bartica Grove); Salvin, Ibis, 1885, p. 200 (Meruné Mts., Camascusa); Brabourne & Chubb, B. S. Amer. i. p. 339, no. 3469, 1912.

Adult male. General colour above rufous-brown, including the head, back, upper tail-coverts, and lesser upper wing-coverts, the feathers marked with black which assumes the form of spots, edgings, or bars; greater upper wing-coverts black, with a sub-terminal band of white; bastard-wing, primary-coverts, and flight-quills also black, with rather pale edgings to the inner webs; tail also blackish with traces of obsolete cross-bars; sides of face rufous-brown; throat ash-grey becoming darker on the breast and abdomen, and chestnut on the lower flanks, thighs, and under tail-coverts, the whole of the under parts barred with blackish which imparts a more or less waved appearance; under surface of quills and lower aspect of tail dusky brown.

Total length 104 mm., exposed culmen 15, wing 61, tail 25, tarsus 22.

The specimen described was collected on the Bonasika River in 1911.

Adult female. Differs from the adult male in being greyish white on the throat and the feathers on the breast and abdomen less distinctly marked. It is also rather smaller in measurements. Wing 55 mm.

The female described was collected on the Quibarroo Creek.

Immature birds are similar to the adult on the upper surface, with rather bolder markings and pale edgings to the median upper wing-coverts. Under surface paler and more strongly barred.

The immature bird described was collected at Bartica in 1911.

Another specimen, which I take to be a female, has the throat white and the feathers on the breast and abdomen margined with white. Wing 55 mm.

This bird was collected on the Ituribisi River in February 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Quibarroo River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Makauria River, Arweye River, Tiger Creek (*McConnell collection*); Merumé Mountains, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Cayenne (*Boddaert*).

Habits. Unrecorded in British Guiana.

575. *Microcerculus ustulatus*.

RORAIMA SCALY-BREASTED WREN.

Microcerculus ustulatus Salvin & Godman, *Ibis*, 1883, p. 204, pl. ix. fig. 2 (Roraima, 3500-5000 ft.); Salvin, *Ibis*, 1885, p. 200; Brabourne & Chubb, *B. S. Amer. i.* p. 340, no. 3477, 1912.

Adult. Head, back, scapulars, and upper wing-coverts chocolate-brown; flight-quills and tail blackish; chin and throat cinnamon-brown, remainder of the under surface including the under wing-coverts coffee-brown; under surface of flight-quills blackish brown like the lower aspect of the tail.

Total length 105 mm., exposed culmen 12, wing 55, tail 28, tarsus 22.

The specimen from which the description is taken was collected at Roraima by Mr. McConnell in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Unrecorded.

Family MIMIDÆ.

This family is represented in South America by three genera, and at the time when Brabourne and Chubb published their 'List of the Birds of South America,' eighteen species. One genus and one species occur in British Guiana.

Genus **MIMUS** Boie.

Mimus Boie, Isis, 1826, p. 972. Type *M. polyglottus* (Linn.).



Fig. 143.—To illustrate the shape of the bill.

One of the chief characters in this genus is that the tail is usually longer than the wing. The bill is decurved at the tip and slightly hooked. The wing is rounded, the third, fourth, fifth, and sixth primaries are longest and subequal, the second is shorter than the seventh but longer than the eighth. The tail is rounded at the tip and rather longer than the wing. The tarsus is about twice the length of the exposed culmen, and the middle toe and claw five-sixths the length of the tarsus. Coloration: male and female similar.

576. *Mimus gilvus*.

GRACEFUL MOCKING-BIRD.

Turdus gilvus Vieill. Ois. Amér. Sept. ii. p. 15, pl. 68 bis, 1807 (Guiana).

Mimus gilvus Sharpe, Cat. B. Brit. Mus. vi. p. 350, 1881 (British Guiana); Salvin, Ibis, 1885, p. 199 (Roraima, 2700-3700 ft.); Brabourne & Chubb, B. S. Amer. i. p. 341, no. 3491, 1912.

Adult female. Crown of head, back, scapulars, and upper tail-coverts with dark shaft-lines to the feathers on the head; upper wing-coverts similar to the back but somewhat darker; median and greater series dark brown, with pale edges to the feathers like the innermost secondaries; bastard-wing, primary-coverts, and

flight-quills blackish with pale edges to the inner and a portion of the outer webs of the last ; tail also blackish, all except the two middle feathers tipped with white, which increases in extent towards the outermost, which is edged with white—the whole length on the outer web (the portion of the white and dark patterns meet) is smoke-colour ; a whitish supraloral streak, which is continued over the eye where it is more pronounced ; lores blackish ; ear-coverts pale brown, fore part of cheeks and throat white, like the abdomen and under tail-coverts ; lower throat and breast pale grey, like the axillaries and sides of the body ; under wing-coverts white more or less intermixed with brown ; basal portion of quills below isabelline, the remainder blackish ; lower aspect of tail greyish brown with white tips to the feathers.

Total length 249 mm., exposed culmen 16, wing 109, tail 112, tarsus 35.

The specimen described was collected on the Abary River in September 1906.

Adult male. Similar to the adult female but *rather larger*. Wing 115 mm.

Young. Differs from the adult in the absence of the shaft-streaks on the head, in having the back and upper tail-coverts ochreous-buff instead of ash-grey, with indications of dark shaft-lines ; under surface white, with dark shaft-lines to the feathers on the lower throat and breast, which is tinged with isabelline.

The young bird described was collected on the Upper Takutu Mountains in 1908.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Upper Takutu Mountains, Mazaruni River, Abary River (*McConnell collection*) ; Mount Roraima (*Whitely*).

Extralimital Range. North Brazil.

Habits. Unrecorded in British Guiana.

Genus **DONACOBIUS** Swains.

Donacobius Swainson, Zool. Illustr. (2nd ser.) ii. pl. 72, 1830. Type
D. atricapillus (Linn.).

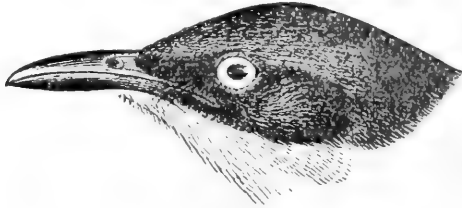


Fig. 144.—To show the form of the bill and nostrils.

In this genus the bill is long, decurved and somewhat hooked at the tip, the depth at the posterior portion of the nostrils is about equal to the width, and the nostrils are exposed and oval in shape. The wing is rounded, the fourth, fifth, and sixth primaries are longest and equal, the third about equal to the seventh, and the second about equal in length to the secondaries. The tail is long and graduated, the outer feather on each side being about three-sevenths the length of the middle ones. The tarsus is about one-third longer than the exposed culmen, which is about equal in length to the middle toe without the claw. Coloration: male and female similar.

577. *Donacobius atricapillus*.

BLACK-CAPPED MOCKING-THRUSH.

Turdus atricapilla Linn. Nat. i. p. 295, 1766 (Brazil).

Donacobius atricapillus Cab. in Schomb. Reis. Guian. iii. p. 674, 1848; Sharpe, Cat. B. Brit. Mus. vi. p. 364, 1881; Salvin, Ibis, 1885, p. 199; Beebe, Our Search for a Wilderness, p. 376, 1910 (Abary Savannas); Brabourne & Chubb, B. S. Amer. i. p. 342, no. 3498, 1912.

Adult male. Crown of head, sides of face, and hind-neck black; back, scapulars, upper wing-coverts, and flight-quills coffee-brown, rather darker on the last; paler and more umber-brown on the lower back, rump, and upper tail-coverts; base of primary and outer secondary quills white, which graduates and becomes much less in extent on the outermost primary; tail blackish tipped with white, the outermost feather on each side entirely

white, the following one blackish only at the base; throat and remainder of the under surface fulvescent buff, with dark narrow bars on the sides of the body like the axillaries and lesser under wing-coverts, the greater series of the last dark brown like the under surface of the quills; a large patch of white on the basal portion of the quill-lining; lower aspect of tail black in the middle bordered with white.

Total length 225 mm., exposed culmen 21, wing 82, tail 96, tarsus 36.

The male described was collected on the Demerara River.

Adult female. Similar to the adult male but rather smaller. Wing 77 mm., tail 89.

The female described was collected on the Abary River in October 1888.

A young bird from the Ituribisi River differs from the adult in having the upper wing-coverts and innermost secondaries fringed with rufous, an inclination to rufous on the base of the forehead, a white postocular streak, the ear-coverts brown with glossy shaft-streaks, the throat almost white, and in the absence of the dark bars on the sides of the body.

Breeding-season. Unknown in British Guiana.

Nest. Its nest is placed in a clump of coarse grass (*Schomburgk*).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Bonasika River, Abary River, Demerara River (*McConnell collection*); Abary Savannas (*Beebe*).

Extralimital Range. Venezuela, Colombia, Peru, Bolivia, Central and Eastern Brazil.

Habits. Concerning this bird Schomburgk (*Reis. Guian. ii. p. 484*) writes:—"Is most peculiar in its habits, for as soon as it sees a human being it makes a crackling note, not unlike that of the Reed-Bunting of Europe, and immediately all the other individuals of the same species come rushing to it and join in making the same sound, flying up and down the bushes in great excitement, but as soon as the intruder is out of sight every bird returns to its own domain and all is peace once more."

Schomburgk states (*Reis. Guian. iii. p. 674*) that he only met this species near the coast, where it frequents the boggy lands with reed-like grass mixed with bushes. Its nest is placed in a clump of coarse grass. The "Macusis" call it *Mariracking*.

The following note has been copied from Beebe (Our Search for a Wilderness, p. 40):—"Later, when standing at edge of an impenetrable tangle of thorny vines and vainly trying to discover what bird was singing in loud, ringing tones within it, we thought of the fierce little owl, and concealing ourselves, gave the call of *Glaucidium*: the effect was instantaneous; the song near us ceased, and with angry cries a pair of beautiful Black-capped Mocking Thrushes (*Donacobius atricapillus*) flew almost overhead."

Family TURDIDÆ.

This family, which is almost world-wide in its distribution, is represented by nine genera in South America, and when Brabourne and Chubb published their 'List of the Birds of South America' there were sixty species. Four of the genera and eleven of the species are represented in British Guiana, and three others have been added to the Colony since.

Genus **PLATYCICHLA** Baird.

Platycichla Baird, Review Amer. B. p. 32, 1864. Type *P. brevipes* Baird.



Fig. 145.—To illustrate the shape of the bill and nostrils.

In this genus the bill is depressed laterally at the base, the width at the gape being about three-fourths the length of the exposed culmen; the nostrils are oval and feathered on the posterior portion. The wing is rounded, the third, fourth, and fifth primary-quills longest and equal, the second slightly shorter than the sixth, and the first about one-seventh the length of the second. The tail is nearly square at the tip and about three-fourths the length of the wing. The tarsus exceeds the length of the exposed

culmen by about one-third, and the middle toe and claw are about equal in length to the tarsus. Coloration : male and female different.

578. *Platycichla venezuelensis*.

VENEZUELAN GREY OUZEL.

Merula carbonaria (nec Licht.) Seebohm, Cat. B. Brit. Mus. v. p. 253, 1881.

Turdus flavipes (nec Vieill.) Salvin, Ibis, 1885, p. 198 (Roraima, 3500-6000 ft.).

Platycichla venezuelensis Sharpe in Seebohm's Monogr. Turdidæ, ii. p. 83, 1900; Brabourne & Chubb, B. S. Amer. i. p. 342, no. 3501, 1912.

Adult male. Head, neck all round, mantle, wings, and tail black like the throat, breast, thighs, and under wing-coverts; back, scapulars, marginal upper wing-coverts, upper tail-coverts, sides of the body, abdomen, and under tail-coverts dark slate-grey.

Total length 224 mm., exposed culmen 17, wing 109, tail 88, tarsus 26, middle toe and claw 25.

Adult female. General colour above olive-brown, including the top of the head, sides of the face, entire back, outer aspect of wings, and tail, with a tinge of grey on the wings and upper tail-coverts; throat, breast, sides of body, and under tail-coverts ochreous-brown, with dark shaft-streaks to the feathers on the throat and inclining to slate-grey on the abdomen; under wing-coverts and axillaries orange-buff. Wing 115 mm.

This species is not represented in the McConnell collection, and the specimens described are in the British Museum and were collected at Mount Roraima, 3500 ft., by Henry Whitely in January 1884—Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*Whitely*).

Extralimital Range. Venezuela, Trinidad.

Habits. Unrecorded in British Guiana.

Genus **CICHLOPSIS** Cab.

Cichlopsis Cabanis, Mus. Hein. i. p. 54, 1850. Type *C. leucogenys* (Cab.).



Fig. 146.—To show the shape of the bill.

In this genus the bill is depressed at the base, where the width is about three-fourths the length of the exposed culmen, and the upper mandible is slightly hooked. The wing is rounded, the third and fourth primaries longest and subequal, the second intermediate in length between the sixth and seventh, and the first about one-third the length of the second. The tail is rounded at the tip and rather more than three-fourths the length of the wing, and the middle toe without the claw about three-fourths the length of the tarsus. Coloration: male and female similar, but less bright.

579. *Cichlopsis gularis*.

ORANGE-BROWN SOLITAIRE.

Cichlopsis gularis Salvin & Godman, Ibis, 1882, p. 76 (Merumé Mountains); Sharpe, Cat. B. Brit. Mus. vi. p. 378, 1881; Salvin, Ibis, 1885, p. 199 (Roraima, 3500 ft.); Brabourne & Chubb, B. S. Amer. i. p. 343, no. 3504, 1912.

Adult. General colour above dark rufous-brown, including the top of the head, back, wings, and tail, with rufous edgings to the tips of the greater upper wing-coverts; inner webs of flight-quills blackish, margined with pale rufous; tail rather paler than the back; sides of the face similar to the crown of the head; chin and throat pale rufous; fore-neck rust-brown; abdomen greyish white; sides of body dusky-brown; flanks ochreous; under tail-coverts pale cinnamon; axillaries white; under wing-coverts greyish, the greater series brown; inner edges of quills below pale cinnamon-rufous, dark brown on the remainder; lower aspect of tail dull rufous.

Total length 194 mm., exposed culmen 13, wing 103, tail 85, tarsus 23.

The specimen described was collected by Mr. McConnell during his expedition to Mount Roraima in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Merumé Mountains, Mount Roraima (*Whitely*).

Habits. Unrecorded.

Genus **PLANESTICUS** Bonap.

Planesticus Bonaparte, Compt. Rend. xxxviii. p. 3, 1854. Type *P. jamaicensis* (Gmel.).



Fig. 147.—To illustrate the shape of the bill.

The species on which this genus was founded is of medium size. The bill is somewhat short and compressed, and slightly hooked at the tip of the upper mandible. The wing is rounded, the third, fourth, fifth, and sixth primaries are longest and subequal, the second is slightly shorter than the seventh, and the first less than one-fourth the length of the second. The tail is square at the tip and about three-fourths the length of the wing, and the tarsus exceeds by about one-fourth the length of the exposed culmen. Coloration: male and female similar.

Key to the Species.

- | | |
|--|--------------------------------|
| A. Crown of head black in contrast to the back. | |
| <i>a.</i> Entire back and upper tail-coverts slate-grey | <i>P. leucops</i> , p. 379 |
| <i>b.</i> Entire back and upper tail-coverts dark bronze-brown | <i>P. roraimæ</i> , p. 380. |
| B. Crown of head uniform or similar in colour to the back. | |
| <i>c.</i> Under wing-coverts orange-rufous. | |
| <i>a'</i> . Back ochreous-brown | <i>P. fredericki</i> , p. 381. |
| <i>b'</i> . Back olive-grey | <i>P. albiventer</i> , p. 382. |

- d.* Under wing-coverts dull rufous..... *P. fumigatus abariensis*,
[p. 382.]
- e.* Under wing-coverts buff..... *P. gymnophthalmus*, p. 383.
- f.* Under wing-coverts pale buff or buffy white.
- c'.* Larger, wing more than 110 mm., tail more than 90 *P. murinus*, p. 384.
- d'.* Smaller, wing less than 110 mm., tail less than 90 *P. arthuri*, p. 385.
- g.* Under wing-coverts grey like the sides of the body *P. phæopygus*, p. 386.

580. *Planesticus leucops*.

TACZANOWSKI'S BLACK OUZEL.

Turdus leucops Taczanowski, P. Z. S. 1877, p. 331 (Ropobamba and Tambillo, North Peru); Salvin, Ibis, 1885, p. 199 (Merume Mts., Roraima).

Merula leucops Seebohm, Cat. B. Brit. Mus. v. p. 241, 1881.

Planesticus leucops Brabourne & Chubb, B. S. Amer. i. p. 344, no. 3511, 1912.

Adult male. General colour, both on the upper and under surface, black with a steel-blue gloss.

Total length 224 mm., exposed culmen 19, wing 112, tail 84, tarsus 26, middle toe and claw 24.

Adult female. General colour of the upper surface olive-brown, including the head, back, upper tail-coverts, scapulars, and upper wing-coverts; inner webs of primary and secondary quills rather paler; sides of face and ear-coverts like the back; throat streaked with brown and dull white; breast, thighs, and sides of body olive-brown, but much paler than the back; middle of abdomen and under tail-coverts white; axillaries and under wing-coverts orange-buff; flight-quills below greyish brown, slightly washed with buff on the inner edges; lower aspect of tail greyish brown.

Total length 214 mm., exposed culmen 18, wing 111, tail 87, tarsus 27.

This species is not represented in the McConnell collection, and the specimens described are in the British Museum. The male is from the Kamarang River and the female from Mount Roraima—Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Merumé Mountains, Kamarang River (*Whitely*).

Extralimital Range. Colombia, Ecuador, Peru.

Habits. Unrecorded in British Guiana.

581. *Planesticus roraimæ*.

RORAIMA OUZEL.

Turdus roraimæ Salvin & Godman, *Ibis*, 1884, p. 443 (Roraima, 5000-6000 ft.); Salvin, *op. cit.* 1885, p. 198.

Merula roraimæ Sharpe, *Hand-List of Birds*, iv. p. 120, 1903.

Planesticus roraimæ Brabourne & Chubb, *B. S. Amer.* i. p. 344, no. 3513, 1912.

Adult male. Crown of head, sides of face, and throat black; entire back, upper tail-coverts, scapulars, and upper wing-coverts dark olive-brown; flight-quills and tail-feathers dark smoke-brown; breast, abdomen, sides of the body, thighs, axillaries, and under wing-coverts ochreous-brown, paler and inclining to buff on the middle of the abdomen; under tail-coverts dark olive-brown with pale tips to the feathers.

Total length 240 mm., exposed culmen 21, wing 124, tail 95, tarsus 34.

The above description is taken from the type in the British Museum, which was collected by Whitely on Mount Roraima, 6000 ft., August 22, 1883—Salvin-Godman collection.

Adult female. Entire back, from the lower hind-neck and including the upper tail-coverts, scapulars, and upper wing-coverts dusky olive-brown; bastard-wing, primary-coverts, flight-quills, and tail-feathers dark smoke-brown, more or less olive on the outer aspect of the wing and margins of the tail-feathers; head and sides of the face deep black, with long filo-plumes to the feathers on the nape; throat, fore-neck, sides of neck, and upper breast dusky olive-brown, with longitudinal black streaks on the throat; breast, abdomen, and sides of the body buff, tinged with olive like the axillaries and under wing-coverts; under tail-coverts dusky-brown more or less intermixed with buff; under surface of flight-quills and lower aspect of tail dark brown.

Total length 235 mm., exposed culmen 21, wing 122, tail 96, tarsus 31.





1. *Planesticus fredericki*.
Frederick's Sabian Thrush.

2. *Planesticus arthuri*.
Arthur's Thrush.

This specimen was collected at Mount Roraima by Mr. McConnell during his expedition there in 1898.

The young male differs chiefly in having the chin, throat, and breast spotted with black, and the upper wing-coverts tipped with rufous.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Unrecorded.

582. *Planesticus fredericki*.

FREDERICK'S SABIAN THRUSH.

(Plate V. fig. 1.)

Turdus fumigatus (nec Licht.) Cab. in Schomb. Reis. Guian. iii. p. 665, 1848; Seebohm, Cat. B. Brit. Mus. v. p. 216, 1881; Seebohm, Cat. B. Brit. Mus. v. p. 216 (part), 1881; Salvin, Ibis, 1885, p. 198 (Bartica Grove, Camacusa).

Planesticus fumigatus Brabourne & Chubb, B. S. Amer. i. p. 346, no. 3536 (part), 1912; Beebe, Tropical Life in British Guiana, p. 135, 1917 (Bartica).

Planesticus fredericki Chubb, Bull. Brit. Ornith. Club, xxxviii. p. 53, April 2, 1918 (Bartica).

Adult. General colour, both above and below, ochreous, paler on the under surface; inner webs of flight-quills blackish with rufous inner margins; throat more or less streaked with white; axillaries and under wing-coverts dull cinnamon-rufous; flight-quills below hair-brown with rufous inner edgings; lower aspect of tail paler than on the upper surface.

Total length 217 mm., exposed culmen 17, wing 120, tail 93, tarsus 31.

The specimen from which the description is taken was collected on the Abary River in September 1906.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica (*McConnell collection*); Georgetown (*Quelch*); Bartica, Kamakusa (*Whitely*); Bartica (*Beebe*).

Habits. According to Schomburgk (Reis. Guian. iii. p. 665) this species is distributed in the woods throughout the whole of British Guiana. Its habits and mode of life are similar to those of its congeners in Europe. Schomburgk states that he always found it singly either on the ground or in the low bush.

Mr. J. J. Quelch (Timehri (2) v. p. 72) states that this species is only seen occasionally in Georgetown.

583. *Planesticus fumigatus abariensis*.

ABARY SABIAN THRUSH.

Planesticus fumigatus abariensis Chubb, Bull. Brit. Ornith. Club, xxxviii. p. 53, April 2, 1918 (Abury River).

Adult. Crown of head, sides of face, back, wings, and tail chocolate-brown; breast, abdomen, sides of body, and under tail-coverts dull umber-brown; axillaries and under wing-coverts dull rufous.

Total length 214 mm., exposed culmen 18, wing 120, tail 92, tarsus 33.

The description is taken from the type in the McConnell collection, which was collected on the Abury River in 1906.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Abury River (McConnell collection).

Habits. Similar to those of *P. fredericki*.

584. *Planesticus albiventer*.

SPIX'S THRUSH.

Turdus albiventer Spix, Av. Bras. i. p. 70, pl. lxix. fig. 1, 1824 (Minas Geraes et Pará); Cab. in Schomb. Reis. Guian. iii. p. 666, 1848; Seebohm, Cat. B. Brit. Mus. v. p. 216, 1881.

Turdus albiventris Salvin, Ibis, 1885, p. 198 (Roraima, 3000–4000 ft.).

Planesticus albiventer Beebe, Our Search for a Wilderness, p. 116, 1910 (Georgetown); Brabourne & Chubb, B. S. Amer. i. p. 346, no. 3538, 1912; Beebe, Tropical Wild Life in British Guiana, p. 135, 1917 (Bartica).

Adult male. General colour of the upper surface bistre-brown, rather darker and more dusky on the head; inner webs of flight-

quills dark brown, paler on the inner edges; ear-coverts pale brown with paler shaft-streaks to the feathers; breast, abdomen, and sides of the body pale earth-grey, or dusky-grey; throat broadly streaked with white; vent and under tail-coverts white, the feathers more or less marked with pale brown; axillaries, under wing-coverts, and inner edges of quills bright rufous.

Total length 215 mm., exposed culmen 17, wing 115, tail 91, tarsus 29.

Adult female. Similar to the adult male. Wing 115 mm.

The male and female described were collected on the Demerara River.

A young bird, collected on the Ituribisi River, differs from the adult on the upper parts in having pale shaft-streaks to the feathers on the back, upper wing-coverts, and sides of the hinder crown; it differs on the under parts in having the throat dull white, the breast and abdomen whitish spotted with brown and tinged with pale rufous.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Bartica, Abary River, Demerara River (*McConnell collection*); Georgetown and Bartica (*Beebe*); Annai, May 13, 1890 (*Whitely*); Georgetown (*Quelch*).

Extralimital Range. Venezuela, Colombia, Eastern Brazil.

Habits. Quelch states (*Timehri* (2) v. p. 72) that this species is extremely common in Georgetown.

585. *Planesticus gymnophthalmus*.

BARE-EYED THRUSH.

Turdus gymnophthalmus Cabanis in Schomb. Reis. Guian. iii. p. 665, 1848; Seebohm, Cat. B. Brit. Mus. v. p. 212, 1881; Salvin, Ibis, 1885, p. 198 (Roraima, 3500 ft.).

Planesticus gymnophthalmus Brabourne & Chubb, B. S. Amer. i. p. 245, no. 3528, 1912.

Almost adult male. General colour of the upper surface olive including the top of the head, sides of the face, entire back, wings, and tail; some of the upper wing-coverts are slightly tipped with buff; inner webs of flight-quills hair-brown with buffy-white

inner margins ; a naked space round the eye ; throat dull white streaked with brown ; breast, sides of the body, and thighs ochreous-brown ; middle of abdomen and under tail-coverts white ; axillaries and under wing-coverts buff ; under surface of flight-quills greyish brown with pale buff margins ; lower aspect of tail greyish brown. " Bill pale yellow above and below, darker at the base of both mandibles ; legs, feet, and claws brown " (Cat. B. Brit. Mus.).

Total length 229 mm., exposed culmen 17, wing 119, tail 94, tarsus 32.

Adult female. Similar to the adult male. Wing 118 mm.

This species is not represented in the McConnell collection, and the specimens described were collected by the late Henry Whitely at Quonga in 1887 and are now in the British Museum, Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima and Quonga (*Whitely*).

Extralimital Range. Trinidad, Tobago, Venezuela, Colombia, Ecuador, North Brazil.

Habits. Unrecorded in British Guiana.

586. *Planesticus murinus*.

RORAIMA BLACK-BILLED THRUSH.

Turdus murinus Salvin, Ibis, 1885, p. 197 (Merumé Mts., Roraima, 3000-5000 ft.).

Planesticus murinus Brabourne & Chubb, B. S. Amer. i. p. 345, no. 3534, 1912.

Adult. Crown of head, sides of face, back, wings, and tail dusky-brown ; throat, breast, and sides of the body also dusky-brown, but much paler than on the upper surface with broad white streaks on the throat ; abdomen and thighs dark ash-grey ; lower flanks and under tail-coverts white ; axillaries and under wing-coverts cinnamon-buff ; under surface of flight-quills hair-brown ; lower aspect of tail greyish brown. " Bill black ; feet dusky coral-red " (*Whitely*).

Total length 206 mm., exposed culmen 17, wing 118, tail 90, tarsus 32.

The specimen on which the description is based was collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima, Arawai River (*McConnell collection*); Mount Roraima and Merumé Mountains (*Whitely*).

Habits. Unrecorded.

587. *Planesticus arthuri*.

ARTHUR'S THRUSH.

(Plate V. fig. 2.)

Planesticus arthuri Chubb, Bull. Brit. Orn. Club, xxxiii. p. 131, 1914.

Adult. General colour above including the crown of the head, back, wings, and tail dusky greyish brown; sides of the face similar to the back; throat white broadly streaked with dark brown; breast, abdomen, and sides of the body dark ash-grey; vent and under tail-coverts white; axillaries pale grey; under wing-coverts pale ochreous; under surface of flight-quills and lower aspect of tail greyish brown.

Total length 202 mm., exposed culmen 15, wing 105, tail 80, tarsus 30.

The above description is taken from the type of the species which was collected on the Abary River in September 1906.

Juv. Crown of head, sides of face, entire back, wings, and tail dusky brown with ferruginous shaft-lines to the feathers on the head, sides of face, mantle, upper back, and upper wing-coverts; throat, breast, abdomen, sides of the body, and under wing-coverts ferruginous with dark spots, or bars to the feathers and more or less white on the abdomen; under tail-coverts greyish white.

The specimen from which the above description is taken was collected on the Makauria River in August 1910.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

• *Range confined to British Guiana.* Abary River, Makauria River (*McConnell collection*).

Habits. Unrecorded.

588. *Planesticus phæopygus*.

CABANIS'S WHITE-THROATED THRUSH.

Turdus phæopygus Cabanis in Schomb. Reis. Guian. iii. p. 666, 1848; Seebohm, Cat. B. Brit. Mus. v. p. 208, 1881 (Demerara); Salvin, Ibis, 1885, p. 197 (Bartica Grove, Camacusa, Merumé Mts., Roraima); Quelch, Timhri (2) v. p. 72, 1891 (Georgetown).

Planesticus phæopygus Beebe, Our Search for a Wilderness, pp. 322-324, 340 cum fig. 132, 1910 (Aremu River); Brabourne & Chubb, B. S. Amer. i. p. 344, no. 3519, 1912.

Planesticus phæopygus phæopygus Beebe, Tropical Wild Life in British Guiana, p. 135, 1917 (Bartica).

Adult. General colour above including the head, back, wings, and tail russet-brown; inner webs of flight-quills blackish, paler on the inner edges; upper tail-coverts inclining to slate-colour; tail-feathers dark brown; sides of the face like the back; throat white broadly streaked with dark brown; breast and sides of body ash-grey, darker and inclining to lead-grey on the latter; abdomen and under tail-coverts white; axillaries grey; under wing-coverts also grey, more or less intermixed with white; under surface of flight-quills and lower aspect of tail dark brown.

Total length 187 mm., exposed culmen 14, wing 102, tail 84, tarsus 29.

The specimen described was collected on the Kamakabra River in 1911.

Breeding-season. Unrecorded in British Guiana.

Nest. "A beautiful nest made of green growing moss, and placed close to the trunk of a tree about six feet from the ground" (*Beebe*).

Eggs. "Two in number, pale blue-green, thickly spotted with brown of various shades, much more densely at the larger end" (*Beebe*).

Range in British Guiana. Ituribisi River, Bartica, Kamakabra River (*McConnell collection*); Mount Roraima, Merumé Mountains, Kamakusa, Bartica (*Whitely*); Georgetown (*Quelch*); Aremu River and Bartica (*Beebe*).

Extralimital Range. North Brazil, Venezuela, Ecuador, East Peru.

Habits. The following note is quoted from Beebe (Our Search for a Wilderness, p. 322):—"A beautiful nest of a White-throated Robin made of green growing moss, and placed close to the trunk of a tree, about six feet from the ground. . . . This Thrush is olive-brown above, pale below with a streaked chin and throat like our Northern Robin. Its most characteristic mark, however, is a patch of pure white on the upper breast, which flashes out like a star among the shadows of the Jungle. . . . There were two eggs, pale blue-green, thickly spotted with brown of various shades, much more densely at the larger end."

Genus **HYLOCICHLA** Baird.

Hylocichla Baird, Review American Birds, p. 12, 1864. Type *H. mus telinus* (Gmel.).



Fig. 148.—To show the form of the bill.

The species that comprise this genus differ from the Thrushes generally by their smaller size. The bill is short and compressed on the apical portion, its width at the nostrils being rather less than half the length of the exposed culmen. The wing is rounded, the third and fourth primaries longest and equal, the second about equal to the fifth, and the first about one-sixth the length of the second. The tail is square at the tip and about two-thirds the length of the wing, and the tarsus is slightly less than half the length of the tail. Coloration: male and female similar.

Key to the Species.

- A. Upper surface pale fulvous *H. fuscescens*, p. 388.
- B. Upper surface olive *H. alicia*, p. 388.
- C. Upper surface dark ochreous-brown *H. ustulata*, p. 389.

589. *Hylocichla fuscescens*.

WILSON'S THRUSH.

Turdus fuscescens Stephens in Shaw's Gen. Zool. x. p. 182, 1817 (Pennsylvania); Seebohm, Cat. B. Brit. Mus. v. p. 203, 1881; Salvin, Ibis, 1885, p. 196 (Camacusa, April 12th).

Hylocichla fuscescens Brabourne & Chubb, B. S. Amer. i. p. 347, no. 3550, 1912.

Adult. General colour of the upper surface, including the top of the head, back, wings, and tail, pale fulvous; inner webs of flight-quills dark brown marked with white at the base; lores greyish white; sides of face and fore-neck isabelline-buff with dark markings which assume the form of streaks or rounded spots; throat, abdomen, and under tail-coverts dull white; sides of body olive-grey; axillaries white becoming grey at the tips; under wing-coverts white, more or less mixed with brown, the greater series and under surface of flight-quills hair-brown, the latter white at the base; lower aspect of tail greyish brown.

Total length 170 mm., exposed culmen 13, wing 98, tail 71, tarsus 41.

The exact locality in British Guiana, of the bird described, is unknown.

This species breeds in North America and is only known as a winter visitor in British Guiana. Whitely collected a specimen however at Kamakusa in April.

Range in British Guiana. Kamakusa (*Whitely*).

Extra-limital Range. North Brazil and Colombia in South America, Central America, and a portion of the West India Islands, and north to the United States and Canada.

Habits. Unrecorded in British Guiana.

590. *Hylocichla aliciae*.

GREY-CHEEKED THRUSH.

Turdus aliciae Baird in Baird, Cassin, and Lawrence, B. N. Amer. p. 217, pl. 81, fig. 2, 1858 (West Northfield, Illinois); Seebohm, Cat. B. Brit. Mus. v. p. 202, 1881; Salvin, Ibis, 1885, p. 197 (Camacusa, Bartica Grove).

Hylocichla aliciae Brabourne & Chubb, B. S. Amer. i. p. 347, no. 3551, 1912; Beebe, Tropical Wild Life in British Guiana, p. 135, 1917 (Bartica).

Adult male. General colour of the upper surface olive, including the top of the head, back, wings, and tail; inner webs of flight-

quills hair-brown with white on the basal portion; sides of face streaked with dark brown and buffy-white; a streak of dark brown on each side of the throat; middle of throat, abdomen, and under tail-coverts white, the last more or less marked with isabelline; fore-neck and breast cream-colour, with dark brown pear-shaped markings at the tips of the feathers; sides of the body, axillaries, under wing-coverts drab-brown; under surface of flight-quills and lower aspect of tail hair-brown.

- Total length 173 mm., exposed culmen 13, wing 105, tail 67, tarsus 30.

Adult female. Similar to the adult male. Wing 100 mm.

This species is not represented in the McConnell collection and the specimens described are in the British Museum; both male and female were collected by Whitely on the Kamarang River in December 1885—Salvin-Godman collection.

This species also breeds in North America, and occurs in British Guiana as a winter visitor only. Whitely procured specimens during the months of December, February, and March.

Range in British Guiana. Kamarang River, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Venezuela, Colombia, and Peru in South America and north through Central America to the United States, Canada, and Arctic America.

Habits. Unrecorded in British Guiana.

591. *Hylocichla ustulata*.

RUSSET-BACKED THRUSH.

Turdus ustulatus Nuttall, Man. Orn. i. p. 400, 1840 (Columbia, Washington); Seebohm, Cat. B. Brit. Mus. v. p. 203, 1881; Salvin, Ibis, 1885, p. 197 (Roraima).

Hylocichla ustulata Brabourne & Chubb, B. S. Amer. i. p. 347, no. 3552, 1912.

Adult. General colour above olive-brown, including the crown of the head, entire back, wings, and tail; inner webs of the flight-quills dark brown with white bases; sides of face like the back with pale shaft-lines to some of the feathers; a black moustachial streak along the cheeks; throat and fore-neck buffy-white with dark pear-shaped marks to the feathers on the latter; breast, abdomen, and under tail-coverts white with pale brown spots to the feathers on the breast and some of the under tail-coverts,

edged with buff; sides of the body, axillaries, and under wing-coverts olive-brown, the greater series and base of quills below white, the remaining portion of the quills pale brown; lower aspect of tail greyish brown.

Total length 159 mm., exposed culmen 13, wing 105, tail 63, tarsus 30.

The specimen described was collected in British Guiana, but the exact locality is unknown.

This species likewise breeds in North America and is only a winter visitor to British Guiana.

Range in British Guiana. The only specimen in the McConnell collection is without any exact locality; Roraima (*Whitely*).

Extralimital Range. Colombia, Central America to North America west of the Rocky Mountains.

Habits. Unrecorded in British Guiana.

Family VIREONIDÆ.

This family is comprised of six genera and, when the fourth volume of the 'Hand-list of Birds' compiled by the late Dr. Bowdler Sharpe was published in 1903, one hundred and eleven species. At the time that Brabourne and Chubb published their 'List of the Birds of South America' in 1912, four genera and fifty species were known to occur. All the genera and eleven of the species are represented in British Guiana.

Genus VIREO Vieill.

Vireo Vieillot, Ois. de l'Amér. Septentr. i. p. 83, 1807. Type *V. noveboracensis* (Gmel.).



Fig. 149.—To show the slender and hooked bill.

The species that constitute this genus may be generally recognised by the green, or yellowish-green upper surface and the

greyish-white under-parts. The bill is compressed on the apical portion and sharply hooked at the tip of the upper mandible. The wing is rounded, the third and fourth primaries longest, the second shorter than the fifth, but much longer than the sixth. The tail is square at the tip and rather more than five-eighths the length of the wing, and the tarsus is only slightly longer than the middle toe and claw. Coloration : male and female alike.

Key to the Species.

- | | |
|--|-------------------------------|
| A. Crown of head ochreous-green like the back . | <i>V. calidris</i> , p. 391. |
| B. Crown of head slate-grey in contrast to the back. | |
| <i>b.</i> Larger, wing more than 70 mm., tail more than 50 mm. | <i>V. olivaceus</i> , p. 392. |
| <i>c.</i> Smaller, wing less than 70 mm., tail less than 50 mm. | <i>V. roraimæ</i> , p. 393. |

592. *Vireo calidris*.

MOUSTACHED GREENLET.

Motacilla calidris Linn. Syst. Nat. i. p. 329, 1766 (Jamaica).

Vireo calidris Gadow, Cat. B. Brit. Mus. viii. p. 293, 1883; Salvin, Ibis, 1885, p. 204 (Bartica Grove, Camacusa); Brabourne & Chubb, B. S. Amer. i. p. 348, no. 3562, 1912; Beebe, Tropical Wild Life in British Guiana, p. 135, 1917 (Bartica).

Adult male. General colour of the upper surface olive-green, including the crown of the head, back, wings, and tail; inner webs of flight-quills dark brown with whitish inner margins; a loreal streak of isabelline-buff which broadens out over the eye and extends along the sides of the crown; a dark mark in front and behind the eye; sides of the face isabelline-buff; a dark moustachial streak; throat white tinged with isabelline; breast, abdomen, and under tail-coverts yellowish white; sides of breast and sides of body pale olive-green; axillaries and under wing-coverts white like the inner edges of the quills below, remainder of the quill-lining dark brown; lower aspect of tail ash-grey.

Total length 141 mm., exposed culmen 14, wing 80, tail 52, tarsus 18.

The specimen from which the description is taken was collected on the Ituribisi River in 1909.

Adult female. Similar to the adult male. Wing 75 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Bartica (*McConnell* collection); Bartica, Kamakusa (*Whitely*).

Extralimital Range. Brazil, Venezuela, Panama, Jamaica, S. Domingo, Lesser Antilles.

Habits. Unrecorded in British Guiana.

593. *Vireo olivaceus*.

RED-EYED GREENLET.

Muscicapa olivacea Linn. Syst. Nat. i. p. 327, 1766 (Carolina).

Vireo olivaceus Gadow, Cat. B. Brit. Mus. xiv. p. 294, 1883;
Brabourne & Chubb, B. S. Amer. i. p. 348, no. 3563, 1912.

Adult. Crown of head and nape slate-grey with a dark brown line on each side of the crown followed by a parallel line of buffy-white from the lores over the eye and extending along to the sides of the nape; a dusky spot in front and behind the eye; back, rump, upper tail-coverts, scapulars, wings, and tail green; inner webs of bastard-wing and primary-coverts dark brown; inner webs of flight-quills also dark brown with white margins; tail-feathers buffy-white on the inner margins; sides of face, sides of neck, and sides of body paler than the back; throat, breast, abdomen, and under tail-coverts white with a slight yellowish tinge, which is much more pronounced on the under tail-coverts; axillaries and under wing-coverts lemon-yellow; under surface of quills hair-brown with yellowish-white margins; lower aspect of tail similar, but paler.

Total length 139 mm., exposed culmen 13, wing 82, tail 55, tarsus 20.

The specimen described was collected on the Ituribisi River in February 1907.

The sexes appear to be similar both in colour of plumage and measurements.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River (*McConnell* collection).

Extralimital Range. Colombia, North-west Peru. For distribution in North and Middle America see Ridgway, vol. iii. p. 147.
Habits. Unrecorded in British Guiana.

594. *Vireo roraimæ*, sp. nov.

RORAIMA GREENLET.

Vireo chivi (nec Vieill.) Gadow, Cat. B. Brit. Mus. viii. p. 295, 1883;
 Brabourne & Chubb, B. S. Amer. i. p. 348, no. 3565, 1912;
 Beebe, Tropical Wild Life in British Guiana, p. 135, 1917 (Bartica).
Vireo agilis (nec Licht.) Salvin, Ibis, 1885, p. 204 (Bartica Grove,
 Camacusa, Roraima, 3500 ft.).

Adult. Crown of head brownish grey with a dark line on each side over the eye; back, wings, and tail yellowish green; inner webs of flight-quills dark brown edged with sulphur-yellow; inner webs of tail-feathers margined with whitish; throat, breast, and abdomen silky-white; under tail-coverts, axillaries, and under wing-coverts lemon-yellow; quills below pale brown, with yellowish-white inner edges; lower aspect of tail pale brown with a yellowish tinge.

Total length 115 mm., exposed culmen 13, wing 75, tail 57, tarsus 20.

The specimen from which the description is taken was collected by the late Henry Whitely at Mount Roraima, now in the British Museum, Salvin-Godman collection.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Upper Takutu Mountains (McConnell collection); Mount Roraima, Kamakusa, Annai, Bartica (Whitely).

Habits. Unrecorded.

Genus **PACHYSYLVA** Bonap.

Pachysylvia Bonaparte, Consp. Av. i. p. 309, 1850. Type *P decurtata* (Bonap.).



Fig. 150.—To show the form of the bill.

In this genus the smallest members of the family are included. The bill is pointed and the upper mandible is not hooked. The wing is rounded, the third, fourth, fifth, sixth, and seventh primaries longest and subequal, the second about equal in length to the outer secondaries and the first about half the length of the second. The tail is rounded at the tip, the outer feather on each side being about one-fifth shorter than the middle ones. The tarsus exceeds the length of the exposed culmen by about two-fifths. Coloration : male and female similar.

Key to the Species.

- | | |
|--|--|
| A. Upper surface green. | |
| a. Throat grey. | |
| a'. Back dark yellowish green; crown of head slate-grey; bill and feet dark | <i>P. griseiventris</i> , p. 394. |
| b'. Back pale yellowish green; crown of head greyish brown; bill and feet pale | <i>P. thoracicus abariensis</i> , [p. 395. |
| b. Throat fawn-colour or ochreous-yellow. | |
| c'. Throat fawn-colour; tail shorter, less than 45 mm..... | <i>P. muscicapina</i> , p. 396. |
| d'. Throat ochreous-yellow; tail longer, more than 45 mm. | <i>P. sclateri</i> , p. 397. |
| B. Upper surface brown..... | <i>P. luteifrons</i> , p. 398. |

595. *Pachysylvia griseiventris*.

GREY-BELLIED WOOD-BIRD.

Hylophilus thoracicus (nec Temm.) Gadow, Cat. B. Brit. Mus. viii. p. 307, 1883 (Bartica Grove); Salvin, Ibis, 1885, p. 204 (Cama-cusa).

Hylophilus thoracicus griseiventris Berlepsch & Hartert, Nov. Zool. ix. p. 11, 1902 (Suapure, Venezuela).

Pachysylvia griseiventris Brabourne & Chubb, B. S. Amer. i. p. 349, no. 3571, 1912; Beebe, Tropical Life in British Guiana, p. 136, 1917 (Bartica).

Adult female. General colour above yellowish green, including the back, wings, and tail, sides of face, and a band across the fore-neck and breast, the last paler than the back; inner webs of flight-quills dark brown, margined with sulphur-yellow; hinder crown, nape, and hind-neck slate-grey; fore part of head tinged with yellowish green; throat, abdomen, and sides of body ash-grey, becoming white on the middle of the lower abdomen and vent; under tail-coverts, axillaries, under wing-coverts, and inner margins of quills below lemon-yellow, remainder of quill-lining hair-brown; lower aspect of tail pale yellow.

Total length 113 mm., exposed culmen 12, wing 51, tail 46, tarsus 17.

The female described was collected on the Abary River in February 1907.

Adult male. Similar to the adult female but slightly larger. Wing 55 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Makauria River, Abary River (*McConnell collection*); Kamarang River, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Venezuela, Colombia.

Habits. Unrecorded in British Guiana.

596. *Pachysylvia thoracicus abariensis*, subsp. nov.

ABARY RIVER WOOD-BIRD.

Pachysylvia pectoralis (nec Selater, part.) Brabourne & Chubb, B. S. Amer. i. p. 349, no. 3573, 1912.

Adult male. Allied to *P. thoracicus thoracicus* Temm., but differs in being paler in general coloration and smaller in measurements. The crown of the head and sides of the face pale ash-grey; throat whitish; back, wings, and tail bright yellowish green; inner webs of flight-quills dark brown with pale yellow

margins; shafts of tail-feathers dark and contrasting with the rest of the tail; fore-neck and breast bright pale yellow; abdomen white with a tinge of pale grey on the flanks; sides of body yellow; thighs and under tail-coverts pale lemon-yellow; axillaries, under wing-coverts, and inner margins of quills below bright sulphur-yellow; remainder of quill-lining hair-brown.

Total length 107 mm., exposed culmen 11, wing 53, tail 45, tarsus 18.

Adult female. Similar to the adult male. Wing 43 mm., tail 42.

The type described is in the McConnell collection and was collected on the Abary River, July 1906, and the female on the Bonasika River, 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Bártica, Bonasika River, Abary River (*McConnell collection*); Annai, Quonga (*Whitely*).

Extralimital Range. Surinam (*Penard*).

Habits. Unrecorded in British Guiana.

597. *Pachysylvia muscicapina*.

GUIANA WOOD-BIRD.

Hylophilus muscicapinus Selater & Salvin, Nomencl. Av. Neotrop. p. 156, 1873 (Oyapoc, Cayenne); Gadow, Cat. B. Brit. Mus. viii. p. 308, 1883 (Bartica Grove); Salvin, Ibis, 1885, p. 204 (Bartica Grove).

? *Pachysylvia ferrugineifrons* Beebe, Our Search for a Wilderness, p. 322, 1910 (Aremu River).

Pachysylvia muscicapina Brabourne & Chubb, B. S. Amer. i. p. 349, no. 3574, 1912; Beebe, Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica Grove).

Adult. Back, wings, and tail yellowish green; inner webs of flight-quills hair-brown with whitish margins; crown of head and nape dark ash-grey; base of forehead, sides of face, throat, and fore-neck pale fawn-colour; lower breast and sides of body pale ash-grey, inclining to white on the middle of the abdomen; under tail-coverts, axillaries, and under wing-coverts lemon-yellow; under surface of flight-quills hair-brown with pale edgings; lower aspect of tail dull yellow.

Total length 115 mm., exposed culmen 13, wing 63, tail 45, tarsus 16.

The specimen on which the description is based was collected on the Supenaam River in 1910.

Adult female. Similar to the adult male. Wing 56 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica (*McConnell collection*); Bartica (*Whitely*); Aremu River (*Beebe*).

Extralimital Range. Cayenne, Venezuela.

Habits. The following note is quoted from Beebe (Our Search for a Wilderness, p. 322):—"A flock of tiny Brown-fronted Jungle Vireos flew close to us, uttering a song like a diminutive alarm clock. Francis shot one which was hardly more than four inches in length, olive-green above, paler below. Those who think that all tropical birds are brightly coloured should see the great number of species of sober little fellows like these."

598. *Pachysylvia sclateri*.

SCLATER'S WOOD-BIRD.

Hylophilus sclateri Salvin & Godman, Ibis, 1883, p. 205 (Roraima, 3500-6000 ft.).

Pachysylvia sclateri Brabourne & Chubb, B. S. Amer. i. p. 349, no. 3576, 1912.

Adult male. Back, scapulars, and lesser upper wing-coverts pale green; greater upper wing-coverts, bastard-wing, primary-coverts, outer aspect of quills, and tail grey; inner webs of flight-quills blackish brown with white margins; crown of head and nape slate-grey; sides of face pale grey; base of forehead and throat pale buff; middle of breast ochreous-yellow, becoming green on the sides of the breast and sides of the body; middle of abdomen and under tail-coverts inclining to white; axillaries lemon-yellow; under wing-coverts sulphur-yellow; under surface of flight-quills dark brown with pale inner edges; lower aspect of tail greyish brown.

Total length 121 mm., exposed culmen 10, wing 61, tail 52, tarsus 21.

The specimen from which the description is taken was collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

Adult female. Similar to the adult male but slightly smaller. Wing 58 mm.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Kamakusa, Mount Roraima (*Whitely*).

Habits. Unrecorded.

599. *Pachysylvia luteifrons*.

ORANGE-FRONTED WOOD-BIRD.

Hylophilus luteifrons Selater, Ibis, 1881, p. 308 (Bartica Grove); Gadow, Cat. B. Brit. Mus. viii. p. 311, 1883 (Roraima); Salvin, Ibis, 1885, p. 204 (Merumé Mts., Camacusa).

Pachysylvia luteifrons Brabourne & Chubb, B. S. Amer. i. p. 350, no. 3589, 1912; Beebe, Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica).

Adult male. Crown of head, entire back, wings, and tail bronze-brown; inner webs of flight-quills dark brown with pale margins; a tinge of yellow at the base of the forehead and on the lores; sides of face, throat, and under surface greyish green, with an ochreous tinge on the breast and under tail-coverts; under wing-coverts dull sulphur-yellow, like the inner edges of the quills below; under surface flight-quills dark brown; lower aspect of tail yellowish brown.

Total length 94 mm., exposed culmen 10, wing 60, tail 40, tarsus 14.

The specimen described was collected on the Ituribisi River.

Adult female. Similar to the adult male and differs only in being rather smaller. Wing 54 mm.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Ituribisi River, Supenaam

River, Makauria River (*McConnell collection*); Mount Roraima, Merumé Mountains, Kamakusa, Bartica (*Whitely*); ? Aremu River (*Beebe*).

Habits. Unrecorded.

Genus **VIREOLANIUS** Du Bus.

Vireolanius Du Bus, Esquisses Ornith. pl. 26, 1850. Type *V. melitophrys* Du Bus.



Fig. 151.—To show the markings on the side of the face.

The species that comprise this genus are brightly coloured. The bill is compressed, its depth at the nostrils is equal to more than half the length of the exposed culmen, and the tip of the upper mandible is sharply hooked. The wing is rounded, the fourth, fifth, and sixth primaries are longest and equal, the third is about equal in length to the seventh, the second about equal to the ninth, and the first about three-fifths the length of the second. The tail is square at the tip and about six-sevenths the length of the wing. The tarsus is nearly twice the length of the exposed culmen. Coloration: male and female similar.

600. **Vireolanius chlorigaster.**

BONAPARTE'S GREENLET.

Vireolanius chlorigaster Bonap. Compt. Rend. xxxviii. p. 381, 1854 (Cayenne); Brabourne & Chubb, B. S. Amer. i. p. 351, no. 3597, 1912.

Vireolanius leucotis (nec Swains.) Salvin, Ibis, 1878, p. 445, pl. xi.; id. & Godm. op. cit. 1882, p. 77; Gadow, Cat. B. Brit. Mus. viii. p. 315, 1883; Salvin, Ibis, 1885, p. 205 (Merumé Mts., Bartica Grove).

Adult female. Back, wings, and tail dark green, paler and inclining to yellowish on the margins of the greater upper wing-coverts; inner webs of flight-quills blackish with pale edges;

crown of head and the sides of face slate-grey; base of forehead, lores, and a line over the eye to the sides of the nape bright yellow, like the throat and entire under surface, including the under tail-coverts and under wing-coverts; sides of the body strongly fused with green; a broad white line running from the gape below to the sides of the neck; under surface of quills dark brown with whitish inner edges; a dark spot on the under wing-coverts near the edge of the wing; lower aspect of tail pale brown.

Total length 135 mm., exposed culmen 16, wing 68, tail 45, tarsus 19.

The female described was collected on the Ituribisi River in 1909.

Adult male. Similar to the adult female but rather larger. Wing 74 mm., tail 49.

The male described was also collected on the Ituribisi River; February 1907.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Kamakabra River (*McConnell* collection); Merumé Mountains, Bartica (*Whitely*).

Extralimital Range. Cayenne (*Bonaparte*); Venezuela.

Habits. Unrecorded in British Guiana.

Genus **CYCLARHIS** Swains.

Cyclarhis Swainson, Zool. Journ. i. p. 294, Oct. 1824. Type *C. guianensis* (Gmel.).



Fig. 152.—To show the short, stout, and hooked bill.

The members of this genus are the largest birds in the family. The bill is compressed, its depth at the nostrils being about

two-thirds the length of the exposed culmen, and the tip of the upper mandible is hooked. The wing is rounded, the third, fourth, fifth, and sixth primaries are longest and equal, the second nearly equal in length to the ninth, and the first about two-thirds the length of the second. The tail is square at the tip and about five-sevenths the length of the wing. The tarsus exceeds the length of the exposed culmen by about one-third. Coloration: male and female similar.

601. *Cyclarhis gujanensis*.

Tanagra gujanensis Gmel. Syst. Nat. i. p. 893, 1789 (Guiana).

Cyclorhis guinensis Gadow, B. Cat. Brit. Mus. viii. p. 319, 1883; Salvin, Ibis, 1885, p. 205 (Roraima, 3500 ft.).

Cyclarhis gujanensis Brabourne & Chubb, B. S. Amer. i. p. 352, no. 3604, 1912.

Adult male. Crown of head and hind-neck slate-grey; base of forehead and a line over the eye along the sides of the head to the nape chestnut; back, wings, and tail dull dark green; inner webs of flight-quills blackish brown, fringed with white; sides of face pale grey; throat lemon-yellow; breast and sides of body ash-grey; middle of abdomen and under tail-coverts white; axillaries and under wing-coverts pale sulphur-yellow, like the inner margins of the flight-quills below, remainder of quill-lining dark brown; lower aspect of tail greyish brown tinged with yellow.

Total length 139 mm., exposed culmen 15, wing 76, tail 58, tarsus 22.

The specimen from which the description is taken was collected at Mount Roraima by Mr. McConnell in October 1898.

Adult female. Similar to the adult male, both in colour of plumage and measurements. Wing 74 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Upper Takutu Mountains (*McConnell collection*); Mount Roraima (*Whitely*).

Extratropical Range. Northern Brazil, Peru, East Ecuador.

Habits. Unrecorded in British Guiana.

Family MNIOTILTIDÆ.

The American Warblers, of which this family is comprised, are confined to the New World, and at the time when Brabourne and Chubb published their 'List of the Birds of South America' fourteen of the genera and eighty-one of the species were recorded. Seven of the genera and eleven of the species are represented in British Guiana.

Genus **COMPSOTHTYPIS** Cab.

Compsothlypis Cabanis, Mus. Hein. i. p. 20, 1851. Type *P. americana* (Linn.).



Fig. 153.—To show the pointed bill.

In this genus are included some of the smallest members of the family. The bill is slender and sharply pointed. The wing is rounded, the second, third, and fourth primaries are longest and subequal, the first is only rudimentary. The tail is nearly square at the tip and nearly four-fifths the length of the wing, and the tarsus is almost twice the length of the exposed culmen. Coloration : male and female similar.

602. *Compsothlypis elegans*.

ELEGANT WARBLER.

Parula pitiayumi (nec Vieill.) Salvin, Ibis, 1885, p. 302 (Roraima, 5000 to 6000 ft.); Sharpe, Cat. B. Brit. Mus. x. pp. 259, 643, 1885 (Roraima).

Parula elegans Todd, Ann. Carnegie Mus. viii. no. 2, p. 204, 1912 (Lara, N.W. Venezuela); Brabourne & Chubb, B. S. Amer. i. p. 353, no. 3618, 1912.

Adult male. General colour of the upper surface slate-blue including the head, back, wings, and tail; median and greater upper wing-coverts tipped with white; inner webs of flight-quills blackish with pale edges; inner webs of lateral tail-feathers dark brown with a blotch of white near the tip; lores, a narrow line at the base of the forehead, and the space surrounding the eye black;

chin, abdomen, and sides of body yellow; throat and breast fawn-colour; under tail-coverts and under wing-coverts white; axillaries grey; under surface of flight-quills greyish brown.

Total length 108 mm., exposed culmen 10, wing 57, tail 41, tarsus 16.

The specimen from which the description is taken was collected at Mount Roraima by Mr. McConnell during his expedition in October 1898.

Adult female. Differs from the adult male in being less bright and rather smaller in size. Wing 50 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Extralimital Range. Trinidad, Venezuela, Colombia, East Ecuador.

Habits. Unrecorded in British Guiana.

Genus DENDRÆCA Gray.

Dendræca Gray, List Genera B. App. 8, 1842. Type *D. coronatus* (Linn.).



Fig. 154.—To show the pointed bill.

The members of this genus are for the most part small and brightly coloured birds. The bill is pointed, the width at the base being about half the length of the exposed culmen. The wing is rounded, the second primary longest, and the first is about equal in length to the third. The tail is square at the tip and almost two-thirds the length of the wing. The tarsus is about half the length of the tail and about twice the length of the exposed culmen. Coloration: the female differs in being less bright.

Key to the Species.

- A. Crown of head yellow *D. æstiva*, p. 404.
 B. Crown of head black *D. breviunguis*, p. 405.

603. *Dendroæca æstiva*.

YELLOW WARBLER.

Motacilla æstiva Gmel. Syst. Nat. i. p. 996, 1789 (Guiana).

Dendroæca æstiva Salvin, Ibis, 1885, p. 202 (Bartica Grove); Sharpe, Cat. B. Brit. Mus. x. pp. 273, 644, 1885 (Bartica Grove, November); Quelch, Timehri (2) v. p. 79, 1891 (Georgetown); id. op. cit. x. p. 261, 1896 (migration); Brabourne & Chubb, B. S. Amer. i. p. 354, no. 3620, 1912.

Dendroæca æstiva æstiva Beebe, Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica).

“Yellow Summer-bird,” “Golden Warbler,” “Summer Yellow-bird,” “Canary” (*Quelch*).

Adult male. General colour above yellowish green including the back, outer aspect of the wing, and upper tail-coverts, paler and inclining to yellow on the rump; inner webs of greater upper wing-coverts and flight-quills blackish brown broadly margined with yellow on the latter; middle tail-feathers similar to the back, the lateral ones have the inner webs almost entirely yellow; fore part of head, sides of the face, throat, and entire under surface bright yellow including the under tail-coverts, axillaries, under wing-coverts, and inner edges of quills below, the feathers on the breast, abdomen, and sides of the body have the shaft-streaks chestnut; under surface of quills greyish brown; lower aspect of tail yellow, darker on the outer webs and at the tips of the feathers.

Total length 110 mm., exposed culmen 10, wing 64, tail 45, tarsus 19.

The specimen from which the description is taken was collected at Bartica in 1911.

Adult female. Similar to the adult male on the upper surface, but paler and inclining to sulphur-yellow below without any chestnut shaft-lines. Wing 59 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Bartica, Kamakabra River, Abary River, Great Falls Demerara River (*McConnell collection*); Bartica (*Whitely*); Georgetown (*Quelch*); Berbice River (*British Museum*).

Extralimital Range. North Brazil, Venezuela, Ecuador, Colombia, Central America, and the whole of North America.

Habits. Mr. J. J. Quelch (Timehri (2) v. p. 79), writing on the Native Birds of Georgetown, remarks :—" One of the commonest city birds is a typical representative of the American Warblers. This is the Yellow Summer-bird of the United States (*Dendræca æstiva*), known also as the Golden Warbler, and locally called Canary. They are migrants in the United States, but certain it is that they are to be found about Georgetown all the year round, among the low bushes and high trees. Here they are shy birds, and are with difficulty snared by those who make a practice of caging the song birds."

Mr. Quelch (op. cit. x. p. 261), writing on the Migratory Birds in British Guiana, remarks :—" Many of our resident species occur as migrants in the United States, ranging to Texas and Florida, and even further north ; but it is at present impossible to say definitely how far south these migrants travel. The American Warblers are specially to be noted. In the case of one of these (*Dendræca æstiva*), the Summer Yellow-bird of the United States, locally passing under the general name of 'Canary,' the individuals are certainly much more numerous here during the times of migration, most probably indicating that birds from the northern districts had arrived. This species occurs commonly along the coast, being very plentiful in Georgetown during the autumn and winter months ; but it may well be that other species occur in the forest districts and on the open plains and mountains of the interior."

604. *Dendræca breviunguis*.

BLACKPOLL WARBLER.

Alauda (Anthus) breviunguis Spix, Av. Bras. i. p. 75, tab. lxxvi-vii. fig. 1, 1824 (Pará).

Dendræca striata Salvin (nec Forst), Ibis, 1885, p. 202 (Roraima, 3500 ft.); Sharpe, Cat. B. Brit. Mus. x. pp. 325, 650, 1885 (Roraima, November, January); Quelch, Timehri (2) x. p. 261, 1896 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 355, no. 3631, 1912.

Adult female. Crown of head olive tinged with yellow ; back, lesser upper wing-coverts, scapulars, and outer aspect of flight-quills similar, but rather darker and with a few dark shaft-lines to

the feathers on the upper back and some of the upper tail-coverts ; median and greater upper wing-coverts dark brown margined with dull white, like some of the innermost secondaries ; primary-coverts uniform dark brown ; inner webs of flight-quills hair-brown ; tail-feathers dark brown, fringed with olive-grey on the outer webs, and the two outer feathers on each side marked with white on the apical portion of the inner webs ; a slight indication of a pale streak from the base of the bill to above the eye ; sides of face, throat, and breast pale yellow, becoming brighter and deeper in colour on the last ; sides of body grey tinged with yellow ; abdomen and under tail-coverts greyish white like the under wing-coverts, axillaries similar but more grey, the marginal under wing-coverts narrowly barred with brown ; under surface of flight-quills hair-brown ; lower aspect of tail also hair-brown blotched with white on the two outer feathers.

Total length 123 mm., exposed culmen 10, wing 71, tail 46, tarsus 20.

Adult male. Differs from the adult female in having the top of the head uniform black, the back broadly streaked with black, and the under surface white boldly marked with black on the sides of the throat and sides of the body. Wing 70 mm.

This species is not represented in the McConnell collection, and the specimen described was collected by the late Henry Whitely on Mount Roraima, 3500 ft., in January 1884. Whitely collected another female in the same district in November 1883, and a third one on the Kamarang River in January 1886. These are now in the British Museum, Salvin-Godman collection. It may be observed that the late Dr. Bowdler Sharpe referred to them as immature (Cat. B. Brit. Mus. x. p. 650), but I cannot regard the one described above as such, as it appears to have just passed the breeding-season.

I propose, therefore, to use the name introduced by Spix for this bird, as there seems to be some doubt about its migration.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Kamarang River (Whitely).

Extralimital Range. Cayenne, Brazil, Chile, Ecuador, Colombia, Venezuela, West India Islands to North America.

Habits. Mr. J. J. Quelch, in his "Migratory Birds in British Guiana" (Timehri (2) x. p. 261), states that this bird certainly occurs on the highlands, having been obtained on the slopes around Roraima, but there was nothing to show whether the specimens were migrants or not.

Genus **SEIURUS** Swains.

Seiurus Swainson, Zool. Journ. iii. p. 171, 1827. Type *S. aurocapillus* (Linn.).



Fig. 155.—To show the characters on the side of the face.

Some of the species that comprise this genus have the appearance of Pipits, while others resemble, more or less, the small Thrushes of the genus *Hylocichla*. The bill is slender. The wing is inclined to be pointed, the first primary being longest, the second and third only slightly shorter. The tail is square at the tip and about five-sevenths the length of the wing. The tarsus exceeds the length of the exposed culmen by rather more than two-thirds. Coloration : male and female alike.

605. *Seiurus noveboracensis*.

SMALL-BILLED WATER-THRUSH.

Motacilla noveboracensis Gmel. Syst. Nat. i. p. 958, 1789 (Louisiana).

Henicocichla noveboracensis Cab. in Schomb. Reis. Guian. iii. p. 666, 1848.

Siurus noveboracensis Salvin, Ibis, 1885, p. 202 (Bartica Grove, Roraima).

Siurus nævius Sharpe, Cat. B. Brit. Mus. x. pp. 343, 652, 1885 (Bartica Grove, Dec.; Roraima, Dec.).

Seiurus nævius Quelch, Timehri (2) x. p. 262, 1896.

Seiurus noveboracensis Brabourne & Chubb, B. S. Amer. i. p. 355, no. 3637, 1912; Beebe, Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica).

Adult male. General colour of the upper surface dusky-brown including the crown of the head, back, wings, and tail; lores and a line over the eye and along the sides of the crown buffy-white;

sides of the face paler than the crown ; a dark line from the lores to the front of the eye ; a slight indication of a dark moustachial streak ; throat and breast yellowish white with blackish pear-shaped spots to the feathers, which are small on the former, but much larger and more conspicuous on the latter, and extend down the sides of the body ; abdomen and under tail-coverts pale sulphur-yellow ; under wing-coverts and axillaries dusky with pale narrow edges ; under surface of quills and lower aspect of tail dark brown.

Total length 132 mm., exposed culmen 11, wing 74, tail 47, tarsus 21.

Adult female. Similar to the adult male, but slightly paler on the under surface and the dark markings to the feathers less extensive. Wing 72 mm.

The male and female described were collected at Bartica in 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana. †

Range in British Guiana. Ituribisi River, Bartica, Mazaruni River, Kamakabra River, Bonasika River, Abary River (*McConnell collection*) ; Mount Roraima, Bartica (*Whitely*).

Extralimital Range. Tobago, Trinidad, Los Roques Islands, Venezuela, Colombia, Central America, West India Islands, and North America.

Habits. Schomburgk states (*Reis. Guian.* iii. p. 666) that he found this bird in the woods near the coast, and always solitary, hopping about on the ground.

Mr. J. J. Quelch (*Timehri* (2) x. p. 262), writing on the *Migratory Birds in British Guiana*, remarks :—"Even as regards the birds obtained on or near the coast, belonging to species that are migrants in the north, it is not always possible to determine whether they are true migrant forms here or not. So little is known locally about many of our species, especially of the smaller kinds, that there is no comparison possible as to their relative abundance in the different parts of the year ; and though it would seem that species occurring here in the summer are residents, yet where only one or two specimens have been noted they may possibly be migrants that have remained behind. There is this difficulty in the case as regards the Water Thrush (*Seiurus naevius*), which is a common migrant in the northern regions."

Genus **GEOTHYLPIS** Cab.

Geothlypis Cabanis, Arch. für Naturg. 1847, pp. 316, 349. Type
G. trichas (Linn.).



Fig. 156.—To show the form of the bill and nostrils.

The predominating colour in this genus is yellow, which varies in its brightness among the species. The bill is pointed, the width at the base being less than half the length of the exposed culmen. The wing is rounded, the third, fourth, and fifth primaries are longest, the second about equal to the sixth, and the first about equal to the eighth. The tail is rounded at the tip and nearly equal in length to the wing. The tarsus is about twice the length of the exposed culmen. Coloration : male and female similar.

606. *Geothlypis æquinoctialis*.

EQUINOCTIAL WARBLER.

Motacilla æquinoctialis Gmel. Syst. Nat. i. p. 972, 1789 (Cayenne).

Geothlypis velata (nec Vieill.) Cab. in Schomb. Reis. Guian. iii. p. 666, 1848.

Geothlypis æquinoctialis Salvin, Ibis, 1885, p. 203 (Yaruaui River); Sharpe, Cat. B. Brit. Mus. x. p. 360, pl. ix. fig. 7, 1885 (Demerara); Brabourne & Chubb, B. S. Amer. i. p. 356, no. 3641, 1912.

Adult male. Crown of head pale slate-grey; entire back, wings, and tail yellowish green; inner webs of flight-quills dark brown; base of forehead, lores, cheeks, and ear-coverts black; throat, breast, abdomen, under tail-coverts, and under wing-coverts bright yellow, rather darker on the sides of the body; under surface of quills dark brown; lower aspect of tail yellowish green.

Total length 133 mm., exposed culmen 11, wing 61, tail 56, tarsus 21.

The specimen on which the description is based was collected at Bartica in 1911.

Adult female. Differs from the adult male in being less bright in colour and the absence of the black on the base of the forehead, lores, cheeks, and ear-coverts. Wing 55 mm.

The female described was collected at Mashapu.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Bartica, Bonasika River, Mashapu, Abary River (*McCornell collection*); Yaruani River (*Whitely*).

Extralimital Range. Cayenne (*Gmelin*), Trinidad, Venezuela, Colombia.

Habits. Unrecorded in British Guiana.

Genus **GRANATELLUS** Bonap.

Granatellus Bonaparte, *Consp. Av. i.* p. 312, 1850. Type *G. venustus* (Bonap.).



Fig. 157.—To illustrate the shape of the bill.

This genus is easily distinguished by the bright red colour on the under surface. The bill is somewhat arched, the width at the base being about half the length of the exposed culmen. The wing is rounded, the third, fourth, and fifth primaries longest, the second about equal to the sixth and the first about equal to the eighth. The tail is rounded at the tip and about one-sixth longer than the wing. The tarsus is nearly twice the length of the exposed culmen. Coloration: male and female similar.

607. *Granatellus pelzelni*.

PELZELN'S WARBLER.

Granatellus pelzelni Sclater, *P. Z. S.* 1864, p. 607, pl. xxxvii. fig. 1 (Destramento do Ribeirão, Rio Madeira); Salvin, *Ibis*, 1885, p. 204 (Camacusa); Sharpe, *Cat. B. Brit. Mus.* x. p. 370, 1885 (Camacusa, March and May); *Brabourne & Chubb, B. S. Amer.* i. p. 356, no. 3645, 1912.

Adult male. Back, upper wing-coverts, outer aspect of flight-quills, and upper tail-coverts slate-blue; crown of head, sides of

face, a band across the throat, and tail above and below black; inner webs of flight-quills above and below blackish; a short line behind the eye, throat, sides of the body, axillaries, and under wing-coverts white; breast, abdomen, and under tail-coverts bright red.

Total length 108 mm., exposed culmen 11, wing 56, tail 51, tarsus 17.

The exact locality in British Guiana, of the specimen described, is unknown.

Adult female. Differs from the adult male in the entire absence of black on the head, sides of the face, and band across the throat, the white on the throat, and the bright red on the breast and abdomen. The top of the head being slate-blue like the back, the sides of the face, the line over the eye, and throat ochreous-buff, and the breast and abdomen pale fawn-colour. Wing 55 mm.

The female described was collected on the Supenaam River in 1910.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Mazaruni River (*McConnell collection*); Kamakusa (*Whitely*).

Extralimital Range. Central Brazil, Venezuela.

Habits. Unrecorded in British Guiana.

Genus **SETOPHAGA** Swains.

Setophaga Swainson, Philos. Mag. (ser. 2) i. p. 368, May 1827. Type *S. ruficilla* (Linn.).



Fig. 158.—To show the form of the bill and nostrils.

In this genus the bill is depressed, the width at the base being about two-thirds the length of the exposed culmen, the nostrils

exposed, and the rictal bristles numerous and directed forward. The wing is rounded, the second and third primaries longest and equal, and the first about equal to the fourth. The tail is almost square at the tip and about five-sixths the length of the wing. The tarsus is about twice the length of the exposed culmen. Coloration : male and female different.

608. *Setophaga ruticilla*.

AMERICAN RED-START.

Motacilla ruticilla Linn. Syst. Nat. i. p. 186, 1758 (Virginia).

Setophaga ruticilla Cab. in Schomb. Reis. Guian. iii. p. 667, 1848; Salvin, Ibis, 1885, p. 203 (Roraima); Sharpe, Cat. B. Brit. Mus. x. p. 411, 1885 (Roraima, Oct. and Jan.); Queleh, Timerhi (2) x. p. 261, 1896 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 356, no. 3648, 1912.

“American Red-start” or “Flycatcher” (*Quelch*).

Adult male. Crown of head, sides of face, throat, breast, back, wings, and tail glossy blue-back, the flight-quills orange at the base becoming paler on the inner webs; outer tail-feathers orange on the basal two-thirds of their length, both above and below; sides of breast and axillaries bright orange; under wing-coverts and inner margins of the flight-quills below pale orange; middle of breast, abdomen, flanks, and under tail-coverts white, some of the long coverts blackish; the black on the upper breast encroaches more or less on to the upper abdomen; flight-quills below and tips of tail-feathers blackish brown.

Total length 123 mm., exposed culmen 10, wing 64, tail 54, tarsus 17.

The male described was collected at Mount Roraima by Mr. McConnell during his expedition in October 1898.

Adult female. Differs entirely from the adult male in being grey on the top of the head; olive on the back, wings, and tail; bases of inner flight-quills and basal portion of lateral tail-feathers lemon-yellow, similar but somewhat brighter on the sides of the breast, axillaries, under wing-coverts and inner edges of quills below, throat and fore-neck isabelline, quills and tips of tail-feathers below dark brown. Wing 64 mm.

The female described was also collected by Mr. McConnell at Mount Roraima.

Immature male. Similar to the adult female but darker on the back and the yellow portions of the plumage replaced by orange.

The specimen described above was collected at Bartica in 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Bartica (*McConnell collection*); Mount Roraima (*Whitely*).

Extralimital Range. Trinidad, Margarita Island, Venezuela, Ecuador, Colombia, Central America, West India Islands, to North America.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 667*) this species is an autumnal migrant in British Guiana and inhabits the woods near Mount Roraima.

The "Arekunas" call it *Pairika*.

Mr. J. J. Quelch found this bird on the slopes around Mount Roraima and states that there was nothing to show whether it was a migrant or not (*cf. Timehri (2) x. p. 261, 1896*).

Genus MYIOBORUS Baird.

Myioborus Baird, *Review Amer. B. p. 237, 1865.* Type *M. verticalis* (Lafr. & d'Orb.).

This genus differs from *Setophaga* chiefly in the more rounded and graduated tail and the longer rictal bristles. The bill is depressed, the width at the base being about two-thirds the length of the exposed culmen. The wing is rounded, the second, third, fourth, and fifth primaries longest, and the first about equal to the seventh. The tail is rounded at the tip and slightly graduated, the outer feather on each side being 56 mm., and nearly equal in length to the wing. The tarsus is about twice the length of the exposed culmen. Coloration: male and female similar.

Key to the Species.

- A. Back dark slate-grey; crown of head dark chestnut; chin and throat black *M. pallidiventris*, p. 414.
- B. Back dark bronze-brown; crown of head pale chestnut; chin and throat orange-yellow *M. castaneicapillus*, p. 415.

609. *Myioborus pallidiventris*.

CHAPMAN'S REDSTART.

Setophaga verticalis (nec Lafr. & d'Orb.) Salvin, Ibis, 1885, p. 303 (Roraima, 3500–5000 ft.); Sharpe, Cat. B. Brit. Mus. x. p. 420, 1885 (Roraima, August).

Setophaga verticalis pallidiventris Chapman, Bull. Amer. Mus. Nat. Hist. xii. p. 153, 1899 (Quebrada Seca, Venezuela).

Myioborus pallidiventris Brabourne & Chubb, B. S. Amer. i. p. 357, no. 3650, 1912.

Adult male. General colour of the upper surface dark slate-colour including the sides of the neck, hind-neck, back, upper wing-coverts, scapulars, and upper tail-coverts; middle of the crown deep chestnut; fore part of head and sides of the crown blackish, tinged with dark slate-colour; bastard-wing, primary-coverts, and flight-quills blackish with pale inner margins to the last; middle tail-feathers blackish, the outer ones for the most part white; cheeks and throat dull black; fore-neck orange; breast, abdomen, sides of body, and under tail-coverts yellow; axillaries and under wing-coverts white slightly tinged with yellow; under surface of flight-quills dark brown; lower aspect of tail blackish on the middle feathers and white on the outer ones.

Total length 127 mm., exposed culmen 10, wing 63, tail 61, tarsus 17.

Adult female. Similar to the adult male but slightly smaller. Wing 56 mm.

This species is not represented in the McConnell collection, and the specimens from which the descriptions are taken were collected by the late Henry Whitely, the male at Mount Roraima and the female on the Kamarang River, now in the British Museum, Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*Whitely*).

Extralimital Range. Venezuela.

Habits. Unrecorded in British Guiana.



1 *Basileuterus roraimæ.*
Roraima Warbler.

2 *Myioborus castaneicapillus.*
Schomburgk's Redstart.

610. *Myioborus castaneicapillus*.

SCHOMBURGK'S REDSTART.

(Plate VI. fig. 1.)

Setophaga castaneicapilla Cabanis in Schomb. Reis. Guian. iii. p. 667, 1848 (British Guiana); Sharpe, Cat. B. Brit. Mus. x. p. 429, 1885 (Roraima).

Setophaga castaneocapilla Salvin, Ibis, 1885, p. 203 (Roraima, 5000 to 6000 ft.).

Myioborus castaneicapillus Brabourne & Chubb, B. S. Amer. i. p. 357, no. 3659, 1912.

Adult male. Crown of head chestnut; hind-neck, sides of neck, and sides of breast, entire back, and wings dusky-brown; middle tail-feathers blackish, the three outer feathers on each side tipped with white, which increases in extent towards the outermost, where it occupies the entire outer web; base of forehead dusky-brown; sides of the face and ear-coverts rather paler brown; throat and fore-neck inclining to orange-yellow; abdomen and sides of body bright yellow; under tail-coverts white; axillaries and under wing-coverts dusky more or less tipped with white; under surface of flight-quills blackish brown; lower aspect of tail also blackish brown, the outer feathers extensively marked with white.

Total length 135 mm., exposed culmen 10, wing 62, tail 62, tarsus 20.

Adult female. Similar to the adult male. Wing 61 mm.

The male described was collected at Mount Roraima by Mr. McConnell during his expedition in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima and Kamarang River (*Whitely*).

Habits. Schomburgk states (Reis. Guian. iii. p. 667) that he only met with this species once which was in the dense woods of Mount Roraima at an altitude of 7000 feet. Its habits appear to be the same as those of No. 8 = *Setophaga ruticilla*.

The "Arekunas" call it *Pairika*.

Genus **BASILEUTERUS** Cab.

Basileuterus Cabanis, Archiv für Naturg. 1847, i. p. 316. Type
B. auricapilla (Swains.).

The predominating colour in this genus is yellowish green on the upper surface and yellow on the under parts. The bill is somewhat short and stout, the width at the base being about one half the length of the exposed culmen. The wing is rounded, the third, fourth, and fifth primaries longest and subequal, the second is shorter than the fifth but longer than the sixth, and the first is intermediate between the seventh and eighth. The tail is rounded at the tip and rather more than five-sixths the length of the wing. The tarsus exceeds the length of the exposed culmen by about one half. Coloration: male and female similar.

Key to the Species.

- A. Under surface yellow.
 a. Larger, wing more than 65 mm.; back yellowish green; crown of head more orange and less grey *B. roraimæ*, p. 416.
 b. Smaller, wing less than 65 mm.; back olive-green; more grey and less orange. *B. olivascens*, p. 417.
 B. Under surface white tinged with tawny buff *B. mesoleucus*, p. 418.

611. **Basileuterus roraimæ.**

RORAIMA WARBLER.

(Plate VI. fig. 2.)

Basileuterus roraimæ Sharpe, Cat. B. Brit. Mus. x. p. 392, 1885 (Roraima, Merumé Mts.); Salvin, Ibis, 1885, p. 203 (Merumé Mts., Roraima, 3500 to 6000 ft.); Brabourne & Chubb, B. S. Amer. i. p. 359, no. 3678, 1912.

Adult. Hind-neck, back, wings, and tail dark yellowish green; inner webs of flight-quills blackish brown, with pale inner edges; nape grey; sides of the face rather paler than the back, as are also the sides of the neck and sides of the breast; crown of head orange-rufous; a line of black feathers from the base of the forehead over the eye and along the sides of the crown; a pale supraloral line which skirts the black over the eye and along the sides of the crown; throat and remainder of the under surface yellow with a dusky band across the breast; axillaries and under wing-coverts pale yellow; under surface of flight-quills hair-brown; lower aspect of tail yellowish.

Total length 129 mm., exposed culmen 10, wing 70, tail 58, tarsus 21.

The specimen described was collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima, Merumé Mountains (*Whitely*).

Habits. Unrecorded.

612. *Basileuterus olivascens*.

CHAPMAN'S OLIVE WARBLER.

Basileuterus vermivorus (nec Gmel.) Cab. in Schomb. Reis. Guian. iii. p. 667, 1848 (District of Roraima).

Basileuterus auricapillus (nec Swains.) Sharpe, Cat. B. Brit. Mus. x. p. 393, 1885 (Roraima); Salvin, Ibis, 1885, p. 203 (Roraima).

Basileuterus vermivorus olivascens Chapman, Auk, 1893, p. 343 (Princetown, Trinidad).

Basileuterus olivascens Brabourne & Chubb, B. S. Amer. i. p. 359, no. 3680, 1912.

Adult. Hind-neck, sides of neck, entire back, outer aspect of wing, and tail olive-green; inner webs of flight-quills dark brown with pale edges; tail-feathers dark brown with olive-green margins to the feathers; an orange-rufous line along the middle of the crown, the feathers tipped with pale slate-grey and becoming entirely grey on the nape; a black line from the base of the bill to the sides of the nape and is accompanied on the outer side by a narrow whitish streak; sides of face grey; under surface including the throat, abdomen, and under tail-coverts yellow; axillaries and under wing-coverts pale sulphur-yellow; under surface of quills hair-brown; lower aspect of tail pale grey with white shafts to the feathers.

Total length 122 mm., exposed culmen 11, wing 62, tail 53, tarsus 20.

The specimen described was collected by Mr. McConnell at Mount Roraima in October 1898,

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Extralimital Range. Trinidad, Venezuela, Colombia.

Habits. Schomburgk states (*Reis. Guian.* iii. p. 667) that he found this species in the thinly wooded district of Mount Roraima at an altitude of 3000 to 4000 feet.

613. *Basileuterus mesoleucus*.

DEMERARA WARBLER.

Basileuterus mesoleucus Selater, P. Z. S. 1885, p. 286, pl. ix. fig. 1 (Demerara); Salvin, *Ibis*, 1885, p. 203 (Camacusa); Sharpe, *Cat. B. Brit. Mus.* x. p. 402, 1885 (Camacusa); Brabourne & Chubb, *B. S. Amer.* i. p. 360, no. 3688, 1912.

Adult. Head, back, wings, and tail russet-brown; inner webs of flight-quills blackish; a loreal streak which extends over the eye to the sides of the nape fawn-colour like the sides of the face; throat, breast, and upper abdomen white, with a tinge of pale fawn-colour across the fore-neck; sides of body, lower abdomen, and under tail-coverts fawn-colour; under wing-coverts whitish, tinged with rufous.

Total length 123 mm., exposed culmen 12, wing 56, tail 52, tarsus 22.

The specimen on which the description is based was collected on the Ituribisi River in 1909.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Kamakabra River (*McConnell collection*); Kamakusa (*Whitely*).

Extralimital Range. Venezuela, North-east Brazil.

Habits. Unrecorded in British Guiana.

Family MOTACILLIDÆ.

The Wagtails and Pipits, which consist of eight genera and a large number of species, are chiefly distributed in the Old World. Five of the genera however—*Motacilla*, *Anthus*, *Neocorys*, *Notiocorys*, and *Xanthocorys*—are represented in the New World, but only two, *Notiocorys* and *Xanthocorys*, occur in South America. When Brabourne and Chubb published their 'List of the Birds of South America' nine species were recorded, one of which is represented in British Guiana.

The majority of the Pipits of America have hitherto been included by most authors in the genus *Anthus* of Bechstein. But as the species of the New World are, on an average, smaller and of somewhat different appearance to those of the Old World, I propose that they be generically separated under the title introduced by Baird for the Guiana bird.

Genus NOTIOCORYS Baird.

Notiocorys Baird, Review American Birds, p. 15, 1864. Type *N. lutescens* (Less.).



Fig. 159.—*Notiocorys abariensis*.

In this genus the bill is slender and pointed, the width at the hinder portion of the nostrils is equal to about half the length of the exposed culmen and the height almost equal to the width. The wing has the first four outer primary-quills longest and sub-equal and exceeding the length of the tertials by about 15 mm. The tail is nearly square at the tip and about three-fourths the length of the wing. The tarsus is about twice the length of the exposed culmen. Coloration : male and female similar.

614. *Notiocorys abariensis*.

ABARY RIVER PIPIT.

Notiocorys lutescens (nec Less.) Baird, Rev. Amer. B. p. 15, 1864.

Anthus rufus Salvin, Ibis, 1885, p. 202 (Merumé Mts., Roraima, 3500 ft.); Sharpe, Cat. B. Brit. Mus. x. p. 606, 1885 (Merumé Mts., Roraima).

Anthus lutescens subsp. Hellmayr, Nov. Zool. xiii. p. 307, 1906 (British Guiana).

Anthus lutescens (nec Less.); Brabourne & Chubb, B. S. Amer. i. p. 361, no. 3696, 1912.

Notiocorys abariensis Chubb, Bull. Brit. Ornith. Club, xli. p. 79, Feb. 1921 (Abary River).

Adult female. General colour of the upper surface blackish brown with tawny margins to the feathers including the head, back, wings, and tail; flight-quills hair-brown on the inner webs with whitish edgings; the two outer tail-feathers on each side for the greater part white with more or less brown on the inner webs; sides of the face paler than the crown; throat and entire under surface yellowish white tinged with pale tawny on the breast and under wing-coverts, the feathers on the fore-neck and breast have dark shaft-streaks; under surface of flight-quills greyish brown with paler edgings; lower aspect of tail greyish brown on the middle-feathers and white on the outer ones.

Total length 119 mm., exposed culmen 10, wing 57, tail 42, tarsus 21.

The specimen from which the description is taken was collected on the Abary River in November 1906.

Adult male. Similar to the adult female described but rather larger. Wing 64 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Abary River (*McConnell collection*); Mount Roraima, Merumé Mountains (*Whitely*).

Extralimital Range. Brazil, Colombia, Bolivia, Paraguay, Argentina.

Habits. Unrecorded in British Guiana.

Family FRINGILLIDÆ.

This family, which is almost cosmopolitan in its distribution, was represented in South America by fifty-six genera and one thousand three hundred and twelve species at the time when Brabourne and Chubb, in 1912, published their 'List of the Birds of South America.' Seventeen genera and thirty-three species are known to occur in British Guiana.

Genus **CYANOCOMPSA** Cab.

Cyanocompsa Cabanis, Journ. Ornith. ix. p. 4, Jan. 1861. Type *C. parellina* (Bonap.).



Fig. 160.—*Cyanocompsa rothschildi*.

The species on which this genus is founded are peculiar on account of the blue plumage of the male and the coffee-brown colour of the female. The bill is stout and pointed, its width at the back of the nostrils is more than half the length of the exposed culmen, and its depth is greater than its width. The wing is rounded, the third, fourth, and fifth primaries longest, the second slightly longer than the sixth, and the first about equal in length to the eighth. The tail is slightly rounded at the tip and about three-fourths the length of the wing. The tarsus exceeds the length of the exposed culmen by about one-fourth. Coloration: male and female different.

615. *Cyanocompsa rothschildi*.

ROTHSCHILD'S BLUE GROSBEAK

Guiraca cyanea (nec Linn.) Salvin, Ibis, 1885, p. 213 (Bartica Grove Camacusa); Sharpe, Cat. B. Brit. Mus. xii. p. 71, 1888 (Bartica Grove, Camacusa).

Guiraca rothschildii Bartlett, Ann. & Mag. Nat. Hist. (ser. vi.) vi. p. 168, 1890 (Caramang River).

Cyanocompsa rothschildi Brabourne & Chubb, B. S. Amer. i. p. 362, no. 3713, 1912.

Cyanocompsa cyanea (nec Linn.) Beebe, Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica).

“Brazilian Blue Grosbeak” (Beebe).

Adult male. General colour both on the upper and under surface dark blue; inner webs of flight-quills blackish, inclining to brown towards the tips; tail black slightly fringed with blue on the outer webs; forehead and feathers over the eye brighter and paler blue; inner under wing-coverts and quill-lining dark brown; lower aspect of tail black.

Total length 155 mm., exposed culmen 16, wing 83, tail 58, tarsus 20.

Adult female. General colour above and below smoke-brown, darker and inclining to black on the inner webs of the flight-quills and tail-feathers. Wing 73 mm.

The male and female described were collected on the Supenaam River in 1911.

A young bird, collected at Bartica in 1911, not fully fledged on the top of the head, is dusky blackish brown with a few smoke-brown feathers on the abdomen, the upper surface also tinged with smoke-brown.

An immature male from the Ituribisi River has almost attained the dark blue plumage, but there are still the remains of smoke-brown feathers on the back and abdomen.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Manarika River, Makauria River, Arawai River, Great Falls Demerara River (*McConnell collection*); Kamarang River, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), North Brazil, Venezuela, Colombia.

Habits. Unrecorded in British Guiana.

Genus **ORYZOBORUS** Cab.

Oryzoborus Cabanis, Mus. Hein. i. p. 150, 1851. Type *O. angolensis* (Linn.).

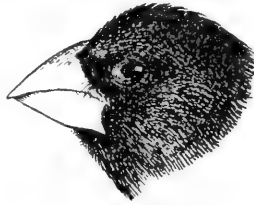


Fig. 161.—*Oryzoborus crassirostris*.

The species included in this genus belong to the thick-billed Finches. The bill is short and stout, the length of the exposed culmen is about equal to its depth at the nostrils, and its width at the base is about one-fifth less. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second about equal in length to the sixth, and the first about equal to the eighth. The tail is slightly rounded at the tip, the outermost feather on each side being about 7 mm. shorter than the middle ones, which are nearly as long as the wing. The tarsus exceeds the length of the exposed culmen by more than one-half. Coloration : male and female different.

Key to the Species.

- | | |
|--|-----------------------------------|
| A. Smaller, wing less than 62 mm. ; bill black ;
abdomen chestnut | <i>O. brevirostris</i> , p. 423. |
| B. Larger, wing more than 62 mm. ; bill
white ; abdomen black | <i>O. crassirostris</i> , p. 425. |

616. *Oryzoborus brevirostris*.**SMALL-BILLED TROPICAL SEED-FINCH.**

Oryzoborus torridus (nec Scop.) Salvin, Ibis, 1885, p. 214 (Roraima, 3500 ft., Merumé Mts., Camacusa, Bartica Grove); Sharpe, Cat. B. Brit. Mus. xii. p. 77, 1888 (Roraima, Camacusa, Bartica Grove); Queleh, Tinehri (2) v. p. 85, 1891 (Georgetown); Beebe, Our Search for a Wilderness, pp. 121, 127, 1910 (Georgetown).

Oryzoborus brevirostris Berlepsch, Nov. Zool. xv. p. 119, 1915 (Cayenne); Brabourne & Chubb, B. S. Amer. i. p. 363, no. 3719, 1912.

Oryzoborus angolensis brevirostris Beebe, Tropical Wild Life in British Guiana, p. 136, 1907 (Bartica).

“Brown-breasted Pygmy Grosbeak” (*Beebe*).

Adult male. General colour above including the back, wings, and tail black, like the sides of the face, throat, breast, and sides of the neck; base of flight-quills and margins of the inner webs white; abdomen and under tail-coverts deeply coloured chestnut; lower flanks and thighs black; axillaries, under wing-coverts, and inner edges of quills below white; remainder of the quills below dark brown; lower aspects of the tail black.

Total length 118 mm., exposed culmen 10, wing 55, tail 51, tarsus 16.

The male and female described were collected on the Ituribisi River in February 1907.

Adult female. Upper surface including the crown of the head, sides of face, back, wings, and tail dark umber-brown; inner webs of flight-quills blackish brown, some of the inner edges white; tail also blackish brown; throat, breast, and sides of body burnt umber becoming paler and more fulvescent on the middle of the abdomen; axillaries and under wing-coverts white. Wing 52 mm.

Young male. Similar to the adult female but deeper in colour, both on the upper and under surface.

The young bird described was collected by the late Henry Whitely at Bartica on the 27th of November, 1879, and is now in the British Museum, Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Abary River (*McConnell collection*); Mount Roraima, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Trinidad, Venezuela, Colombia, Eastern Ecuador, North-east Peru.

Habits. Mr. J. J. Queleh (Timehri (2) v. p. 85), who observed this species in Georgetown, remarks: “In bushy outlying places where the foregoing bird occurs, there will always be found the second but smaller species of the same genus, known as the twa-twa slave

(*O. crassirostris*), which, however, is much more common in and around the city than the twa-twa."

In habits this bird closely resembles the other Finches.

617. *Oryzoborus crassirostris*.

THICK-BILLED SEED-FINCH.

Loxia crassirostris Gmel. Syst. Nat. i. p. 862, 1789 (Guiana).

Coccyborus ater Cab. in Schomb. Reis. Guian. iii. p. 678, 1848.

Oryzoborus crassirostris Salvin, Ibis, 1885, p. 214 (Bartica Grove); Sharpe, Cat. B. Brit. Mus. xii. p. 79, 1888 (Bartica Grove, Georgetown); Beebe, Our Search for a Wilderness, p. 142, 1910 (Hoorie Creek); Brabourne & Chubb, B. S. Amer. i. p. 363, no. 3722, 1912.

Oryzoborus crassirostris crassirostris Beebe, Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica).

"Thick-billed Pygmy Grosbeak" (*Beebe*); "Twa-twa" (*Quelleh*).

Adult male. General colour, both on the upper and under surface, black; base of flight-quills white, which extends to the outer web on some of the outer primaries, and forms a white speculum; axillaries, under wing-coverts, and basal portion of quills below white, the under wing-coverts more or less marked with black; apical portion of quills below pale brown; lower aspect of tail dark brown.

Total length 145 mm., exposed culmen 13, wing 69, tail 57, tarsus 20.

The exact locality in British Guiana, of the specimen from which the description is taken, is unknown.

Adult female. Differs from the adult male in being olive-grey on the upper parts, fawn-colour on the under surface, and in the absence of the wing-speculum. Wing 68 mm.

The immature male, in its first plumage, is similar to the adult female.

The descriptions of the adult female and young male are taken from examples in the British Museum, collected by the late Henry Whitely at Annai, July 1889, Salvin-Godman collection.

Breeding-season. November (*Schomburgk*).

Nest. Built of mosses lined with plant-wool, and placed in thickly foliated bushes (*Schomburgk*).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Great Falls Demerara River (*McConnell collection*); Bartica (*Whitely*); Georgetown (*Quelch, Beebe*); Hoorie Creek (*Beebe*).

Extralimital Range. Surinam (*Penard*), Trinidad, Venezuela, Colombia, North, Brazil.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 678*) this bird is more commonly met with on the outskirts of woods and plantations near the coast than inland. It is usually met with in pairs, though solitary individuals are sometimes found amongst roaming flocks. The nest is made of mosses lined with plant-wool and placed in thickly foliated bushes. The nest was found in November.

Mr. J. J. Quelch (*Timehri (2) v. pp. 84, 85*), who observed this species in Georgetown, writes:—"Known as well by the name grass-bird as by their special names of twa-twa and tawa-twa slave (*Oryzoborus crassirostris*). The twa-twa is much prized as a cage-bird, and about town they fetch high prices—their whistling and chirping being very sweet and rich. They are frequently seen on the outskirts of the city among the grass and low bush of the open lands, where they feed on various seeds and grains."

Beebe (*Our Search for a Wilderness, p. 142*) writes:—"With the sudden rush of light came the distant bubbling of Twa-twas, those little thick-billed pygmy Grosbeaks."

Genus **PYRRHULAGRA** Bonap.

Pyrrhulagra Bonaparte, *Consp. Av. i. p. 492, 1850.* Type *P. portoricensis* (Daud.).



Fig. 162.—*Pyrrhulagra portoricensis*.

The members of this genus are easily distinguished by the almost black plumage of the males and the olive-brown and grey females. The bill is stout and pointed, its depth at the nostrils is

equal to about three-fourths the length of the exposed culmen, and its width at the base is about three-fourths that of the depth. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second slightly shorter than the sixth, and the first about equal in length to the tenth. The tail is square at the tip and about seven-eighths the length of the wing. The tarsus exceeds the length of the middle toe and claw by about one-third. Coloration : male and female different.

618. *Pyrrhulagra propinqua*.

LAWRENCE'S BULLFINCH.

Loxigilla noctis var. *propinqua* Lawr. Proc. U.S. Nat. Mus. i. p. 58, 1878 (Guiana).

Loxigilla propinqua Sharpe, Cat. B. Brit. Mus. xii. p. 85, 1888.

Pyrrhulagra propinqua Brabourne & Chubb, B. S. Amer. i. p. 364, no. 3726, 1912.

This species is not represented in the McConnell collection, nor is there a specimen in the British Museum. But according to Lawrence's description it is similar to *P. noctis*, but very much smaller. The under tail-coverts are of a paler rufous, the rufous on the throat is more restricted, and the superciliary line extending beyond the eye. Length $4\frac{1}{2}$ inches, wing $2\frac{5}{8}$, tail $2\frac{3}{8}$, tarsus $\frac{5}{8}$.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Essequibo River and Berbice (Lawrence).

Habits. Unrecorded.

Genus SPOROPHILA Cab.

Sporophila Cabanis, Arch. für Naturg. 10, p. 291, 1844. Type *S. luctuosa* (Laf.).



Fig. 163.—*Sporophila whiteleyana*.

In this genus the bill is short and stout; the length of the exposed culmen is about equal to the height and width at the base. The wing is rounded, the four outer primaries longest and

subequal. The tail is almost square at the tip, the outermost feather on each side being only slightly shorter than the middle ones. The tarsus is about one-third longer than the exposed culmen, and the middle toe and claw about one-fifth longer than the tarsus. Coloration : male and female different.

Key to the Species and Subspecies.

- A. General colour of plumage above grey.
 a. Bill whitish,
 a'. Smaller and paler; wing less than 60 mm. *S. intermedia*, p. 428.
 b'. Larger and darker; wing more than 60 mm. *S. longipennis*, p. 429.
 b. Bill blackish *S. whiteleyana*, p. 430.
 B. General colour of plumage above black.
 c. Sides of face uniform black, throat white *S. americana*, p. 431.
 d. Sides of face particoloured; throat black.
 c'. Entire crown of head black *S. bouvronides*, p. 432.
 d'. Middle of crown white in contrast to the rest of the crown ... *S. lineola*, p. 433.
 C. General colour of plumage above olive *S. gutturalis roraimæ*, p. 435.

619. *Sporophila intermedia*.

GREY SEED-EATER.

Sporophila intermedia Cab. Mus. Hein. i. p. 149, 1851 (Venezuela); Chubb, Bull. Brit. Orn. Cl. xli. p. 35, Nov. 1920.

Spermophila grisea (nec Gmel.) Sharpe, Cat. B. Brit. Mus. xii. p. 96, 1888.

Sporophila grisea (nec Gmel.) Brabourne & Chubb, B. S. Amer. i. p. 364, no. 3735, 1912.

Adult male. Crown of head, sides of face, back, outer aspect of wings and tail ash-grey; inner webs of flight-quills blackish, white on the basal portion, some of the outer primaries white at the base of the outer webs; tail-feathers blackish fringed with grey; throat, sides of neck, and sides of body ash-grey; middle of breast, middle of abdomen, under tail-coverts, axillaries, and under wing-coverts white like the inner edges of the quills below; remainder of quill-lining and lower aspect of tail greyish brown.

Total length 119 mm., exposed culmen 9, wing 57, tail 47, tarsus 16.

The above description is based on a specimen in the British Museum, from Venezuela.

Adult female. Differs from the adult male in being olive-brown on the upper parts and dark fawn-colour on the under surface; the under wing-coverts are white, and the white wing-speculum absent. Wing 57 mm.

The specimen described above is in the British Museum.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains (*McConnell collection*).

Extralimital Range. Surinam (*Penard*), Trinidad, Venezuela, Colombia.

Habits. Unrecorded in British Guiana.

620. *Sporophila longipennis*.

LONG-WINGED SEED-EATER.

Sporophila longipennis Chubb, Ann. & Mag. Nat. Hist. (ser. ix.) p. 193, Feb. 1, 1921 (Roraima, 3500 ft.).

Spermophila grisea (nec Gmel.) Salvin, Ibis, 1885, p. 215 (Roraima, 3500 ft.); Sharpe, Cat. B. Brit. Mus. xii. p. 96 part, 1888 (Roraima).

Sporophila grisea (nec Gmel.) Brabourne & Chubb, B. S. Amer. i. p. 364, no. 3735 part, 1912.

Adult male. General colour of the upper surface dark slate-grey, darker and inclining to blackish on the fore-part of the head; inner webs of flight-quills blackish brown, becoming paler on the inner margins, the fourth, fifth, and sixth primaries white at the base, which forms a wing-speculum; tail dusky-brown; sides of face, throat, sides of body, and thighs slate-grey but paler than the back; middle of breast, middle of abdomen, and under wing-coverts dull white; outer under wing-coverts dark brown; axillaries, inner under wing-coverts, and base of quills below white, remainder of quill-lining greyish brown; lower aspect of tail also greyish brown with white shafts to the feathers.

Total length 107 mm., exposed culmen 10, wing 65, tail 42, tarsus 15, middle toe and claw 13.

The female is unknown.

This species is not represented in the *McConnell collection*, and the description is taken from the type, which is in the British Museum, and was collected by the late Henry Whitely at Mount

Roraima at an altitude of 3500 feet, on the 24th of January, 1884, Salvin-Godman collection.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*Whitely*).

Habits. Unrecorded.

621. *Sporophila whiteleyana*.

WHITELY'S PLUMBEOUS SEED-EATER.

Spermophila plumbea (nec Wied.) Salvin, Ibis, 1885, p. 215.

Spermophila whiteleyana Sharpe, Cat. B. Brit. Mus. xii. p. 98, 1888 (Roraima).

Sporophila whiteleyana Brabourne & Chubb, B. S. Amer. i. p. 365, no. 3740, 1912.

Adult male. General colour of the upper surface lead-grey including the crown of the head, sides of face, entire back, scapulars, and upper wing-coverts, the greater series of the last blackish like the bastard-wing, primary-coverts, and flight-quills with rusty edges to the feathers; outer edge of wing white like the primary and secondary quills; tail black, some of the feathers have pale edges; chin, throat, sides of body, and breast also grey but paler than the upper surface and becoming white on the abdomen, under tail-coverts, axillaries, and under wing-coverts; under surface, of flight-quills and lower aspect of the tail greyish brown with white edges to the former.

Total length 103 mm., exposed culmen 8, wing 61, tail 40, tarsus 15.

The male described was collected in the Upper Takutu Mountains in 1908.

Adult female. General colour of the upper surface earth-brown; inner webs of flight-quills dark hair-brown paler and inclining to whitish on the edges; tail hair-brown; sides of the face, throat, and entire under surface pale ochreous; under surface of flight-quills and lower aspect of tail hair-brown with pale inner edges to the former. Wing 54 mm.

The female described was collected on the Abary River in September in 1906.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Abary River (*McConnell collection*); Mount Roraima (*Whitely*).

Extralimital Range. Venezuela, Colombia, North-east Brazil.

Habits. Unrecorded in British Guiana.

622. *Sporophila americana*.

GMELIN'S SEED-EATER.

Loxia americana Gmel. Syst. Nat. i. p. 863, 1789 (Cayenne).

Sporophila americana Cab. in Schomb. Reis. in Guian. iii. p. 678, 1848;

Brabourne & Chubb, B. S. Amer. i. p. 367, no. 3760, 1912.

Spermophila collaria Salvin, Ibis, 1885, p. 214.

Spermophila cucullata Sharpe, Cat. B. Brit. Mus. xii. p. 116, 1888.

Adult male. General colour of the upper surface black including the top of the head, sides of face, back, wings, and tail; lesser, median, and greater upper wing-coverts tipped with white; flight-quills white at the base, chiefly on the inner webs, but the fourth to the eighth primaries are marked with white on the outer web which forms a wing-speculum; lower back, rump, and short upper tail-coverts grey, some of the feathers tipped with white, long upper tail-coverts uniform dark grey; tail uniform black; throat and a band across the sides of the neck white; a narrow dark band across the lower throat; sides of breast black; middle of breast, abdomen, under tail-coverts, axillaries, under wing-coverts, and base of quills white pervaded with grey on the sides of the body; under surface of flight-quills and lower aspect of tail blackish.

Total length 114 mm., exposed culmen 9, wing 58, tail 46, tarsus 16.

The male from which the description is taken was collected on the Anarika River.

Adult female. General colour of the upper surface (including the top of the head, sides of the face, entire back, wings, and tail) ochreous-brown; under surface much paler and inclining to yellow on the middle of the abdomen; axillaries and under wing-coverts white, or buffy-white; under-surface of flight-quills pale hair-brown with buffy-white margins; lower aspect of tail greyish brown. Wing 53 mm.

The female described was collected on the Supenaam River in 1910.

There do not appear to be any young birds of this species in the McConnell collection, but there is a specimen in the British Museum, collected by the late Dr. A. R. Wallace on the island of Mexiana, which is sexed by him as male, but the plumage is very similar to that of the adult female.

Breeding-season. November (*Schomburgk*).

Nest. The nest is made of mosses, lined with plant-wool, and placed in thickly-foliaged bushes (*Schomburgk*).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Bonasika River, Abary River, Anarika River (*McConnell collection*).

Extralimital Range. Surinam (*Penard*), Tobago, North-eastern Brazil.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 678*) this species is more commonly met with on the outskirts of woods and plantations near the coast than inland. It is usually met with in pairs, though solitary individuals are observed amongst roaming flocks. The nest is made of mosses, lined with plant-wool and placed in thickly-foliaged bushes. The nest was found in November.

623. *Sporophila bouvronides*.

LESSON'S SEED-EATER.

Pyrrhula bouvronides Less. *Traite d'Orn. p. 450, 1831* (Trinidad).

Spermophila ocellata Sharpe, *Cat. B. Brit. Mus. xii. p. 131, 1888* (Carimang).

Sporophila bouvronides *Brabourne & Chubb, B. S. Amer. i. p. 367, no. 3770, 1912; Beebe, Tropical Wild Life in British Guiana, p. 136, 1917* (Bartica).

Adult male. General colour of the upper surface deep bluish black including the crown of the head, hind-neck, back, scapulars, wings, upper tail-coverts, and tail; the flight-quills white at the base on the inner webs, except on the two outermost primaries, extending to the outer webs of the fourth, fifth, sixth, and seventh quills which form a wing-speculum, the feathers on the head, hind-neck, and back have grey bases; rump white; throat, sides of the neck, and sides of face like the back; cheeks

white; the feathers on the breast and sides of the body are marked with black and white—some having ovate white tips which impart a dappled appearance; abdomen, lower flanks, under tail-coverts, axillaries, under wing-coverts, and base of quill-lining white; remainder of the under surface of the quills and lower aspect of tail blackish.

Total length 114 mm., exposed culmen 7, wing 55, tail 45, tarsus 15.

The male from which the description is taken was collected on the Supenaam River in 1911.

Adult female. General colour of the upper surface ochreous brown; throat, fore-neck, and sides of body fawn-colour; middle of abdomen yellowish; thighs and under tail-coverts pale buff; axillaries and under wing-coverts buffy-white; under surface of flight-quills hair-brown; lower aspect of tail similar but rather paler. Wing 55 mm.

The female of this species is not represented in the McConnell collection, neither is there a female specimen, from British Guiana, in the National collection. The specimen described was collected at Merida, Venezuela, by A. Goering, and is now in the British Museum, Sclater collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Takutu Mountains, Supenaam River (McConnell collection); Kamarang River (*Whitely*).

Extralimital Range. Surinam (*Penard*), Trinidad, Venezuela, Colombia, Peru, North-eastern Brazil.

Habits. Unrecorded in British Guiana.

624. *Sporophila lineola*.

LINED SEED-EATER.

Loxia lineola Linn. Syst. Nat. i. p. 174, 1758 (Guiana).

Spermophila lineola Salvin, Ibis, 1885, p. 214 (Merumé Mts., Camacusa, Roraima, 3500 ft.); Sharpe, Cat. B. Brit. Mus. xii. p. 131, 1888 (Merumé Mts., Camacusa, Caramang River); Quelch, Timehri (2) v. p. 84, 1891 (Georgetown).

Sporophila lineola Brabourne & Chubb, B. S. Amer. i. p. 367, no. 3769, 1912; Beebe, Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica).

Adult male. Lores, sides of crown, hinder face, hind-neck,

upper back, wings, tail, and throat glossy black; lower back, rump, and short upper tail-coverts grey with black tips to the feathers, paler and inclining to white on the last; inner webs of flight-quills for the greater part white, a few of the primaries are marked with white on the outer web which forms a small wing-speculum; a line of white from the base of the upper mandible along the middle of the crown to the nape; cheeks, breast, abdomen, under tail-coverts, axillaries, under wing-coverts, and basal portion of the quills below white; outer margin of wing below more or less blackish; under surface of flight-quills and lower aspect of tail blackish.

Total length 111 mm., exposed culmen 7, wing 57, tail 43, tarsus 13.

The male described was collected on the Abary River in September 1906.

Adult female. General colour of the upper surface olive-brown including the crown of the head, sides of the face, hind-neck, entire back, wings, and tail; throat, breast, and sides of body isabelline-buff; abdomen, under tail-coverts, axillaries, and under wing-coverts buffy-white. Wing 54 mm.

The female described was collected on the Supenaam River in 1911.

A young female from the Supenaam River is similar to the adult female in many respects but everywhere darker; the adult plumage is shown by the white line on the middle of the head being slightly indicated on the forehead, the black on the lores, the white on the cheeks, and a few minute black spots on the chin. The last remains of the immature plumage appear to be the pale buff wash on the under surface.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River, Abary River (*McConnell collection*); Merumé Mountains, Kamakusa, Kamarang River (*Whitely*); Georgetown (*Quelch*); Bartica (*Beebe*).

Extralimital Range. Surinam (*Penard*), Venezuela, East Brazil, Peru, Bolivia, Argentina.

Habits. Unrecorded in British Guiana.

625. *Sporophila gutturalis roraimæ*.

RORAIMA YELLOW-BELLIED SEED-EATER.

Spermophila gutturalis (nec Licht.) Salvin, Ibis, 1885, p. 215 (Roraima, 3500 ft.); Sharpe, Cat. B. Brit. Mus. xii. p. 128, 1888 (Roraima).

Sporophila gutturalis Brabourne & Chubb, B. S. Amer. i. p. 367, no. 3764 (part), 1912.

Sporophila gutturalis roraimæ Chubb, Ann. & Mag. Nat. Hist. (ser. x.) p. 193, Feb. 1, 1921 (Mount Roraima).

Adult male. Crown of head, nape, sides of face, sides of neck, throat and fore-neck black; entire back, scapulars, and upper wing-coverts dark olive-green; inner webs of flight-quills dark brown with pale margins; tail dark brown; sides of body more or less green; abdomen, under tail-coverts, axillaries, and under wing-coverts sulphur-yellow; under surface of flight-quills dark brown; lower aspect of tail similar but paler.

Total length 105 mm., exposed culmen 8, wing 54, tail 45, tarsus 15.

In addition to the characters mentioned above the Roraima birds are smaller than those from Bahia and Pernambuco.

The type, which is in the British Museum, was collected at Mount Roraima (3500 ft.) by the late Henry Whately in June 1883, Salvin-Godman collection.

Adult female. General colour of the upper surface olive-brown including the top of the head, entire back, wings, and tail; inner edges of flight-quills white at the base; sides of face paler than the back; under surface buffy-white including the throat, breast, abdomen, under tail-coverts, axillaries, and under wing-coverts; under surface of flight-quills and lower aspect of tail pale brown. Wing 55 mm.

The specimen on which the above description is based was collected at Mount Roraima by Mr. McConnell during his expedition in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima, Abary River (McConnell collection).

Habits. Unrecorded.

Genus **MICROPHILA** Chubb.

Microphila Chubb, Ann. & Mag. Nat. Hist. (ser. x.) p. 192, Feb. 1921.
Type *M. castaneiventris* (Cab.).



Fig. 164.—*Microphila castaneiventris*.

The chief characters of the species that I suggest for separation as a new genus, are the straight culmen, not arched or semi-circular as in *Sporophila*, and the more rounded tail. Its small size and peculiar coloration also help to distinguish it. Type *M. castaneiventris* (Cab.).

Key to the Species.

- A. Lower back, rump, and upper tail-coverts
grey like the greater portion of the
upper surface *M. castaneiventris*, p. 436.
- B. Lower back, rump, and upper tail-coverts
bright chestnut in contrast to the rest
of the upper surface..... *M. minuta*, p. 438.

626. *Microphila castaneiventris*.

CHESTNUT-BELLIED SEED-EATER.

Sporophila castaneiventris Cab. in Schomb. Reis. Guian. iii. p. 679, 1848; Beebe, Our Search for a Wilderness, p. 171, 1910; Brabourne & Chubb, B. S. Amer. i. p. 365, no. 3743, 1912; Beebe, Tropical Wild Life in British Guiana, p. 136, 1917.

Spermophila castaneiventris Salvin, Ibis, 1885, p. 214 (Bartica Grove); Sharpe, Cat. B. Brit. Mus. xii. p. 108, 1888 (Bartica Grove); Quelch, Timehri (2) v. p. 84, 1891 (Georgetown).

“Blue-backed Seed-eater” (Beebe).

Adult male. General colour of the upper surface dark ash-grey including the crown of the head, entire back, scapulars, and upper tail-coverts; upper wing-coverts, bastard-wing, and innermost secondaries black margined with ash-grey; primary-coverts and

flight-quills black, the inner webs of the latter white on the basal portion; tail also black with ash-grey fringes to the feathers; sides of the face and sides of the body ash-grey like the back; chin, throat, breast, middle of abdomen, and under tail-coverts chestnut; under wing-coverts white, grey on the margin of the wing, and greater series; inner edges of flight-quills below white, the remainder hair-brown; lower aspect of tail grey, dark brown, or blackish on the middle of the feathers.

Total length 86 mm., exposed culmen 7, wing 48, tail 32, tarsus 12.

The male described was collected at the Great Falls on the Demerara River in August 1912.

Adult female. General colour olive, including the top of the head, back, scapulars, and lesser upper wing-coverts; upper tail-coverts inclining to rust-colour; median and greater upper wing-coverts dark brown narrowly edged with buff; primary-coverts and flight-quills dark hair-brown, some of the inner secondaries white at the base on the inner webs; tail also dark hair-brown; under surface ochreous buff, including the throat, breast, sides of body, abdomen, thighs, and under tail-coverts; under wing-coverts silky white; under surface of quills and lower aspect of tail greyish brown. Wing 48 mm.

The female is not represented in the McConnell collection, and the description is taken from a specimen in the British Museum, collected by the late Henry Whitely at Bartica, February 1880, Salvin-Godman collection.

Breeding-season. February (*Beebe*).

Nest. In low bushes (*Beebe*).

Eggs. "From two to three in number. Whitish, thickly spotted with brown and lilac, and more or less covered with fine irregular lines of black" (*Beebe*).

Range in British Guiana. Great Falls Demerara River (*McConnell collection*); Bartica (*Whitely*); Georgetown (*Queleh, Beebe*).

Extralimital Range. Surinam (*Penard*), North Brazil, Colombia, East Ecuador, Peru.

Habits. Schomburgk states (*Reis. Guian. iii. p. 679*) that he only obtained a single specimen of this species and that was near the coast, in the vicinity of Cumaka.

The following note has been copied from Beebe (*Tropical Wild Life in British Guiana*, p. 239) :—

“The little Chestnut-bellied Seed-eater (*Sporophila castaneiventris*) built a larger nest and was not so particular about the material used. It invariably selected a low bush, so that the sitting bird was never more than eighteen inches from the ground. The nest was perhaps a little better built, for the walls were thicker and there was a slight lining of finer grass on the inside. Sometimes they decorated the nest. The top of one found in Georgetown in February was covered with white downy cotton obtained from the pods of a weed growing nearby. It gave the nest the appearance of a white cotton ring hanging in the bush.

“They laid from two to three whitish eggs, thickly spotted with brown and lilac, and more or less covered with fine, irregular lines of black.”

627. *Microphila minuta*.

PYGMY SEED-EATER.

Loxia minuta Linn. Syst. Nat. i. p. 176, 1758 (Surinam).

Spermophila minuta Salvin, Ibis, 1885, p. 214 (Roraima, 3500 ft.); Sharpe, Cat. B. Brit. Mus. xii. p. 109, 1888 (Georgetown, Roraima); Quelch, Timehri (2) v. p. 83, 1891 (Georgetown).

Sporophila minuta Brabourne & Chubb, B. S. Amer. i. p. 365, no. 3745, 1912.

Sporophila minuta minuta Beebe, Our Search for a Wilderness, p. 142, 1910 (Hoorie Creek); id. *Tropical Wild Life in British Guiana*, p. 136, 1917 (Bartica).

“Grass-birds” (Quelch); “Pygmy Seed-eater” (Beebe).

Adult male. Crown of head, sides of face, hind-neck, upper back, and lesser upper wing-coverts dusky greyish brown; median and greater upper wing-coverts, bastard-wing, primary-coverts, and flight-quills blackish brown with pale edgings to the feathers, all the flight-quills, except the outermost one, white at the base; lower back, rump, and short upper tail-coverts chestnut: long upper tail-coverts like the upper back; tail dark brown with pale edgings to the feathers; cheeks, throat, sides of neck, breast, abdomen, sides of body, and under tail-coverts chestnut; axillaries, under wing-coverts, and base of flight-quills below white; greater under wing-coverts, quill-lining, and lower aspect of tail hair-brown.

Total length 102 mm., exposed culmen 7, wing 50, tail 38, tarsus 14.

The male described was collected on the Abary River in July 1906.

Adult female. General colour of the upper surface, including the top of the head, back, wings, and tail, rust-brown; median upper wing-coverts dark brown with whitish margins; bastard-wing, greater coverts, and primary-coverts hair-brown with pale rufous margins to some of the feathers; primary-quills dark brown, paler on the outer edges and white on the inner margins: tail also dark brown with buff margins to the feathers: under surface of body fulvous, rather paler on the abdomen: axillaries, under wing-coverts, and inner edges of quills below whitish, remainder of quill-lining hair-brown like the lower aspect of the tail. Wing 47 mm.

The specimen described was collected on the Abary River, November 1906.

An immature male collected on the Abary River in November 1906 is similar to the adult female, but has the rump chestnut and the under surface tinged with the same colour.

A younger bird than the above, collected on the Supenaam River in 1910, has the crown of the head, entire back, wings, and tail olive-brown; sides of the face and throat buff, as are also the under tail-coverts, the breast and abdomen yellowish white, and the axillaries and under wing-coverts white.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Upper Takutu Mountains, Supenaam River, Abary River (*McConnell collection*); Mount Roraima (*Whitely*); Georgetown (*Brown, Quelch*); Hoorie River (*Beebe*).

Extralimital Range. Surinam (*Linneé*), Cayenne (*Brit. Mus.*), North-east Brazil, Trinidad, Tobago, Venezuela, Colombia, Ecuador.

Habits. Mr. J. J. Quelch, when writing on the birds of Georgetown (Timehri (2) v. p. 83), mentions that there were several little Finches from three to four inches in length, which as a rule frequent the grassy and bushes wastes seeking for grain and

seeds, and hence are called by the common name, Grass-birds, though they are often seen among the trees and on the ground. They are nearly all referable to the genus *Spermophila*.

Genus **DUNCANULA** Chubb.

Duncanula Chubb, Ann. & Mag. Nat. Hist. (ser. x.) p. 193, Feb. 1921.
Type *D. homochroa* (Sclater).

The chief character in this genus is the long and acutely pointed bill. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second about equal in length to the sixth, and the first about equal to the eighth. The tail is square at the tip and about five-sixths the length of the wing. The tarsus is about equal in length to the middle toe and claw, which are about twice the length of the exposed culmen. Coloration: male and female similar.

628. *Duncanula duncani*.

DUNCAN'S SEED-EATER.

(Plate VII.)

- Catamenia* sp. Salvin, Ibis, 1885, p. 216 (Roraima, 6000 ft.).
Spermophila homochroa (part nec Scl.) Sharpe, Cat. B. Brit. Mus. xii.
p. 105, 1888 (Roraima).
Catamenia homochroa Brabourne & Chubb, B. S. Amer. i. p. 368, no. 3774
(part), 1912.
Duncanula duncani Chubb, Ann. & Mag. Nat. Hist. (ser. x.) p. 193,
Feb. 1, 1921.

Adult male. General colour of the upper surface olive-brown with dark shaft-lines to the feathers, including the top of the head, entire back, wings, and tail, somewhat darker on the head and tinged with dark slate-grey on the upper wing-coverts; flight-quills blackish rather paler on the inner margins, outer webs of secondaries tinged with smoke-brown; tail-feathers blackish fringed with olive-brown; sides of face, sides of neck, throat, fore-neck, and under wing-coverts dark slate-grey; abdomen and sides of body olive-brown, the feathers surrounding the vent tipped with pale rufous; under tail-coverts chestnut; under



Duncanula duncani. ♂ ♀

Duncan's Seed-eater

surface of flight-quills and lower aspect of tail dark greyish brown with slightly paler edges to the former.

Total length 128 mm., exposed culmen 10, wing 65, tail 58, tarsus 20.

The specimen from which the description is taken was collected by Mr. McConnell at Mount Roraima in October 1898.

Adult female. General colour of the upper parts fulvous-brown with broad black shaft-lines to the feathers on the top of the head and back; inner webs of flight-quills blackish brown, paler on the inner edges; tail-feathers also blackish brown with fulvous margins to the feathers; sides of face and throat dusky-grey; breast, sides of body, and abdomen rust-brown; under tail-coverts chestnut; under wing-coverts ash-grey; under surface of flight-quills and lower aspect of tail dark brown. Wing 60 mm.

The female described above was also collected by Mr. McConnell at Mount Roraima in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Unrecorded.

Genus TIARIS Swains.

Tiaris Swainson, Zoological Journal, iii. p. 351, 1827. Type *T. ornata* (Wied).



Fig. 165.—*Tiaris phaeoptila*.

This genus is distinguished by having the bill somewhat compressed, pointed at the tip, the culmen keeled, nostrils oval and feathered on the posterior portion. The wing is rounded, the second, third, fourth, and fifth primaries longest, the first about

equal in length to the seventh. The tail is square at the tip and about four-fifths the length of the wing. The tarsus is about equal in length to the middle toe and claw.

629. *Tiaris phæoptila*.

BRITISH GUIANA GRASSQUIT.

Phonipara phæoptila Salvin & Godman, Ibis, 1884, p. 445 (Roraima, 3500 ft.).

? *Phonipara fumosa* Salvin, Ibis, 1885, p. 215 (Roraima).

Phonipara fuliginosa (part: nec Wied) Sharpe, Cat. B. Brit. Mus. xii. p. 151, 1888 (Roraima).

Tiaris fuliginosa Brabourne & Chubb, B. S. Amer. i. p. 369, no. 3788 (part), 1912.

Adult male. General colour of the upper surface dark soot-brown, including the top of the head, sides of the face, back, wings, and tail; inner webs of flight-quills paler on the inner margins; throat and fore-neck similar to the back; breast, abdomen, sides of body, and under tail-coverts dusky greyish brown; under wing-coverts, axillaries, and inner edges of quills below grey; remainder of quill-lining and lower aspect of tail dark hair-brown.

Total length 114 mm., exposed culmen 5, wing 59, tail 47, tarsus 17.

This species is not represented in the McConnell collection, and the above description is taken from the type of the species which is in the British Museum, and was collected by the late Henry Whitely at Mount Roraima, 3500 ft., November 29, 1883, Salvin-Godman collection.

This species differs from *T. fuliginosa fuliginosa* (Wied) in its paler coloration generally, but more especially on the under surface. Whether *T. fumosa* (Lawr.) differs from the present species I am unable to say, as I have not seen an example from Trinidad whence he described it.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana.

Habits. Unrecorded.

Genus **VOLATINIA** Reichenb.

Volatinia Reichenb. Syst. Av. pl. lxxix. fig. 16, 1850. Type *V. jacarini* (Linn.).



Fig. 166.—*Volatinia splendens*.

This genus is easily recognized by the glossy steel-blue plumage of the male and the sombre dress of the female. The bill is pointed, its depth and width at the base being about equal. The wing is rounded, the second, third, fourth, and fifth primaries longest and equal and the first about equal to the seventh. The tail is rounded at the tip, and nearly equal to the wing in length. The tarsus is about equal in length to the middle toe and claw. Coloration : male and female different.

630. *Volatinia splendens*.

GLOSSY GRASSQUIT.

Eringilla splendens Vieill. N. Dict. d'Hist. Nat. xii. p. 73, 1817 (Cayenne).

Volatinia splendens Salvin, Ibis, 1885, p. 215 (Bartica Grove);
Brabourne & Chubb, B. S. Amer. i. p. 369, no. 3790, 1912.

Volatinia jacarina (nec Linn.) Salvin, Ibis, 1885, p. 215 (Roraima);
Sharpe, Cat. B. Brit. Mus. xii. p. 152 (part), 1888 (Roraima and
Carimang River).

Volatinia jacarina splendens Beebe, Tropical Wild Life in British
Guiana, p. 136, 1917 (Bartica).

Adult male. General colour both above and below glossy blue-black ; axillaries white and some of the inner under wing-coverts partially white ; flight-quills and tail-feathers black more or less glossed with blue-black.

Total length 113 mm., exposed culmen 8, wing 54, tail 46, tarsus 15.

The adult male from which the description is taken was collected on the Abarý River in July 1906.

A specimen collected at Bartica differs from the male described in having pale edges to the feathers both above and below.

? *Immature female*. Crown of head, sides of face, sides of neck, hind-neck, back, and upper tail-coverts pale rust-brown; upper wing-coverts and flight-quills hair-brown, margined with rust-brown; tail uniform hair-brown; throat and abdomen whitish; breast tawny with dark shaft-streaks to the feathers; sides of body and under tail-coverts pale fawn-colour; axillaries and under wing-coverts white; under surface of flight-quills pale brown like the lower aspect of the tail. Wing 47 mm.

The specimen described above was collected on the Abary River in August 1909.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Bonasika River, Abary River, Georgetown (*McConnell collection*); Mount Roraima, Kamarang River, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Trinidad, Tobago, Venezuela, Colombia, Ecuador.

Habits. Unrecorded in British Guiana.

Genus **PITYLUS** Cuv.

Pitylus Cuvier, Règne Animal, 2nd ed. i. p. 413, 1829. Type *P. grossus* (Linné).



Fig. 167.—*Pitylus grossus*.

The species on which this genus was founded is easily distinguished by its large bill, which is bright red in colour; there is an indication of a tooth on the outer edges of the upper mandible

and also a hook at the tip. The wing is rounded, the second, third, fourth, and fifth primaries are longest and subequal, the first about equal in length to the seventh. The tail is rounded at the tip and about four-fifths the length of the wing. The tarsus exceeds the length of the middle toe and claw by about one-fourth. Coloration: male and female similar, but the latter less bright.

631. *Pitylus grossus*.

WHITE-THROATED KERNEL-EATER.

Loxia grossa Linn. Syst. Nat. i. p. 307, 1766 (Cayenne).

Pitylus grossus Cab. in Schomb. Reis. Guian. iii. p. 677, 1848; Salvin, Ibis, 1885, p. 213 (Merumé Mts., Camacusa, Bartica Grove); Selater, Cat. B. Brit. Mus. xi. p. 303, 1886 (Camacusa, Merumé Mts., Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 370, no. 3769, 1912; Beebe, Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica).

Adult male. Crown of head, hind-neck, entire back, upper tail-coverts, scapulars, upper wing-coverts, and outer aspect of quills slate-blue; flight-quills blackish, paler on the inner edges; tail black; lores, sides of face, and sides of throat black, the last continued in a semicircular band across the fore-neck; chin and throat white like the axillaries and under wing-coverts; breast, abdomen, sides of body, and under tail-coverts slate-blue darker on the last; under surface of flight-quills dark brown, paler on the edges; lower aspect of tail black.

Total length 198 mm., exposed culmen 17, wing 95, tail 80, tarsus 22.

The bird on which the description is based was collected on the Makauria River in August 1910.

Adult female. Similar to the adult male on the upper surface, but not quite so bright. It differs in the absence of black on the lores, sides of face, sides of the throat and band on the fore-neck which is replaced by grey, the white throat less extended; breast and abdomen ochreous-brown. Wing 95 mm.

The female described was collected at Bartica in 1912.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Suponaam River, Bartica, Kamakabra River, Makauria River, Abary River,

Mazaruni River, Arawai River, Great Falls Demerara River (*McConnell collection*); Merumé Mountains, Kamakusa, Bartica (*Whitely*).

Extralimal Range. Surinam (*Penard*), Cayenne (*Linné*), Brazil, Colombia, Ecuador, Peru, Bolivia.

Habits. Schomburgk states (*Reis. Guian. iii. p. 677*) that he found this bird fairly common—though always single—on Aruku and near the coast.

Genus PERIPORPHYRUS Bonap.

Periporphyrus Bonaparte, *Consp. Av. i. p. 503, 1851.* Type *P. erythromelas* (Gmel.).



Fig. 168.—*Periporphyrus erythromelas*.

This genus differs chiefly in having the nostrils more exposed, the third and fourth primaries longest, the second equal to the fifth, and the first only slightly shorter than the sixth. The tail is about nine-tenths the length of the wing, and the male is distinguished by its bright red coloration, while the female is chiefly yellow.

632. *Periporphyrus erythromelas*.

SCARLET KERNEL-EATER.

Loxia erythromelas Gmel. *Syst. Nat. i. p. 859, 1789* (Cayenne).

Pitylus erythromelas Salvin, *Ibis, 1885, p. 213* (Camacusa); *Sclater, Cat. B. Brit. Mus. xi. p. 305, 1886* (Demerara, Camacusa, Roraima); *Beebe, Our Search for a Wilderness, p. 315, 1910* (Aremu River); *Brabourne & Chubb, B. S. Amer. i. p. 370, no. 3798, 1912*; *Beebe, Tropical Wild Life in British Guiana, p. 136, 1917* (Bartica).

“Black-headed Scarlet Grosbeak” (*Beebe*).

Adult male. Entire head, sides of face, and throat deep black; back, wings, and tail deep red; primary-coverts bronze-brown,

like the outer webs of the primary and secondary quills; inner webs of flight-quills dark brown with orange-buff inner edges; a narrow collar on the hind-neck, breast, abdomen, sides of the body, and under tail-coverts bright red; axillaries, under wing-coverts, and inner margins of quills below salmon-pink; greater under wing-coverts and flight-quills below bronze-brown; lower aspect of the tail similar to its upper surface.

Total length 199 mm., exposed culmen 19, wing 101, tail 88, tarsus 21.

The male described was collected on the Abary River in July 1906.

Adult female. Entire head, sides of face, and throat black; back, wings, and tail dark bronze-yellow; breast, abdomen, and under tail-coverts orange-yellow, darker on the sides of the body and much brighter on the under wing-coverts; lower aspect of tail similar to its upper side but paler. Wing 100 mm.

The female described was collected on the Makauria River in August 1910.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Makauria River, Abary River, Mazaruni River (*McConnell collection*); Demerara (*Brown*); Kamarang River, Kamakusa, Mount Roraima (*Whitely*); Aremu River (*Beebe*).

Extralimital Range. Cayenne (*Gmelin*), North-eastern Brazil.

The following note is copied from Beebe (*Our Search for a Wilderness*, p. 315):—"A splendid scarlet bird flew out and alighted twenty yards away, again giving utterance to its characteristic loud whistle. It was what I have christened the Black-headed Scarlet Grosbeak, differing from the description of this species in being $8\frac{3}{8}$ instead of $7\frac{1}{2}$ inches in length. It was scarlet below, dull red above, with a scarlet necklace and a jet-black head and throat. A yellowish female showed herself for only a moment. The whistle was loud and penetrating, but sweet in quality.

"The nest, eggs, and young, as is the case with so many South American Birds, are unknown."

Genus **CARYOTHRAUSTES** Bonap.

Caryothraustes Bonaparte, Consp. Av. i. p. 503, 1851. Type *C. canadensis* (Linn.).



Fig. 169.—*Caryothraustes canadensis*.

This genus is easily distinguished by its square tail, which is about two-thirds the length of the wing, the tarsus exceeds the length of the exposed culmen by about one-third, and the male and female plumages are alike.

633. ***Caryothraustes canadensis***.

OLIVE KERNEL-EATER.

Loxia canadensis Linn. Syst. Nat. i. p. 304, 1766 (Cayenne).

Coccothraustes viridis Vieill. Enc. Méth. iii. p. 1017, 1823
("Guyane").

Pitylus canadensis Cab. in Schomb. Reis. Guian. iii. p. 677, 1848;
Brabourne & Chubb, B. S. Amer. i. p. 370, no. 3799, 1912.

Pitylus viridis Salvin, Ibis, 1885, p. 213 (Bartica Grove, Merumé Mts.,
Camacusa); Sclater, Cat. B. Brit. Mus. xi. p. 306, 1885 (Bartica
Grove, Merumé Mts.); Beebe, Our Search for a Wilderness, p. 176,
1910 (Hoorie River).

Pitylus canadensis canadensis Beebe, Tropical Wild Life in British
Guiana, p. 136, 1917 (Bartica).

"Black-faced Green Grosbeak," "Black-faced Grosbeak"
(Beebe).

Adult male. General colour of the upper parts yellowish green including the head, back, wings, and tail; inner webs of flight-quills blackish broadly margined with yellow, the black shafts, like those of the tail-feathers, are in strong contrast; fore part of the head paler and inclining to yellow; lores, a narrow line over and extending behind the eye, fore part of cheeks, and throat deep black; hinder face, sides of neck, fore-neck, breast, abdomen, and

under tail-coverts yellow tinged with green, more strongly on the sides of the body; axillaries, under wing-coverts, and inner edges of quills below pale lemon-yellow; remainder of the flight-quills below dark brown; lower aspect of tail similar to its upper surface but darker.

Total length 164 mm., exposed culmen 14, wing 90, tail 65, tarsus 22.

The bird described was collected on the Ituribisi River in November 1906.

Adult female. Similar in colour of plumage to the adult male. Wing 85 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

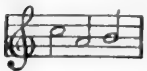
Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Mazaruni River, Tiger Creek (*McConnell collection*); Merumé Mountains, Bartica, Kamakusa (*Whitely*).

Extralimital Range. Surinam (*Penard*), Northern Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 677*) that he met with this species on the outskirts of the woods near the coast. The "Warraus" call it *Waeruhi*.

The following note has been quoted from Beebe (*Our Search for a Wilderness, p. 176*):—"Among the hosts of smaller birds which haunted the tree-tops at the edge of the clearing, the Black-faced Grosbeaks were especially noticeable. In colour they reminded one of immature male Orchard Orioles, being yellowish green with black throat and face. They fed morning and evening on the reddish berries of a great vine which ripened its fruit in the tree-tops, and here their song was repeated over and over, a rattling buzz, like the rapid stroke of a stick along the palings of a fence, followed by three liquid, whip-like notes, thus:



, the buzz part of the song also did duty as the call-note."

Genus **SALTATOR** Vieill.

Saltator Vieillot, Analyse nouv. Ornith. p. 32, 1816. Type *S. cærulescens* Vieill.



Fig. 170.—*Saltator cayanus*.

To this genus belong some of the largest of the Finches. The bill is somewhat compressed, the culmen is keeled, the upper mandible is slightly hooked at the tip, and the depth and width at the base are about equal. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second about equal to the sixth, and the first intermediate between the sixth and seventh. The tail is rounded at the tip and nearly nine-tenths the length of the wing. The tarsus exceeds the length of exposed culmen by about one-fourth. Coloration: male and female similar.

Key to the Species.

- A. Upper surface yellowish green; lower aspect of tail yellow..... *S. cayanus*, p. 450.
 B. Upper surface grey; lower aspect of tail also grey..... *S. olivascens*, p. 452.

634. Saltator cayanus.

GREATER SALTATOR.

Le Griverd de Cayenne Daubent. Pl. Enl. v. pl. 616.

Coracias cayanus Bodd. Tabl. Pl. Enl. p. 38, 1783 (Cayenne).

Saltator magnus Cab. in Schomb. Reis. Guian. iii. p. 676, 1848; Salvin, Ibis, 1885, p. 213 (Bartica Grove, Roraima, 3500 ft.); Selater, Cat. B. Brit. Mus. xi. p. 285, 1886 (Roraima, Bartica Grove); Quelch, Timehri (2) v. p. 81, 1891 (Georgetown).

Saltator maximus (nec Müll.) Brabourne & Chubb, B. S. Amer. i. p. 371, no. 3803, 1912.

Saltator cayanus Mathews & Iredale, Austral. Av. Record, iii. p. 41, 1915.

Saltator maximus maximus (nec Müll.) Beebe, Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica).

“Tompitcher” (*Brown*), “Tom-pitcher” (*Quelch*).

Adult female. Back, wings, and tail olive-green; bastard-wing

and inner webs of flight-quills blackish, paler on the margins of the latter; a narrow white supraloral streak which extends over the eye; forehead and crown of head dark olive-green; sides of face and sides of neck dark lead-grey; chin and upper throat whitish, lower throat pale fawn-colour; a line on each side of the throat deep black; breast, abdomen, and sides of the body lead-grey; under tail-coverts and inner under wing-coverts fawn-colour; marginal under wing-coverts greyish brown with pale edges; flight-quills below hair-brown with pale grey margins on the basal portion; lower aspect of the tail pale yellowish green.

Total length 187 mm., exposed culmen 17, wing 97, tail 85, tarsus 25.

The specimen described was collected at Mount Roraima by Mr. McConnell during his expedition in October 1898.

Adult male. Similar to the adult female but slightly larger. Wing 100 mm.

Breeding-season. November (*Schomburgk*).

Nest. Built of mosses, lined with plant-wool, and placed in densely-foliaged bushes (*Schomburgk*).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Ituribisi River, Supenaam River, Bartica, Bonasika River, Abary River (*McConnell collection*); Mount Roraima, Bartica (*Whitely*).

Extralimital Range. Colombia, Ecuador, Peru, Bolivia, Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 676*) that he found this bird in pairs on the outskirts of woods and plantations, also in the gardens of the natives; but it was more numerous near the coast than inland. Its nest is made of mosses lined with plant-wool and placed in densely-foliaged bushes. Schomburgk observed it nesting in November.

Mr. J. J. Quelch (*Timehri (2) v. p. 81*), who observed this species in Georgetown, remarks:—"Among the shrubs and trees generally throughout the town, a somewhat larger tanager than the preceding, and one which by the size and shape of its bill would commonly be referred to the finches, is always to be met with. This is the Tom-pitcher (*Saltator magnus*). These birds chiefly frequent the smaller bushes and trees, where they seek out the seeds and fruit. They are also often to be found on the ground.

They are restless birds, seldom quite stationary for any length of time, but jumping and jerking about from branch to branch and tree to tree. Their cry is loud and somewhat harsh. They are frequently caught by boys, and though as a rule they thrive fairly well in confinement, they are neither beautiful in plumage, nor melodious in song."

The following note is copied from Brown (Canoe and Camp Life, p. 41):—"Tompitchers, insignificant looking but very lively birds. They whistle loudly, producing sounds from which they have derived their name."

635. *Saltator olivascens*.

GREY-BREASTED SALTATOR.

Saltator olivascens Cab. in Schomb. Reis Guian. iii. p. 676, 1848 (Roraima); Salvin, Ibis, 1885, p. 213; Selater, Cat. B. Brit. Mus. xi. p. 289, 1886; Brabourne & Chubb, B. S. Amer. i. p. 371, no. 3807, 1912.

Adult male. General colour of the upper surface dark ash-grey, including the top of the head, sides of the face, entire back, wings, and tail, inner webs of flight-quills and tail-feathers hair-brown; a supraloral streak and feathers round the eye white; space in front of the eye, fore-part of cheeks, and sides of the throat blackish: chin, throat, and middle of abdomen cream-white; breast, sides of neck, and sides of body dusky-grey; lower flanks and under tail-coverts pale fawn-colour: thighs and marginal under wing-coverts whitish; axillaries and inner wing-coverts buff; under surface of flight-quills hair-brown with whitish inner edges; lower aspect of tail greyish brown.

Total length 210 mm., exposed culmen 18, wing 103, tail 90, tarsus 25.

The specimen described was collected on Supenaam River in 1910.

The young bird differs from the adult in having the throat and under parts saturated with yellow, and the upper surface tinged with the same colour. In an earlier stage than the specimen mentioned here, the feathers on the under surface have dark shaft-lines which imparts a streaked appearance.

Breeding-season. November (*Schomburgk*).

Nest. Made of mosses lined with plant-wool and placed in densely foliated bushes (*Schomburgk*).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takuta Mountains, Ituribisi River, Supenaam River, Bonasiki River, Abary River (*McConnell collection*) ; Mount Roraima (*Schomburgk*).

Extralimital Range. Trinidad, Venezuela, Colombia, North Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 676*) that this species, like *S. magnus*, is distributed throughout the whole of British Guiana, and is usually met with in pairs in plantations, outskirts of woods, and in the fields cultivated by the Indians. He found it more numerous, however, near the coast than in the interior. Its nest is made of mosses lined with plant-wool and placed in densely foliated bushes. The nest is found in November. The "Macuis" call it *Sikuih*.

Genus **SICALIS** Boie.

Sicalis Boie, *Isis*, 1828, p. 324. Type *S. flaveola* (Linn.).



Fig. 171.—*Sicalis flaveola*.

The species included in this genus are of medium size and the males brightly coloured. The bill is pointed and somewhat stout at the base, where the depth is about equal to the width. The wing is almost square, the innermost secondaries being nearly as long as the primaries; the five outer primaries are longest and subequal. The tail is square at the tip and about five-sevenths the length of the wing. The tarsus is about twice the length of the exposed culmen. Coloration : male and female different.

Key to the Species.

- A. Fore part of crown bright orange-red *S. flaveola*, p. 454.
 B. Fore part of crown not orange-red.
 b'. Top of head and back broadly streaked with blackish; lores and a line above the eye yellow; under surface bright yellow; bill shorter and stouter *S. minor*, p. 455.
 c'. Top of head very dull yellowish, not perceptibly streaked, and only slightly on the back; under surface dull yellow; lores uniform with the crown; bill longer and more slender *S. roraimæ*, p. 457.

636. *Sicalis flaveola*.

SAFFRON FINCH.

Fringilla flaveola Linn. Syst. Nat. i. p. 321, 1766 (Surinam).

Sycalis brasiliensis Cab. in Schomb. Reis. Guian. iii. p. 679, 1848.

Sycalis flaveola Salvin, Ibis, 1885, p. 217; Sharpe, Cat. B. Brit. Mus. xii. p. 377, 1888; Queleh, Timehri (2) v. p. 82, 1891 (Georgetown).

Sicalis flaveola Brabourne & Chubb, B. S. Amer. i. p. 374, no. 3842, 1912.

Adult male. Fore part of head bright orange; hind-neck, back, wings, and tail greenish yellow with dark shaft-lines to the feathers on the upper back; inner webs of flight-quills blackish brown with sulphur-yellow margins; tail brown strongly tinged with yellow; sides of face and throat crocus-yellow; remainder of the under surface, including the under wing-coverts and inner margins of the quills below, bright yellow; remainder of the quill-lining dark brown; lower aspect of tail similar to the upper surface but paler.

Total length 140 mm., exposed culmen 10, wing 71, tail 54, tarsus 21.

Adult female. Crown of head, sides of face, throat, and middle of abdomen grey with dark shaft-streaks on the crown of the head; back and wings greyish buff with dark shaft-lines to some of the feathers; inner webs of bastard-wing and flight-quills dark brown with whitish or yellowish margins to the latter; lower back, rump, upper tail-coverts, and outer margins of tail-feathers greenish yellow, remainder of the tail-feathers dark brown; fore-neck greenish yellow; thighs, under tail-coverts, under wing-coverts, and inner margins of quills below bright yellow, remainder of quill-lining dark brown; lower aspect of tail yellowish brown. Wing 68 mm.

This species is not represented in the McConnell collection, and there are no specimens from British Guiana in the British Museum; the descriptions are taken from specimens from Santa Maria, Colombia. The male collected by Mr. F. A. A. Simons, Salvin-Godman collection, and the female collected by Claude W. Wyatt, Selater collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Georgetown (*Schomburgk, Quelch*).

Extralimital Range. Surinam (*Linné*), Venezuela, Colombia, Ecuador, Peru, Brazil.

Habits. Schomburgk states (*Reis. Guin. iii. p. 679*) that this species frequents the coast, especially in the neighbourhood of Georgetown, where it may be met with in small flocks, associating with other species of allied genera which frequent the coal-palms and fruit-trees.

Mr. J. J. Quelch, when writing on the Native Birds of Georgetown (*Timehri (2) v. p. 82*), remarks as follows:—"Two other common birds often met with, and like the foregoing known as Canary, generally, grass canary, are, however, referable to the tree finches. These are *Sycalis flaveola* and *S. minor*."

"These pretty little birds are often to be seen flying about the bushes and trees in the town, and are commonly found on the high grass-stems in open places. They are great favourites as cage-birds, and are often to be seen, in the common pith-cages, being hawked about the streets."

637. *Sicalis minor*.

LITTLE YELLOW FINCH.

Sycalis minor Cab. in Schomb. *Reis. Guian. iii. p. 679, 1848* (Georgetown); Salvin, *Ibis, 1885, p. 217*; Sharpe, *Cat. B. Brit. Mus. xii. p. 384, 1888*.

Sicalis minor Brabourne & Chubb, *B. S. Amer. i. p. 375, no. 3850, 1912*.

Adult male. General colour of the upper surface blackish brown, including the head, back, wings, and tail, the feathers on the crown of the head and hind-neck margined with yellowish green and more narrowly on the upper back and lesser upper wing-coverts; rump and upper tail-coverts uniform

yellowish green; median and greater upper wing-coverts margined with pale earth-brown; bastard-wing, primary-coverts, and flight-quills narrowly edged with green on the outer webs and with whitish on the inner webs of the last; outer webs of tail-feathers more or less edged with yellowish green; sides of face yellowish green; a spot of yellow on each side of the culmen at the base of the forehead covering the nostrils; throat, sides of neck, breast, abdomen, under tail-coverts, axillaries, and under wing-coverts bright yellow; under surface of flight-quills and lower aspect of the tail pale brown.

Total length 108 mm., exposed culmen 8, wing 63, tail 42, tarsus 14.

The specimen from which the description is taken was collected on the Abary River in November 1906.

Breeding-season. Unrecorded in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Abary River (*McConnell collection*); Mount Roraima and Rupuruni River (*Whitely*); Georgetown (*Quelch*).

Extralimital Range. Venezuela, North Brazil.

Habits. According to Schomburgk (*Reis. Guian.* iii. p. 679), this bird frequented the coast, more especially near Georgetown, where it associated with species of allied genera, which were often observed on the coal-palms and fruit trees.

Mr. J. J. Quelch (*Timehri* (2) v. p. 32), writing on the Native Birds of Georgetown, remarks:—"Two other common birds often met with, and like the foregoing known as Canary, generally grass canary, are, however, referable to the true finches. These are *Sycalis faveola* and *S. minor*.

"These pretty little birds are often to be seen flying about the bushes and trees in the town, and are commonly found on the high grass-stems in open places. They are great favourites as cage-birds, and are often to be seen, in the common pith-cages, being hawked about the streets."

638. *Sicalis roraimæ*.

RORAIMA GROUND-FINCH.

Sycalis citrina (nec Pelz.) Salvin, Ibis, 1885, p. 217 (Merumé Mts., Roraima, 2700-3700 ft.).

Pseudochloris citrina (nec Pelz.) Sharpe, Cat. B. Brit. Mus. xii. p. 778, 1888 (Merumé Mts., Roraima).

Pseudochloris browni (nec Bangs) Brabourne & Chubb, B. S. Amer. i. p. 380, no. 3911, 1912.

Pseudochloris roraimæ Chubb, Ann. & Mag. Nat. Hist. (ser. x.) p. 194, Feb. 1, 1921.

Adult male. Crown of head dark citron-yellow, with no indication of dark shaft-lines to the feathers; wings and back blackish brown with olive-grey margins to the feathers; rump and upper tail-coverts dark olive-green; tail blackish brown fringed with olive-green; the two outer feathers on each side white on the inner webs at the tips; sides of face tawny yellow; throat, breast, and abdomen dull yellow, darker on the sides of the body and paler on the under tail-coverts; under wing-coverts buff; under surface of flight-quills dark brown; lower aspect of tail similar to its upper surface but paler brown.

Total length 116 mm., exposed culmen 8, wing 63, tail 44, tarsus 14.'

Adult female. Differs from the adult male in being blackish on the upper surface with paler fringes to the feathers; throat, breast, and sides of body fawn-brown with dark shaft-lines to the feathers, becoming whitish yellow on the lower abdomen and under tail-coverts. Wing 58 mm.

This species was quoted by Brabourne and Chubb in their 'List of the Birds of South America,' as *Pseudochloris browni* (Bangs). It differs from that species, however, in its smaller size and much duller coloration. There is a series of twelve specimens in the British Museum all of which are quite constant in character.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*Whitely*).

Habits. Unrecorded.

Genus **SPIZA** Bonap.

Spiza Bonaparte, Journ. Philad. Acad. iv. p. 45, 1824. Type *S. americana* (Gmel.).



Fig. 172.—*Spiza americana*.

This monotypic genus is easily distinguished by its square tail with its obliquely-cut and pointed feathers. The bill is somewhat stout and pointed, the depth and width at the base are about equal, and is about three-fourths the length of the exposed culmen. The wing is rounded, the first, second, and third primaries are longest and equal. The tail is square at the tip and about five-eighths the length of the wing. The tarsus is about twice the length of the exposed culmen. Coloration: male and female similar.

639. ***Spiza americana***.

BLACK-THROATED BUNTING.

Emberiza americana Gmel. Syst. Nat. i. p. 872, 1789 (New York).

Spiza americana Sharpe, Cat. B. Brit. Mus. xii. p. 770, 1888; Brabourne & Chubb, B. S. Amer. i. p. 375, no. 3853, 1912.

Adult male. Crown of head dark yellowish green, with minute dark shaft-lines to the feathers; hind-neck, sides of face, and sides of neck slate-grey; upper back black with broad ash-brown margins to the feathers becoming rufous-brown on the scapulars where the shaft lines are narrower; lower back, rump, and upper tail-coverts dark earth-brown; lesser and median upper wing-coverts chestnut; greater upper wing-coverts and inner secondaries blackish broadly margined with rufous-brown; bastard-wing, primary-coverts, and flight-quills dark hair-brown, with pale inner edgings to the last; tail hair-brown; lores, a line over the eye, and cheeks yellow like the fore-neck and middle of the breast; short feathers under the eye, a line along the sides of the

hinder crown, sides of neck, and upper throat white; lower throat black; sides of the body pale ash-brown; middle of abdomen and under-tail coverts cream-white; inner under wing-coverts and axillaries white edged with yellow; marginal under wing-coverts and edge of wing yellow; under surface of flight-quills and lower aspect of tail pale greyish brown.

Total length 156 mm., exposed culmen 12, wing 80, tail 54, tarsus 24.

The male described was collected on the Abary River in July 1906.

Adult female. Differs from the adult male chiefly in the absence of black on the throat and scarcely any yellow on the under surface. Wing 83 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Abary River (*McConnell collection*).

Extralimital Range. Trinidad, Aruba Island, Venezuela, Colombia, Central America to the United States of North America.

Habits. Unrecorded in British Guiana.

Genus MYOSPIZA Ridgw.

Myospiza Ridgway, Auk, xv. p. 224, 1898. Type *M. humeralis* (Bosc.).



Fig. 173.—*Myospiza humeralis*.

In this genus the bill is also pointed and somewhat stout at the base, where the depth and width are about equal, which is about three-fifths the length of the exposed culmen. The wing is almost square, the second, third, fourth, and fifth primaries longest and equal, the first about equal in length to the sixth. The tail is square at the tip and about two-thirds the length of

the wing. The tarsus is about twice the length of the exposed culmen, and the middle toe and claw about three-fourths the length of the tarsus. Coloration: male and female similar.

640. *Myospiza humeralis*.

GRASSHOPPER SPARROW.

Tanagra humeralis Bosc. Journ. d'Hist. Nat. ii. p. 179, pl. xxxiv. fig. 1792 ("Habitat in Cayana").

Coturniculus manimbe (Licht.) Salvin, Ibis, 1885, p. 216 (Roraima, 3500 ft.).

Ammodromus manimbe Sharpe, Cat. B. Brit. Mus. xii. p. 691, 1888 (Roraima).

Myospiza manimbe Brabourne & Chubb, B. S. Amer. i. p. 375, no. 3855, 1912.

Myospiza humeralis Chubb, Bull. Brit. Ornith. Cl. xxxi. p. 39, Jan. 25, 1913.

Adult. Fore part of the head black with grey margins to the feathers, the central portion of the feathers paler and more sooty-brown on the hind-neck and back, the dark portion edged with rust-brown; lesser upper wing-coverts rust-brown; median and greater series blackish with whitish margins like the bastard-wing; primary-coverts and flight-quills dark hair-brown with pale edgings on the outer webs of the primaries and rust-colour on the secondaries, margins of inner webs whitish; lower back rust-brown, the dark centres almost obsolete; upper tail-coverts blackish with grey margins; tail hair-brown with pale edges to the feathers; sides of face pale brown; lores and bend of wing yellow; throat and breast pale earth-grey, inclining to white on the abdomen and becoming isabelline on the lower flanks and under tail-coverts; sides of the body darker and inclining to ochreous-brown; axillaries and inner under wing-coverts white, the marginal series yellow like the bend of the wing; under surface of flight-quills and lower aspect of tail hair-brown.

Total length 113 mm., exposed culmen 10, wing 51, tail 38, tarsus 20.

The specimen described was collected on the Abary River in July 1906.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Upper Takutu Mountains, Abary River (*McConnell collection*); Mount Roraima (*Whitely*).

Extralimital Range. Surinam (*Penard*), Venezuela, Brazil, Bolivia, Paraguay, Argentina.

Habits. Unrecorded in British Guiana.

Genus **BRACHYSPIZA** Ridgw.

Brachyspiza Ridgway, Auk, xv. p. 224, 1898. Type *B. capensis* (Müll.).



Fig. 174.—*Brachyspiza macconnelli*.

The members of this genus are birds of larger size than those of the previous genus. The bill is proportionately long and pointed, its depth and width at the base are equal to about half the length of the exposed culmen. The wing is rounded, the second, third, fourth, and fifth primaries longest and equal and the first about equal in length to the seventh. The tail is square at the tip and about five-sixths the length of the wing. The tarsus is about twice the length of the exposed culmen and the middle toe and claw nearly equal in length to tarsus. Coloration: male and female similar.

641. *Brachyspiza macconnelli*.

McCONNELL'S SONG-SPARROW.

Zonotrichia matutina (nec Licht.) Cab. in Schomb. Reis. Guian. iii. p. 679, 1848 (Roraima).

Zonotrichia pileata Salvin, Ibis, 1885, p. 210 (Merumé Mts., Roraima); Sharpe, Cat. B. Brit Mus. xii. p. 610, 1888 (Roraima, Merumé Mts.).

Brachyspiza macconnelli Sharpe, Trans. Linn. Soc., (2) Zool. viii. p. 53, pl. iv. fig. 1, 1900 (Mount Roraima); Brabourne & Chubb, B. S. Amer. i. p. 378, no. 3883, 1912.

Adult. Crown of head and sides of face dusky, as are also the rump and upper tail-coverts; sides of crown, hinder face, and

a spot on each side of the lower throat black ; sides of neck rufous which extends across the hind-neck ; back and scapulars black with rust-brown, or grey margins to the feathers ; lesser upper wing-coverts greyish brown, the median and greater series blackish with white, or rusty margins like the bastard-wing ; primary-coverts and flight-quills dark hair-brown with pale edges to the outer and inner webs ; tail hair-brown with slightly paler edges to the feathers ; lores grey ; the feathers on the fore part of the face tipped with grey ; chin and throat white like the middle of the abdomen, under tail-coverts, and under wing-coverts ; breast, sides of body, thighs, axillaries, and marginal under wing-coverts dusky grey ; under surface of flight-quills dark brown ; lower aspect of tail similar but paler.

Total length 137 mm., exposed culmen 11, wing 65, tail 55, tarsus 21.

The specimen from which the description is taken was collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

Adult female. Similar to the adult male. Wing 62 mm.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*).

Habits. Schomburgk states (*Reis. Guian.* iii. p. 679) that he shot this species in the open woods in the vicinity of the Roraima Mountains, where it associates with other allied genera and may often be seen on tall trees, but sometimes solitary individuals may be observed in the low bushes and on the ground. The "Arawaaks" call it *Kotumari*.

Genus **EMBERIZOIDES** Temm.

Emberizoides Temminck, Pl. Col. iii. livraison 19, 1824. Type *E. macrurus* (Gmel.).



Fig. 175.—*Emberizoides sphenurus*.

This genus is easily recognized by having the tail longer than the wing, the feathers of which are sharply attenuated on the apical portion. It is further distinguished by having black hair-like bristles in front of the eye. Coloration: male and female similar.

642. **Emberizoides sphenurus.**

LONG-TAILED GROUND FINCH.

Passerina sphenura Vieill. N. Dict. d'Hist. Nat. xxv. p. 25, 1817 (Cayenne).

Emberizoides macrurus, Salvin, Ibis, 1885, p. 216 (Merumé Mts., Roraima, 3000–4000 ft.); Sharpe, Cat. B. Brit. Mus. xii. p. 768, 1888 (Roraima, Merumé Mts.).

Emberizoides sphenurus Brabourne & Chubb, B. S. Amer. i. p. 380, no. 3899, 1912.

Adult male. General colour of the upper surface black with yellowish margins to the feathers, which are narrower and inclining to dusky-grey on the crown of the head and hind-neck and broader and yellowish olive on the upper back, wings, and tail; bend of wing yellow; lesser upper wing-coverts uniform olive-yellow; inner greater coverts and innermost secondaries margined with dark earth-brown; flight-quills hair-brown, paler and inclining to whitish on the edges of the inner webs; the margins of the feathers on the lower back, rump, and upper tail-coverts dark ochreous-brown; tail hair-brown, inclining to black along the shafts of the middle feathers, which have yellowish olive margins; lores and short feathers round the eye white;

ear-coverts and sides of face pale brown with pale shaft-lines to the feathers; throat, middle of abdomen, and thighs cream-white; breast, sides of body, and under tail-coverts pale ochreous-brown; axillaries and marginal under wing-coverts yellow; inner under wing-coverts white; under surface of flight-quills hair-brown paler on the inner edges; lower aspect of tail pale hair-brown.

Total length 171 mm., exposed culmen 13, wing 70, tail 84, tarsus 25.

The specimen described above was collected at Bartica in 1911.

Adult female. Similar in plumage to the adult male but smaller. Wing 64 mm. "Upper mandible black with yellow at the sides, lower mandible yellow; iris purplish brown; legs, toes, and claws brownish flesh" (*H. Whitely*).

There are three young birds of this species, two from the Abary River and one from the Ituribisi River, all of which have ochreous-brown margins to the feathers. The specimens collected on the Abary were obtained in July and November. The July bird is almost uniform yellow below, while the November one has the throat whitish, darker and inclining to ochreous on the breast and sides of the body, some of the feathers on the flanks have dark shaft-lines; in this individual the tail is fully developed but not in either of the others. The bird from the Ituribisi differs from the other two in being much paler yellow on the under surface and in having blackish centres to the feathers on the breast.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Makauria River, Abary River (*McConnell collection*); Mount Roraima, Merumé Mountains (*Whitely*).

Extralimital Range. Venezuela, Colombia.

Habits. Unrecorded in British Guiana.

Genus **CORYPHOSPINGUS** Cab.

Coryphospingus Cab. Mus. Hein. i. p. 145, 1851. Type *C. cucullatus* (P. L. S. Müll.).



Fig. 176.—*Coryphospingus cucullatus*.

The species on which this genus was founded is easily recognised by its bright red and black crest. The bill is somewhat slender and pointed. The wing is rounded, the second, third, fourth, and fifth primaries longest and subequal, and the first about equal in length to the seventh. The tail, which is slightly rounded at the tip, is almost as long as the wing. The tarsus is about two-thirds the length of the exposed culmen. Coloration: female similar to the male, but much less bright.

643. *Coryphospingus cucullatus*.

RED-CRESTED FINCH.

Eringilla cucullata P. L. S. Müller, Syst. Nat. Suppl. p. 166, 1776 (Cayenne).

Coryphospingus cristatus (Gmel.) Salvin, Ibis, 1885, p. 216 (Bartica Grove); Sharpe, Cat. B. Brit. Mus. xii. p. 803, 1888 (Bartica Grove).

Coryphospingus cucullatus Brabourne & Chubb, B. S. Amer. i. p. 384, no. 3941, 1912; Beebe, Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica).

Adult male. Hind-neck, back, and wings dark chocolate-brown; inner webs of flight-quills blackish with paler edges; rump and upper tail-coverts dark crimson; tail feathers sooty-black faintly edged with chocolate-brown; forehead and sides of the crown blackish, the feathers minutely edged with vinous; crest bright silky-red; sides of neck and sides of face vinous-brown somewhat darker in front and below the eye; eye-ring white; the short feathers at the base of the bill and chin grey; throat, fore-neck, middle of breast, middle of abdomen, and under tail-coverts red becoming dark crimson on the sides of the body; axillaries white with a tinge of red on the edges of the feathers; under wing-

coverts and inner edges of quills below white ; remainder of the flight-quills below dark hair-brown like the lower aspect of the tail, the latter showing obsolete cross-bars.

Total length 132 mm., exposed culmen 12, wing 65, tail 55, tarsus 19.

The male described was collected by Mr. McConnell at Takutu, on the Mazaruni River, during his expedition to Mount Roraima in November 1898.

Adult female. Crown of head, sides of face, hind-neck, sides of neck, back, and outer aspect of wings chocolate-brown inclining to rufous on the rump and upper tail-coverts; inner webs of flight-quills hair-brown with whitish margins; tail dark brown; under surface pale brick-red, paler and inclining to whitish on the chin; axillaries, under wing-coverts, and inner margins of quills below whitish, remainder of the under surface of flight-quills and lower aspect of tail dark brown. Wing 65 mm.

The female described is in the British Museum, and was collected at Bartica by the late Henry Whitely, Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bonasika River, Takutu, Mazaruni River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Brazil, Peru, Bolivia, Paraguay, Argentina.

Habits. Unrecorded in British Guiana.

Genus COCCOPSIS Reichenb.

Coccopsis Reichenbach, Syst. Nat. pl. lxxvii. fig. 8, 1850. Type *C. gularis* (Linn.).



Fig. 177.—*Coccopsis gularis*.

The species on which this genus was founded is distinguished

chiefly by its thin bill, short feathers on the throat, and rounded tail. The bill is proportionately long and somewhat depressed at the base, where the width exceeds its depth by about one-third. The wing is rounded, the second, third, and fourth primaries longest and equal, the first about equal in length to the fifth. The tail is rounded at the tip and nearly six-sevenths the length of the wing; the middle tail-feathers exceed the outermost by about 10 mm. The tarsus exceeds the length of the exposed culmen by about one-third. Coloration: male and female similar.

644. *Coccopsis gularis*.

BLACK-THROATED CARDINAL.

Tanagra gularis Linn. Syst. Nat. i. p. 316, 1766 (Guiana).

Calyptrophorus gularis Cab. in Schomb. Reis. Guian. iii. p. 678, 1848.

Coccopsis gularis Cab. Mus. Hein. i. p. 145, 1851.

Passerina gularis Brown, Canoe and Camp Life in British Guiana, p. 225, 1876.

Paroaria nigrigenis (nec Lafr.) Salvin, Ibis, 1885, p. 215 (Camacusa).

Paroaria gularis Sharpe, Cat. B. Brit. Mus. xii. p. 813, pl. xvi. fig. 4, 1888 (Camacusa); Quelch, Timehri (2) iv. p. 334, 1890 (Upper Berbice River); Brabourne & Chubb, B. S. Amer. i. p. 385, no. 3952, 1912; Beebe, Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica).

“Fall-bird” (*Brown*).

Adult male. Entire back, wings, and tail glossy blue-black, the bases to the feathers on the back pale grey; inner edges of flight-quills white; crown of head, sides of face, and chin red; lores and feathers round the eye black; lower throat glossy black with dark red bases to the feathers; breast, abdomen, sides of body, and under tail-coverts white, as are also the axillaries, under wing-coverts, and inner edges of quills below; greater under wing-coverts black, which forms a patch near the outside edge of the wing; under surface of flight-quills and lower aspect of tail black.

Total length 165 mm., exposed culmen 13, wing 86, tail 74, tarsus 22.

The male described was collected by Mr. McCConnell on the Bonasika River in December.

Adult female. Similar to the adult male. Wing 78 mm.

A young bird from the Upper Takutu Mountains differs from the adult in having the entire upper surface dusky-brown, crown

of head sooty-brown; throat and sides of face pale buff, some of the feathers tinged with red; under surface white, as in the adult.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Bonasika River, Essequibo River, Arawai River (*McConnell collection*); Kamaskusa (*Whitely*).

Extralimital Range. Surinam (*Penard*), Northern Brazil, Eastern Brazil.

Habits. Schomburgk states (*Reis. Guian.* iii. p. 678) that, although this species is distributed throughout British Guiana, he did not often meet with it until he reached the Upper Essequibo, where it was fairly common, frequenting the bushes overhanging the water in search of food. He did not observe it nesting. The "Macusis" call it *Foraraura*.

The following note has been copied from Brown (*Canoe and Camp Life in British Guiana*, pp. 224-225):—"On our way up we spent a Sunday at Yucurit Island, camping on the sand-beach at the island's point, near the house of a Brazilian Indian who resided there. I was much amused with the good relations existing between three young tame birds at the house; they were fully feathered, but as their wings were clipped they could not fly—not that they seemed to care to do so, as they appeared to enjoy themselves thoroughly, trotting about in company, watching 'every pot boil' in the house, and making little excursions to the edge of the forest, or water's edge. The leader of the band was a small fall-bird (*Passerina gularis*) with black and white body and crimson head."

Mr. J. J. Quelch (*Timehri* (2) iv. p. 334), who observed this species on the Upper Berbice River, remarks:—"Lower down a fine specimen of the beautiful Fall-bird (*Paroaria gularis*) had been secured, and this was the only one met with."

Genus **ARREMON** Vieill.

Arremon Vieillot, *Analyse nouv. Ornith.* p. 32, 1816. Type *A. taciturnus* (Herm.).



Fig. 178.—*Arremon taciturnus*.

In this genus the bill is pointed and conical, the length of the exposed culmen exceeds the depth at the base by about one-third. The wing is rounded, the third, fourth, fifth, and sixth primaries are longest and subequal, the second is intermediate in length between the sixth and seventh, and the first about four-fifths the length of the second. The tail is rounded at the tip, the middle feathers exceed the outermost by about one-fifth. The tarsus is about twice the length of the exposed culmen. Coloration: male and female different.

645. **Arremon taciturnus.**

PECTORAL SPARROW.

Tanagra taciturna Herm. *Tab. Affin. Anim.* p. 214 note, 1783.

Tanagra silens Bodd. *Tabl. Pl. Enl.* p. 46, 1783 (Guiana).

Arremon silens Cab. in Schomb. *Reis. Guian.* iii. p. 677, 1848; Salvin, *Ibis*, 1885, p. 212 (Roraima, 3500–4000 ft., Merumé Mts., Camacusa, Atapurau River); Selater, *Cat. B. Brit. Mus.* xi. p. 273, 1886 (Bartica Grove, Atapurau River, Camacusa, Merumé Mts., Roraima); Brabourne & Chubb, *B. S. Amer.* i. p. 386, no. 3957, 1912; Beebe, *Tropical Wild Life in British Guiana*, p. 136, 1917 (Bartica).

Arremon taciturnus Stresem. *Nov. Zool.* xxvii. p. 328, 1920.

Adult male. Entire back and outer aspect of wings yellowish bronze-green; bend of wing bright yellow; inner webs of bastard-wing, greater upper wing-coverts, primary-coverts, and flight-quills blackish brown; tail also blackish brown more or less tinged with bronze-green; head, nape, sides of face, and a

band across the fore-neck deep black; a grey mesial line along the top of the head to the nape, extending across to the sides of the neck; a narrow white supraloral line over the eye, widening and extending along the sides of the crown to the nape; throat, middle of breast, middle of abdomen, and under tail-coverts white; sides of breast and flanks ash-grey; axillaries and marginal under wing-coverts yellow, remainder of the under wing-coverts green; under surface of flight-quills and lower aspect of tail hair-brown.

Total length 155 mm., exposed culmen 13, wing 77, tail 65, tarsus 25.

The male described above was collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

Adult female. Similar to the adult male on the upper surface but differs on the under surface, in the absence of the black band across the fore-neck, in being isabelline on the throat and breast, and dusky on the sides of the breast and flanks. Wing 66 mm.

Two young birds from Bartica are dark and almost invisible green on the back and wings, the head dusky with scarcely any pattern apparent, and the under parts entirely dusky showing no indication whatever of the adult plumage. A third one, collected on the Abary River in September 1907, is more advanced on the upper parts, where the characters of the adult plumage are plainly indicated, but on the under surface it is similar to the two mentioned above.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Ituribisi River, Bartica, Kamakabra River, Bonasika River, Makauria River, Abary River, Anarica River, Tiger Creek (*McConnell collection*).

Extralimital Range. Venezuela, Eastern Brazil.

Habits. Schomburgk states (*Reis. Guian.* iii. p. 667) that he first met with this species in the dense woods in the neighbourhood of Mount Roraima at an elevation of 3000 feet, solitary or in pairs, hopping about in the low bush of the dense woods in search of insects. The "Arekunas" call it *Kawaripoami*.

Genus **ATLAPETES** Wagl.*Atlapetes* Wagler, Isis, 1831, p. 526. Type *A. pileatus* Wagl.Fig. 179.—*Atlapetes personatus*.

This genus is distinguished chiefly by the short wings and long tail. The bill is pointed and somewhat compressed, the depth and width at the base are equal and about two-thirds the length of the exposed culmen. The wing is rounded, the third, fourth, fifth, and sixth primaries longest and subequal, the second about equal in length to the eighth, and the first about four-tenths shorter than the second. The tail is rounded at the tip, the middle feathers being nearly one-fourth longer than the outermost. The tarsus is about twice as long as the exposed culmen and about one-fourth longer than the middle toe and claw. Coloration: male and female similar.

646. *Atlapetes personatus*.

RUFIOUS-HEADED SPARROW.

Arremon personatus Cab. in Schomb. Reis Guian. iii. p. 678, 1848.*Buarremon personatus* Salvin, Ibis, 1885, p. 212 (Roraima, 4000-6000 ft.); Sclater, Cat. B. Brit. Mus. xi. p. 270, 1886 (Roraima).*Atlapetes personatus* Brabourne & Chubb, B. S. Amer. i. p. 389, no. 4000, 1912

Adult. Crown of head, nape, sides of face, sides of neck, and chin rufous; back, rump, and upper tail-coverts and upper wing-coverts slaty-black with a greenish tinge; flight-quills blackish with isabelline margins on the inner webs, the outer web of the first primary inclining to white; tail also blackish; throat, breast, abdomen, and under tail-coverts yellow more or less intermixed with olive-green; sides of the body and thighs dusky olive-green; under wing-coverts cream-white like the inner edges of the quills below; marginal-coverts and greater series much darker and inclining to blackish; under surface of quills and lower aspect of tail blackish brown.

Total length 171 mm., exposed culmen 13, wing 77, tail 78, tarsus 27.

The specimen described was collected at Mount Roraima by Mr. McConnell in October 1898.

Adult female. Similar to the adult male. Wing 75 mm.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Schomburgk states (*Reis. Guian.* iii. p. 678) that he only obtained one example of this beautiful bird, which was on the Roraima Mountains, in dense woods, at an altitude of 6500 feet. Schomburgk could not give any details of its mode of life. The "Arekunas" called it *Weruy*.

Family CÆREBIDÆ.

When Brabourne and Chubb published their 'List of the Birds of South America' in 1912, this family was represented by ten genera and seventy-five species. Five of the genera and eight of the species are represented in British Guiana.

Genus CÆREBA Vieill.

Cæreba Vieillot, Ois. d'Amér. Sept. i. p. 70, 1807. Type *C. flaveola* (Linn.).



Fig. 180.—*Cæreba guianensis*.

The members of this genus are somewhat small birds, which are blackish for the most part on the upper surface and yellow for the greater part on the under parts. The bill is slender, sharply pointed, and slightly curved. The wing is rounded, the second, third, fourth, and fifth primaries longest and equal, the first much longer than the sixth but shorter than the fifth. The tail is square at the tip and about two-thirds the length of the wing. The tarsus is about one-fourth longer than the exposed culmen. Coloration: male and female similar.

647. *Cœreba guianensis*.

GUIANA FLOWER-PECKER.

Certhiola flaveola (nec Linn.) Cab. in Schomb. Reis. Guian. iii. p. 675, 1848.

Certhiola guianensis Cab. Mus. Hein. p. 97, 1851 (Guiana).

Certhiola chloropyga (nec Cab.) Salvin, Ibis, 1885, p. 207 (Bartica Grove, Camacusa, Ataparau River, Roraima, 3500-4000 ft.); Selater, Cat. B. Brit. Mus. xi. p. 44, 1886 (Roraima, Atapurou River, Camacusa, Bartica Grove); Quelch, Timehri (2) v. pp. 77, 78, 1891 (Georgetown).

Cœreba guianensis Brabourne & Chubb, B. S. Amer. i. p. 391, no. 4021, 1912.

“Pipi-tooree,” “Flower-pecker” (*Quelch*).

Adult. Crown of head, sides of face, back, wings, and tail blackish; rump and upper tail-coverts lemon-yellow; flight-quills blackish, white at the base on the inner webs and on both webs of some of the primaries; tail also blackish, some of the outer feathers edged with white at the tip; a white supraloral streak which extends over the eye and along the sides of the crown; cheeks, chin, and throat ash-grey; breast, abdomen, and sides of the body yellow; under tail-coverts, axillaries, under wing-coverts, and inner edges of quills below white, remainder of flight-quills below and lower aspect of tail blackish, some of the outer feathers of the latter are edged with white at the tips.

Total length 93 mm., exposed culmen 11, wing 51, tail 31, tarsus 15.

The bird described was collected on the Mazaruni River in October 1907.

Adult female. Similar to the adult male, but rather paler on the upper surface. Wing 51 mm.

The specimen described was collected at Bartica in October 1879 by the late Henry Whitely, now in the British Museum, Salvin-Godman collection.

Immature. Differs from the adult in having the upper surface dusky-brown, the rump inclining to green, and the chin yellow like the rest of the under surface.

The young bird mentioned above was collected by Mr. McConnell at Mount Roraima in October 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana

Range in British Guiana. Mount Roraima, Upper Takutu Mountains, Bartica, Mazaruni River, Bonasika River, Abary River, Great Falls Demerara River (*McConnell collection*); Mount Roraima, Kamarang River, Kamakusa, Bartica (*Whitely*); Georgetown (*Quelch*).

Extralimital Range. Surinam (*Penard*), East Venezuela.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 676*) this species is found throughout the colony, often associating with *Dacnis cayana* in search of insects and juicy fruits in the tops of the trees. Schomburgk did not, however, find its nest.

Mr. J. J. Quelch (*Timehri (2) v. pp. 77, 78*), who observed this species in Georgetown, remarks:—"Among the trees with dense foliage, and especially fruit-trees such as the mango, the sapodilla, and star-apple, the little Flower-peckers (*Certhiola chloropyga*) are always to be found.

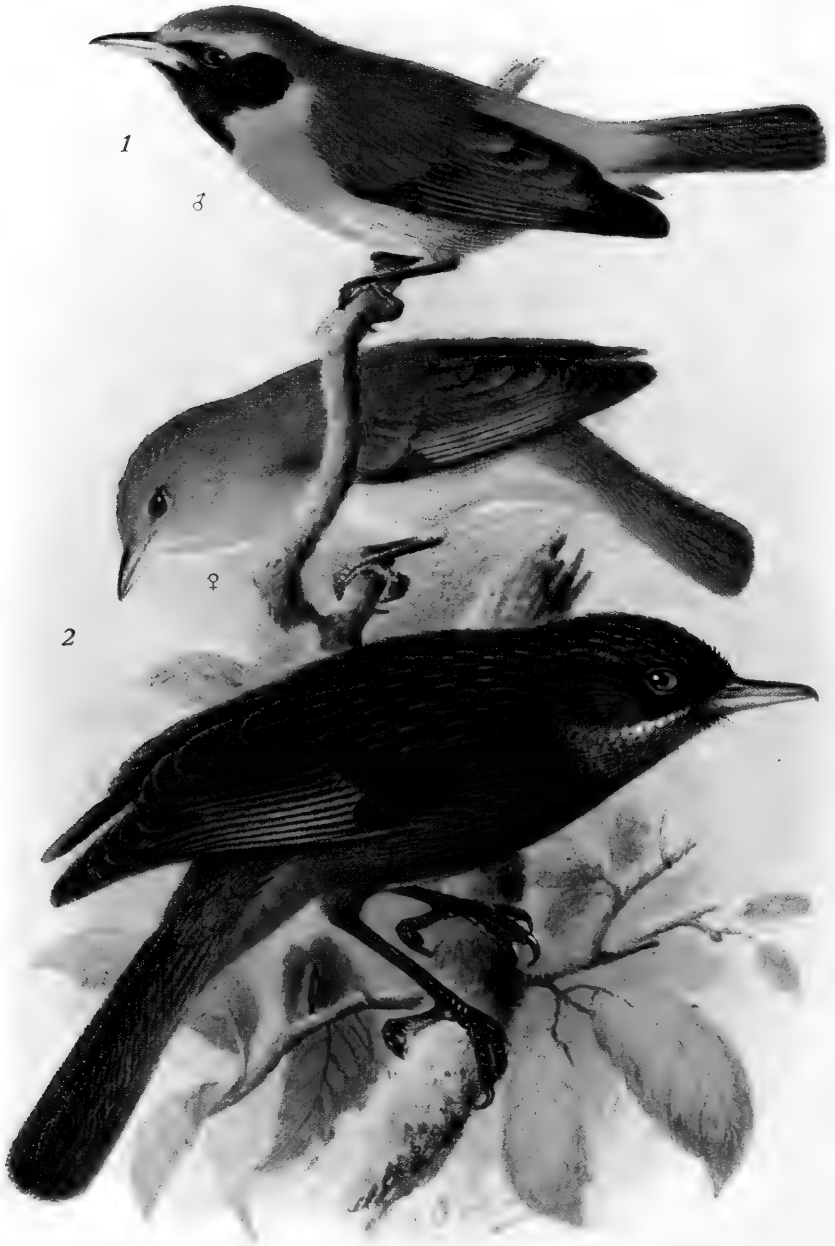
"These little birds are often to be seen hunting for insects among the flowers, and jumping about among the branches of the trees, or feeding on the ripe fruits. Their note is a sharp tweet, pi-pit-tweet, pi-pit-tweet, and on this account they are commonly known as 'pipi-tooree,' though the same name is also applied to a totally distinct bird, a diminutive Tyrant-Shrike (*Todirostrum cinereum*)."

Genus DIGLOSSA Wagl.

Diglossa Wagler, *Isis*, 1832, p. 280. Type *D. baritula* Wagl.

The chief character by which this genus is easily distinguished is the compressed bill and the sharply-hooked upper mandible. The rictal bristles are somewhat numerous and fairly well developed. The wing is rounded, the second, third, and fourth primaries are longest and equal, the first about equal in length to the sixth. The tail is rounded at the tip and nearly as long as the wing. The tarsus exceeds the length of the exposed culmen by about one-third. Coloration: male and female similar.





1 & 2. *Hemithraupis roraimæ* ♂ ♀.
Roraima Guira Tanager.

3. *Diglossa major*.
Greater Guit-guit.

648. *Diglossa major*.

GREATER GUIT-GUIT.

(Plate VIII. fig. 3.)

Diglossa major Cab. in Schomb. Reis. Guian. iii. p. 676, 1848 (Mount Roraima); Gray, Handl. B. i. p. 118, 1869; Selater & Salvin, Nomencl. Av. Neotrop. p. 15, 1873; Selater, Ibis, 1875, p. 214; Salvin, Ibis, 1885, p. 206 (Roraima, 5000-6000 ft.); Selater, Cat. B. Brit. Mus. xi. p. 7, 1886 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 393, no. 4035, 1912.

Adult female. General colour both above and below dark blue with paler blue shaft-streaks to the feathers, many of the feathers on the hind-neck have the shafts extended into black hair-like tips; bastard-wing, greater upper wing-coverts, primary-coverts, and flight-quills black, paler on the edges of the inner webs and blue along the margins of the outer ones of the last; tail-feathers black fringed with blue on the outer margins; base of forehead, lores, feathers below the eye, ear-coverts, and chin black; a slightly indicated grey moustachial streak; under surface paler than above and inclining to grey on the throat; under tail-coverts, some of the feathers on the outer margin of the wing below, and two or three feathers on the middle of the breast chestnut; axillaries and under wing-coverts silvery-grey, under surface of flight-quills and lower aspect of tail blackish. "Bill plumbeous; feet horn-colour" (Cat. B. Brit. Mus.).

Total length 169 mm., exposed culmen 14, wing 84, tail 77, tarsus 25.

The specimen described was collected at Mount Roraima by Mr. McConnell in October 1898.

Adult male. Similar to the adult female and differing only in the absence of the small chestnut spot on the breast. Wing 81 mm.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Schomburgk states (Reis. Guian. iii. p. 676) that he first met with this bird on the Roraima Mountains at an altitude of 6000 feet, where it wandered through the bushes growing on

the slopes, and searching almost every leaf for insects. Its nidification was unknown to him. The "Arekunas" called it *Kawaikui*.

Genus **DACNIS** Cuv.

Dacnis Cuvier, Règn. Anim. 2nd ed. i. p. 395, 1816. Type *D. cayana* (Linn.).



Fig. 181.—*Dacnis cayana*.

The species included in this genus are birds of small size with slender and sharply-pointed bills. The wing is rounded, the four outer primaries longest and subequal. The tail is square at the tip and about two-thirds the length of the wing. The tarsus exceeds the length of the exposed culmen by about one-fourth. Coloration : male and female different.

Key to the Species.

- | | |
|---|---------------------------------|
| A. Throat black in contrast to the breast,
which is blue | <i>D. cayana</i> , ♂, p. 476. |
| B. Throat grey in contrast to the green breast | <i>D. cayana</i> , ♀, p. 477. |
| C. Throat and breast uniform blue | <i>D. angelica</i> , ♂, p. 478. |
| D. Throat ochreous like the breast | <i>D. angelica</i> , ♀, p. 478. |
| E. Throat and breast uniform grey | <i>D. bicolor</i> , ♂, p. 479. |
| F. Throat yellow like the breast | <i>D. bicolor</i> , ♀, p. 479. |

649. **Dacnis cayana.**

TURQUOISE HONEY-EATER.

Motacilla cayana Linn. Syst. Nat. i. p. 236, 1766 (Cayenne).

Dacnis cayana Cab. in Schomb. Reis. Guian. iii. p. 675, 1848; Salvin, Ibis, 1885, p. 207 (Roraima, 3500 ft., Camacusa, Merumé Mts., Bartica Grove); Selater, Cat. B. Brit. Mus. xi. p. 19, 1886 (Roraima, Camacusa, Bartica Grove); Quelch, Timehri (2) v. p. 78, 1891 (Georgetown); Brabourne & Chubb, B. S. Amer. i. p. 395, no. 4061, 1912.

Dacnis cyanocephala Cab. in Schomb. Reis. Guian. iii. p. 675, 1848.

Adult male. Crown of head, nape, lower back, rump, and upper tail-coverts, sides of face, breast, and remainder of the under surface dark turquoise-blue; throat, lores, feathers surrounding

the eye, upper back, and tail black; lesser upper wing-coverts black broadly tipped with blue, the median and greater series black edged with blue; bastard-wing and primary-coverts black; flight-quills also black fringed with blue on the outer webs; under wing-coverts grey tinged with blue; under surface of flight-quills and lower aspect of tail dark hair-brown.

Total length 112 mm., exposed culmen 11, wing 65, tail 45, tarsus 16.

The male described was collected on the Kamakabra River, 1911.

Adult female. General colour for the most part green both on the upper and under surface; hind-neck and upper back green, becoming much brighter green on the lower back, rump, and upper tail-coverts; upper wing-coverts blackish fringed with green; bastard-wing and primary-coverts black; flight-quills black, fringed with green on the outer webs and inclining to whitish on the margins on the inner webs; tail blackish with green margins to the feathers on the outer webs and obsolete cross-bars on the middle feathers; crown of head and sides of face pale blue; throat ash-grey. Wing 61 mm.

The female described was collected at Bartica in 1911.

The young male in its first plumage is similar to the adult female.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Makauria River, Arawai River, Great Falls Demerara River, Arwee Creek (*McConnell collection*); Mount Roraima, Kamakusa, Bartica, Merumé Mountains (*Whitely*); Georgetown (*Quelch*).

Extralimital Range. Surinam (*Penard*), Venezuela, Trinidad, Eastern Brazil.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 675*) this species is found in large flocks throughout British Guiana. It is especially fond of light copses as well as isolated young trees—particularly the *Cecropia* species in cultivated fields, on the edges of the Oacis and near the river banks.

Mr. J. J. Quelch (*Timehri (2) v. p. 78*), who observed this species in Georgetown, remarks:—"Another of this same group

of Sugar-birds is sometimes to be seen among the trees on the outskirts of the town. This is the Blue Creeper (*Dacnis cayana*), whose habits closely resemble those of *Todirostrum cinereum*," supra, p. 154.

650. *Dacnis angelica*.

BLACK-BACKED HONEY-CREEPER.

Dacnis angelica Bonap. Atti sesta Riun. Soc. Ital. 1845, p. 404 ("Brasile"); Salvin, Ibis, 1885, p. 207 (Bartica Grove); Selater, Cat. B. Brit. Mus. xi. p. 22, 1886 (Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 396, no. 4067, 1912.

Dacnis arcangelica Bonap. Cat. Ois. de Cayenne, p. 7, 1857; Bull. Soc. Linn. Norm. ii. p. 31, 1857.

Adult male. Crown of head, lesser upper wing-coverts and scapulars, lower back, rump, and upper tail-coverts, throat, breast, and sides of the body bright turquoise-blue; forehead, sides of face, hind-neck, upper back, wings, and tail black; outer margins of innermost secondary-quills blue; basal portion of the inner webs of the flight-quills for the greater part white; middle of lower breast, abdomen, vent, and under tail-coverts white, like the axillaries, under wing-coverts, and inner margins of quills below; remainder of the under surface of the quills and lower aspect of tail glossy black.

Total length 108 mm., exposed culmen 9, wing 56, tail 33, tarsus 18.

The specimen described was collected on the Bonasika River by Mr. McConnell in December 1898.

Adult female. Upper surface including the head, back, wings, and tail dark earth-brown; under parts paler than the back and more olive-brown; middle of abdomen buffy-white; axillaries and under wing-coverts cream-white. Wing 59 mm.

The female described was collected on the Arawai River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Bonasika River, Arawai River, Arwee Creek (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), North-east Brazil, Ecuador, Peru, Bolivia.

Habits. Unrecorded in British Guiana.

651. *Dacnis bicolor*.

BLUE-GREY HONEY-CREEPER.

Sylvia bicolor Vieill. Ois. d'Amér. Sept. ii. p. 32, pl. 90, 1807 (Cayenne).

Dacnis plumbea Selater, Cat. B. Brit. Mus. xi. p. 26, 1886.

Dacnis bicolor Brabourne & Chubb, B. S. Amer. i. p. 396, no. 4076, 1912.

Adult male. Crown of head, entire back, wings, and tail greyish blue; inner webs of flight-quills hair-brown with paler inner edges; inner webs of tail-feathers dark brown; sides of face; throat, breast, and sides of body ash-grey; abdomen, vent, and under tail-coverts cream-white like the axillaries, under wing-coverts, and inner edges of flight-quills below; lower aspect of tail and under surface of flight-quills hair-brown.

Total length 112 mm., exposed culmen 10, wing 61, tail 44, tarsus 16.

The specimen described was collected on the Abary River in July 1906.

Adult female. General colour above yellowish olive-brown, including the crown of the head, entire back, and lesser upper wing-coverts; median and greater upper wing-coverts rather darker than the back with slightly paler margins like the innermost secondaries; inner webs of flight-quills hair-brown with whitish margins; tail olive-brown; sides of face, throat, and entire under surface lemon-yellow, including the axillaries; under wing-coverts and inner edges of quills below white; under surface of flight-quills and lower aspect of tail pale hair-brown. Wing 59 mm.

The female from which the description is taken was collected on the Abary River in November 1906.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Bartica, Abary River (McConnell collection).

Extralimital Range. Surinam (Penard), Cayenne (Vicillot), Trinidad, Venezuela, Brazil, Peru.

Habits. Unrecorded in British Guiana.

Genus **CYANERPES** Oberh.

Cyanerpes Oberholser, Auk, xvi. p. 32, 1899. Type *C. cyaneus* (Linn.).



Fig. 182.—*Cyanerpes cyaneus*.

The members of this genus are also small birds with brightly-coloured plumage and whitish feet. The bill is proportionately long, slender, and slightly decurved at the tip. The wing is more or less pointed, the three outer primaries being longest and about equal. The tail is square at the tip and rather more than half the length of the wing. The tarsus is about three-fourths the length of the exposed culmen. Coloration: male and female different.

Key to the Species.

- | | |
|---|---------------------------------|
| A. Crown of head turquoise-blue; upper back black; chin and throat blue; under wing-coverts yellow | <i>C. cyaneus</i> , ♂, p. 480. |
| <i>a.</i> Lores black; throat greenish white; under wing-coverts yellow | <i>C. cyaneus</i> , ♀, p. 481. |
| B. Crown of head purplish blue; upper back also purplish blue; chin and throat black; under wing-coverts also black | <i>C. cæruleus</i> , ♂, p. 483. |
| <i>b.</i> Lores rust-coloured; throat fawn-colour; under wing-coverts cream-white | <i>C. cæruleus</i> , ♀, p. 483. |

652. *Cyanerpes cyaneus*.

BLUE HONEY-CREEPER.

- Certhia cyanea* Linn. Syst. Nat. i. p. 188, 1766 ("Brasilia Cayania").
Arbelorhina cyanea Cab. in Schomb. Reis. Guian. iii. p. 675, 1848.
Cæreba cyana Salvin, Ibis, 1885, p. 207 (Bartica Grove, Merumé Mts., Camacusa, Roraima, 3500 ft.); Sclater, Cat. B. Brit. Mus. xi. p. 32, 1886 (Roraima, Camacusa, Bartica).
Cyanerpes cyaneus Beebe, Our Search for a Wilderness, p. 158 (Hoorie Creek), p. 340 (Arenu), 1910; Brabourne & Chubb, B. S. Amer. i. p. 397, no. 4077, 1912.
Cyanerpes cyaneus cyaneus Beebe, Tropical Wild Life in British Guiana, p. 241, 1917.

Adult male. Crown of head turquoise-blue; base of forehead, lores, eyelids, and a spot behind the eye velvety black like the

upper back, sides of neck, wings, tail, and under tail-coverts; lesser upper wing-coverts, scapulars, lower back, rump, and upper tail-coverts purplish blue, like the sides of the crown, sides of face, throat, and entire under surface; inner webs of flight-quills for the most part lemon-yellow; under wing-coverts and inner edges of quills below bright lemon-yellow; bend of wing below velvety black; apical portion of quills on the under surface and lower aspect of tail blackish.

Total length 125 mm., exposed culmen 16, wing 61, tail 37, tarsus 13.

The male described above was collected on the Mazaruni River, 1905.

Adult female. General colour of the upper surface dark green, including the crown of the head, back, wings, and tail; inner webs of the bastard-wing, greater upper wing-coverts, and primary-coverts black; inner webs of flight-quills blackish, broadly edged with yellow on the basal portion; tail also blackish fringed with green on the outer webs of the feathers, and slightly paler on the edges at the tips; a slightly indicated supraloral streak which extends over the eye where it is more pronounced; lores blackish; sides of face green with pale shaft-streaks to the feathers; sides of breast and sides of body green; throat, middle of breast, middle of abdomen, and under tail-coverts buffy-white tinged with green; axillaries, under wing-coverts, and inner edges of quills below yellow, outer margin of wing below brown, with pale tips to the feathers; under surface of flight-quills and lower aspect of tail pale brown, with paler edges to the tips of the tail-feathers. Wing 61 mm.

The female described was collected at Bartica.

A young male from the Supenaam River is similar to the adult female, differing only in having the wings and tail black, without any green margins to the feathers and a very slight appearance of blue on the lower back. A second one from the same locality is rather more advanced, showing more blue on the lower back and the appearance of black on the upper back, while a third one from the same place has almost completely gained the adult male plumage leaving only a few traces of the green female dress.

Breeding-season. Unrecorded in British Guiana.

Nest. "Composed of fine, but very strong thread-like rootlets, all of a uniform dark brown or black colour" (*Beebe*).

Eggs. "Two in number; black or purple-black, with faint traces of pale lavender ground-colour, distinctly revealed at the small end, etc." (*Beebe*).

Range in British Guiana. Mount Roraima, Ituribisi River, Supenaam River, Bartica, Bonasika River, Maukauria River, Mazaruni River, Aarawai River, Great Falls Demerara River (*McConnell collection*); Mount Roraima, Merumé Mountains, Kamakusa, Bartica (*Whitely*); Hoorie Creek, Aremu (*Beebe*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Linné*), Trinidad, Tobago, Colombia, North-east Brazil, Central America to Mexico and Cuba.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 675*) this species is distributed throughout British Guiana. It roams about in small flocks in the small plantations and on the tops of trees in the neighbourhood of rivers. Schomburgk states that its nidification was unknown to him.

The following notes have been copied from Beebe (*Tropical Wild Life in British Guiana, p. 241*):—"This graceful creeper fulfils all the ideals of one's thoughts of tropical birds. We know it chiefly as an inhabitant of the tree-tops, and seen against the bright sky it showed only as a slender, thin-billed, little black bird. But when we saw it against foliage, its plumage blazed out in all its brilliance. With a body scarcely four inches long it glowed a brilliant purple-blue, with feet of scarlet, crown of pale blue, back and wings of blackest jet, the latter splashed within by pigment of brightest gold.

"The nest was a fairy network suspended over the water, as thin and evanescent as the shadow of an oriole's purse, and the eggs were the strangest of all eggs in the world—they were black. The home of the Honey-Creepers was delicately caught in the base of a great heart-leaf of a water-arum, the mucka-mucka, beloved of hoatzins, and it swung in every breath of air barely four feet above the surface of the river's edge. It was exceedingly thin-walled, every detail of the eggs and the setting bird being plainly visible. And yet it was most durable and quite impossible to tear or even appreciably alter in shape, for it was composed of fine, but very strong thread-like rootlets, all of a uniform dark brown or black colour. The small round opening was at the top, obliquely facing one side. The nest itself was

17 cm. high, and 8 cm. across, while the nest hollow within measured 4 cm. in diameter by 7 cm. deep.

“There were two eggs, astonishingly black or purple-black. Closer examination showed faint traces of the pale lavender ground-colour, distinctly revealed at the small end and in irregular streaks and minute interstices as far as the middle of the shell. They measured 20.5×14 and 20×14 mm. and were quite fresh.”

653. *Cyanerpes cæruleus*.

PURPLE HONEY-CREEPER.

Certhia cærulea Linn. Syst. Nat. i. p. 118, 1758 (Surinam).

Arbelorhina cærulea Cab. in Schomb. Reis. Guian. iii. p. 675, 1848.

Cæreba cærulea Salvin, Ibis, 1885, p. 207 (Bartica Grove, Merumé Mts., Camacusa, Roraima, 3500 ft.); Selater, Cat. B. Brit. Mus. xi. p. 33, 1886 (Roraima, Camacusa, Bartica Grove).

Cyanerpes cæruleus Beebe, Our Search for a Wilderness, p. 201 (Hoorie Creek), p. 298 (Aremu), 1910; Brabourne & Chubb, B. S. Amer. i. p. 397, no. 4080, 1912.

Cyanerpes cæruleus cæruleus Beebe, Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica).

Adult male. General colour above and below purplish blue, rather paler on the crown of the head and somewhat darker on the under surface; wings velvety black; inner webs of flight-quills not so intensely black, as on the outer aspect, and becoming paler on the inner margins; tail uniform black; lores, extreme base of forehead, and throat velvety-black; vent, thighs, and under tail-coverts black; axillaries and under wing-coverts also black, the greater series of the latter tipped with white; under surface of flight-quills and lower aspect of tail dull black.

Total length 105 mm., exposed culmen 19, wing 57, tail 25, tarsus 14.

The specimen from which the description is taken was collected on the Mazaruni River, 1905.

Adult female. General colour of the upper surface green including the head, back, wings, and tail, the feathers on the head have pale minute shaft-streaks; inner webs of flight-quills blackish brown with whitish inner margins; tail-feathers dark brown on the inner webs; lores and short feathers surrounding the eye rust-colour; ear-coverts pale brown with paler minute shaft-lines to the feathers; moustachial-streak pale blue minutely dotted with white; chin and throat fawn-colour; breast and sides of the

body yellowish white with green, or bluish green, margins to the feathers becoming almost uniform yellow on the middle of the abdomen, vent, and under tail-coverts; axillaries and under wing-coverts cream-white darker on the greater series of the latter; under surface of flight-quills hair-brown with pale inner margins; lower aspect of tail dark brown. Wing 54 mm.

The female described was collected on the Bonasika River in December 1898.

Immature male. Similar to the adult female but differs in having the back darker and more bluish green, the wings becoming velvety black, and the approach of black feathers on the throat.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Makauria River, Mazaruni River, Abary River, Great Falls Demerara River, Arawai River (*McConnell collection*); Mount Roraima, Merumé Mountains, Kamakusa, Bartica (*Whitely*); Hoorie Creek (*Beebe*).

Extralimital Range. Surinam (*Penard*), Venezuela, Northern Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 675*) that the mode of life and haunts of this species are similar to those of *Arbelorhina cyanea*, p. 480.

The following notes are quoted from Beebe (*Our Search for a Wilderness*, p. 201):—"A dainty Blue Honey-Creeper alighted on the bow of our canoe; rich deep blue except for wings, tail, and throat, which were black. The feet and legs were clear yellow, showing most conspicuously against the plumage."

Id. p. 298:—"Three Blue Honey-Creepers—two males and one green female—dashed here and there in the branches close overhead. They uttered sharp cheeps, until the males flew at each other and began fighting furiously—ascending for fifty feet in a whirling spiral of hazy blue and black, and then clinching and falling to earth, where they clung together claw to claw, and pecked viciously and in silence, their beautiful plumage dishevelled and broken. The lady, heartless cause of all this strife, cheeped in low tones overhead and nonchalantly plucked invisible dainties from the undersides of leaves."

Genus **CHLOROPHANES** Reichenb.

Chlorophanes Reichenbach, Handb. d. sp. Orn. p. 233, 1853. Type
C. spiza (Linn.).



Fig. 183.—*Chlorophanes spiza*.

In this genus the bill is proportionately long and inclining to curve, its width at the base is about equal to half the length of the exposed culmen, and the height at the nostrils about one-third. The wing is rounded, the second, third, and fourth primaries longest and equal, the first intermediate in length between the fourth and fifth. The tail is square at the tip and about five-sevenths the length of the wing. The tarsus exceeds the length of the exposed culmen by about one-sixth. Coloration: male and female different.

654. *Chlorophanes spiza*.

GREEN HONEY-CREEPER.

Certhia spiza Linn. Syst. Nat. i. p. 188, 1758 (Surinam).

Daenis spiza Cab. in Schomb. Reis. Guian. iii. p. 675, 1848.

Chlorophanes spiza Salvin, Ibis, 1885, p. 206 (Roraima, Merumé Mts., Bartica Grove); Selater, Cat. B. Brit. Mus. xi. p. 29, 1886 (Bartica Grove, Roraima); Brabourne & Chubb, B. S. Amer. i. p. 397, no. 4085, 1912.

Adult male. General colour both above and below glossy blue with green reflections in certain lights; crown of head, nape, and entire sides of face velvety black; outer aspect of wings darker than the back; inner webs of flight-quills and tail-feathers black; under wing-coverts also black; under surface of flight-quills and lower aspect of tail dull black.

Total length 135 mm., exposed culmen 15, wing 72, tail 49, tarsus 18.

The male described was collected on the Ituribisi River in October 1908.

Adult female. General colour both on the upper and under surface green; inner webs of the bastard-wing, greater upper wing-coverts, primary-coverts, and flight-quills dark brown, or blackish, the last paler on the inner edges; tail-feathers also blackish on the inner webs; sides of the breast and flanks similar to the upper surface, but the middle of the abdomen is paler and the throat tinged with yellow; axillaries and under wing-coverts buffy-white; under surface of flight-quills and lower aspect of tail dark hair-brown. Wing 68 mm.

The female described was collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

An immature male in transition stage is changing from green to blue on the back and under surface, and from green to black on the top of the head and sides of the face. The sheaths of undeveloped feathers may be observed on the throat and sides of the neck.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Makauria River, Arwey Creek, Great Falls Demerara River, Arawai River, Tiger Creek (*McConnell collection*); Mount Roraima, Merumé Mountains, Bartica (*Whitely*).

Extralimital Range. Venezuela, Eastern Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 674*) that this species is distributed throughout British Guiana near the coast. Its favourite haunts are the outskirts of woods and plantations, and is often observed among the flocks of migratory Finches.

Family TERSINIDÆ.

Now that the genus *Procnias* of Illiger, upon which the family name Procniatidæ was founded, has been transferred to the family Cotingidæ and the genus *Tersina* Vieill. is used in its place, I propose that the family title be known henceforth as Tersinidæ.

This family, which consists of one genus and two species only, is distributed over the greater part of South America—one of the species occurring in British Guiana.

Genus TERSINA Vieill.

Tersina Vieillot, Nouv. Dict. d'Hist. Nat. xxxiii. p. 401, 1819. Type *T. cærulea*, Vieill.



Fig. 184.—*Tersina occidentalis*.

In this genus the bill is depressed, the width at the base is about twice the length of the exposed culmen and the depth at the nostrils is about one-half its width, the upper mandible is hooked at the tip. The wing is rounded, the second and third primaries are longest and equal, and the first and fourth are about equal. The tail is square at the tip and about two-thirds the length of the wing. The tarsus is only slightly longer than the width of the bill at the gape. Coloration: male and female different.

655. *Tersina occidentalis*.

WESTERN SWALLOW FRUIT-EATER.

Procnias ventralis (nec Ill.) Cab. in Schomb. Reis. Guian. iii. p. 671, 1848.

Procnias occidentalis Selater, P. Z. S. 1854, p. 249 ("Nova Granada");
Brabourne & Chubb, B. S. Amer. i. p. 398, no. 4093, 1912.

Procnias tersa Salvin, Ibis, 1885, p. 207 (Roraima).

Procnias tersa b. Subsp. *occidentalis* Sclater, Cat. B. Brit. Mus. xi. pp. 50, 52, 1886 (Roraima).

Adult male. General colour above and below turquoise-blue; inner webs of the bastard-wing, greater upper wing-coverts, primary-coverts, and flight-quills black; inner webs of tail-feathers also black; base of forehead, fore part of face, and throat uniform velvety black; middle of breast, middle of abdomen, and under tail-coverts white, the last tinged with blue; sides of body and thighs narrowly barred with black; axillaries and under wing-coverts blue, darker than the breast; under surface of flight-quills and lower aspect of tail dark brown.

Total length 140 mm., exposed culmen 8, wing 81, tail 51, tarsus 16.

Adult female. General colour of both the upper and under surface green; inner webs of the bastard-wing, median and greater upper wing-coverts, primary-coverts, flight-quills, and tail-feathers black; throat and fore part of cheeks dark brown, with dull whitish tips to the feathers; middle of breast, middle of abdomen, and under tail-coverts pale yellow with dark spear-head markings to the feathers; sides of body and thighs barred with pale yellow; under wing-coverts dusky-brown with whitish edgings to the feathers; quill-lining and lower aspect of tail dark brown. Wing 79 mm.

Immature male. Similar to the adult female, but differs in having a tinge of blue on the top of the head, sides of neck and hinder face, wings, long upper tail-coverts and tail, lower throat, and sides of the body. Mount Roraima, January 1882.

This species is not represented in the McConnell collection, and the specimens described were collected by the late Henry Whitely at Mount Roraima during the month of January 1882, and are now in the British Museum, Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Canuku Mountains (*Schomburgk*); Mount Roraima (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Brit. Mus.*), Trinidad, Venezuela, Colombia, Ecuador, West Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 671*) that he obtained a specimen of this species in the Canuku Mountains.

Family TANGARIDÆ.

When Brabourne & Chubb published their 'List of the Birds of South America' in 1912, this family was represented by fifty-three genera and three hundred and forty-five species. Fifteen of the genera and thirty-nine of the species occur in British Guiana.

Genus **CHLOROPHONIA** Bonap.

Chlorophonia Bonaparte, Revue Zool. 1851, p. 137. Type *C. viridis* (Vieill.)



Fig. 185.—*Chlorophonia roraimæ*.

The members of this genus are easily distinguished by their bright colours of green, blue, and yellow. The bill is small and pointed; its depth at the nostrils is equal to about three-fourths the length of the exposed culmen. The wing is rounded; the first four primaries longest and equal. The tail is square at the tip and rather more than half the length of the wing. The tarsus is about twice the length of the exposed culmen. Coloration: male and female similar.

656. *Chlorophonia roraimæ*.

RORAIMA GREEN TANAGER.

Chlorophonia roraimæ Salvin & Godman, Ibis, 1884, p. 444 (Roraima, 3500–6000 ft.); Salvin, Ibis, 1885, p. 208; Selater, Cat. B. Brit. Mus. xi. p. 56, pl. vi. fig. 1, 1886 (Roraima); Brabourne & Chubb, B. S. Amer. i. p. 399, no. 4099, 1912.

Adult female. Crown of head, nape, sides of face, throat, and fore-neck green like the upper back and outer aspect of the wings; inner webs of bastard-wing and primary-coverts black; flight-quills black, narrowly edged with green on the outer webs and more broadly margined with white on the inner ones; lower back, rump, and upper tail-coverts dark turquoise-blue like the

band on the hind-neck; tail black, slightly tinged with green; sides of breast and flanks green, becoming yellowish green on the middle of the breast, middle of the abdomen, and under tail-coverts; axillaries yellow; under wing-coverts, inner edges of quills below, and remainder of the under surface of flight-quills dark brown like the lower aspect of the tail.

Total length 107 mm., exposed culmen 8, wing 62, tail 33, tarsus 15.

The specimen from which the description is taken was collected on the Bonasika River in 1912.

Adult male. Similar to the adult female, but differs in having the entire back turquoise-blue like the hind-neck, rump, and upper tail-coverts, and the abdomen yellowish instead of green. Wing 65 mm.

This species, which was originally discovered at Mount Roraima by the late Henry Whitely, has been more recently obtained at Quonga and on the Bonasika River.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Bonasika River (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Unrecorded.

Genus TANAGRA.

Tanagra Linné, Mus. Adol. Fred. ii. p. 31, 1764. Type *T. violacea* (Linn.).



Fig. 186.—*Tanagra violacea*.

The members of this genus are birds of small size and brightly coloured plumage. The bill is depressed laterally at the base and slightly hooked at the tip of the upper mandible, its height at the nostrils is nearly equal to the length of the exposed culmen, while the width at the base exceeds the depth at the nostrils.

The wing is rounded, the first four primaries being longest and subequal. The tail is square at the tip and rather more than half the length of the wing. The tarsus is about equal in length to the middle toe and claw. Coloration: male and female different.

Key to the Species.

(MALES.)

- A. Throat black, or black tinged with violet.
- a'*. Fore part of head steel-blue like the back and rump *T. cayennensis*, p. 492.
- b'*. Fore part of head turquoise-blue in contrast to the back which is steel-blue or violet, and the rump yellow..... *T. cyanocephala*, p. 493.
- c'*. Fore part of head orange-yellow.
- a''*. Larger, wing more than 60 mm.; abdomen and under tail-coverts pale yellow *T. xanthogaster*, p. 494.
- b''*. Smaller, wing less than 60 mm.; abdomen and under tail-coverts much deeper yellow, inclining to chestnut. *T. finschi*, p. 495.
- d'*. Fore part of head lemon-yellow.
- c''*. Larger, wing more than 50 mm.; under tail-coverts yellow *T. chlorotica*, p. 496.
- d''*. Smaller, wing less than 50 mm.; under tail-coverts white *T. minuta*, p. 497.
- B. Throat orange-yellow; back steel-blue ... *T. violacea*, p. 498.
- C. Throat lead-grey like the back..... *T. plumbea*, p. 500.

(FEMALES.)

- A. Throat, breast, and abdomen yellow.
- a'*. Crown of head blue in contrast to the back, which is olive-green *T. cyanocephala*, p. 493.
- b'*. Crown of head like the back.
- a''*. Larger, wing more than 55 mm.; under surface dull yellow *T. violacea*, p. 498.
- b''*. Smaller, wing less than 55 mm.; under surface bright yellow *T. finschi*, p. 495.
- B. Throat grey, or grey tinged with buff.
- c'*. Larger, wing more than 50 mm.; under tail-coverts grey *T. chlorotica*, p. 496.
- d'*. Smaller, wing less than 50 mm.; under tail-coverts white *T. minuta*, p. 497.
- e'*. Middle of breast and middle of abdomen grey *T. cayennensis*, p. 492.
- f'*. Middle of breast and middle of abdomen dark fawn-colour *T. xanthogaster*, p. 494.
- g'*. Middle of breast and middle of abdomen citron-yellow *T. plumbea*, p. 500.

657. *Tanagra cayennensis*.

CAYENNE EUPHONIA.

- Tanagra cayennensis* Gmel. Syst. Nat. i. p. 894, 1789 ("Brasilia");
 Brabourne & Chubb, B. S. Amer. i. p. 402, no. 4133, 1912; Beebe,
 Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica).
Euphonia cayennensis Cab. in Schomb. Reis. Guian. iii. p. 671, 1848.
Euphonia cayana Salvin, Ibis, 1885, p. 208 (Bartica Grove, Camacusa);
 Sel. Cat. B. Brit. Mus. xi. p. 81, 1886 (Camacusa, Bartica Grove).

Adult male. General colour both on the upper and under surface steel-blue with purplish reflections on the top of the head, hind-neck, and throat; inner webs of flight-quills blackish margined with white; tail similar to the back; sides of breast orange-yellow; axillaries, under wing-coverts, and inner edges of flight-quills below white, the outer or marginal under wing-coverts steel-blue; under surface of flight-quills blackish brown.

Total length 102 mm., exposed culmen 8, wing 60, tail 35, tarsus 16.

The male described was collected on the Ituribisi River in 1909.

Adult female. General colour of the upper surface yellowish olive; inner webs of flight-quills blackish with white margins; inner webs of tail-feathers also blackish; cheeks, throat, and middle of abdomen dark ash-grey; sides of breast, flanks, and under tail-coverts old-gold bronze; axillaries, under wing-coverts, and inner edges of quills below white; remainder of quills below and lower aspect of tail dark brown. Wing 62 mm.

The female from which the description is taken was collected on the Ituribisi River in October 1908.

The young male in its first plumage is similar to that of the female. There are two young birds from the Great Falls Demerara River which are in the course of transition, showing the approach of steel-blue feathers both on the upper and under parts and the orange-yellow patch on the sides of the breast.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Kamakabra River, Bonasika River, Anarica River, Arawai River, Great Falls Demerara River, Tiger Creek, Essequibo River (*McConnell collection*); Kamakusa, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), North-east Brazil.

Habits. According to Schomburgk (*Reis. Guian.* iii. p. 671) the distribution and habits of this species are the same as those of *T. violacea*, p. 498.

658. *Tanagra cyanocephala*.

BLACK-NECKED EUPHONIA.

Pipra cyanocephala Vieill. N. Diet. d'Hist. Nat. xix. p. 165, 1819 (Trinidad).

Euphonia nigricollis Salvin, Ibis, 1885, p. 208 (Roraima, 3500 ft.); *Scl. Cat. B. Brit. Mus.* xi. p. 61, 1886 (Roraima).

Tanagra cyanocephala Brabourne & Chubb, B. S. Amer. i. p. 399, no. 4103, 1912.

Adult male. Crown of head and nape blue; mantle, upper back, scapulars, and upper wing-coverts bluish black with a violet tinge; inner webs of flight-quills blackish; lower back, rump, and short upper tail-coverts yellow, long upper tail-coverts and tail steel-blue; base of forehead, sides of face, and throat black; breast, abdomen, sides of body, and short under tail-coverts orange-yellow, long under tail-coverts lemon-yellow; axillaries and under wing-coverts pale lemon-yellow; under surface of quills dark brown with pale margins; lower aspect of tail also dark brown.

Total length 105 mm., exposed culmen 5, wing 61, tail 34, tarsus 13.

Adult female. Differs from the adult male in having the back, wings, and tail olive-green and the under surface citron-yellow, brighter on the middle of the abdomen and under tail-coverts. Base of forehead orange-yellow, instead of black. Wing 61 mm.

This species is not represented in the McConnell collection, and the specimens from which the descriptions have been taken are in the British Museum, Salvin-Godman collection. The male was collected by the late Henry Whitely at Mount Roraima, 3500 ft., May 1883.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*Whitely*).

Extralimital Range. Surinam (*Penard*), Trinidad, Venezuela, Colombia, Ecuador, Peru, Brazil, Paraguay, Argentina.

Habits. Unrecorded in British Guiana.

659. *Tanagra xanthogaster*.

ORANGE-BELLIED EUPHONIA.

Euphonia xanthogaster Sundev. Vet.-Ak. Handl. 1833, p. 310, pl. 10. fig. 1 (Brazil).

Euphonia xanthogastra Salvin, Ibis, 1885, p. 208 (Merumé Mts., Camacusa, Atapurau River); Selater, Cat. B. Brit. Mus. xi. p. 67, 1886 (River Atapurow, Merumé Mts., Camacusa).

Tanagra xanthogaster Brabourne & Chubb, B. S. Amer. i. p. 400, no. 4111, 1912.

Adult male. Crown of head, breast, sides of body, abdomen, and under tail-coverts orange-yellow; nape and hind-neck glossy violet-purple; back, wings, and tail glossy steel-blue; inner webs of flight-quills blackish brown all, except the three outer primaries, white at the base, the white increasing in extent on the inner secondaries, where it occupies quite half the inner web; a large ovate white spot on the inner web of the outermost tail-feathers; cheeks and throat dull black; under wing-coverts and inner edges of quills below white, remainder of the quill-lining dark brown; lower aspect of tail blackish with a white patch on the inner web of the outermost feather on each side.

Total length 103 mm., exposed culmen 6, wing 60, tail 32, tarsus 16.

The exact locality in British Guiana of the male and female described is not known.

Adult female. General colour of the upper surface dark yellowish green with a tinge of bluish grey on the nape; inner webs of flight-quills blackish brown paler on the inner margins; tail-feathers blackish fringed with the same colour as the back; forehead, feathers surrounding the eye, lores, and chin ochreous-yellow; sides of body greenish yellow; fore-neck and middle of breast vinous grey; middle of abdomen dark fawn-colour; under tail-coverts old-gold yellow; axillaries pale canary-yellow; under wing-coverts white; under surface of flight-quills hair-brown; lower aspect of tail similar. Wing 59 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Merumé Mountains, Kamakusa, Kamarang River (*Whitely*).

Extralimital Range. Surinam (*Penard*), South-east Brazil, Peru, Ecuador, Colombia.

Habits. Unrecorded in British Guiana.

660. *Tanagra finschi*.

FINSCH'S EUPHONIA.

Euphonia finschi Selater & Salvin, P. Z. S. 1877, p. 19 (British Guiana); Selater, Cat. B. Brit. Mus. xi. p. 70, pl. viii. fig. 1, 1886.

Tanagra finschi Brabourne & Chubb, B. S. Amer. i. p. 400, no. 4117, 1912.

Adult male. Throat, sides of face, hinder crown, back, wings, and tail steel-blue; inner webs of flight-quills blackish, white on the basal portion; fore part of crown, fore-neck, and breast orange-yellow; abdomen, sides of body, and under tail-coverts darker and inclining to chestnut; axillaries sulphur-yellow; under wing-coverts and base of quills below white, remainder of quill-lining blackish brown; lower aspect of tail black.

Total length 90 mm., exposed culmen 6, wing 52, tail 29, tarsus 14.

The male described was collected in the Upper Takutu Mountains in 1909.

Adult female. General colour of the upper surface yellowish green, more yellow on the fore part of the head and upper tail-coverts; upper wing-coverts darker and inclining to blackish in the middle of the feathers; primary-coverts and flight-quills blackish on the inner webs, the latter fringed with white more broadly towards the base; tail-feathers also blackish fringed on the outer webs with yellowish green; sides of face and entire under surface citron-yellow, somewhat paler on the lower abdomen and under tail-coverts; axillaries lemon-yellow; under wing-coverts and base of quills white; remainder of flight-quills below and lower aspect of tail greyish brown. Wing 52 mm.

The female described was also collected in the Takutu Mountains.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Takutu Mountains, Rupununi River (McConnell collection).

Extralimital Range. Surinam (Penard), North Brazil.

Habits. Unrecorded in British Guiana.

661. *Tanagra chlorotica.*

PURPLE-THROATED EUPHONIA.

Tanagra chlorotica Linn. Syst. Nat. i. p. 317, 1766 ("Cayania");
 Brabourne & Chubb, B. S. Amer. i. p. 399, no. 4105, 1912.
Euphonia chlorotica Selater, Cat. B. Brit. Mus. xi. p. 64, 1886
 (Demerara); Beebe, Our Search for a Wilderness, p. 319, 1910
 (Aremu River).

Adult male. Crown of head, sides of face, hind-neck, sides of neck, and sides of breast dark purple with a violet tinge in certain lights; back, scapulars, upper tail-coverts, and upper wing-coverts steel-blue; bastard-wing, primary-coverts, and flight-quills black, a large patch of white on the inner webs of the flight-quills commencing on the fourth outer primary, which becomes much more extensive on the secondaries, the three outer primaries margined with smoke-brown on the inner webs; tail blue-black, the two outer feathers largely marked with white on the inner webs; fore part of the head to the line of the eyes orange-yellow like the throat, breast, sides of body, abdomen, and under tail-coverts; axillaries yellow; marginal under wing-coverts black, the remainder white like the inner lining of the quills below, the remainder of which are blackish; lower aspect of tail black, with white on the two outer feathers.

Total length 91 mm., exposed culmen 8, wing 55, tail 29, tarsus 15.

The specimen from which the description is taken was collected on the Supenaam River in 1913.

Adult female. General colour of the upper surface olive-green; inner webs of flight-quills blackish margined with white; tail-feathers blackish with more or less white on some of the lateral ones; throat, middle of abdomen, thighs, and under tail-coverts pale ash-grey; breast and sides of body greenish yellow; axillaries pale lemon-yellow; under wing-coverts white; under surface of flight-quills blackish brown with white margins; lower aspect of tail dark brown, somewhat paler at the tips of some of the outer feathers. Wing 50 mm.

The female described is in the British Museum, Gould collection, and is said to have come from Demerara.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Supenaam River (*McConnell collection*); Demerara (*British Museum*).

Extralimital Range. Cayenne (*Linné*), Surinam (*Penard*), North Brazil.

Habits. The following note has been copied from Beebe (*Our Search for a Wilderness*, p. 319):—"Tiny male Purple-throated Euphonias clad in purple jackets, yellow caps, and waistcoats. They were ridiculously tame, and sang their simple chattering song in our faces."

662. *Tanagra minuta*.

WHITE-VENTED EUPHONIA.

Euphonia minuta Cab. in Schomb. Reis. Guian. iii. p. 671, 1848; Salvin, Ibis, 1885, p. 208 (Bartica Grove, Camacusa); Sclater, Cat. B. Brit. Mus. xi. p. 71, 1886 (Camacusa, Bartica Grove).

Tanagra olivacea Brabourne & Chubb, B. S. Amer. i. p. 401, no. 4119, 1912.
Tanagra olivacea olivacea Beebe, Tropical Wild Life in British Guiana, p. 136, 1917 (Bartica).

Adult male. Crown of head and nape glossy steel-blue; throat, sides of face, back, wings, and tail glossy steel-blue; flight-quills black on the inner webs fringed with white on the basal portion on all, except the first or outermost, the white increasing in extent towards the inner secondaries where it covers the greater part of the inner web; lateral tail-feathers black on the inner webs and marked with white on the apical portion of the three outer ones, which decreases in extent towards the middle feathers; fore-neck, breast, abdomen, and sides of body orange-yellow; axillaries lemon-yellow; vent, thighs, under tail-coverts, under wing-coverts, and base of quills below white; remainder of flight-quills below and lower aspect of tail blackish, the latter extensively marked with white on the outer feathers.

Total length 86 mm., exposed culmen 8, wing 52, tail 26, tarsus 12.

The male described was collected by Mr. McConnell on the Cotinga River during his expedition to Mount Roraima in October 1898.

Adult female. General colour of the upper surface dark olive-green with blackish centres to the feathers on the head and nape; median and greater upper wing-coverts black on the inner webs; bastard-wing blackish brown; primary-coverts uniform black; flight-quills black edged with olive-green on the outer webs and white on the inner ones; tail-feathers black fringed with olive-green on the outer webs and a slight indication of white on the inner webs at the tips of the two outer feathers; sides of face similar to the back; forehead slightly more yellow than the back; chin slightly tinged with yellow; throat whitish grey, similar to the middle of the abdomen and under tail-coverts, the latter have dark shaft-lines; breast and sides of the body greenish yellow; under wing-coverts and base of quills white, remainder of the flight-quills below dark brown; lower aspect of tail blackish, with an indication of white on the inner webs at the tips of the two outer feathers. Wing 47 mm.

The description of the female is taken from a specimen collected by Mr. McConnell on the Bonasika River in December 1898.

The young male in its first plumage is similar to the adult female, and there are two examples from the Bonasika River which show the young merging into the adult male plumage.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Cotinga River, Ituribisi River, Bonasika River, Great Falls Demerara River (*McConnell collection*); Bartica, Kamakusa (*Whitely*).

Extralimital Range. Surinam (*Penard*), Venezuela, Colombia, Ecuador, Peru.

Habits. Unrecorded in British Guiana.

663. *Tanagra violacea*.

VIOLACEOUS EUPHONIA.

Fringilla violacea Linn. Syst. Nat. i. p. 182, 1758 (Surinam).

Euphonia violacea Cab. in Schomb. Reis. Guian. iii. p. 670, 1848.

Euphonia violacea Salvin, Ibis, 1885, p. 208 (Bartica Grove, Roraima, 3000-3700 ft.); Sclater, Cat. B. Brit. Mus. xi. p. 74, 1886 (Roraima, Bartica Grove); Beebe, Our Search for a Wilderness, p. 240, 1910 (Pomeroon River).

Tanagra violacea Brabourne & Chubb, B. S. Amer. i. p. 401, no. 4122, 1912; Beebe, Tropical Wild Life in British Guiana, p. 136, 1910 (Bartica).

Tanagra violacea rodwayi Penard, Proc. New Engl. Zool. Cl. vii. p. 30, Dec. 1919.

“Canary,” “Bastard-Canary” (*Queleh*).

Adult male. Crown of head, sides of face, nape, and upper back glossy purple, becoming glossy steel-blue on the lower back, scapulars, wings, upper tail-coverts, and tail; flight-quills black fringed with steel-blue on the outer webs and white on the inner ones which commences on the fifth primary, increasing in extent towards the inner secondaries, where it covers the whole of the inner web for more than half the length of the feather; inner webs of tail-feathers black with an oblique patch of white on the inner web near the tip of the outer feather; fore part of head, throat, and breast orange-yellow, becoming paler on the abdomen, sides of body, and under tail-coverts; axillaries sulphur-yellow; under wing-coverts and base of inner quills below white; marginal under wing-coverts, greater series, and flight-quills below blackish; lower aspect of tail black with a patch of white on the outermost feather on each side.

Total length 98 mm., exposed culmen 8, wing 57, tail 29, tarsus 14.

The male described was collected on the Bonasika River in 1912.

Adult female. General colour of the upper surface yellowish bronze-green, including the crown of the head, entire back, wings, and tail; bastard-wing, primary-coverts, and flight-quills black, fringed with bronze-green on the outer webs, paler and inclining to white on the margins of the inner webs; lateral tail-feathers black margined with bronze-green on the outer webs, there is a slight trace of a white spot on the inner web of the outermost feather near the tip; lores and eye-ring composed of very short whitish feathers; sides of face similar to the back; throat and remainder of the under surface greenish yellow, somewhat paler on the middle of the abdomen and under tail-coverts; axillaries, under tail-coverts, and inner webs of quills at the base below white; remainder of quill-lining hair-brown; lower aspect of tail similar with a slight trace of white on the outer feather. Wing 56 mm.

The female described was collected on the Ituribisi River in October 1908.

I have compared a series of twenty examples of this species from Roraima, Bartica, Trinidad, and Venezuela, but failed to see the difference that Mr. Penard has pointed out.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ireng River, Ituribisi River, Supe-naam River, Mazaruni River, Bonasika River, Makauria River, Abary River, Anarica River, Arawai River, Arwee Creek (*McConnell collection*); Bartica, Mount Roraima (*Whitely*); Pomeroon River, Bartica (*Beebe*).

Extralimital Range. Surinam (*Linné*), Cayenne (*British Museum*), North Brazil, Venezuela, Trinidad.

Habits. Schomburgk states (*Reis. Guian.* iii. p. 670) that this species is more common near the coast than inland. Its favourite haunts are the fruit-trees in the gardens and in the fields cultivated by the Indians. It is one of the best songsters in the colony, and it is often kept in cages. It is met with both solitary and in small flocks.

Mr. J. J. Quelch (*Timehri* (2) v. pp. 81, 82), when writing on the Native Birds of Georgetown, remarks:—"In the plantations on the outskirts of the town, species of the beautiful tiny Louisd'ors (*Euphonia*) are obtainable; but as their occurrence in town is not based on submitted skins, nor on my own observation, there can be no guarantee given of the fact. These birds are known by the name Canary and Bastard Canary, and the commonest are referable to the two species of *Euphonia violacea* and *E. plumbea*."

664. *Tanagra plumbea*.

PLUMBEOUS EUPHONIA.

Euphonia plumbea Du Bus, Bull. Acad. Brux. xxii. pt. 1, p. 156, 1855 ("Nouvelle Grenade"); Salvin, Ibis, 1885, p. 208 (Bartica Grove, Merumé Mts., Roraima, 3500 ft.); Selater, Cat. B. Brit. Mus. xi. p. 83, 1886 (Roraima, Merumé Mts., Bartica Grove); Quelch, *Timehri* (2) v. pp. 81, 82, 1891 (Georgetown).

Tanagra plumbea Brabourne & Chubb, B. S. Amer. i. p. 402, no. 4136, 1912; Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. General colour of the upper surface glossy greyish blue, including the head, back, wings, and tail; bastard-wing,

primary-coverts, and flight-quills blackish, whiter on the inner edges of the last; inner webs of tail-feathers also blackish; sides of face, chin, and throat similar to the crown of the head; the feathers on the sides of the breast fringed with yellow at the tips; middle of the breast, sides of the body, abdomen, and under tail-coverts orange-yellow; axillaries white tipped with yellow; under wing-coverts white with a tinge of sulphur-yellow, the greater series and under surface of the flight-quills dark brown with whitish margins; lower aspect of tail dusky-brown. "Bill dark plumbeous; feet brown" (Cat. Brit. Mus.).

Total length 83 mm., exposed culmen 7, wing 52, tail 28, tarsus 13.

The male and female described were collected by Mr. McConnell on the Mazaruni River during his expedition in 1898.

Adult female. Crown of head and hind-neck dark lead-grey; back, wings, and upper tail-coverts olive-green inclining to yellowish green on the last; flight-quills blackish with pale inner margins; tail-feathers also blackish with olive-green on the outer edges; sides of face and throat pale grey; breast and sides of the body yellowish green inclining to yellow on the middle of the abdomen and under tail-coverts; axillaries sulphur-yellow; under wing-coverts white; under surface of quills dark brown with pale edges; lower aspect of tail dusky-brown. Wing 49 mm.

Another male from the same locality as the one described differs in having a spot of white on the inner web of the outer tail-feather on each side.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Lower Mazaruni River, Kamakabra River, Great Falls Demerara River (*McConnell collection*): Mount Roraima, Merumé Mountains, Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), North Brazil.

Habits. Unrecorded in British Guiana.

Genus **TANAGRELLA** Swains.

Tanagrella Swainson, Anim. Menag. part iii. p. 313, text-fig. 60, 1837.
Type *T. cyanomelæna* (Wied.).



Fig. 187.—*Tanagrella velia*.

This genus is distinguished chiefly by its somewhat long and slender bill, the exposed culmen being about two-thirds the length of the tarsus. The wing is rounded, the second and third primaries longest, the first and fourth being about equal. The tail is square at the tip and about two-thirds the length of the wing. The tarsus is equal in length to the middle toe and claw. Coloration : male and female similar.

665. *Tanagrella velia*.

BLUE-BELLIED TANAGER.

Motacilla velia Linn. Syst. Nat. i. p. 336, 1766 (Surinam).

Hypothlypis iridina Cab. in Schomb. Reis. Guian. iii. p. 667, 1848.

Tanagrella velia Salvin, Ibis, 1885, p. 209 (Roraima, 3500 ft., Merumé Mts., Camacusa, Bartica Grove); Sclater, Cat. B. Brit. Mus. xi. p. 87, 1886 (Bartica Grove, Merumé Mts., Camacusa, Roraima); Brabourne & Chubb, B. S. Amer. i. p. 402, no. 4138, 1912; Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. Crown of head, hind-neck, back, wings, and tail deep back, with blue margins to the feathers of the upper wing-coverts, flight-quills, upper tail-coverts, and tail-feathers; lower back and rump glossy straw-colour, with a tinge of green and blackish bases to the feathers; inner webs of flight-quills margined with whitish; forehead, sides of face, short feathers round the eye, and throat dark turquoise-blue; lores, the feathers covering the nostrils, and a band across the fore-neck, which extends on to the hinder-face, black; breast, sides of the body, and upper abdomen dark purplish blue, paler along the flanks; lower abdomen, vent, and under tail-coverts chestnut; axillaries, under wing-coverts, and inner edges of quills below white; greater

series of under wing-coverts blackish brown like the lower aspect of the tail. "Bill black; feet dark brown" (Cat. Brit. Mus.).

Total length 130 mm., exposed culmen 10, wing 69, tail 49, tarsus 16.

The description of the male is based on a specimen collected on the Bonasika River in 1912.

Adult female. Similar to the adult male but not quite so bright. Wing 68 mm.

The female described was collected at Bartica in 1912.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Bonasika River, Arawai River, Great Falls Demerara River (*McConnell collection*); Mount Roraima, Merumé Mountains, Kamarang River, Bartica (*Whitely*).

Extralimital Range. Surinam (*Linne*).

Habits. Schomburgk writes of this species (Reis. Guian. iii. p. 667):—There is one specimen that still remains unique in my collection which was also shot in the vicinity of the Roraima Mountains. The "Arawaaks" call it *Kobaiku*.

Genus TANGARA Brisson.

Tangara Brisson, Ornithologia, iii. p. 3, 1760. Type, by tautonymy *T. tatao* (Linn.).



Fig. 188.—*Tangara paradisea*.

The species included in this genus have a great variety of colour but are almost uniform in measurements. The bill is comparatively small and pointed; its width and depth at the base are about two-thirds the length of the exposed culmen. The wing is rounded, the three outer primaries longest and equal. The tail is square at the tip and about two-thirds the length of the wing. The tarsus is

about twice the length of the exposed culmen. Coloration : male and female different.

Key to the Species.

- | | |
|---|----------------------------------|
| A. Crown of head uniform bright green, in contrast to the back, which is velvety black | <i>T. paradisea</i> , p. 504. |
| B. Crown of head green, with black centres to the feathers like the back. | |
| <i>b'</i> . Smaller, wing less than 70 mm. | |
| <i>b''</i> . Abdomen whitish | <i>T. punctata</i> , p. 505. |
| <i>c''</i> . Abdomen yellow | <i>T. xanthogastra</i> , p. 506. |
| <i>c'</i> . Larger, wing more than 70 mm. | <i>T. guttata</i> , p. 507. |
| C. Crown of head copper-bronze; back straw-yellow | <i>T. cayana</i> , p. 508. |
| D. Crown of head chestnut; back green ... | <i>T. gyrola</i> , p. 510. |
| E. Fore part of crown dark blue; nape and hind-neck black like the upper back | <i>T. mexicana</i> , p. 511. |
| F. Fore part of crown pale lavender-blue like the nape and hind-neck, in contrast to the upper back, which is black | <i>T. nigrocincta</i> , p. 512. |
| G. Crown of head, nape, and hind-neck black in contrast to the back, which is iridescent pale olive-green | <i>T. whitelyi</i> , p. 513. |

666. *Tangara paradisea*.

PARADISE TANAGER.

- Blue Titmouse of Paradise* Edwards' Glean. Nat. Hist. iii. p. 289, pl. 349, 1759 (Guiana).
Aglaiia paradisea Swains. Classif. B. ii. p. 286, 1827 (Guiana).
Cullospiza tatao (nec Linn.) Cab. in Schomb. Reis. Guian. iii. p. 669, 1849.
Calliste tatao (nec Linn.) Salvin, Ibis, 1885, p. 209 (Roraima, 3000–4000 ft., Merumé Mts., Bartica Grove); Sclater, Cat. B. Brit. Mus. xi. p. 96, 1886 (Roraima, Merumé Mts.).
Tangara paradisea Brabourne & Chubb, B. S. Amer. i. p. 404, no. 4153, 1912.

Adult male. Fore part of head and sides of face pale grass-green with golden reflections, the feathers being minutely small give a scaly appearance; hind-neck, sides of neck, upper back, scapulars, greater upper wing-coverts, inner secondary-quills, and long upper tail-coverts velvety black, like the middle of the abdomen and under tail-coverts; lesser upper wing-coverts, breast, sides of body, and flanks dark turquoise-blue; throat and

median upper wing-coverts purple; lower back bright scarlet; rump and short upper tail-coverts orange-yellow; inner webs of flight-quills dull black as are also the tail-feathers; axillaries and under wing-coverts similar to the breast but not so bright; under surface of quills and lower aspect of tail blackish. "Bill black; feet dark brown" (Cat. B. Brit. Mus.).

Total length 141 mm., exposed culmen 9, wing 81, tail 52, tarsus 18.

The male described was collected by Mr. McConnell at Mount Roraima in October 1898.

Adult female. Similar to the adult male, but rather smaller. Wing 76 mm.

A young bird from the Ireng River differs from the adult in having the under surface, including the chin and throat, bluish green; the back, wings, and tail dusky-black, and the entire absence of red on the lower back.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Ireng River (*McConnell collection*); Mount Roraima, Merumé Mountains (*Whitely*).

Extralimital Range. Surinam (*Penard*), North Brazil.

Habits. Schomburgk states (Reis. Guian. iii. p. 669) that he only met with this beautiful species in the neighbourhood of the Roraima Mountains. It lives in flocks; and appears to select tall trees only in search of food. The "Arekunas" call it *Takuwi*.

667. *Tangara punctata*.

SPOTTED TANAGER.

Tanagra punctata Linn. Syst. Nat. i. p. 316, 1766 (Surinam); Brabourne & Chubb, B. S. Amer. i. p. 435, no. 4165, 1912; Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Calliste punctata Salvin, Ibis, 1885, p. 209 (Bartica Grove, Merumé Mountains, Roraima, 3500 ft.); Selater, Cat. B. Brit. Mus. xi. p. 104, 1886.

Adult male. General colour of the upper surface grass-green, including the crown of the head, hind-neck, sides of neck, back, wings, and tail, the feathers which are centred with black have dusky-grey bases; the marginal upper wing-coverts and outer

edge of bastard-wing tinged with blue; inner webs of the greater series and primary-coverts black; flight-quills black margined with green on the outer webs and edged with whitish on the inner ones; outer tail-feathers black on their inner portions; fore part of head more or less tinged with blue; base of forehead and a supraloral streak whitish; loreal spot black; sides of face black with pale bluish green tips to the feathers; throat and breast bluish grey with black centres to the feathers and a golden-yellow tinge on the sides of the breast; sides of body grass-green; paler and more yellowish green on the under tail-coverts; middle of abdomen and thighs inclining to whitish; axillaries and under wing-coverts white with a slight tinge of yellow, inner margins of quills below similar; under surface of flight-quills hair-brown; lower aspect of tail bluish.

Total length 129 mm., exposed culmen 10, wing 63, tail 41, tarsus 18.

Adult female. Similar to the adult male. Wing 63 mm.

The male and female described were collected on the Ireng River by Mr. J. J. Quelch in 1902.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Bonasika River, Ireng River, Manarica River, Arawai River, Tiger Creek Essequibo River, Great Falls Demerara River, Arwye Creek (*McConnell collection*); Mount Roraima, Merumé Mountains, Bartica (*Whitely*).

Extralimital Range. Surinam (*Linné*), Cayenne (*British Museum*), North Brazil.

668. *Tangara xanthogastra*.

YELLOW-BELLIED TANAGER.

Calliste xanthogastra Selater, Contr. Orn. 1851, pp. 23, 55 (Rio Negro, N. Brazil); Salvin, Ibis, 1885, p. 209 (Roraima, 6000 ft., Kukenam, 5000 ft.); Selater, Cat. B. Brit. Mus. xi. p. 106, 1886 (Roraima, Kukenam).

Tangara xanthogastra Brabourne & Chubb, B. S. Amer. i. p. 405, no. 4169, 1912.

Adult male. General colour of the upper surface green with black centres to the feathers, including the top of the head, hind-

neck, back, wings, and tail ; the black centres on the upper back, median, and greater upper wing-coverts are more extensive and the margins inclining to bluish green, like the outer edges of the flight-quills and tail-feathers ; inner webs of flight-quills blackish brown margined with white ; rump and upper tail-coverts bright green, the dark centres having become almost obsolete ; inner webs of tail-feathers blackish ; sides of face and sides of neck bright green only slightly dotted with black ; lores blackish ; throat, fore-neck, and breast yellowish green with bold black centres to the feathers ; middle of abdomen and under tail-coverts yellow, the latter streaked with green ; sides of body green ; under wing-coverts white tinged with yellow ; under surface of flight-quills dark brown edged with white ; lower aspect of tail greenish grey. "Bill blackish ; feet dark cinereus" (Cat. B. Brit. Mus.).

Total length 132 mm., exposed culmen 9, wing 67, tail 47, tarsus 18.

Adult female. Similar to the adult male. Wing 66 mm.

This species is not represented in the McConnell collection, and the specimens from which the descriptions are taken are in the British Museum, Salvin-Godman collection, collected by the late Henry Whitely on Mount Roraima, at an altitude of 6000 ft., during August and September 1883.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima and Kukenam Mountains (*Whitely*).

Extralimital Range. Surinam (*Penard*), North Brazil.

Habits. Unrecorded in British Guiana.

669. *Tangara guttata.*

LARGER SPOTTED TANAGER.

Callospiza punctata (nec Linn.) Cab. in Schomb. Reïs. Guian. iii. p. 669, 1848.

Callospiza guttata Cab. Mus. Hein. i. p. 26, 1851 (Roraima).

Calliste guttata Salvin, Ibis, 1885, p. 209 (Roraima, 3500-4000 ft.) ;

Selater, Cat. B. Brit. Mus. xi. p. 105, 1886 (Roraima).

Tangara guttata Brabourne & Chubb, B. S. Amer. i. p. 405, no. 4167, 1912.

Adult male. General colour of the upper parts grass-green with

a golden yellow tinge, including the crown of the head, hind-neck, sides of neck, back, upper tail-coverts, and middle tail-feathers with black centres and dark grey bases to the feathers; upper wing black margined with blue, flight-quills also black edged with blue on the outer webs and with white on the inner ones; tail-feathers black margined with green on the outer webs and very narrowly with white on the inner ones; loreal space black; base of forehead and eye-ring golden yellow; sides of face black with yellowish green margins to the feathers; throat, breast, and abdomen dull white with black pear-shaped centres to the feathers; lower flanks green; lower abdomen and under tail-coverts ochreous green; axillaries and under wing-coverts white like the inner edges of the quills below, remainder of the quill-lining hair-brown; lower aspect of tail dark bluish grey with whitish shaft-lines.

Total length 129 mm., exposed culmen 10, wing 71, tail 52, tarsus 20.

Adult female. Similar to the adult male but differs in having the under surface whiter, the black central spots to the feathers less pronounced, and rather smaller in wing-measurement. Wing 66 mm.

The male and female described were collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Extralimital Range. Surinam (*Penard*), Venezuela, Trinidad.

Habits. In regard to this species Schomburgk writes (*Reis. Guian. iii. p. 669*) that he first met with it in the vicinity of the Roraima Mountains. Its habits and mode of life are similar to those of *Tangara paradisea*, p. 504.

670. *Tangara cayana*.

CAYENNE TANAGER.

Tanagra cayana Linn. *Syst. Nat. i. p. 385, 1766* (Cayenne).

Callospiza cayana Cab. in *Schomb. Reis. Guian. iii. p. 670, 1848*.

Calliste cayana Salvin, Ibis, 1885, p. 209 (Merumé Mts., Roraima, 3500–4000 ft.); Selater, Cat. B. Brit. Mus. xi. p. 111, 1886 (Roraima, Merumé Mts.).

Calospiza cayana Beebe, Our Search for a Wilderness, p. 127, 1910 (Georgetown).

Tangara cayana Brabourne & Chubb, B. S. Amer. i. p. 406, no. 4180, 1912.

Adult male. Crown of head copper-bronze colour becoming rich golden straw-colour on the hind-neck, sides of neck, back, and short upper tail-coverts, the long ones blue like the middle tail-feathers; lesser upper wing-coverts and scapulars dark dull blue, the greater series, bastard-wing, and primary-coverts black margined with blue on the outer webs; flight-quills also black margined with blue on the outer webs and white on the inner ones; tail-feathers black edged with blue on the outer webs; lores and sides of face black; throat and fore-neck dull blue; remainder of the under surface dark fawn-colour more or less suffused with blue; axillaries and under wing-coverts buffy-white; under surface of flight-quills dark hair-brown; lower aspect of tail pearl-blue.

Total length 133 mm., exposed culmen 10, wing 77, tail 55, tarsus 19.

The male described was collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

Adult female. Similar to the adult male, but the blue on the throat much less bright and smaller in size. Wing 71 mm.

The female described was collected on the Ireng River by Mr. J. J. Quelch in 1902.

An immature example of this species from the Upper Takutu Mountains differs from the adult in having the chin and throat greyish white.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Upper Takutu Mountains, Ituribisi River, Abary River, Ireng River (*McConnell collection*); Mount Roraima, Merumé Mountains (*Whitely*).

Extralimital Range. Surinam (*Penard*), North Brazil, Venezuela, Colombia, East Peru.

Habits. According to Schomburgk (Reis. Guian. iii. p. 670) this species is distributed throughout British Guiana. It associates

with the Finches, mentioned under *Tuchyphonus cristatus*, that wander through the forest. The "Macusis" call it *Schumai*.

671. *Tangara gyrola*.

CHESTNUT-HEADED TANAGER.

Fringilla gyrola Linn. Syst. Nat. i. p. 181, 1758 ("Habitat in America").

Tanagra gyrola Linn. Syst. Nat. i. p. 315, 1766 (Surinam); Brabourne & Chubb, B. S. Amer. i. p. 407, no. 4188, 1912; Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Callospiza gyrola, Cab. in Schomb. Reis. Guian. iii. p. 669, 1848.

Calliste gyrola Salvin, Ibis, 1885, p. 209 (Roraima, 3500-4000 ft., Merumé Mts., Camacusa, Bartica Grove); Sclater, Cat. B. Brit. Mus. xi. p. 116, 1886 (Bartica Grove, Camacusa, Merumé Mts., Roraima).

Adult male. General colour of the upper and under surface bright green, including the back, wings, and tail on the upper parts and the throat, sides of the body, axillaries, and under tail-coverts on the under surface; crown of head, sides of face, and chin rich chestnut; a slightly indicated yellow band on the hind-neck dividing the chestnut and green; lesser upper wing-coverts yellow; flight-quills black on the inner webs, becoming paler on the margins; middle of breast and middle of abdomen dark turquoise-blue; under wing-coverts dusky-grey; under surface of flight-quills and lower aspect of tail dark brown.

Total length 118 mm., exposed culmen 10, wing 74, tail 45, tarsus 16.

The male described was collected by Mr. McConnell on the Bonasika River in December 1898 when returning on his expedition to Mount Roraima.

Adult female. Similar to the adult male. Wing 70 mm.

The young in its first plumage is easily distinguished by the absence of chestnut on the crown of the head and sides of the face, which are green. The specimen mentioned was collected on the Supenaam River in 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Ituribisi River, Supenaam River, Kamakabra River, Bonasika River, Makauria River, Tiger Creek Essequibo River, Arawai River, Kamooni

River (*McCConnell collection*); Mount Roraima, Merumé Mountains, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Surinam (*Linne*), Cayenne (*British Museum*).

Habits. According to Schomburgk (*Reis. Guian.* iii. p. 669) this species is more frequently met near the coast than inland. Its favourite haunts are the outskirts of woods and plantations, where it is found singly and in pairs.

672. *Tangara mexicana.*

SULPHUR-BELLIED TANAGER.

Tanagra mexicana Linn. *Syst. Nat.* i. p. 315, 1766 (Cayenne); Brabourne & Chubb, *B. S. Amer.* i. p. 408, no. 4197, 1912.

Callospiza mexicana Cab. in Schomb. *Reis. Guian.* iii. p. 670, 1848.

Calliste flaviventris Salvin, *Ibis*, 1885, p. 210 (Bartica Grove); Selater, *Cat. B. Brit. Mus.* xi. p. 120 part, 1886 (British Guiana, Bartica Grove).

Calospiza mexicana mexicana Beebe, *Our Search for a Wilderness*, p. 127 (Georgetown), p. 135 (Hoorie Creek), p. 243 (Henrietta), 1910.

Tangara mexicana mexicana Beebe, *Tropical Wild Life in British Guiana*, p. 137, 1917 (Bartica).

Adult male. Forehead, sides of face, throat, upper breast, lower back, and upper tail-coverts dark wedgwood-blue; hinder crown, upper back, wings, and tail black; lesser upper wing-coverts turquoise-blue; outer edges of some of the primary-quills blue, inner margins white, the central portion of the blue feathers black, which sometimes show through and gives a scaled appearance; lores and chin black; the feathers on the sides of the breast and flanks black faintly edged with blue; abdomen and under tail-coverts lemon-yellow; axillaries and under wing-coverts pale sulphur-yellow; inner edges of flight-quills below white, remainder of the quills below and lower aspect of tail blackish brown.

Total length 128 mm., exposed culmen 9, wing 71, tail 49, tarsus 19.

The male described was collected on the Bonasika River in 1911.

Adult female. Similar to the adult male. Wing 70 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Takutu, Mazaruni River, Bonasika River, Abary River, Tiger Creek Essequibo River (*McConnell collection*); Bartica (*Whitely*); Georgetown, Hoorie Creek, Bartica (*Beebe*).

Extralimital Range. Surinam (*Penard*), Cayenne (*British Museum*).

Habits. Schomburgk states (Reis. Guian. iii. p. 670) that this species is common and generally distributed throughout the colony. It is especially fond of the Cecropia trees. The "Warraus" call it *Mohebera*.

673. *Tangara nigrocincta*.

LILAC-THROATED TANAGER.

Aglaia nigrocincta Bonap. P. Z. S. 1837 [1838], p. 121 (West Brazil).

Calliste nigricincta Bonap. Consp. Av. i. p. 235, 1850.

Calliste nigricincta Salvin, Ibis, 1885, p. 210 (Roraima); Sclater, Cat. B. Brit. Mus. xi. p. 126, 1886 (Roraima).

Tangara nigricincta Brabourne & Chubb, B. S. Amer. i. p. 409, no. 4206, 1912.

Adult female. Crown of head, nape, and sides of face blue; throat purplish blue; back black; upper wing-coverts very pale iridescent blue becoming darker blue on the margins of the greater series, flight-quills, and upper tail-coverts, the remaining portion of the flight-quills black; tail also black slightly fringed with blue on the outer margins of the feathers; lores and base of forehead black; abdomen dark blue; breast, sides of body, under tail-coverts, axillaries, and under wing-coverts black with pale edgings to the under tail-coverts; under surface of quills and lower aspect of tail blackish brown.

Total length 107 mm., exposed culmen 9, wing 69, tail 44, tarsus 16.

The specimen from which the description is taken was collected on the Bonasika River by Mr. McConnell during his return journey from Mount Roraima in December 1898.

Adult male. Similar to the adult female. Wing 65 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Bonasika River (*McConnell collection*); Mount Roraima (*Whitely*).

Extralimital Range. Surinam (*Penard*), Bolivia, South-east and Central Peru.

Habits. Unrecorded in British Guiana.

674. *Tangara whitelyi*.

WHITELY'S TANAGER.

Calliste whitelyi Salvin & Godman, *Ibis*, 1884, p. 445, pl. xiii. (Roraima); Salvin, *Ibis*, 1885, p. 210; Sclater, *Cat. B. Brit. Mus.* xi. p. 136, 1886 (Roraima).

Tangara whitelyi Brabourne & Chubb, *B. S. Amer.* i. p. 410, no. 4226, 1912.

Adult male. Crown of head, sides of face, throat, scapulars, wings, and tail black; inner edges of flight-quills whitish; entire back, including the upper tail-coverts, breast, sides of body, abdomen, and under tail-coverts iridescent golden straw-colour with dark bases to the feathers; axillaries and under wing-coverts white; inner margins of quills below silvery-white; under surface of flight-quills and lower aspect of tail blackish brown with a tinge of blue on the latter.

Total length 129 mm., exposed culmen 10, wing 71, tail 47, tarsus 19.

Adult female. Crown of head, nape, and sides of face dark lead-grey with dark centres to the feathers; entire back and upper tail-coverts yellowish iridescent green; upper wing-coverts dark green with the inner portion of the feathers black like the innermost secondary-quills; flight-quills black with blue on the outer edges and white on the inner margins; tail-feathers black with dark greenish blue on the outer margins; throat and fore-neck grey with whitish margins to the feathers; abdomen, sides of body, and under tail-coverts yellowish green; under wing-coverts white. Wing 71 mm.

The male and female described were collected at Mount Roraima by Mr. McConnell during his expedition, October 1898.

The young male in its first plumage is similar to that of the adult female.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Unrecorded.

Genus **THRAUPIS** Boie.

Thraupis Boie, *Isis*, 1826, p. 974. Type *T. archiepiscopus* (Desm.).



Fig. 189.—*Thraupis episcopus*.

The species on which this genus was founded are birds of medium size and somewhat bright coloration. The bill is conical, the width and depth at the base are about equal, and the tip of the upper mandible is slightly hooked and the nostrils are exposed. The wing is rounded, the second, third, and fourth primaries are longest and equal, and the first is rather shorter than the fifth but much longer than the sixth. The tail is square at the tip and about two-thirds the length of the wing. The tarsus exceeds the length of the exposed culmen by nearly one-half. Coloration: male and female similar.

Key to the Species.

- | | |
|------------------------------------|---------------------------------|
| A. General colour pale blue | <i>T. episcopus</i> , p. 514. |
| B. General colour dark olive | <i>T. melanoptera</i> , p. 516. |

675. *Thraupis episcopus*.

BISHOP TANAGER.

Tanagra episcopus Linn. *Syst. Nat.* i. p. 316, 1766 ("Brasilia"); Cab. in Schomb. *Reis. Guian.* iii. p. 670, 1848; Salvin, *Ibis*, 1885, p. 210 (Bartica Grove, Merumé Mts., Camacusa, Roraima, 3000–3500 ft.); Selater, *Cat. B. Brit. Mus.* xi. p. 154, 1886 (Bartica Grove, Camacusa, Roraima); Quelch, *Timehri* (2) iv. pp. 121, 189, 1890 (Great Falls Demerara River); *id. op. cit.* v. p. 80, 1891 (Georgetown); Lloyd Price, *tom. cit.* p. 63 (nests and eggs).

Tanagra serioptera Cab. in Schomb. *Reis. Guian.* iii. p. 670, 1848.

Thraupis episcopus Brabourne & Chubb, B. S. Amer. i. p. 415, no. 4270, 1912.

Thraupis episcopus episcopus Beebe, Our Search for a Wilderness, p. 137, 1917 (Bartica).

“Blue Sacky” (*Schomburgk*); “Blue Sakie” (*Quelch*).

Adult male. Crown of head, sides of face, throat, and lesser upper wing-coverts silvery grey; upper back and scapulars greenish blue; lower back, rump, and upper tail-coverts lavender-blue; greater upper wing-coverts, bastard-wing, primary-coverts, and outer aspect of flight-quills blue, inner portion of the quills black becoming paler on the margins; tail-feathers blue, darker on the inner webs; breast, abdomen, under tail-coverts, and under wing-coverts lavender-blue somewhat paler on the last; flight-quills below dark brown; lower aspect of tail bluish.

Total length 157 mm., exposed culmen 12, wing 93, tail 62, tarsus 22.

The specimen described was collected at Bartica in 1911.

Adult female. Similar to the adult male but less bright in its plumage. Wing 93 mm.

The female described was collected at Mount Roraima by Mr. McConnell during his expedition in October 1898.

Breeding-season. Unrecorded in British Guiana.

Nest. “The nests made of small sticks, pieces of cane-trash, etc., and lined with dry grass, may be found hidden in the leaves of many low trees” (*H. Lloyd Price*).

Eggs. “The eggs, usually three in number, are of greyish white spotted with different shades of brown” (*H. Lloyd Price*).

Range in British Guiana. Mount Roraima, Upper Takutu Mountains, Ituribisi River, Bartica, Abary River (*McConnell collection*); Mount Roraima, Kamakusa, Bartica (*Whitely*).

Extralimital Range. Northern Brazil.

Habits. This species, according to Schomburgk (*Reis. Guian. iii.* p. 670), is found in great numbers along the coast in the settlers' towns and in the plantations. It may always be seen flitting about the Coco- and Coal-Palms, in which it is said to build its nest. It is called by the settlers Blue-sacky.

The following note has been copied from Mr. H. Lloyd Price (*Timehri* (2) v. p. 63), who, when writing on the nests and eggs of some common Guiana Birds, remarks:—“Numbers of light bluish

birds will be seen flitting from tree to tree especially in gardens, these are the Blue Sackies (*Tanagra episcopus*). The nests made of small sticks, pieces of cane-trash, etc., and lined with dry grass, may be found hidden in the leaves of many low trees; the eggs, usually three in number, are of a greyish white, spotted with different shades of brown."

Mr. J. J. Quelch (Timehri (2) v. p. 80), who observed this species in Georgetown, remarks:—"Very closely allied to the preceding are the Blue Sackies, though the name, taken from the note of the bird, can hardly be said to be really imitative of their cry. This bird is of a uniform pale blue-colour throughout, with a much shorter and narrower bill than the rather larger Cashew Sackies. In their habits they very closely resemble that species, though they are considerably more shy, and are seldom to be seen among the house-gardens in the city. About the outskirts of the town they are fairly numerous, flitting about the various fruit-trees and seed-bearing plants."

676. *Thraupis melanoptera*.

WESTERN PALM TANAGER.

Tanagra olivascens Cab. in Schomb. Reis. Guian. iii. p. 670, 1848.

Tanagra melanoptera Selater, P. Z. S. 1856, p. 235 (Eastern Peru).

Tanagra palmarum (nec Wied) Salvin, Ibis, 1885, p. 210 (Bartica Grove, Roraima, 3000-4000 ft.); Selater, Cat. B. Brit. Mus. xi. p. 159, 1886 (Bartica Grove, Roraima).

Tanagra palmarum melanoptera Beebe, Our Search for a Wilderness, p. 144, 1910 (Hoorie Creek).

Thraupis melanoptera Brabourne & Chubb, B. S. Amer. i. p. 416, no. 4281, 1912.

Thraupis palmarum palmarum Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

"Palm-Sakie" (Quelch).

Adult male. Crown of head, nape, sides of face, chin, and upper wing-coverts olive-green, which extends on to the quills; the feathers on the back dark brown tipped with olive-green; upper tail-coverts rather paler than the back; primary-coverts and flight-quills soot-brown, tinged with olive on the outer webs, and a large patch of white on the basal portion of the inner webs; tail soot-brown margined with olive-green on the outer webs of the feathers; breast, sides of body, abdomen, and under tail-

coverts dark oil-green; under wing-coverts olive-green; quill-lining white at the base, dark brown on the apical portion; lower aspect of tail pale brown with white shafts to the feathers.

Total length 168 mm., exposed culmen 11, wing 99, tail 70, tarsus 21.

Adult female. Similar to the adult male. Wing 94 mm.

The male and female described were collected at Bartica in 1911.

Breeding-season. Unrecorded in British Guiana.

Nest. "Builds in the coconut-trees a nest of dry sticks" (*H. Lloyd Price*).

Eggs. "The eggs are greyish white spotted with black" (*H. Lloyd Price*).

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Bartica, Abary River, Arawai River (*McConnell collection*); Mount Roraima, Bartica (*Whitely*); Bartica and Hoorie Creek (*Beebe*); Georgetown (*Quelch*).

Extralimital Range. Trinidad, Venezuela, Colombia, Ecuador, Peru, Bolivia, Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 670*) that this species is more usually met with near the coast, especially in the settlers' towns, in plantations, and outskirts of woods. It is rather numerous and, like *Tanagra episcopus*, generally met in pairs flitting about the Coco- and Coal-palms, where they are supposed to nest. It is less common inland. The "Warraus" call it *Muhi* and the "Macusis" *Sickuhi*, and the settlers Brown-sacky.

Mr. H. Lloyd Price (*Timehri (2) v. p. 63*), writing on the nests and eggs of some common Guiana Birds, remarks:—"A third kind of a grey colour (*Tanagra palmarum*) builds in the coconut-trees a nest of dry sticks; the eggs are greyish white spotted with black."

Mr. J. J. Quelch (*Timehri (2) v. pp. 80, 81*) observed this species in Georgetown, and remarks:—"Another Tanager often met with, and very common among the cocoanut-palms among which they chiefly make their nests, is the so-called Palm Sackie (*Tanagra palmarum*). These birds in their habits and diet closely resemble the two preceding species. Both this bird and the two preceding are frequently snared by boys and kept in cages for sale, though, as song-birds, there is no value to be placed upon them. Among

the houses of the native Indians they are also often to be seen, with their wings trimmed, and wandering at large about the settlement."

The following note is quoted from Beebe (Our Search for a Wilderness, p. 144) :—"It was the height of the season of courtship of Palm Tanagers, and they were noisy and bold. A caged female proved to be a source of great attraction, and several wild ones kept coming to the cage. We trapped two, and they made themselves at home within a few minutes. There was considerable variation, some being grey, almost a bluish-grey, while in others the green was strongly dominant."

Genus **RAMPHOCÆLUS** Desm.

Ramphocælus Desmarest, Hist. Nat. Tangaras, pls. 28, 29, 1805. Type *R. brasilius* (Linn.).

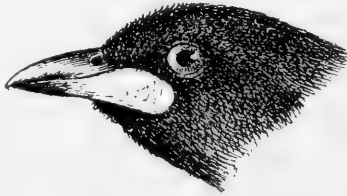


Fig. 190.—*Ramphocælus carbo*.

The species that comprise this genus are birds that are somewhat large in size and brilliant in colour. The bill is more or less depressed at the base, where its width is about equal to the length of the exposed culmen, while its depth is about one-sixth less, the tip of the upper mandible is slightly hooked and the nostrils are almost covered with feathers. The wing is rounded, the second, third, fourth, and fifth primaries are longest and subequal, and the first is about equal in length to the sixth. The tail is slightly rounded at the tip and almost equal to the wing in length. The tarsus is rather shorter than the middle toe and claw. Coloration : male and female different.

677. *Ramphocœlus carbo*.

SILVER-BEAKED TANAGER.

Lanius carbo Pallas, Vroeg's Catal. Rais. Adumbrat. p. 2, 1764 (Surinam).

Rhamphopsis atrococcineus Cab. in Schomb. Reis. Guian. iii. p. 668, 1848.

Ramphocœlus jacapa Salvin, Ibis, 1885, p. 210 (Bartica Grove, Roraima); Selater, Cat. B. Brit. Mus. xi. p. 174, 1886 (Georgetown); Lloyd Price, Timehri (2) v. p. 63, 1891 (nests and eggs); Quelch, tom. cit. p. 79 (Georgetown).

Ramphocœlus carbo Brabourne & Chubb, B. S. Amer. i. p. 417, no. 4297, 1912.

Ramphocœlus carbo carbo Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. Crown of head, hind-neck, and sides of face dark crimson; entire back, upper tail-coverts, and upper wing-coverts velvety black pervaded with crimson; flight-quills and tail-feathers black; throat, fore-neck, and upper breast rich crimson, the feathers on the chin have black hair-like tips; lower breast, sides of body, abdomen, and under tail-coverts black more or less tinged with crimson; under wing-coverts black; under surface of flight-quills and lower aspect of tail black. "Bill black; widened base of lower mandible bluish grey; feet black" (Cat. B. Brit. Mus.).

Total length 170 mm., exposed culmen 15, wing 80, tail 62, tarsus 22.

The male described was collected on the Mazaruni River in 1905.

Adult female. Differs from the adult male in being much less rich in colour, in having the rump and upper tail-coverts uniform dark crimson; forehead, sides of face, throat, breast, sides of body, abdomen, and under tail-coverts dull red; axillaries and under tail-coverts rust-brown, the feathers on the chin have hair-like tips. Wing 76 mm.

The female described was collected on the Ituribisi River in November 1906.

Breeding-season. Unrecorded in British Guiana.

Nest. "Builds its nest in low bushes, close to the ground, made of small sticks, pieces of cane-trash, etc., and lined with dry grass, may be found hidden in the leaves of many low trees" (H. Lloyd Price).

Eggs. "Two in number and are of a pinkish white, spotted, and blotched with purple" (H. Lloyd Price).

Range in British Guiana. Ituribisi River, Mazaruni River, Demerara River (*McConnell collection*); Mount Roraima, Merumé Mountains, Kamakusa, Bartica (*Whitely*); Georgetown (*Brown*).

Extralimital Range. Surinam, North Brazil, Venezuela, East Ecuador, North-east Peru.

Habits. Schomburgk states (Reis. Guian. iii. p. 668) that this species is found throughout the colony, and that he observed it to be rather common in the light woods near the coast and in the plantations; in the latter place it was one of the commonest birds. It roams about in pairs. The "Macusis" call it *Ipitikaha* and the "Warraus" *Porokeda*.

This note has been copied from Mr. H. Lloyd Price (Timehri (2) v. p. 63), who, when writing on the nest and eggs of some common Guiana Birds, remarks:—"Another species of a reddish colour (*Rhamphocælus jacapa*), builds its nest in low bushes, close to the ground, and of much the same materials. The two eggs are of a pinkish white, spotted, and blotched with purple-black."

The following notes are quoted from Mr. J. J. Quelch (Timehri (2) v. pp. 79, 80), who observed this species in Georgetown:—"Among some of the commonest of the town birds, and at the same time one of the most beautiful, is the Tanagrine bird, commonly known to colonists as the Cashew Sackie (*Rhamphocælus jacapa*). The bird is known under various common names in different parts of the colony, such as Wasoo, Buck-town Sackie, Silver-beak, Red Sackie, etc., while it has been referred to by black creoles as 'white-bill black-bird with a wine breast.' It may be taken as a type of the large family of Tanagridæ, whose more than three hundred species are entirely confined to the New World, and almost entirely to the tropical parts, where they form some of the most beautiful natural objects to be met with. The members of this family are distinguished from the other singing birds with nine primary-quills by the presence of a distinct notch on the upper mandible of the bill, whose form closely approaches that of the true Finches, while in many other characters they approach the Sugar-birds already described.

"The Red-breasted Tanager is to be seen in all parts of the town flitting about the trees, on the fruit and seeds of which they almost entirely subsist. Their note is sharp and shrill and by no

means pleasing, with a recurring sound of 'sick' nasally pronounced. They are active birds, and are constantly on the move from tree to tree."

Genus **PIRANGA** Vieill.

Piranga Vieillot, Ois. de l'Amer. Sept. i. pref. p. iv. 1807. Type
P. rubra (Linn.).

The species included in this genus are somewhat large in size and have bright coloured plumages. The bill is conical in shape, its width at the base is equal to the height at the nostrils, which is about two-thirds the length of the exposed culmen. The wing is rounded, the second and third primaries longest and equal, and the first about equal in length to the fourth. The tail is square at the tip and about three-fourths the length of the wing. The tarsus only slightly exceeds the length of the middle toe and claw. Coloration: male and female different.

Key to the Species and Subspecies.

- A. Larger, wing more than 85 mm.; wings and tail similar in colour.
- a. Crown of head, back, and upper tail-coverts dark red *P. rubra*, ♂, p. 522.
 - a'. Crown of head, back, and upper tail-coverts ochreous-yellow *P. rubra*, ♀, p. 522.
 - b. Crown of head, back, and upper tail-coverts deep crimson *P. hæmalea*, ♂, p. 523.
 - b'. Crown of head, back, and upper tail-coverts green, with a tinge of yellow on the fore part of the head *P. hæmalea*, ♀, p. 523.
 - c. Crown of head, back, and upper tail-coverts orange-red *P. saira macconnelli*, ♂, [p. 524.
 - c'. Crown of head, back, and upper tail-coverts dull yellow, with a tinge of green on the back *P. saira macconnelli*, ♀, [p. 525.
- B. Smaller, wing less than 85 mm.; wings and tail black in contrast to the crown of the head, back, and upper tail-coverts.
- b. Crown of head, middle of back, and upper tail-coverts scarlet red *P. ardens*, ♂, p. 525.
 - c. Crown of head, middle of back, and upper tail-coverts greenish yellow *P. ardens*, ♀, p. 526.

678. *Piranga rubra*.

SUMMER RED TANAGER.

Fringilla rubra Linn. Syst. Nat. i. p. 181, 1758 (Carolina).

Pyrranga æstiva Salvin, Ibis, 1885, p. 210 (Roraima); Selater, Cat. B. Brit. Mus. xi. p. 182, 1886 (Roraima); Quelech, Timehri (2) x. p. 263, 1896 (migration).

Piranga rubra Brabourne & Chubb, B. S. Amer. i. p. 418, no. 4307, 1912.

Adult male. General colour of the upper parts dark dull red, including the top of the head, back, upper tail-coverts, tail, upper wing-coverts, and outer aspect of flight-quills, the inner webs of the last blackish; throat and entire under surface bright red; under surface of flight-quills pale brown; lower aspect of tail similar to its upper surface.

Total length 172 mm., exposed culmen 16, wing 101, tail 73, tarsus 23, middle toe and claw 21.

This species is not represented in the McConnell collection, nor is there a male specimen, from British Guiana, in the British Museum; the above description, therefore, is taken from a specimen in the National collection, collected at Merida, Venezuela.

Adult female. General colour of the upper surface ochreous-yellow, including the top of the head, back, upper wing-coverts, and outer aspect of quills, inner webs of the last brown with whitish inner margins; tail inclining to cinnamon; throat and fore-neck orange-yellow, becoming paler yellow on the abdomen, sides of body, and under tail-coverts; axillaries and under wing-coverts similar, inclining to buff on the greater series; quill-lining pale brown with yellowish margins. Wing 94 mm.

The description of the female is taken from a specimen in the British Museum, collected by the late Henry Whitely in January 1881 on Mount Roraima, Salvin-Godman collection.

Immature male. Similar to the adult female in its first plumage. In the present specimen the red is commencing to appear on the sides of the face, back, upper tail-coverts, throat, breast, abdomen, and under tail-coverts.

The immature male was also collected at Mount Roraima by Whitely in October 1883.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*Whitely*).

Extralimital Range. Surinam (*Penard*), Trinidad, Venezuela, Colombia, Ecuador, Peru, Bolivia. Northward through Central America to the United States.

Habits. Mr. J. J. Quelch (*Timehri* (2) v. p. 263), writing on the migratory birds in British Guiana, remarks :—"It is noteworthy that in the case of the Red-birds (*Pyrranga aestiva*) they seem to occur only on the high lands of the interior, having never been taken on the coast lands."

679. *Piranga hæmalea*.

RORAIMA RED TANAGER.

Phænicosoma azaræ (*nec d'Orb.*) Cab. in Schomb. Reis. Guian. iii. p. 668, 1848.

Pyrranga hæmalea Salvin & Godman, *Ibis*, 1883, p. 205; Salvin, *Ibis*, 1885, p. 211 (Roraima, 3500 ft.); Selater, *Cat. B. Brit. Mus.* xi. p. 185, 1886 (Roraima).

Nearly adult male. General colour of the upper surface crimson-red, including the crown of the head, sides of the face, entire back, wings, and tail; inner webs of the upper wing-coverts, bastard-wing, primary-coverts, and flight-quills blackish, much paler and inclining to rose-pink on the inner margins of the last; some of the innermost secondaries on one of the wings show traces of immaturity, as do also one of the tail-feathers; under surface also red but paler than on the upper parts, with a sign of immaturity on one side of the breast; under wing-coverts, inner edges of quills below, and lower aspect of tail rose-pink, remainder of the under surface of the flight-quills dark brown.

Total length 173 mm., exposed culmen 18, wing 96, tail 72, tarsus 20.

Adult female. Entirely different to the adult male, being greenish yellow on the upper surface and sides of the face; inner webs of the upper wing-coverts and flight-quills blackish, paler on the inner margins of the last; tail rather darker than the back; under surface old-gold yellow, paler on the under tail-coverts, axillaries, under wing-coverts, and inner edges of flight-

quills below, remainder of the under surface of the quill-lining dark hair-brown; lower aspect of tail dark yellow. Wing 93 mm.

Immature male. Similar to adult female in its first plumage, but the present individual, being in the process of transition, has crimson-red feathers approaching on the top of the head, sides of the face, hind-neck, and back, and brighter red on the throat, breast, abdomen, and under tail-coverts.

The specimens described above were collected at Mount Roraima by Mr. McConnell during his expedition in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Schomburgk states (*Reis. Guian. iii. p. 668*) that he always found this species solitary and not very common. He appears to have collected but one specimen, which he shot in the Pacaraima Mountains. The "Arekunas" call it *Anouta-papina*.

680. *Piranga saira macconnelli*.

McCONNELL'S RED TANAGER.

(Plate IX.)

Tanagra saira Spix, Av. Bras. ii. p. 35, pl. 48. fig. 1, 1825 (South-East Brazil).

Piranga saira Brabourne & Chubb, B. S. Amer. i. p. 418, no. 4310, part, 1912.

Piranga saira macconnelli Chubb, Ann. & Mag. Nat. Hist. (ser. 9) viii. p. 446, Oct. 1921.

Adult male. General colour of the upper surface orange-red, somewhat brighter on the top of the head and upper tail-coverts, darker on the back, wings, and tail; inner webs of upper wing-coverts and bastard-wing dark brown, darker and inclining to black on the flight-quills, which have the inner margins rose-pink; inner webs of tail-feathers reddish brown; entire under surface bright scarlet-red including the axillaries and under wing-coverts; under surface of flight-quills hair-brown with rose-pink inner edges; lower aspect of tail similar to its upper surface.

Total length 182 mm., exposed culmen 18, wing 97, tail 75, tarsus 23.



Piranga saira macconnelli.
McConnell's Red Tanager.



The type, which is in the McConnell collection, was collected in the Upper Takutu Mountains in 1908.

In addition to the specimens in the McConnell collection of this subspecific race, there are four others in the British Museum, male and female—adult and young—that were collected by the late Henry Whitely at Quonga. Having compared these, with others in the National collection, from Rio de Janeiro, I notice that the latter are darker in general coloration than those from British Guiana. I have, therefore, separated the paler race subspecifically under the above title.

Adult female. General colour of the upper surface dull yellow, tinged with green on the back; inner webs of flight-quills dark brown margined with pale yellow; sides of face, throat, and entire under parts bright yellow. Wing 90 mm.

The female described was collected by the late Henry Whitely at Quongo, November 18, 1887, now in the British Museum, Salvin-Godman collection.

Immature male. Similar to the adult female in its first plumage. The first signs of the male plumage, in the present bird, are the approach of orange-red feathers on the sides of the face, throat, abdomen, under tail-coverts, and tail.

The young male described was collected in the Takutu Mountains (*McConnell collection*).

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Upper Takutu Mountains (*McConnell collection*); Quonga (*Whitely*).

Habits. Unrecorded.

681. *Piranga ardens*.

BLACK-LORED RED TANAGER.

Phœnisoma ardens Tschudi, Archiv für Naturg. 1844, i. p. 287 (Peru).

Pyrranga ardens Salvin, Ibis, 1885, p. 211 (Roraima); Selater, Cat. B.

Brit. Mus. xi. p. 190, 1886 (Roraima).

Piranga ardens Brabourne & Chubb, B. S. Amer. i. p. 419, no. 4313, 1912.

Adult male. Crown of head, hind-neck, back, rump, and upper tail-coverts bright red like the sides of the face, throat, breast,

sides of the body, abdomen, and under tail-coverts, darker on the top of the head and the middle of the upper back, the latter being more or less intermixed with black; scapulars, wings, and tail black; the tips of the median and greater upper wing-coverts broadly edged with white, which forms a double wing-bar; inner edges of flight-quills white; lores and chin black; axillaries white tinged with red; under wing-coverts white; under surface of flight-quills and lower aspect of tail black.

Total length 148 mm., exposed culmen 15, wing 78, tail 61, tarsus 18.

The male described was collected at Mount Roraima by Mr. McConnell during his expedition in October 1898.

Adult female. Crown of head, entire back, and upper tail-coverts dull yellow, strongly tinged with green on the middle of the back; wings dark brown, the median and greater coverts broadly tipped with white, which forms a double wing-bar; outer webs of flight-quills narrowly edged with green; tail also dark brown, the feathers fringed with green on the outer webs; sides of face similar to the top of the head; lores dusky; throat and breast orange-yellow; sides of body greenish yellow; thighs dusky; middle of abdomen and under tail-coverts yellow; axillaries and inner under wing-coverts white, the outer coverts dusky-brown, similar to the quill-lining; lower aspect of tail pale dusky-brown. Wing 71 mm.

The female from which the description is taken was collected by the late Henry Whitely on Mount Roraima, at an altitude of 5000 ft., August 23, 1883, and is now in the British Museum, Salvin-Godman collection.

Immature male. Differs from the adult male in having the head, back, sides of face, and entire under surface orange-red, and the long under tail-coverts lemon-yellow; the under parts paler and brighter than the orange-red portion of the upper surface.

The immature male was collected at Mount Roraima.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima (*McConnell collection*); Mount Roraima (*Whitely*).

Extralimital Range. Surinam (*Penard*), Venezuela, Colombia, Ecuador, Peru.

Habits. Unrecorded in British Guiana.

Genus **CYANICTERUS** Bonap.

Cyanicterus Bonaparte, *Consp. Av.* i. p. 240, 1850. Type *C. venustus* Bonap. = *C. cyanicterus* (Vieill.).

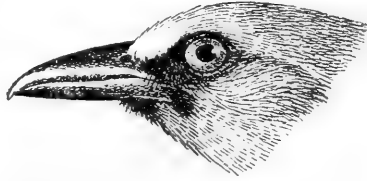


Fig. 191.—*Cyanicterus cyanicterus*.

This monotypic genus is readily distinguished by its bright blue and yellow plumage. The bill is proportionately long, compressed on the apical portion, and hooked at the tip of the upper mandible, but there is no trace of a tooth on its cutting-edges. The wing is rounded, the second, third, and fourth primaries longest and equal, and the first about equal in length to the fifth. The tail is slightly rounded at the tip and rather more than half the length of the wing. The tarsus only slightly exceeds the length of the exposed culmen. Coloration: male and female different.

682. *Cyanicterus cyanicterus*.

PURPLE-BLUE TANAGER.

Pyrranga cyanictera Vieill. *N. Diet. d'Hist. Nat.* xxviii. p. 290, 1819 (Cayenne); *id.* *Gal. Ois.* pl. 81, 1825; *Puch. Arch. Mus. Paris*, vii. pp. 356, 379, pl. 22, 1855 (Cayenne).

Orthogonys cyanicterus Salvin, *Ibis*, 1885, p. 211 (Merumé Mts.).

Cyanicterus venustus Sclater, *Cat. B. Brit. Mus.* xi. p. 193, 1886 (Merumé Mts., Mazaruni River).

Cyanicterus cyanicterus Brabourne & Chubb, *B. S. Amer.* i. p. 419, no. 4316, 1912.

Adult female. General colour of the upper surface pale blue, including the crown of the head, entire back, wings, and tail; greater upper wing-coverts blackish on the inner webs; bastard-

wing, primary-coverts, and flight-quills black fringed with blue on the outer webs, becoming black towards the tips and paler on the inner webs; tail-feathers blue, black on the inner webs and more or less white at the tips of the inner webs of the two lateral ones; lores, cheeks, throat, and fore-neck orange-yellow becoming pure yellow on the breast, abdomen, flanks, and under tail-coverts; axillaries and under wing-coverts citron-yellow, the marginal coverts blue; under surface of flight-quills blackish brown, paler on the inner edges; lower aspect of tail pale blue, the lateral feathers more or less whitish at the tips on the inner webs. "Bill pale horn-colour; feet yellowish" (Cat. Brit. Mus.).

Total length 169 mm., exposed culmen 18, wing 88, tail 58, tarsus 20.

The female described was collected by Mr. McConnell on the Bonasika River during his return journey from Mount Roraima in December 1898.

Adult male. Differs from the adult female in having the throat, fore-neck, and upper breast blue like the top of the head. Wing 89 mm.

The male described is in the British Museum and was collected at the Merumé Mountains by the late Henry Whitely, Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Bonasika River, Makauria River (*McConnell collection*); Merumé Mountains (*Whitely*); Mazaruni River (*im Thurm*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Vieillot*), Northern Brazil.

Habits. Unrecorded in British Guiana.

Genus **LANIO** Vieill.

Lanio Vieillot, Analyse Nouv. Ornith. p. 40, 1816. Type *L. fulvus* (Bodd.).



Fig. 192.—*Lanio fulvus*.

The members of this genus are distinguished chiefly by the well-developed rictal bristles. The bill is compressed on the apical portion, sharply hooked at the tip of the upper mandible, and a well-developed tooth on its cutting-edges. The wing is rounded, the second, third, fourth, and fifth primaries longest and subequal, and the first intermediate in length between the sixth and seventh. The tail is slightly rounded at the tip and nearly as long as the wing. The tarsus is rather longer than the exposed culmen, which is about equal in length to the middle toe and claw. Coloration: male and female different.

683. *Lanio fulvus*.

BLACK-HEADED TOOTHED TANAGER.

Tangara jaune à tête noire, de Cayenne Daubenton, Pl. Enl. v. pl. 809. fig. 2, 1781.

Tangara fulva Bodd. Tabl. Pl. Enl. p. 50, 1783.

Tanagra atricapilla Gmel. Syst. Nat. i. p. 899, 1789 (Gujana).

Pogonothraupis atricapilla Cab. in Schomb. Reis. Guian. iii. p. 669, 1848.

Lanio atricapillus Salvin, Ibis, 1885, p. 211 (Merumé Mts., Atapurau River, Bartica Grove); Sclater, Cat. B. Brit. Mus. xi. p. 204, 1886 (Merumé Mts., Atapurau River, Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 420, no. 4329, 1912; Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Lanio fulvus Mathews & Iredale, Austral Avian Record, iii. p. 47, 1915.

Adult male. Crown of head, nape, hind-neck, sides of face, and throat uniform deep black; upper wing-coverts and scapulars also black, some of lesser inner coverts white, which forms a concealed patch, flight-quills brownish black, paler on the margins

of the inner webs; tail black, darker than the flight-quills but not so deep black as the head; sides of neck, mantle, and upper back orange-yellow, becoming darker on the lower back and inclining to chestnut on the upper tail-coverts; fore-neck, upper breast, lower flanks, and under tail-coverts chestnut; lower breast, abdomen, and sides of body dark old-gold yellow; axillaries and inner under wing-coverts buffy-white, the marginal coverts black; under surface of quills dark brown rather paler on the inner edges; lower aspect of tail blackish. "Bill black; feet brown" (Cat. B. Brit. Mus.).

Total length 172 mm., exposed culmen 16, wing 98, tail 84, tarsus 16.

The male described was collected by Mr. McConnell on the Bonasika River during his return journey from Mount Roraima in December 1898.

Adult female. Differs entirely from the adult male. Crown of head greyish brown; mantle, back, and outer aspect of wings rufous-brown; inner webs of flight-quills blackish brown with buffy-white margins; upper tail-coverts rufous-chestnut; tail, above and below, ochreous-brown; sides of face and throat pale rufous-brown; breast, abdomen, and sides of body dark old-gold yellow with a greenish tinge; lower flanks and under tail-coverts pale chestnut; axillaries and under wing-coverts cinnamon-rufous; quills below dark brown with paler edges. Wing 82 mm.

The female from which the description is taken was collected on the Ituribisi River in February 1907.

Breeding-season. Unknown in British Guiana.

Nest. It is said to nest in the Coal and Coco Palms (*Schomburgk*).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mazaruni River, Ituribisi River, Supenaam River, Bartica, Bonasika River (*McConnell collection*); Merumé Mountains, Kamarang River, Bartica (*Whitely*).

Extralimital Range. Colombia, Ecuador.

Habits. According to *Schomburgk* (*Reis. Guian.* iii. p. 669) this species is one of the commonest birds near the coast and in the plantations, where it is usually seen in pairs perching on the Coal and Coco Palms and where it also is said to nest.

Genus **TACHYPHONUS** Vieill.

Tachyphonus Vieillot, Anal. Nouv. Ornith. p. 33, 1816. Type *T. rufus* (Bodd.).

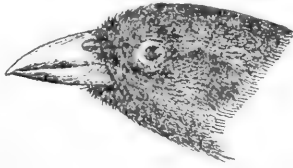


Fig. 193.—*Tachyphonus rufus*.

The species on which this genus was based have short velvet-like feathers at the base of the forehead. The bill is somewhat long and slender, its width at the base and height at the nostrils are about equal to half the length of the exposed culmen, the tip of the upper mandible is slightly hooked, but there appears to be no tooth on the cutting-edges, and the nostrils are exposed. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second is equal to the sixth and the first to the eighth. The tail is slightly rounded at the tip and about seven-eighths the length of the wing. The tarsus exceeds the length of the exposed culmen by about one-fourth. Coloration: male and female different.

Key to the Species.

- A. Crown of head black like the back.
- a. Larger, wing more than 80 mm.
 - a'. General colour black *T. rufus*, ♂, p. 532.
 - b'. General colour rufous *T. rufus*, ♀, p. 532.
 - b. Smaller, wing less than 80 mm.
 - c'. General colour of upper surface black; shoulder of wing red *T. phæniceus*, ♂, p. 533.
 - d'. General colour of upper surface dusky-brown, tinged with grey on the head *T. phæniceus*, ♀, p. 533.
 - e'. Head black like the back; shoulder of wing white *T. luctuosus*, ♂, p. 534.
 - f'. Head grey in contrast to the back, which is olive-green *T. luctuosus*, ♀, p. 534.
- B. Crown of head orange in contrast to the upper back, which is black.
- c. Middle of throat black; larger, wing more than 80 mm. *T. surinamus*, ♂, p. 535.
 - g'. Crown of head grey; back dark olive-green *T. surinamus*, ♀, p. 535.
 - d. Middle of throat rufous; smaller, wing less than 80 mm. *T. intercedens*, ♂, p. 536.
 - h'. Crown of head ochreous like the back. *T. intercedens*, ♀, p. 536.

684. *Tachyphonus rufus*.

GREATER WHITE-SHOULDERED TANAGER.

Tanagra rufa Bodd. Tabl. Pl. Enl. p. 44, 1783 (Cayenne).

Tachyphonus nigerrimus Cab, in Schomb. Reis, Guian. iii. p. 669, 1848.

Tachyphonus melaleucus Salvin, Ibis, 1885, p. 211 (Bartica Grove);

Selater, Cat. B. Brit. Mus. xi. p. 206, 1886.

Tachyphonus rufus Brabourne & Chubb, B. S. Amer. i. p. 421 no. 4333, 1912; Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. General colour both on the upper and under surface glossy blue-black; flight-quills blackish brown edged with white on the basal portion of the inner webs; lesser marginal upper wing-coverts, axillaries, under wing-coverts, and inner edges of the quills below white; remainder of the under surface of the quills blackish brown; lower aspect of tail black. "Bill and feet black" (Cat. B. Brit. Mus.).

Total length 179 mm., exposed culmen 17, wing 88, tail 78, tarsus 23.

Adult female. Differs entirely from the adult male in being rufous on the entire upper and under surface. The inner webs of the flight-quills blackish brown with pale rufous on the inner margins; axillaries, under wing-coverts, and inner edges of quills below cinnamon-rufous. Wing 80 mm.

The male and female described were collected on the Bonasika River, 1911.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Bonasika River, Demerara River, Abary River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Cayenne (*Jelski*), Trinidad, Tobago, Venezuela, Colombia, Peru, Eastern and Southern Brazil.

Habits. Schomburgk states (Reis. Guian. iii. p. 669) that he usually met with this species singly—rarely in pairs—in the thin woods near the coast, in the plantations, and in the fields cultivated by the Indians. He also noticed single individuals among local migratory flocks.

685. *Tachyphonus phœniceus*.

RED-SHOULDERED TANAGER.

Tachyphonus phœniceus Swains. Anim. in Menag. part iii. p. 311, 1837 (Peru); Salvin & Godman, Ibis, 1883, p. 203 (British Guiana); Salvin, Ibis, 1885, p. 212 (Merumé Mts., Roraima, 3500 to 5000 ft.); Selater, Cat. B. Brit. Mus. xi. p. 208, 1886 (Merumé Mts., Roraima); Brabourne & Chubb, B. S. Amer. i. p. 421, no. 4335, 1912.

Adult male. General colour both on the upper and under surface glossy black with a bluish sheen on the upper parts; lesser upper wing-coverts scarlet-red with white bases to the feathers; axillaries, under wing-coverts, and inner margins of flight-quills, on the basal portion, pure white.

Total length 155 mm., exposed culmen 12, wing 71, tail 62, tarsus 11.

Adult female. General colour on the upper surface dark dusky-brown, including the crown of the head, sides of the face, sides of the neck, hind-neck, back, wings, and tail; the small upper wing-coverts on the bend of the wing slightly rufescent; throat and middle of abdomen isabelline-white; sides of body, thighs, and under tail-coverts slate-grey; axillaries and under wing-coverts white; under surface of flight-quills and lower aspect of tail dark brown. Wing 70 mm.

The male and female described above were collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

An immature male, collected on the Abary River in September 1906, is similar in its general colour of plumage to the adult female and differs only in being streaked with dull white and pale brown. The first approach of male plumage is represented by a small spot of black on one side of the throat.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Abary River (McConnell collection); Mount Roraima and Merumé Mountains (Whitely).

Extralimital Range. Surinam (Penard), Northern Brazil, Peru.

Habits. Unrecorded in British Guiana.

686. *Tachyphonus luctuosus*.

LESSER WHITE-SHOULDERED TANAGER.

Tachyphonus luctuosus Lafr. d'Orb. Syn. Av. p. 29, Mag. de Zool. 1837 (Guarayos, Bolivia); Salvin, Ibis, 1885, p. 211 (Bartica Grove); Sclater, Cat. B. Brit. Mus. xv. p. 208, 1886 (Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 421, no. 4334, 1912; Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. General colour of both the upper and under surface glossy blue-black; lesser upper wing-coverts white as are also the axillaries, under wing-coverts, and inner edges of the quills below; inner webs of flight-quills above paler than the outer webs, with white margins towards the base; under surface of the quills blackish; lower aspect of tail black. "Bill black, plumbeous at base; feet black" (Cat. B. Brit. Mus.).

Total length 120 mm., exposed culmen 12, wing 60; tail 50, tarsus 18.

The male described was collected at Bartica, 1912.

Adult female. Crown of head, nape, and sides of face slate-grey; back, wings, and tail yellowish green; inner webs of flight-quills dark brown with pale inner edgings; throat yellowish white; breast, abdomen, and under tail-coverts yellow; sides of breast and sides of body darker and more yellowish grey; axillaries, under wing-coverts, and inner edges of quills on the under surface whitish; remainder of quill-lining pale brown; lower aspect of tail yellowish brown. Wing 59 mm.

The female described was collected at Kamakabra River in 1911.

The young male in its first plumage is similar to that of the adult female. An immature bird from the Makauria River, which is in the transitional plumage, shows the black feathers of the adult male approaching on the head, back, wings, and under surface. There is also one from the Anarica River, which show only slight remains of youth on the back and abdomen.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Bartica, Kamakabra River, Makauria River, Anarica River (McConnell collection); Bartica (Whitely).

Extralimital Range. Surinam (*Penard*), Trinidad, Venezuela, Colombia, Ecuador, Brazil, Bolivia.

Habits. Unrecorded in British Guiana.

687. *Tachyphonus surinamus*.

FULVOUS-CRESTED Tanager.

Turdus surinamus Linn. Syst. Nat. i. p. 297, 1766 (Surinam).

Tachyphonus ochropygos Cab. in Schomb. Reis. Guian. iii. p. 668, 1848.

Tachyphonus surinamus Salvin, Ibis, 1885, p. 212 (Bartica Grove, Merumé Mts., Camacusa, Atapurau River, Roraima, 3500 to 4000 ft.); Sclater, Cat. B. Brit. Mus. xi. p. 211, 1886 (Bartica Grove, Merumé Mts., Atapurrow River); Brabourne & Chubb, B. S. Amer. i. p. 421, no. 4339, 1912.

Tachyphonus surinamus surinamus Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. General colour of the plumage, both on the upper and under surface, glossy black, including the fore-part of the head, sides of face, back, wings, and tail with steel-blue reflections on the upper back; middle of crown orange-colour fading to straw-yellow on the nape; rump pale fawn-colour; lesser upper wing-coverts, axillaries, under wing-coverts, and inner margins of flight-quills, on the basal portion, pure white; some of the feathers on the lower flanks tipped with deep chestnut.

Total length 156 mm., exposed culmen 14, wing 85, tail 71, tarsus 18.

The specimen described above was collected on the Ituribisi River in November 1908.

Adult female. General colour of the upper surface yellowish green, including the sides of the face, entire back, wings, and tail; crown of head and nape slate-grey; inner webs of flight-quills dark brown; under surface, including the throat, breast, abdomen, and under tail-coverts, fawn-colour; axillaries and under wing-coverts white; under surface of flight-quills and lower aspect of tail dark brown. Wing 80 mm.

The female described was collected on the Anarica River.

Immature male. In its first plumage is similar to the adult female, the first approach of the male dress, in this specimen, being on the sides of the breast and abdomen.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Ituribisi River, Supenaam River, Makauria River, Abary River, Tiger Creek, Arwey River (*McConnell collection*); Merumé Mountains, Kamarang River, Bartica (*Whitely*).

Extralimital Range. Surinam (*Linné*), Venezuela, North Brazil (*Maudsl.*).

Habits. Schomburgk states (*Reis. Guian. iii. p. 668*) that he met with this species in the thinly wooded districts near the coast and in the plantations.

688. *Tachyphonus intercedens*.

ALLIED CRESTED TANAGER.

Tachyphonus cristatus (nec Gmel.) Cab. in Schomb. *Reis. Guian. iii. p. 668, 1848*; Salvin, *Ibis, 1885, p. 212* (Bartica Grove, Ataparau River); Selater, *Cat. B. Brit. Mus. xi. p. 210, 1886* (Bartica Grove, Merumé Mts., River Atapurou).

Tachyphonus intercedens Berlepsch, *Ibis, 1880, p. 113* (Bartica Grove); Brabourne & Chubb, *B. S. Amer. i. p. 421, no. 4342, 1912*.

Tachyphonus cristatus intercedens Beebe, *Tropical Wild Life in British Guiana, p. 137, 1917* (Bartica).

Adult male. General colour, both above and below, black; fore part of head and crest bright orange; back dark straw-colour; inner lesser upper wing-coverts white; inner webs of flight-quills blackish, margined with white, which increases in extent towards the innermost secondaries, where it occupies the entire basal portion of the feathers; middle of throat orange-buff; axillaries, under wing-coverts, and inner margins of quills below white.

Total length 158 mm., exposed culmen 11, wing 77, tail 69, tarsus 19, middle toe and claw 15.

Adult female. General colour of the upper surface ochreous-brown, including the top of the head, sides of face, back, wings, and tail; inner webs of flight-quills blackish brown with buffy-white margins; upper tail-coverts rust-colour; tail rather darker than the back; under surface ochreous-yellow; under wing-coverts buff. Wing 75 mm.

The immature male in its first plumage is similar to the adult female, and one of the first approaches of the male attire are the orange-coloured feathers on the crown of the head.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Ituribisi River, Supenaam River, Anarica River, Arawai River, Great Falls Demerara River (*McConnell collection*); Meruné Mountains, Kamarang River, Bartica (*Whitely*).

Habits. According to Schomburgk (*Reis. Guian. iii. p. 668*) this species is also more common near the coast than inland. Single individuals were observed by him among the flocks of *Fringillidæ*, *Tangaridæ*, *Tyrannidæ*, and *Cerebidæ* that traverse the woods and plantations in search of insect food. This custom took place morning and afternoon of each day, the birds following in the same direction on each occasion.

Genus **EUCOMETIS** Sel.

Eucometis Selater, P. Z. S. 1856, p. 117. Type *E. penicillata* (Spix).



Fig. 194.—*Eucometis penicillata*.

This genus is easily distinguished by the well-developed crest, which covers the top of the head and nape. The rictal bristles are numerous but short. The bill is somewhat short and stout, the width at the base being more than half the length of the exposed culmen; the tip of the upper mandible is slightly hooked, but there is no tooth on its cutting edges. The wing is rounded, the second, third, fourth, and fifth primaries longest and subequal, and the first is intermediate in length between the sixth and seventh. The tail is rounded at the tip and almost as long as the wing. The tarsus is nearly a third longer than the exposed culmen, which is about equal in length to the middle toe and claw. Coloration: male and female alike in plumage, but the female is smaller in wing-measurement.

689. *Eucometis penicillata*.

GREY-AND-WHITE CRESTED TANAGER.

Tanagra penicillata Spix, Av. Bras. ii. p. 36, pl. xlix. 1825 (Brazil).

Eucometis penicillata Schater, Cat. B. Brit. Mus. xi. p. 217, 1886;
Brabourne & Chubb, B. S. Amer. i. p. 422, no. 4350, 1912.

Adult male. Entire back, wings, and tail citron-yellow; inner webs of flight-quills dark brown; crown of head, sides of face, and hind-neck ash-grey, much paler and inclining to white on the crest, and much darker on the base of the forehead; the feathers in front of the eye are short and bristly in texture; throat greyish white; remainder of the under surface orange-yellow including the axillaries and under wing-coverts; under surface of flight-quills dark brown, tinged with buff on the margins.

Total length 174 mm., exposed culmen 10, wing 95, tail 81, tarsus 22.

The specimen described was collected on the Abary River in June 1906.

Adult female. Similar to the adult male. Wing 85 mm.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Abary River (*McConnell collection*).

Extralimital Range. Northern Brazil, Colombia, Ecuador, East Peru.

Habits. Unrecorded in British Guiana.

Genus **MITROSPINGUS** Ridgw.

Mitrospingus Ridgway, Auk, 1898, p. 225. Type *M. cassini* (Lawr.).



Fig. 195.—*Mitrospingus oleagineus*.

The species on which this genus was founded is somewhat large in size and dull in coloration. The bill is proportionately short, its width at the base being more than half the length of the

exposed culmen; the tip of the upper mandible is slightly hooked. The wing is rounded, the third, fourth, fifth, and sixth primaries are longest and subequal, the second about equal in length to the seventh and the first to the ninth. The tail is rounded at the tip and nearly as long as the wing. The tarsus exceeds the length of the exposed culmen by about three-fifths. Coloration: male and female similar.

690. *Mitrospingus oleagineus*.

SALVIN'S CRESTED TANAGER.

Eucometis oleaginea Salvin, Ibis, 1886, p. 500 (Twek-quay Mountain, Carimang River).

Mitrospingus oleagineus Brabourne & Chubb, B. S. Amer. i. p. 423, no. 4355, 1912.

Adult. General colour of the upper surface dark citron-yellow, including the top of the head, hind-neck, entire back, upper tail-coverts, upper wing-coverts, and outer aspect of flight-quills; bastard-wing and primary-coverts blackish; inner webs of flight-quills also blackish becoming paler on the margins; tail blackish; fore part of head and sides of face dark lead-colour; throat similar but rather paler; the feathers on the lores are bristly in texture; breast, abdomen, sides of body, under tail-coverts, and axillaries old-gold yellow; thighs green; under wing-coverts grey; under surface of quills dark brown; lower aspect of tail similar but paler and having whitish shafts to the feathers.

Total length 187 mm., exposed culmen 17, wing 96, tail 81, tarsus 27.

The specimen described was collected at Mount Roraima by Mr. McConnell during his expedition in October 1898.

Another specimen in the McConnell collection is similar to the one described, while a third one differs in the almost entire absence of grey on the forehead, sides of face and throat. The latter is most probably a young bird. It may be remarked, however, that neither of the specimens cited above has been sexed.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (McConnell collection) ; Mount Twek-quay (Whitely).

Habits. Unrecorded.

Genus **NEMOSIA** Vieill.

Nemosia Vieillot, Anal. Nouv. Ornith. p. 32, 1816. Type *N. pileata* (Bodd.).

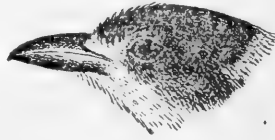


Fig. 196.—*Nemosia pileata*.

The species that comprise this genus are birds of small size. The bill is proportionately long, slender, and pointed, its width at the base being equal to about two-thirds the length of the exposed culmen. The wing is rounded, the four outer primaries are longest and equal. The tail is square at the tip and about five-eighths the length of the wing. The tarsus exceeds the length of the exposed culmen by about one-half. Coloration: male and female slightly different.

691. *Nemosia pileata*.

HOODED TANAGER.

Tanagra pileata Bodd. Tabl. Pl. Enl. p. 45, 1783 (Cayenne).

Nemosia pileata Selater, Cat. B. Brit. Mus. xi. p. 223, 1886 ; Brabourne & Chubb, B. S. Amer. i. p. 423, no. 4361, 1912.

Adult male. Nape, entire back, wings, and tail lavender-blue ; bastard-wing and primary-coverts black ; inner webs of flight-quills blackish with margins ; tail-feathers also blackish on the inner webs, which are narrowly edged with white and dark obsolete cross-bars on the outermost feathers ; crown of head, sides of face, and a line down the side of the neck, which extends to the sides of the breast, black ; chin, throat, and a loreal streak which extends to the eye, white, like the under tail-coverts and under wing-coverts ; breast, abdomen, and sides of body pale lavender-blue, inclining to white on the middle of the abdomen ; under surface of flight-quills dark brown with white edges ; lower aspect of tail bluish grey.

Total length 117 mm., exposed culmen 10, wing 70, tail 43, tarsus 19.

Adult female. General colour of the upper surface lavender-blue, including the head, back, wings, and tail; under surface for the greater part white tinged with pale fawn-colour on the throat and a wash of blue on the breast, abdomen, and sides of body. Wing 66 mm.

The specimens described were collected on the Abary River in July and November 1906.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Abary River (*McConnell collection*).

Extralimital Range. Surinam (*Penard*), Cayenne, Brazil, Venezuela, Colombia.

Habits. Unrecorded in British Guiana.

Genus **HEMITHRAUPIS** Cab.

Hemithraupis Cabanis, Mus. Hein. i. p. 21, 1850. Type *H. ruficapilla* (Vieill.).

The species included in this genus are also birds of small size. The bill is pointed, its width at the base is equal to about half the length of the exposed culmen and the tip of the upper mandible is slightly hooked. The wing is rounded, the second, third, and fourth primaries longest and equal, the first is intermediate in length between the fourth and fifth. The tail is square at the tip and about five-sevenths the length of the wing. The tarsus exceeds the length of the exposed culmen by about one-third. Coloration: male and female different.

Key to the Species.

- | | |
|---|----------------------------------|
| A. Crown of head and mantle blackish in contrast to the back, which is bright yellow; throat yellow | <i>H. hellmayri</i> , ♂, p. 542. |
| a. Crown of head and back smoke-brown | <i>H. hellmayri</i> , ♀, p. 542. |
| B. Crown of head and mantle bronze-green in contrast to the back, which is bright fawn-colour; throat black | <i>H. roraimæ</i> , ♂, p. 542. |
| b. Crown of head and back yellowish olive-green | <i>H. roraimæ</i> , ♀, p. 543. |

692. *Hemithraupis hellmayri*.

MERUMÉ TANAGER.

- Hemithraupis hellmayri* Berlepsch, Verh. v. Intern. Orn. Kongr. Berlin, 1910, p. 1082, 1912 (Merumé Mts.); Brabourne & Chubb, B. S. Amer. i. p. 424, no. 4369, 1912.
Nemosia guira Salvin, Ibis, 1885, p. 212 (Merumé Mts.).
Nemosia flavicollis Sclater, Cat. B. Brit. Mus. xi. p. 225 part, 1886 (Merumé Mts.).

Adult male. Crown of head, sides of face, sides of neck, hind-neck, mantle, scapulars, wings, and tail blackish brown; back, upper tail-coverts, throat, and under tail-coverts bright yellow; some of the primary-quills white at the base, which forms a more or less obscured wing-speculum; breast, abdomen, and sides of body greyish white becoming yellowish on the vent; axillaries, under wing-coverts, and base of quills below white; remainder of quill-lining blackish brown; lower aspect of tail similar but rather paler and having whitish shafts to the feathers.

Total length 118 mm., exposed culmen 12, wing 71, tail 52, tarsus 17.

Adult female. Differs from the adult male in being smoke-brown on the upper surface with yellowish fringes to the wing and tail-feathers and dull yellow on the under parts. Wing 63 mm.

The specimens described were collected at the Great Falls Demerara River, August 1912.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Merumé Mountains (*Whitely*).

Habits. Unrecorded.

693. *Hemithraupis roraimæ*.

RORAIMA GUIRA TANAGER.

(Plate VIII. figs. 1, 2.)

- Nemosia guira* Salvin, Ibis, 1885, p. 212 (part) (Roraima, 3000-4000 ft.); Sclater, Cat. B. Brit. Mus. xi. p. 224 (part), 1886 (Roraima).
Nemosia guira roraimæ Hellmayr, Bull. Brit. Orn. Cl. xxv. p. 88, 1910 (Mt. Roraima).
Hemithraupis roraimæ Brabourne & Chubb, B. S. Amer. i. p. 425, no. 4377, 1912.

Adult male. Crown of head, hind-neck, mantle, upper back,

wings, and tail yellowish green; inner webs of flight-quills dark brown with pale margins; lower back and rump bright fawn-colour like the fore-neck; upper and under tail-coverts, sides of neck, lores, and a line over the eye yellow; throat and sides of face black; sides of body and thighs ash-grey; middle of abdomen pale yellow; under wing-coverts and inner margins of quills below white; remainder of quill-lining dark brown; lower aspect of tail similar to its upper surface.

Total length 124 mm., exposed culmen 11, wing 67, tail 49, tarsus 16.

The male described was collected on the Abary River in July 1906.

Adult female. Differs from the adult male in having the upper surface yellowish olive-green, including the top of the head, sides of face, sides of neck, nape, entire back, upper tail-coverts, wings, and tail; inner webs of flight-quills dark with whitish margins; throat and remainder of under surface pale yellow; sides of body grey; axillaries, under wing-coverts, and base of quills below white, remainder of quill-lining hair-brown. Wing 65 mm.

The female described was collected at Mount Roraima by Mr. McConnell during his expedition in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima, Abary River (*McConnell collection*); Mount Roraima (*Whitely*).

Habits. Unrecorded.

Genus **LAMPROSPIZA** Cab.

Lamprospiza Cabanis, Arch. für Naturg. pt. i. p. 246, 1847. Type *L. melanoleuca* (Vieill.).

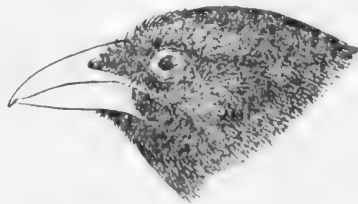


Fig. 197.—*Lamprospiza charmesii*.

In this genus the bill is pointed and somewhat large in

proportion to the size of the bird itself. Its width and depth at the base are equal, which is about two-thirds the length of the exposed culmen; the tip of the upper mandible is slightly hooked, but there is no trace of a tooth on its cutting edges. There is a tuft of velvet-like feathers immediately behind the nostrils. The wing is rounded, the second, third, and fourth primaries are longest and equal, the first is slightly shorter than the fourth but much longer than the fifth. The tail is square at the tip and about two-thirds the length of the wing. The tarsus exceeds the length of the exposed culmen by about one-third. Coloration: male and female slightly different.

694. *Lamprospiza charmesi*.

CHARME'S BLACK-AND-WHITE SHINING TANAGER.

Lamprospiza charmesi Penard, Vogels van Guyana, ii. p. 463, 1910.

Lamprospiza melanoleuca Brabourne & Chubb, B. S. Amer. i. p. 430, no. 4429 part, 1912; Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. Entire upper surface glossy blue-black like the throat and a band of feathers on each side of the breast and the thighs; inner webs of flight-quills dull black with pale margins; sides and middle of breast, abdomen, sides of body, under tail-coverts white, like the axillaries, under wing-coverts, and base of flight-quills below; remainder of quill-lining dull blackish like the lower aspect of the tail.

Total length 150 mm., exposed culmen 15, wing 90, tail 61, tarsus 22.

Adult female. Differs from the adult male in being ash-grey on the hind-neck, entire back, upper tail-coverts, and scapulars. Wing 90 mm.

Habits. Beebe (Tropical Wild Life in British Guiana, p. 137) records this species from Bartica, which, so far as I have been able to gather, is the first known occurrence of the species in the colony. It may be mentioned, however, that Messrs. Penard (Vogels van Guyana, ii. p. 463) described a new form of this species, founded on its larger wing-measurement, viz., 9.5. This does not appear to be of any great importance, however, when we find that the wing-measurement of some of the Cayenne birds reaches 9.1. If, on the other hand, Messrs. Penard's bird should

prove to be a separate form, it is most probable that the bird recorded by Beebe from Bartica will be the same species. I prefer, therefore, to designate it as such until further material shall prove it otherwise.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Bartica (*Beebe*).

Extralimital Range. Surinam (*Penard*).

Habits. Unrecorded in British Guiana.

Genus CISSOPIS Vieill.

Cissopis Vieillot, Anal. Nouv. Ornith. p. 40, 1816. Type *C. leveriana* (Gmel.).



Fig. 198.—*Cissopis leveriana*.

This genus is easily recognised by its black and white coloration, long and graduated tail, and Shrike-like bill. Coloration: male and female similar.

695. *Cissopis leveriana*.

MAGPIE TANAGER.

Lanius leverianus Gmel. Syst. Nat. i. p. 302, 1788 (Guiana).

Cissopis minor Cab. in Schomb. Reis. Guian. iii. p. 677, 1848.

Cissopis media (Bonap.) Salvin, Ibis, 1885, p. 213 (Bartica Grove).

Cissopis leveriana Scater, Cat. B. Brit. Mus. xi. p. 299, 1886 (Bartica Grove); Brabourne & Chubb, B. S. Amer. i. p. 430, no. 4432, 1912; Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. Crown of head, sides of face, neck all round, mantle, throat, breast—extending into a narrow point—to the middle of the abdomen glossy blue-black, the feathers being lanceolate in form; back, upper tail-coverts, lesser and median upper wing-coverts pure white, like the sides of the breast, flanks,

abdomen, under tail-coverts, axillaries, and under wing-coverts; bastard-wing and greater upper wing-coverts black with more or less white at the tips; primary-coverts and flight-quills black, some of the secondaries margined with white; tail black with white tips to the feathers which increases in extent on the outer ones; under surface of flight-quills blackish; lower aspect of tail similar to its upper surface. "Bill black; legs, toes, and claws black; eye yellow" (*H. Whitely*).

Total length 235 mm., exposed culmen 15, wing 108, tail 116, tarsus 28.

The specimen described was collected on the Mazaruni River in 1905.

Adult female. Similar to the adult male, both in colour and measurements.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mazaruni River, Ituribisi River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Surinam (*Penard*), Venezuela.

Habits. Schomburgk states (*Reis. Guian. iii. p. 667*) that he met with this bird in small flocks, usually in thin woods and in the fields cultivated by the Indians. He did not observe it on the open coast, but it was somewhat common near the Pomeroon, Barima, Barama, and Aruka rivers. He always found it on medium sized trees, and never once saw it on the ground. Its nidification was unknown to him. The "Warraus" called it *Quahorum* and the "Arawaaks" *Ibibiru*.

Genus **SCHISTOCHLAMYS** Reichenb.

Schistochlamys Reichenbach, *Av. Syst. Nat. Tab. lxxvii., 1850.* Type *S. capistratus* (Wied.).

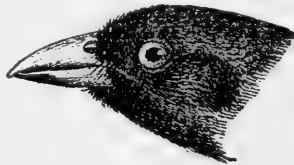


Fig. 199.—*Schistochlamys atra*.

The species on which this genus was founded may be easily distinguished by the black and grey coloration. The bill is short

and stout, its width at the base is more than half the length of the exposed culmen. The wing is rounded, the second, third, fourth, and fifth primaries longest and subequal—the first is about equal in length to the seventh. The tail is rounded at the tip and about seven-eighths the length of the wing, and the tarsus is nearly twice the length of the exposed culmen. Coloration: male and female different.

696. *Schistochlamys atra*.

BLACK-FACED GREY TANAGER.

Tanagra atra Gmel. Syst. Nat. i. p. 898, 1789 (Gujanae).

Saltator ater Cab. in Schomb. Reis. Guian. iii. p. 677, 1848.

Orchesticus ater Salvin, Ibis, 1885, p. 213 (Merumé Mts., Roraima, 3500 to 5000 ft.).

Schistochlamys atra Selater, Cat. B. Brit. Mus. xi. p. 301, 1886 (Roraima, Merumé Mts.); Brabourne & Chubb, B. S. Amer. i. p. 431, no. 4437, 1912.

Adult male. Fore part of head, sides of face, chin, and throat soot-black; nape, hind-neck, entire back, upper tail-coverts, and wings lead-grey; inner webs of flight-quills blackish with white margins; outer edges of flight-quills like the back; tail black, some of the feathers fringed with lead-grey and edged with white at the tips; sides of neck, breast, sides of body, abdomen, and under tail-coverts also lead-grey but paler than the back; axillaries, under wing-coverts, and inner edges of quills below greyish white; remainder of quill-lining dark brown; lower aspect of tail similar with pale shafts to the feathers and whitish edges at the tips.

Total length 173 mm., exposed culmen 15, wing 84, tail 75, tarsus 21.

The male described was collected on the Bonasika River in 1911.

Adult female. Differs from the male in the absence of the black on the top of the head, sides of face, and throat, the general colour both on the upper and under surface yellowish green, being paler on the latter. Wing 78 mm.

The specimen described was collected on the Abary River in September 1906.

The young male in its first plumage is similar to the female, as is shown by a specimen collected on the Ituribisi River in 1909, in which the black plumage of the male is approaching on the crown of the head, sides of face, and throat.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Mount Roraima, Ituribisi River, Bartica, Bonasika River, Abary River, Berbice River (*McConnell collection*); Countyn River (*im Thurm*); Mount Roraima, Merumé Mountains (*Whitely*).

Extralimital Range. Surinam (*Penard*), Venezuela, Colombia, Peru, Bolivia, Brazil.

Habits. Unrecorded in British Guiana.

Family ICTERIDÆ.

This family, which is confined to the New World only, is distributed throughout its area; from Canada in the north through the United States to Central America, and the West India Islands, thence to South America extending to the Straits of Magellan. When Brabourne & Chubb published their 'List of Birds of South America' in 1912, twenty-six genera and ninety-eight species were represented. Thirteen of the genera and twenty of the species are known to occur in British Guiana.

Genus **OSTINOPS** Cab.

Ostinops Cabanis, Mus. Hein. i. p. 187, 1851. Type *O. decumanus* (Pall.).

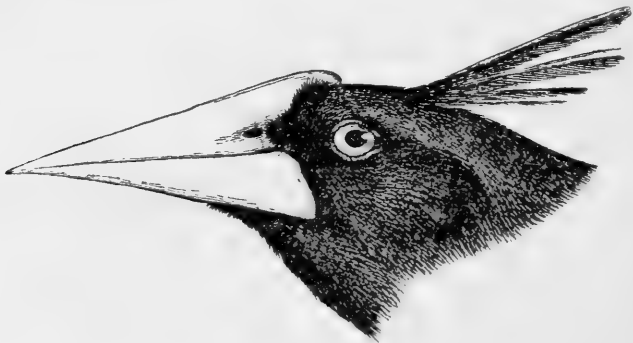


Fig. 200.—*Ostinops decumanus*.

The species that comprise this genus are birds of large size and are easily distinguished by the long and sharply pointed bill with

its frontal shield at the base of the forehead. The head is crested. The wing is rounded, the second, third, and fourth primaries longest and equal, the first is intermediate in length between the fifth and sixth. The tail is rounded at the tip and graduated, and about nine-tenths the length of the wing. The tarsus is about two-thirds the length of the culmen, including the frontal shield. Coloration: male and female similar.

Key to the Species.

- A. General colour of plumage black..... *O. decumanus*, p. 549.
 B. General colour of plumage bronze-green..... *O. viridis*, p. 552.

697. *Ostinops decumanus*.

GREAT CRESTED CACIQUE.

Xanthornus decumanus Pallas, Spic. Zool. fasc. vi. p. 1, 1769 (Surinam).

Cassicus cristatus Cab. in Schomb. Reis. Guian. iii. p. 680, 1848.

Ostinops decumanus Salvin, Ibis, 1885, p. 217 (Bartica Grove); Selater, Cat. B. Brit. Mus. xi. p. 315, 1886 (Bartica Grove); Quelch, Timehri (2) iv. p. 102, 1890 (Great Falls), op. cit. v. p. 85, 1891 (Georgetown); Lloyd Price, tom. cit. p. 62 (nests and eggs); C. A. Lloyd, op. cit. xi. p. 5, 1897 (nesting habits); Brabourne & Chubb, B. S. Amer. i. p. 432, no. 4445, 1912.

Ostinops decumanus decumanus Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

“Large Yellow-tailed Black Bunyas” (Quelch).

Adult male. General colour both on the upper and under surface glossy black, including the head, upper back, wings, and middle tail-feathers, on the upper parts, sides of face, throat, breast, sides of body, abdomen, thighs, under wing-coverts, and quill-lining, on the under surface; lower back, rump, upper and under tail-coverts dark chestnut; tail bright yellow. “Bill white; feet black” (Cat. B. Brit. Mus.).

Total length 465 mm., culmen (including the frontal shield) 69, wing 247, tail 200, tarsus 48.

The specimen described was collected on the Ituribisi River in October 1908.

Adult female. Similar to the adult male, and differs only in having a shorter crest and smaller measurements.

Total length 345 mm., exposed culmen 55, wing 178, tail 149, tarsus 45.

The female of this species is not represented in the McConnell

collection, and the specimen described above is in the British Museum, collected by Henry Whitely at Bartica on October 3, 1879, Salvin-Godman collection.

Breeding-season. Unrecorded in British Guiana.

Nest. "Suspended from the ends of the branches of high trees, often the coco-nut and cabbage palms. They are made of dry grass and coco-nut fibre, interwoven with dry sticks and are about five feet long. The entrance is a small hole near the top" (*Lloyd Price*).

Eggs. "Two in number, white, thickly streaked and blotched with pink" (*Lloyd Price*).

Range in British Guiana. Ituribisi River (*McConnell collection*); Bartica (*Whitely*); Great Falls Demerara River, Georgetown (*Quelch*).

Extralimital Range. South America, from Tobago, Trinidad, Colombia to Bolivia, Paraguay, and South Brazil—extending to Panama in Central America.

Habits. Regarding the habits of this bird Schomburgk writes (*Reis. Guian. i. p. 187*):—"Rowing up stream on the Barima River, we saw the long purse-shaped nests of *Cassicus cristatus* in large numbers hanging from the branches of an enormous tree on the bank of the river; I counted about three hundred. It is curious that these birds congregate in the breeding-season, and still more curious that they select the same trees and same branches on which *Vespa nidulans* and *V. morio* had already built their nests, and these three form a Guild against which none of their numerous enemies—such as monkeys and tiger-cats—dare to enter for the purpose of raiding eggs and young. But all life and merriment ceased when the report of our guns frightened the harmless inhabitants to such a degree that all the adult birds flew off and remained away for some considerable time."

According to Schomburgk (*Reis. Guian. iii. p. 680*) this species is distributed throughout British Guiana. It is always found in large flocks even during the breeding-season. He had counted as many as three to four hundred in one tree. The Indians use the yellow tail-feathers of these birds as a special ornament, and the birds are persecuted everywhere on that account. The bird possesses a very peculiar scent. The Indians call it *Konuh*.

The following note is copied from Mr. H. Lloyd Price (*Timehri* (2) v. p. 62):—"Similar nests to those of the Plantain-bird will

occasionally be seen suspended from the ends of the branches of high trees, often the coco-nut and cabbage palms. These are the nests of the Bunyah (*Ostinops decumanus*). They are made of dry grass and coco-nut fibre, interwoven with dry sticks, and are about five feet long. A quantity of dry leaves are placed at the bottom of the nest, in which the eggs are completely hidden. The entrance is a small hole near the top. The eggs, two in number, are white, thickly streaked and blotched with pink."

Mr. J. J. Quelch (Timehri (2) v. p. 85), who observed this species in Georgetown, remarks:—"At the back of the Botanic Gardens, along the Lamaha Canal, on the outskirts of the town, the black Bunyah (*Ostinops decumanus*) will occasionally be met with. It may be taken as a typical member of the Hangnests or Icterine family, its nest being several feet in length and purse-shaped, suspended from the ends of branches, generally near, or over water. There are more than 100 members of this group of birds and all confined to America, where they take the place of the starlings. They are known by various names, such as Cassiques, Hangnests, Troupials, Orioles, etc., and many of them are gifted with great powers of song, while others are imitative to a remarkable degree, such as the common Mocking-bird of Guiana (*Cassicus persicus*), which does not occur within the immediate neighbourhood of the city."

Mr. C. A. Lloyd (Timehri (2) xi. p. 5), writing on the Nesting of some Guiana Birds, remarks:—"The mosquito worm also attacks the young of the Red and Yellow-backed Mocking Birds (*Cassicus affinis* and *C. persicus*). Mr. Barshall informs me that these birds are frequently made the victims of another member of their family, *Cassidia oryzivora*, which deposits its eggs in their nests, and imposes upon them the task of rearing it's young. I have myself taken the eggs of this bird from the nests of the large Black "Bunyah" (*Ostinops decumanus*), but never could ascertain anything further concerning their history.

"Most of our Cassiques resort to trees already occupied by colonies of wasps for the purpose of building their nests. I suppose this is for protective purposes, but then, why have not all of our birds developed the same habit? A marauding monkey or snake would be just as likely to attack and rob the nest of a pigeon or dove as it would that of a Cassique."

698. *Ostinops viridis*.

GREAT GREEN CACIQUE.

Oriolus viridis P. L. S. Müller, Syst. Nat. Suppl. p. 87, 1776 (Cayenne).

Cassicus viridis Cab. in Schomb. Reis. Guian. iii. p. 680, 1848.

Ostinops viridis Salvin, Ibis, 1885, p. 217 (Bartica Grove, Merumé Mountains, Camacusa, Roraima, 3000 ft.); Selater, Cat. B. Mus. xi. p. 316, 1886 (Roraima, Camacusa, Bartica Grove); Quelch, Timehri (2) iv. p. 334, 1890 (Berbice River); Beebe, Our Search for a Wilderness, p. 201, 1910 (Hoorie); Brabourne & Chubb, B. S. Amer. i. p. 432, no. 4446, 1912; Beebe, Tropical Wild Life in British Guiana, p. 137, 1907 (Bartica).

“Green Bunyas” (Quelch).

Adult male. General colour of both the upper and under parts yellowish green, including the head and neck all round, back, upper wing-coverts, breast, abdomen, and under wing-coverts; bastard-wing, primary-coverts, and flight-quills black with bronze-green outer margins to the secondaries; lower back, rump, short upper tail-coverts, flanks, thighs, and under tail-coverts dark chestnut, the upper wing-coverts are irregularly marked with the same colour, but somewhat paler; long upper tail-coverts bronze-green like the middle tail-feathers, the latter blackish along the shafts; remainder of tail bright yellow both above and below.

Total length 450 mm., culmen 68, wing 260, tail 173, tarsus 47, middle toe and claw 47.

The specimen from which the description is taken was collected on the Ituribisi River in October 1908.

Adult female. Similar in colour of plumage to the adult male, but smaller in measurements.

Total length 390 mm., culmen 59, wing 195, tail 145, tarsus 44, middle toe and claw 44.

The female described was collected on the Demerara River.

Breeding-season. Unknown in British Guiana.

Nest. See Beebe, *infra*, p. 553.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Demerara River (*McConnell collection*); Mount Roraima, Kamarang River, Bartica (*Whitely*); Upper Berbice River (*Quelch*).

Extralimital Range. Venezuela, Northern Brazil, Ecuador, Peru.

Habits. According to Schomburgk (Reis. Guiana, iii. p. 680) this bird is also found in large flocks throughout British Guiana. He did not find its nest; but he had observed the male on the outermost branches of a tree evidently performing courting attitudes; holding the branch with its feet and swinging itself round several times during which it made a peculiar sound—this performance is repeated several times in succession. When a flock is approaching one can hear it quite a long way off by the sound of its peculiar short note. When searching for food, which consists of insects and fruit, it flies from tree to tree and branch to branch in search of it. Schomburgk says that during his wanderings in the woods flocks have passed over which must have numbered thousands. He states also that this bird has a peculiar smell. The "Warraus" call it *Konuh* and the "Macusis" *Guinoh*.

Mr. Queleh (Timehri (2) iv. p. 354), who observed this species on the Upper Berbice River, remarks: "The green bunyas (*Ostinops viridis*) were seen for the only time on the trip, but they were high up out of range on gigantic moras."

The following notes have been copied from Beebe (Our Search for a Wilderness, pp. 36, 201):—"Another larger species of Cassique, dull green in color, built solitary nests, three feet or more in length, but seldom near the homes of men or wasps. Here and there in the jungle some lofty tree raised its huge white bole free of vine and liana . . . and out on the very tip of one of its swaying branches the nest was woven—safe from all tree-climbing enemies. The notes of these birds were like deep resonant cow-bells, ringing through the jungle, clear and metallic.

"A pair of Great Green Cassiques had swung their nest from the tallest limb of a tree standing in the water, and we spent ten minutes watching the male court his mate. As he uttered his incoherent medley of liquid cowbell-like notes, he bent his neck, thrusting his head far downward and forward, and at the same time throwing both wings forward and around in a semicircle. As this curious action was completed, the vocal utterance came to a close and the performance was over."

Genus **CACICUS** Daud.

Cacicus Daudin, *Traité, Element. Compl. d'Orn.* ii. p. 322, 1800. Type *C. hæmorrhous* (Linn.).



Fig. 201.—*Cacicus cela*.

The species on which this genus was founded differs from the previous genus by its smaller size and the short nuchal crest, otherwise its general characters are in many respects similar. There is a tuft of short velvet-like feathers behind the nostrils. The bill is long and sharply pointed, the depth at its base is about half its length and the width at the base is rather less than one-third of its length. The wing is rounded, the second, third, and fourth primaries are longest and subequal, the first is shorter than the fifth but much longer than the sixth. The tail is rounded at the tip and about two-thirds the length of the wing. The tarsus is about equal in length to the middle toe and claw. Coloration: male and female similar.

Key to the Species.

- | | |
|---|--------------------------------|
| A. Lower back, rump, and upper tail-coverts
yellow | <i>C. cela</i> , p. 554. |
| B. Lower back, rump, and upper tail-coverts
bright red | <i>C. hæmorrhous</i> , p. 557. |

699. **Cacicus cela.**

YELLOW-BACKED CACIQUE.

- Parus cela* Linn. *Syst. Nat.* i. p. 191, 1758 (Guiana).
Oriolus persicus Linn. *Syst. Nat.* i. p. 161, 1766 (America meridionali).
Cassicus persicus Cab. in Schomb. *Reis. Guian.* iii. p. 681, 1848; Brown, *Canoe and Camp Life in British Guiana*, p. 354, 1876 (Corentyne River); Salvin, *Ibis*, 1885, p. 217 (Bartica Grove); Sclater, *Cat. B. Brit. Mus.* xi. p. 321, 1886 (Bartica Grove); Queleh, Timehri (2) ii. p. 375, 1888 (Tauraculi district); Lloyd Price, *op. cit.* (2) v. p. 62, 1891 (nests & eggs); Queleh, *tom cit.* p. 86 (Georgetown); C. A. Lloyd, Timehri (2) xi. p. 5, 1897.

Cacicus cela Brabourne & Chubb, B. S. Amer. i. p. 433, no. 4454,^o 1912.

Cacicus cela cela Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. General colour, both on the upper and under surface, glossy black. The lower back, rump, upper tail-coverts, basal two-thirds of the tail, and a patch on the upper wing-coverts bright yellow.

Total length 270 mm., culmen 37, wing 158, tail 103, tarsus 30, middle toe and claw 30.

The male described was collected on the Ituribisi River in October 1908.

Adult female. Similar to the adult male, and differs only in its smaller size.

Total length 220 mm., culmen 30, wing 130, tail 89, tarsus 27, middle toe and claw 27.

The specimen described above was collected in the Upper Takutu Mountains.

Breeding-season. April and May (*Schomburgk*).

Nest. See Schomburgk, Brown, Lloyd Price, *infra*, p. 556.

Eggs. See Lloyd Price, *infra*, p. 556.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Mazaruni River (*McCormell collection*); Corentyne River (*Brown*); Tauraculi district, Georgetown (*Quelch*); Bartica (*Whitely*).

Extralimital Range. South America from Colombia and Trinidad to Bolivia and Southern Brazil.

Habits. In referring to this bird Schomburgk writes (*Reis. Guian. i. p. 90*):—Nothing claimed my attention so much as a colony of this species which had taken possession of an unusually large *Bombax globosum* close to my windows. I never before had heard such a babel among birds, whose number on this enormous tree were busy repairing and building their purse-shaped nests. The capability of this bird to imitate the voice and cry of every living quadruped or bird near, has procured for it the name of "Mocking-bird." It is impossible to imagine a more restless and noisy Warbler. If the animals and other birds are quiet it will immediately commence its own somewhat pleasant song. Should a Toucan suddenly emit its deep sounding note this bird, without a moment's hesitation, imitates it. Should

a Woodpecker give an unusually loud call—as it sometimes does—this bird follows with a similar sound at once. The bleating of sheep is imitated equally well. But should there be a cessation of noises among the birds and mammals then this bird starts his own song again—until perchance a duck on some neighbouring water sounds forth its well-known quack quack, which is also echoed from the tree in which the Yellow-backed Cacique (*Cassicus persicus*) was sitting much to every one's surprise. During all these performances the bird turns and twists its head and body into the most comical attitudes that one cannot keep from laughing.

Cassicus persicus and *C. hæmorrhous* breed nearly always in the same tree and are very friendly to each other. The imitating habits appear to cease with the latter as soon as the breeding-season is over. The two species separate into flocks when the nesting period is at an end.

Schombürgk states (Reis. Guian. iii. p. 681) that this species is gregarious during the breeding-season, which is April and May. The "Warraus" call it *Komiana* and the "Macusis" *Taurupia*.

The following note is quoted from Mr. Barrington Brown (Canoe and Camp Life, p. 354):—"The Yellow-backed Mocking-bird. Around and almost touching the habitation of the wasps are the long hanging nests of these birds, in and out of which, during the breeding-season, their owners go with impunity. The wasps, by their presence, no doubt, protect the young and eggs of the bird from the attacks of monkeys, but what service the bird is to the insect is not so easily understood.

"It seems strange that the wasps should tolerate the presence of such busy, noisy, chattering neighbours."

Mr. Queleh (Timehri (2) ii. p. 375), writing on birds from the Albany River, remarks:—"Early next morning we left the Tauraculi district, obtaining on the way two Lapwings at the same swamp where we had procured the one two days before, besides a very fine specimen of the Yellow-backed Mocking-bird (*Cassicus persicus*)."

Mr. Lloyd Price (Timehri (2) v. p. 62), writing on the Nests and Eggs of some Guiana Birds, remarks:—"The Black and yellow so-called Mocking-Bird (*Cassicus persicus*) also builds a nest of the same shape and materials, but considerably shorter. It is

curious, but in this nest two totally different kinds of eggs, both in size and colour, are almost always to be found. The larger kind is blue, spotted with black; the other barely half the size is white, spotted with red-brown. The shell of the latter is remarkably thin. Both the Mocking-Bird and the Bunyah build in colonies, twenty and thirty nests often hanging from the same tree."

Mr. J. J. Quelch (*tom. cit.*) observed this species in Georgetown, and remarks that *Ostinops decumanus* is known by various names—such as Cassiques, Hangnests, Troupials, Orioles, etc.—and many of them are gifted with great powers of song, while others are imitative to a remarkable degree, such as the common Mocking-bird of Guiana (*Cassicus persicus*), which does not occur within the immediate neighbourhood of the city.

The following note is quoted from Mr. C. A. Lloyd (Timehri (2) xi. p. 5):—" *Cassicus persicus*, the Yellow-backed Mocking-bird. Their young are also attacked by the mosquito-worm. Mr. Barshall informs me that these birds are frequently made the victims of another member of their family, *Cassidix oryzivora*, which deposits its eggs in their nests and imposes upon them the task of rearing its young."

700. *Cacicus hæmorrhous*.

BRAZILIAN RED-RUMPED CACIQUE.

Oriolus hæmorrhous Linn. Syst. Nat. i. p. 161, 1766 (Brazil).

Cassicus hæmorrhous Cab. in Schomb. Reis. Guian. iii. p. 681, 1848.

Cassicus affinis Salvin, Ibis, 1885, p. 198 (Bartica Grove); Sclater, Cat. B. Brit. Mus. xi. p. 235, 1886 (Bartica Grove); Quelch, Timehri (2) iv. p. 102, 1890 (Great Falls Demerara River); Lloyd, op. cit. xi. p. 5, 1897 (nesting habits).

Cacicus affinis Beebe, Our Search for a Wilderness, p. 187, 1910 (Hoorie Creek (nesting)).

Cacicus hæmorrhous Brabourne & Chubb, B. S. Amer. i. p. 433, no. 4460, 1912.

Cacicus hæmorrhous hæmorrhous Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. General colour both on the upper and under surface glossy black, with steel-blue reflections. The lower back, rump, and short upper tail-coverts bright scarlet-red.

Total length 265 mm., exposed culmen 37, wing 178, tail 109, tarsus 31.

Adult female. Differs from the adult male only in being less glossy and smaller in measurements.

Total length 240 mm., exposed culmen 35, wing 140, tail 85, tarsus 27.

The specimens described were both collected on the Mazaruni River.

Breeding-season. Unknown in British Guiana.

Nest. See Quelch, Lloyd, and Beebe, *ut infra*.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Abary River, Mazaruni River (McConnell collection); Bartica (*Whitely*).

Extralimital Range. Venezuela, Ecuador, Peru, North-east Brazil.

Habits. Mr. J. J. Quelch, who met with this species at the Great Falls Demerara River, writes (*Timehri* (2) iv. p. 102):—"Several of the beautiful Red-backed Hangnests (*Cassicus affinis*) had been taken at various points along the river, where they frequented the large trees in the clearings with dozens of their nests hanging from the ends of the branches."

The following note has been copied from Mr. C. A. Lloyd (*Timehri* (2) xi. p. 5):—"The Red-backed Mocking Bird. Their young are also attacked by the mosquito worm. Mr. Barshall informs me that these birds are frequently made the victims of another member of their family, *Cassidix oryzivora*, which deposits its eggs in their nests, and imposes upon them the task of rearing its young."

The note below has been copied from Beebe (*Our Search for a Wilderness*, p. 137):—"We saw small colonies of Red-backed Cassiques resting in isolated Nora trees *out in the water*; a new method of protection on the part of these intelligent birds."

Genus **CASSIDIX** Less.

Cassidix Lesson, *Traité d'Orn.* p. 433, 1831. Type *C. oryzivora* (Gmel.).

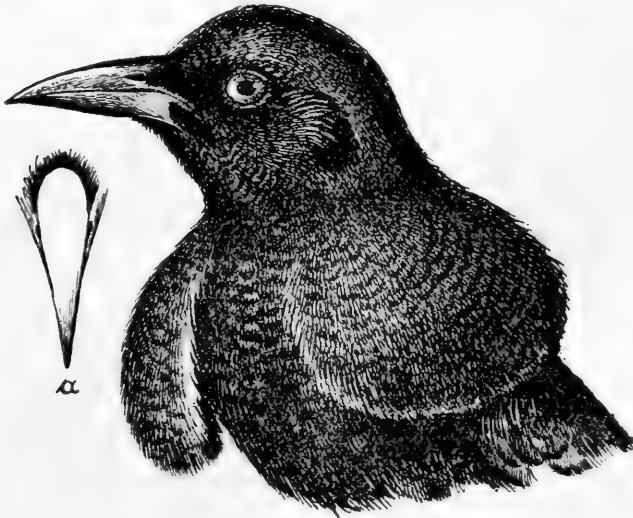


Fig. 202.—*Cassidix oryzivora*.

This genus is easily recognised by the flattened culmen on its posterior portion, where it assumes the form of a frontal plate, and the elongated feathers on the sides of the neck. The short velvet-like feathers at the back of the nostrils are present as in *Cassicus*. The bill is long and sharply pointed, the width and depth at the base being nearly equal to half the length of the culmen. The wing is slightly pointed, the first primary being longest, the second 5 mm. shorter, the third 8 mm. shorter, and the fourth 19 mm. shorter than the first. The tail is rounded at the tip and about two-thirds the length of the wing. The tarsus, which exceeds the length of the exposed culmen, is equal in measurement to the middle toe and claw. Coloration: male and female similar.

701. *Cassidix oryzivora*.

RICE-GRACKLE.

Oriolus oryzivorus Gmel. *Syst. Nat.* i. p. 386, 1788 (Cayenne).

Scaphidura atra Cab. in Schomb. *Reis. Guian.* iii. p. 683, 1848.

Cassidix oryzivora Salvin, *Ibis*, 1885, p. 219 (Bartica Grove); Selater, *Cat. B. Brit. Mus.* xi. p. 329, 1886 (Bartica Grove); Lloyd, *Timehri* (2) xi. p. 5, 1897 (nesting habits); Brabourne & Chubb, *B. S. Amer.* i. p. 434, no. 4466, 1912.

Cassidix oryzivora oryzivora Beebe, Our Search for a Wilderness, p. 394, 1910; id. Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. General colour on both the upper and under surface black with glossy steel-blue, violet, and oily reflections.

Total length 340 mm., culmen including frontal shield 36, wing 342, tail 133, tarsus 41, middle toe and claw 39.

The male described was collected on the Ituribisi River in February 1907.

Adult female. Similar to the adult male but not so glossy, and much smaller in size.

Total length 253 mm., culmen 29, wing 142, tail 98, tarsus 35, middle toe and claw 34.

The specimen described was collected on the Abary River in September 1906.

Breeding-season. Unknown in British Guiana.

Nest. See C. A. Lloyd, *infra*.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Abary River (*McConnell collection*); Bartica (*Whitely*).

Extralimital Range. Trinidad, Venezuela, Eastern Brazil.

Habits. Schomburgk states (Reis. Guian. iii. p. 683) that he met with this species in large flocks wandering through the plantations, where they do a considerable amount of harm in damaging the bananas. He did not observe it nesting. The settlers called it "Ricebird."

According to Mr. C. A. Lloyd (Timehri (2) xi. p. 5) this species deposits its eggs in the nests of the two Mocking-Birds (*Cassicus affinis* and *C. persicus*) and imposes upon them the task of rearing its young. I have myself taken the eggs of this bird from the nests of the large "Bunyah," *Ostinops decumanus*, but never could ascertain anything further concerning its history.

Genus **DOLICHONYX** Swains.

Dolichonyx Swainson, Zool. Journ. iii. pl. 351, 1827. Type *D. oryzivorus* (Linn.).

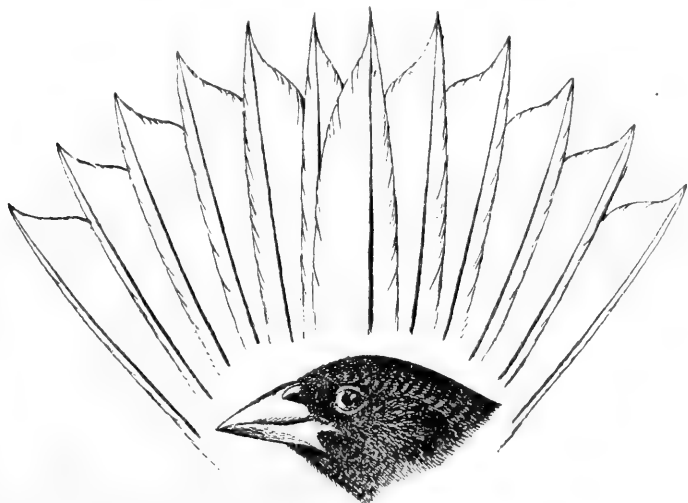


Fig. 203.—*Dolichonyx oryzivorus*.

This monotypic genus is easily distinguished by the peculiar shape of the tail-feathers and by its long and slender claws. The bill is stout and pointed; its depth and width at the base are about two-thirds the length of the exposed culmen. The wing is slightly pointed, the two outer primaries being longest and equal. The tail is rounded at the tip, each feather being acuminate and about two-thirds the length of the wing. The tarsus, which is proportionately long, is about equal in length to the middle toe and claw. Coloration: male and female different.

702. *Dolichonyx oryzivorus*.

BOBOLINK.

Fringilla oryzivora Linn. Syst. Nat. i. p. 179, 1758 (Cuba).

Dolichonyx oryzivorus Salvin, Ibis, 1885, p. 218 (Camacusa); Selater, Cat. B. Brit. Mus. xi. p. 331, 1886 (Camacusa); Queleh, Timehri (2) x. p. 263, 1896; Brabourne & Chubb, B. S. Amer. i. p. 434, no. 4468, 1912.

Adult male. Crown of head, sides of face, throat, and entire under surface, including the under surface of the wing, black,

with yellowish white tips to the feathers; lower aspect of tail similar to its upper surface; hind-neck and mantle fawn-colour; upper back black with whitish or smoke-brown margins to the feathers; scapulars white, tinged with pale ochre and grey like the lower back, rump, and upper tail-coverts; upper wing-coverts, bastard-wing, primary-coverts, and flight-quills black with pale edgings to the feathers; tail blackish with pale brown margins, chiefly at the tips of the feathers.

Total length 169 mm., exposed culmen 15, wing 95, tail 64, tarsus 27, middle toe and claw 28.

Adult female. Differs from the adult male in being straw-colour on the upper surface, with blackish centres to the feathers on the head, back, wings, upper tail-coverts, and tail; lores whitish; sides of face pale yellowish buff; throat yellowish white; remainder of the under surface lemon-yellow, with a tinge of buff on the fore-neck and blackish shaft-streaks on the sides of the body, thighs, and under tail-coverts; axillaries, under wing-coverts, and inner margins of quills below yellowish white; outer margin of wing below dotted with pale brown; remainder of quill-lining greyish brown; lower aspect of tail similar. Wing 88 mm.

This species is not represented in the McConnell collection, and the specimens described are in the British Museum. The male was collected at Merida, Venezuela, and the female from Kamakusa, the latter was collected by the late Henry Whitely, Salvin-Godman collection.

Mr. J. J. Quelch (Timehri (2) x. p. 263, 1896), writing on the migratory birds in British Guiana, remarks:—"More special examples of migrants are to be found in the 'Bob-o'-link' or 'Small Rice-birds,' etc."

This species breeds in North America—see A. O. U. Check-list North American Birds, p. 231, 1910—and winters only in South America.

Range in British Guiana. Kamakusa (*Whitely*).

Extralimital Range. South America generally to Bolivia and Paraguay.

Habits. Unrecorded in British Guiana.

Genus **MOLOTHRUS** Swains.

Molothrus Swainson, Faun. Bor.-Amer. p. 277, 1832. Type *M. ater* (Bodd.).



Fig. 204.—*Molothrus atronitens*.

In this genus the velvet-like tufts of feathers behind the nostrils are present. The bill is pointed and compressed, the width and depth at the base are about equal to half the length of the exposed culmen. The wing is rounded, the second and third primaries longest and equal, and the first about equal in length to the fourth. The tail is square at the tip and about two-thirds the length of the wing. The tarsus is nearly twice the length of the exposed culmen and the middle toe and claw about four-fifths the length of the tarsus. Coloration: male and female different.

703. **Molothrus atronitens.**

GLOSSY COWBIRD.

Molothrus atronitens Cab. in Schomb. Reis. Guian. iii. p. 682, 1848 (British Guiana); Selater, Cat. B. Brit. Mus. xi. p. 337, 1885 (Georgetown); Quelch, Timehri (2) v. p. 86, 1891 (Georgetown); Lloyd Price, tom. cit. p. 65 (nesting habits); Brabourne & Chubb, B. S. Amer. i. p. 435, no. 4474, 1912; Beebe, Our Search for a Wilderness, p. 125 (Georgetown); id. Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. Crown of head, throat, and neck all round, breast, abdomen, back, and scapulars glossy purple; wings, tail, upper and under tail coverts glossy steel-green like the under wing-coverts; under surface of flight-quills and lower aspect of tail shining black.

Total length 191 mm., exposed culmen 16, wing 99, tail 72, tarsus 25, middle toe and claw 20.

The male described was collected on the Anarica River in 1913.

Adult female. General colour of the upper parts drab-brown; under surface pale dusky-brown.

Total length 170 mm., exposed culmen 15, wing 90, tail 65, tarsus 25.

The specimen described above was collected on the Abary River in July 1906.

The young male in its first plumage is similar to the adult female but darker.

Breeding-season. Unknown in British Guiana.

Nest. "These birds do not make nests of their own" (*Quelch*).

Eggs. "Greyish white, thickly spotted with red-brown" (*Lloyd Price*).

Range in British Guiana. Anarica River, Abary River (*McConnell* collection); Georgetown (*Quelch*); Bartica (*Beebe*).

Extralimital Range. Surinam (*Penard*), Tobago, Trinidad, Northern Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 682*) that he met with this species in the plantations near the coast and also in the cultivated fields. He often observed it nesting in the Cocos and Coal Palms.

Mr. J. J. Quelch (*Timehri (2) v. p. 86*) observed this species in Georgetown, and remarks:—"Another very common member of this group is the parasitic Lazy-bird (*Molothrus atro-nitens*), whose cuckoo-like habits have already been referred to in connection with the commonest of their small victims. They are more commonly found on the outskirts of the town, where the wrens suffer from their loose habits much more than in the town proper. These birds do not make nests of their own, but deposit their eggs in the nests of smaller birds. It is a curious feature in their natural history that the parasitic habits of the Old World cuckoos should be found characteristic of this genus of birds, while the American cuckoos have normal nesting habits."

The following note is quoted from *Lloyd Price (Timehri (2) v. p. 65)*:—"In this nest (*Xanthomus icterocephalus*), as well as in the nest of the Silk Cotton and other small birds, will be sometimes found the egg of a species of bird having the habits of the Common Cuckoo, commonly called by the Creoles the Lazy-bird (*Malothrus atronitens*). The egg is greyish white, thickly spotted with red-brown."

According to Beebe (Our Search for a Wilderness, p. 125), "most of the Cassiques feed usually in flocks, sometimes of great size. In the deep bush of the interior it is the habit of birds of many species to search together for food following a set route, and keeping closely to their time schedule."

Genus **CHRYSOMUS** Swains.

Chrysomus Swainson, *Classif. B.* ii. p. 274, 1837. Type *C. icterocephalus* (Linn.).



Fig. 205.—*Chrysomus icterocephalus*.

This genus is distinguished by the peculiar shape of the bill, which is sharply pointed and compressed, and the sides of the lower mandible involute; its width at the base is about equal to half the length of the exposed culmen. The wing is rounded, the second, third, and fourth primaries longest and equal, and the first intermediate in length between the fourth and fifth. The tail is slightly rounded at the tip and about three-fourths the length of the wing. The tarsus exceeds the length of the exposed culmen by about one-third. Coloration: male and female different.

704. **Chrysomus icterocephalus.**

YELLOW-HEADED MARSH-BIRD.

Oriolus icterocephalus Linn. *Syst. Nat.* i. p. 163, 1766 (Cayana).

Chrysomus icterocephalus Cab. in Schomb. *Reis. Guain.* iii. p. 681, 1848.

Agelæus icterocephalus Sclater, *Cat. B. Brit. Mus.* xi. p. 345, 1885 (Georgetown).

Xanthosomus icterocephala Lloyd Price, *Timhri* (2) v. pp. 64, 65, 1891 (nesting habits; Quelch, t. c. p. 87 (Georgetown)).

Agelaius icterocephalus Beebe, *Our Search for a Wilderness*, p. 351, 1910; Brabourne & Chubb, *B. S. Amer.* i. p. 436, no. 4484, 1912.

Adult male. Crown of head, sides of face, throat, and neck all

round bright yellow. Remainder of the plumage, including the lores, short feathers round the eye, chin, and a narrow line at the base of the forehead black.

Total length 163 mm., exposed culmen 21, wing 89, tail 66, tarsus 24.

Adult female. Crown of head, sides of face, hind-neck, and sides of neck dark citron-yellow, rather paler on the sides of the crown; entire back, wings, and tail blackish, with pale margins to some of the feathers and lead-grey bases to the feathers on the back; throat and fore-neck bright yellow; breast, abdomen, and sides of body drab-grey with a wash of yellow on the breast; under tail-coverts and under wing-coverts inclining to soot-black; under surface of flight-quills dark brown; lower aspect of tail similar but darker. Wing 79 mm.

The male and female described were collected on the Abary River in July 1906.

Immature male. Soot-black, except the throat and fore-neck, which is approaching yellow.

This specimen was collected on the Takutu River in 1907.

Breeding-season. Unrecorded in British Guiana.

Nest. "Composed of dry cane, trash, and grass, is fastened to the reeds by its sides, generally nearly the top" (*Lloyd Price*).

Eggs. "Three in number are pale blue, spotted with black" (*Lloyd Price*).

Range in British Guiana. Takutu River, Abary River, Woke-naam (*McConnell collection*); Georgetown (*British Museum*).

Extralimital Range. Trinidad, Venezuela, North Brazil, Colombia, Peru.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 681*) this species frequents the coast region only with its plantations and open spaces studded with bushes.

Mr. H. Lloyd Price (*Timehri (2) v. pp. 64, 65*), writing on the nests and eggs of some common Guiana birds, remarks:—"In the long reeds and bulrushes common in the trenches of abandoned cane fields, a small but handsome bird builds. This is sometimes called the Reed-bird (*Xanthosomus icterocephala*). The nest, composed of dry cane, trash, and grass, is fastened to the reeds by its sides, generally nearly the top; the eggs, three in number, are pale blue, spotted with black."

Mr. J. J. Quelch (*Timehri (2) v. p. 87*) observed this species





Pseudoagelæus imthurni.
Imthurn's Marsh-Bird.

in Georgetown, and remarks :—" In swampy places on the outskirts of the town, but chiefly along the coast, the common small Yellow-headed Reed-bird (*Xanthosomus icterocephalus*) will generally be found in considerable numbers among the low bush and tall reeds and grasses."

The following note has been copied from Beebe (Our Search for a Wilderness, p. 351):—" Little Yellow-headed Blackbirds. Few more beautiful sights can be imagined than a cloud of these birds rising ahead of the train or launch, and scattering far and wide over and through the reeds. The general colour is a rich black, which itself contrasts strongly with the green of the savanna. But when we add to this the brilliant yellow head and neck the colour scheme is one which is never forgotten."

Genus PSEUDOAGELÆUS Ridgw.

Pseudoagelæus Ridgway, Proc. Biol. Soc. Washington iii. p. 155, 1901.
Type *P. imthurni* (Selater).

This genus is easily distinguished by the long axillaries and the long and graduated tail. The bill is long, compressed, and slender; its width and depth at the base are about equal in measurement, which is about one-third the length of the exposed culmen. The wing is rounded, the second, third, and fourth primaries longest and equal, the first about equal in length to the fifth. The tail is rounded and graduated, the outermost feather on each side being about one-fourth shorter than the middle ones, and the entire tail nearly as long as the wing. The tarsus is slightly longer than the exposed culmen, which is about equal in length to the middle toe and claw. Coloration: male and female alike.

705. *Pseudoagelæus imthurni*.

IMTHURN'S MARSH-BIRD.

(Plate X.)

Agelæus imthurni Selater, P. Z. S. 1881, p. 213 (Kaieteur Waterfall, Potaro River); Salvin & Godman, Ibis, 1883, p. 203 (Merumé Mts.); im Thurn, Indians of Guiana, p. 71, pl. v. 1883 (Kaieteur); Selater, Ibis, 1884, p. 13 (Merumé Mts.); Salvin, Ibis, 1885, p. 218 (Merumé Mts., Roraima); Selater, Cat. B. Brit. Mus. xi. p. 344, 1886 (Roraima, Merumé Mts.).

Adult male. General colour both on the upper and under surface glossy blue-black; axillaries orange-yellow.

Total length 255 mm., exposed culmen 28, wing 126, tail 115, tarsus 31.

Adult female. Similar to the adult male but smaller. Wing 118 mm.

The specimens described were collected at Mount Roraima by Mr. McConnell during his expedition in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*); Kieteur Falls, Potaro River (*Im Thurn*); Mount Roraima, Merumé Mountains (*Whitely*).

Habits. Unrecorded.

Genus **LEISTES** Swains.

Leistes Swainson, Zool. Journ. ii. p. 191, 1826. Type *L. militaris* (Linn.).



Fig. 206.—*Leistes militaris*.

This genus is readily distinguished by the conspicuous red and black plumage of the male birds and the proportionately long tarsi and toes. The bill is compressed and sharply pointed; its width and depth at the base are about equal, being about two-thirds the length of the exposed culmen. The wing is emarginate, the innermost secondaries being elongated and nearly equal in length to the primaries, while the four outer primaries are longest and equal; the tail is square at the tip and nearly two-thirds the length of the wing. The tarsus is about equal in length

to the middle toe and claw, which exceed the length of the exposed culmen by about one-third. Coloration: male and female different.

706. *Leistes militaris*.

CAYENNE RED-BREASTED MARSH-BIRD.

Emberiza militaris Linn. Syst. Nat. i. p. 178, 1758 (Guiana).

Leistes americanus Cab. in Schomb. Reis. Guian. iii. p. 681, 1848,

Leistes guianensis Salvin, Ibis, 1885, p. 218 (Yaruaui River, Roraima, 3500 ft.); Selater, Cat. B. Brit. Mus. xi. p. 348, 1886 (Roraima, Georgetown); Lloyd Price, Timehri (2) v. p. 65, 1891 (nesting-habits); Quelch, tom. cit. p. 87 (Georgetown).

Leistes militaris Beebe, Our Search for a Wilderness, p. 351, 1912 (Abary savannas); Brabourne & Chubb, B. S. Amer. i. p. 436, no. 4483, 1912; Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

“Colonial Red-breast” (*Lloyd Price*); “Red-breasted Black-bird” (*Beebe*).

Adult male. Crown of head, sides of face, entire back, wings, and tail black, like the sides of the body, lower abdomen, under tail-coverts, and under wing-coverts; under surface of flight-quills and lower aspect of tail blackish brown.

Total length 167 mm., exposed culmen 20, wing 95, tail 59, tarsus 30, middle toe and claw 30.

The male described was collected on the Abary River in November 1906.

Adult male (? in non-breeding plumage). Entire upper surface black with grey or smoke-brown margins to the feathers, including the middle of the crown of the head, back, and wings; long upper tail-coverts and some of the tail-feathers barred with grey; sides of body, lower abdomen, and under tail-coverts black with whitish margins to the feathers; throat, breast, and upper abdomen red, the feathers fringed with white.

The specimen described was collected on the Abary River in July 1906.

Adult female. General colour of the upper surface black, with whitish-buff margins and grey cross-bars to the feathers; middle and sides of the crown broadly lined with pale buff; outer margins of primary-quills ochreous; lower back, upper tail-coverts, and tail barred with grey, more broadly on the last; chin whitish;

throat and remainder of the under surface of the body dull fawn-colour tinged with red on the breast, edge of wing, and abdomen; streaked with black on the lower flanks and lower abdomen, and barred with black on the under tail-coverts; axillaries and under wing-coverts blackish; under surface of flight-quills pale brown; lower aspect of tail similar to its upper surface but paler. Wing 82 mm.

The breeding-season of this bird, judging from a series of nine males in the McConnell collection obtained on the Abary River in July and November 1906, would appear to be during those dates, as the non-breeding dress seems to be indicated on the black portion of the plumage by pale margins to the feathers and white fringes on the red portion. Both of these appear to wear off during the breeding-season, as the dark portion becomes uniform black, so the red loses its white fringes and become more brilliant in November.

Breeding-season. ? July to November.

Nest. "In open pasture-land, built on the ground" (*Lloyd Price*).

Eggs. "Brownish-white speckled with light red" (*Lloyd Price*).

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Abary River (*McConnell collection*); Mount Roraima (*Whitely*); Georgetown (*Quelch*); Bartica (*Beebe*).

Extralimital Range. Trinidad, Venezuela, Colombia, North Brazil, East Peru.

Habits. Schomburgk states (*Reis. Guian. iii. p. 681*) that he found this species near the coast searching for food on the grass, by the sides of the roads and footpaths, every now and then flying up perpendicularly into the air about twenty feet emitting a peculiar note, and returning again just as quickly to the same place. Its note is somewhat like our Siskin. Although it is one of the commonest birds in the settlers' town, I never found its nest. I met with it now and then on the savannas during the dry season on the dried-up bogs. Its food consists of insects. The "Warrans" call it *Ohsi* and the "Macusis" *Matschiki*.

Mr. H. Lloyd Price (*Timehri* (2) v. p. 65), writing on the nests and eggs of some common Guiana birds, remarks:—"In open pasture-lands the colonial Red-breast (*Leistes guianensis*) builds on the ground; the eggs are of a brownish-white speckled with light red."

Mr. J. J. Quelch (Timehri (2) v. p. 87), who observed this species in Georgetown, remarks:—"Closely related to *Xanthosomus icterocephalus* are the so-called Robin Red-breasts (*Leistes guianensis*), which are found about the outer parts of the town, chiefly in grassy and bushy open places."

The following note has been copied from Beebe (Our Search for a Wilderness, p. 351):—"Red-breasted Blackbirds. Few more beautiful sights can be imagined than a cloud of these birds rising ahead of the train or launch, and scattering far and wide over and through the reeds. The general colour is a rich black, which itself contrasts strongly with the green of the savanna. But when we add to this the . . . scarlet throats, breasts, and wing edges . . . the colour scheme is one which is never forgotten."

Genus **STURNELLA** Vieill.

Sturnella Vieillot, Analyse Nouv. Ornith. p. 34, 1816. Type *S. magna* (Linn.).

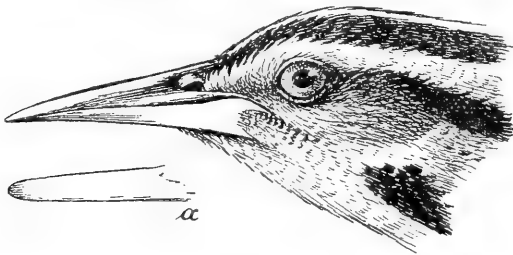


Fig. 207.—*Sturnella magna praticola*.

This genus, like the previous one, is easily distinguished by its coloration. The bill is long, slender, and the culmen flattened; its width and depth at the base are about equal, which is about one-third the length of the exposed culmen, the ridge of which is flattened. The wing is inclined to be emarginate, the inner secondaries being almost equal in length to the primaries; the second, third, and fourth primaries are longest and equal, and the first is about equal to the fifth. The tail is rounded at the tip and the middle feathers lanceolate at the apex. The tarsus is long, exceeding the exposed culmen by about one-fourth. Coloration: male and female similar.

Key to the Subspecies.

- A. Smaller, wing less than 102 mm.; tail less than 68; lower flanks, thighs, and under tail-coverts cream-white, with dark brown elongated centres to the feathers *S. m. praticola*, p. 572.
- B. Larger, wing more than 102 mm.; tail more than 68; lower flanks, thighs, and under tail-coverts dark buff, with blackish elongated centres to the feathers *S. m. monticola*, p. 573.

707. *Sturnella magna praticola*.

LOWLAND MEADOW STARLING.

Sturnella ludoviciana Cab. in Schomb. Reis. Guian. iii. p. 682, 1848 (Savannas); Brown, Canoe and Camp Life in British Guiana, p. 168, 1876 (Curaushinang).

Sturnella meridionalis Brabourne & Chubb, B. S. Amer. i. p. 437, no. 4498 part, 1912.

Sturnella magna praticola, Chubb, Ann. & Mag. Nat. Hist. (9) p. 445, Oct. 1921.

Adult male. Crown of head dark brown with a broad white line on each side and one down the centre, the last more or less tinged with buff; back, wings, and middle tail-feathers smoke-brown, with dark brown centres and cross-bars to some of the feathers; lesser upper wing-coverts grey with dark centres to the feathers; bastard-wing blackish brown edged with white; inner webs of flight-quills dark brown margined with white; the two outer tail-feathers on each side white marked with dark brown, or greyish brown on the outer webs near the tip and on the inner one at the base, on the third feather the markings on the inner web are much increased and extend nearly to the tip and take the shape of irregular cross-bars, or tooth-marks, and on the fourth feather the white is much reduced in extent and forms only a somewhat broad shaft-line, which is restricted to the inner web; lores and a line above the eye yellow; sides of face and sides of neck greyish white, the feathers dotted and fringed with blackish; throat, breast, edge of wing and abdomen yellow; a black semi-circular mark on the fore-neck; sides of body and under tail-coverts cream-white with dark brown shaft-marks to the feathers; axillaries and under wing-coverts white; under surface of flight-quills pearl grey; lower aspect of tail white laterally, and dark brown marked with grey on the middle portion.

Total length 223 mm., exposed culmen 31, wing 100, tail 66, tarsus 38, middle toe and claw 33.

Adult female. Similar to the adult male but smaller. Wing 92 mm.

The type and female described are also in the McConnell collection and were both collected on the Abary River in September 1906.

Breeding-season. Unrecorded.

Nest. "Built on the ground in the grass" (*Schomburgk*).

Eggs. Undescribed.

Range confined to British Guiana. Abary River, Upper Takutu Mountains (*McConnell collection*); Savannas (*Schomburgk*); Quango (*Whitely*); Curawashinang (*Brown*).

Habits. In reference to this bird Schomburgk writes (*Reis. Guian.* iii. p. 682):—"Its favourite haunts are the grassy spots on the savannas where it runs about in search of food. It is sometimes seen, but very rarely, on the topmost twig of a solitary bush growing on the savannas." Schomburgk did not observe its nesting habits, but the natives told him that the nest was placed in the grass. The "Macusis" call it *Suruh* and the "Arekunas" *Turnribei*.

The following note is copied from Barrington Brown (*Canoe and Camp Life in British Guiana*, p. 168):—"A large species of Starling, with a yellow breast, black throat, and snipe-like feathers on the back. It is provided with a long hind toe on each foot, terminating in a long spur-like claw, and its beak is sharp and curved."

708. *Sturnella magna monticola*.

MOUNTAIN MEADOW STARLING.

Sturnella ludoviciana Salvin, *Ibis*, 1885, p. 219 (Roraima, 3500 ft.).

Sturnella magna Selater, *Cat. B. Brit. Mus.* xi. p. 358, 1886 (Roraima).

Sturnella meridionalis (nec Selater) Brabourne & Chubb, *B. S. Amer.* i. p. 437, no. 4498 part, 1912.

Sturnella magna monticola Chubb, *Ann. & Mag. Nat. Hist.* (9) p. 444, Oct. 1921.

Adult male. Differs from *Sturnella magna meridionalis* Selater and *S. m. paralius* in being chestnut-brown on the upper surface instead of blackish and the general measurements smaller.

Total length 219 mm., exposed culmen 32, wing 106, tail 70, tarsus 38, middle toe and claw 33.

Adult female. Similar to the adult male but smaller.

Total length 209 mm., exposed culmen 28, wing 98, tail 61, tarsus 35, middle toe and claw 31.

The type, as well as the female described, are both in the McConnell collection and were collected by Mr. McConnell at Mount Roraima during his expedition in October 1898.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Mount Roraima (*McConnell collection*).

Habits. Unrecorded.

Genus **GYMNOMYSTAX** Reichenb.

Gymnomystax Reichenbach, Av. Syst. Nat. tab. lxxiii. 1850. Type *G. mexicanus* (Linn.).



Fig. 208.—*Gymnomystax mexicanus*.

This genus is distinguished chiefly by the bare face. The bill is long and sharply pointed, its width at the base being equal to about half the length of the exposed culmen. The nostrils are exposed. The wing is rounded, the third and fourth primaries are equal, the second about equal to the fifth, and the first very slightly shorter than the sixth. The tail is rounded at the tip and nearly as long as the wing. The tarsus, middle toe and claw, and the exposed culmen are about equal in length. Coloration: male and female alike.

709. *Gymnomystax mexicanus*.

BLACK-AND-YELLOW ORIOLE.

Oriolus mexicanus Linn. Syst. Nat. i. p. 162, 1766 (Cayenne).

Gymnomystax melanicterus Selater, Cat. B. Brit. Mus. xi. p. 362, 1886 (Demerara).

Gymnomystax mexicanus Brabourne & Chubb, B. S. Amer. i. p. 437, no. 4500, 1912.

Adult male. Crown of head, sides of face, throat, and neck all round bright yellow, like the breast, abdomen, sides of body, thighs, under tail-coverts, lesser upper and under wing-coverts; remainder of the wings, entire back, and tail black.

Total length 260 mm., exposed culmen 31, wing 132, tail 116, tarsus 34, middle toe and claw 34.

Adult female. Similar to the adult male but smaller. Exposed culmen 28 mm., wing 123.

This species is not represented in the McConnell collection, and the specimens described are in the British Museum.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Demerara (*British Museum*).

Extralimital Range. Venezuela, North Brazil, Peru.

Habits. Unrecorded in British Guiana.

Genus **ICTERUS** Briss.

Icterus Brisson, Ornith. ii. p. 85, 1760. Type *I. vulgaris* Daud.



Fig. 209.—*Icterus xanthornus*.

In this genus the region of the eye is feathered. The bill is of medium length and sharply pointed, its width at the base is equal

to about one-half the length of the exposed culmen, the nostrils are exposed, and the culmen is not flattened. The wing is rounded, the third, fourth, and fifth primaries longest and equal, the second about equal in length to the sixth, and the first about equal to the ninth. The tail is rounded at the tip, the outer feather on each side being about one-fourth shorter than the middle ones. The tarsus exceeds the length of the exposed culmen by about one-third, and the hind toe and claw are about equal in length to the middle toe and claw. Coloration: male and female similar, but the latter less bright.

710. *Icterus xanthornus*.

YELLOW ORIOLE.

Oriolus xanthornus Gmel. Syst. Nat. i. p. 391, 1788 (Venezuela).

Icterus xanthornus Cab. in Schomb. Reis. Guian. iii. p. 680, 1848; Selater, Cat. B. Brit. Mus. xi. p. 380, 1886 (Georgetown); Lloyd Price, Timehri (2) v. p. 62, 1891 (nesting habits); Quelch, tom. cit. p. 86 (Georgetown); Brabourne & Chubb, B. S. Amer. i. p. 439, no. 4516, 1912.

Icterus xanthornus xanthornus Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

“Common Yellow Hang-nest or Plaintain-bird” (Quelch).

Adult male. General colour above and below yellow, including the top of the head, sides of face, entire back, upper tail-coverts, lesser upper wing-coverts, sides of neck, breast, abdomen, sides of body, under tail-coverts, and under wing-coverts; wings and tail black; margins of inner secondaries and tips of major-coverts white; lores and short feathers round the eye black, like the chin, throat, and fore-neck; under surface of flight-quills dark brown with whitish margins; lower aspect of tail black, slightly edged with white at the tip.

Total length 192 mm., exposed culmen 17, wing 93, tail 83, tarsus 25.

The specimen described was collected on the Abary River.

Adult female. Similar to the adult male but the coloration less bright. Wing 81 mm.

The female described was collected by the late Henry Whitely at Quonga, November 1887, now in the British Museum, Salvin-Godman collection.

Breeding-season. Unknown in British Guiana.

Nest. "Its bottle-shaped nest, which is suspended to branches of small trees and bushes, is composed of fine grass" (*Schomburgk*).

Eggs. "Three in number, of a bluish white, spotted and streaked with black, and not unlike the English Yellow-hammer" (*H. Lloyd Price*).

Range in British Guiana. Upper Takutu Mountains, Ituribisi River, Supenaam River, Abary River (*McConnell collection*); Georgetown (*Quelch*); Bartica (*Beebe*).

Extralimital Range. North Brazil, Trinidad, Venezuela, Colombia.

Habits. According to Schomburgk (*Reis. Guian. iii. p. 680*) this species is most commonly observed near the coast in open spaces where there are solitary trees, also in the plantations and the fields cultivated by the Indians. It is always met with in pairs. Its bottle-shaped nest, which is suspended to branches of small trees and bushes, is composed of fine grass. The settlers call it Plantain-bird and the "Warraus" call it *Ziwitau*.

Mr. H. Lloyd Price (*Timehri* (2) v. p. 62), writing on the nests and eggs of some of the common Guiana birds, remarks:—"Almost as plentiful as the Keskeedies are the handsome black and yellow Plantain-birds (*Icterus xanthornus*), whose purse-shaped nests will be seen hanging from the branches of many low trees. The eggs, three in number, are of a bluish white, spotted and streaked with black, and not unlike the English Yellow-hammer."

Mr. J. J. Quelch (*tom. cit. p. 86*), when writing on this species in Georgetown, remarks:—"In all parts of the town, the common Yellow Hangnest or Plantain Bird (*Icterus xanthornus*) will be found flying about among the trees, and their long purse-shaped nests are often to be met with on the outskirts. They are often caged on account of the brilliancy of their plumage."

Genus **MELANOPSAR** Cass.

Melanopsar Cassin, Proc. Acad. Nat. Sci. Philad. 1867, p. 56. Type
M. chrysocephalus (Linn.).

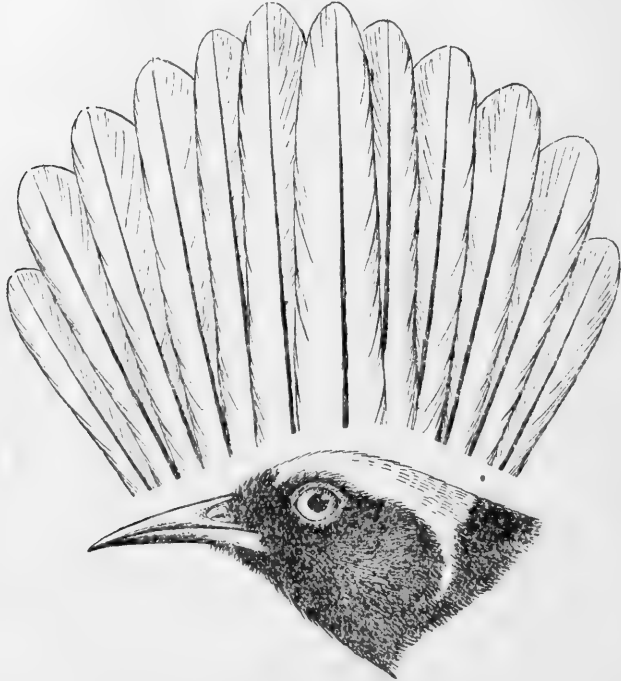


Fig. 210.—*Melanopsar chrysocephalus*.

The chief characters that distinguish this genus are the long and slender bill and the long and graduated tail. The wing is rounded, the second, third, and fourth primaries are longest and equal, and the first about equal in length to the sixth. The tail is rounded at the tip and graduated, the outermost feather on each side being about one-fourth shorter than the middle ones. The tarsus is about equal in length to the exposed culmen. Coloration: male and female similar.

711. *Melanopsar chrysocephalus*.

MORICHE ORIOLE.

Oriolus chrysocephalus Linn. Syst. Nat. i. p. 164, 1766 (Guiana).

Icterus chrysocephalus Cab. in Schomb. Reis. iii. p. 680, 1848; Sclater, Cat. B. Brit. Mus. xi. p. 369, 1886 (Roraima, Bartica Grove); Beebe, Our Search for a Wilderness, p. 142, 1910 (Hoorie Creek); Brabourne & Chubb, B. S. Amer. i. p. 439, no. 4512, 1912; Beebe, Tropical Wild Life in British Guiana, p. 243, 1917 (Kalacoon).

Adult male. Forehead, sides of face, back, wings, and tail black, like the throat, breast, abdomen, sides of body, and long under tail-coverts; crown of head, nape encroaching on to the sides of the neck, rump, short upper tail-coverts, lesser and median upper wing-coverts yellow like the thighs, short under tail-coverts, axillaries, and under wing-coverts; under-surface of quills blackish brown, paler on the margins; lower aspect of tail black.

Total length 223 mm., exposed culmen 20, wing 109, tail 104, tarsus 21.

The specimen described was collected on the Supenaam River, 1911.

Adult female. Differs from the adult male in the absence of yellow on the top of the head, rump, thighs, and short under-tail coverts, all of which are replaced by black. Wing 105 mm.

Immature male. Differs from the adult female in the absence of yellow on the upper and under wing-coverts, which are black, and in having the throat yellow and the crown of the head approaching yellow.

The female and young male specimens described were collected in the Upper Takutu Mountains, 1908.

Breeding-season. February, March, April, May, June (*Beebe*).

Nest. Vide *Beebe, infra*.

Eggs. Vide *Beebe, infra*.

Range in British Guiana. Takutu Mountains, Ituribisi River, Supenaam River, Bonasika River, Demerara River (*McConnell collection*); Mount Roraima, Bartica (*Whitely*); Hoorio Creek, Kalacoon (*Beebe*).

Extralimital Range. North Brazil, Venezuela, Colombia, Ecuador, Peru.

Habits. Schomburgk states (*Reis. Guian. iii. p. 680*) that this species is distributed throughout the colony, but only up to an altitude of 2000 feet. Its mode of life is similar to that of *I. xanthornus*, p. 576. The "Warraus" call it *Domsanika* and the "Macusis" *Waraura*.

The following notes have been copied from *Beebe (Tropical Wild Life in British Guiana, p. 243)*:—"One of the first birds to greet us at Kalacoon was the Moriche Oriole. These birds were unusual in their charm, for they were satisfying both to the eye and ear. From dawn to the passing of the swift tropical twilight their black forms, crowned and shouldered and booted with gold, looped palm with palm, or glanced in the sunlight as they sped

away to the denser second growth in search of insect food. And hardly ever did they perch without giving utterance to the silvery thread of warbling notes which, while individual and distinctive, yet with no less certainty declared their Oriole relationship.

“Late in February, upon our arrival at Kalacoon, we discovered no less than five nests of this Oriole in the single royal palm in the compound in front of the house. We soon found that only one pair of Orioles occupied the tree, and each day it became more and more probable that this pair was the architect of all five nests.

“Two of the nests were complete and apparently several months old. Three were unfinished, and upon two of these we saw the birds working intermittently. One of the nests contained two eggs, one of which we took, as it had apparently never been described.

“The nests were placed on the under-side between the leaflets of one side of the frond, about two feet from the tip. They were made entirely of shreds of leaves themselves, which the birds tore from a particular frond, a frond which through their industry had become almost denuded. The green fibre was woven with the bill, and the process was not a simple one. The nest was a fairly deep cup, held in place by the rim and sides being woven into several separate leaflets. The leaves were split by the bill, and the shreds of fibre then woven in and out until the leaf was safely bound to the side of the nest. In the case of two of the nests the sewing was very finely done, not unlike the work of the Tailor-bird of India. The divided row of leaflets formed a perfectly waterproof cover. The entrance to the nest was invariably at the end towards the trunk of the palm. Here a pair of leaflets was held slightly apart by a thick mass of woven fibres, a thick frame, which also acted as a sort of perch or landing stage for the old birds in entering or leaving the nest. The nests were of coarse materials outside, but lined with very fine, soft shreds. The nest with the two eggs when completed, measured, outside, 12 cm. in length, 8.2 cm. in diameter and 6.5 in depth. Inside it was 8.5 cm. in length, 5.7 cm. in diameter, and 5 cm. in depth.

“The egg was rather sharply pointed and measured 25 × 18 mm. Its ground-colour was creamy-white, marked with spots and blotches of various shades of dark brown, umber, and sepia. These were very sparse about the small end and centre, but abundant at

the large end, the blotches forming a rough wreath about it. At this end, too, there was a hint, in the faintest markings, of the scrawl-like figures so characteristic of the eggs of many Orioles.

“On March 23, the birds began building still another nest, and laid in it before it was quite completed. On April 28, a young Moriche Oriole hatched, and for the next two weeks both parents kept busy feeding the young bird with insects. Most of these they secured at the blossoming cashew tree. While the birds were incubating they were rather silent, singing but seldom, and quite wary, slipping away quietly whenever we appeared. During the weeks of feeding, however, the constant labour was lightened with frequent singing and both became exceedingly tame, quite regardless of our near presence.

“On May 15, the young Moriche left the nest and with the two parents disappeared. No sign of them was seen until a month had passed, when on June 14 all three returned. Within a day or two the old birds began overhauling one of the half-finished nests and soon occupied it.”

Genus **EUOPSAR** Cass.

Euopsar Cassin, Proc. Acad. Nat. Sci. Philad. 1867, p. 47. Type
E. croconotus (Wagl.).



Fig. 211.—*Euopsar croconotus*.

This genus is easily distinguished by the elongated and lanceolated feathers on the throat and fore-neck. The bill is compressed and sharply pointed; its width and depth at the base are about the same, which is equal to about half the length of the exposed culmen. The wing is rounded, the second, third, fourth, fifth, and sixth primaries are longest and subequal, and the first is about

equal in length to the eighth. The tail is rounded at the tip, the outer feather on each side is about one-fifth shorter than the middle ones, and the tarsus is about equal in length to the exposed culmen. Coloration: male and female similar.

712. *Euopsar croconotus*.

ORANGE-BACKED ORIOLE.

Psarocolius croconotus Wagl. Isis, 1829, p. 757 (Guiana).

Icterus jamaicæ (nec Gmel.) Cab. in Schomb. Reis. Guian. iii. p. 679, 1848.

Icterus croconotus Selater, Cat. B. Brit. Mus. xi. p. 383, 1886 (British Guiana); Quelch, Timelri (2) v. p. 86, 1891 (Georgetown); Brabourne & Chubb, B. S. Amer. i. p. 439, no. 4522, 1912.

“Troupial” (Quelch).

Adult. Crown of head, entire back, upper tail-coverts, lesser upper wing-coverts, sides of neck, breast, abdomen, sides of body, and under tail-coverts bright orange; axillaries and under wing-coverts yellow; some of the greater upper wing-coverts white at the base, as are also some of the primary and secondary quills; forehead, sides of face, throat, and fore-neck, scapulars, wings, and tail black; under surface of flight-quills blackish brown; lower aspect of tail black.

Total length 226 mm., exposed culmen 25, wing 102, tail 89, tarsus 27.

The specimen described was collected in the Upper Takutu Mountains in 1909.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Takutu Mountains (*McConnell collection*); Georgetown (*Quelch*).

Extralimital Range. Brazil, Ecuador, Peru, Bolivia.

Habits. Schomburgk states (Reis. Guian. iii. p. 679) that he only met with this species in the woods bordering the Savanna rivers, being especially common on the Takutu, Mahn, and Piara. Though very common, it always kept in pairs, hunting the trees and bushes in search for insects and fruits. It has a very pleasing song. The settlers were, therefore, very fond of the bird, but they never succeeded in keeping it in captivity. The “Macusis” call it *Murumuruta*.

Mr. J. J. Quelch (Timehri (2) v. p. 86), who observed this species in Georgetown, remarks:—"This species, the Troupial (*Icterus croconotus*), is common in the interior and much prized as a cage bird both for plumage and song."

Genus **LAMPROPSAR** Cab.

Lampropsar Cabanis, Mus. Hein. i. p. 194, 1851. Type *L. tanagrinus* (Spix).



Fig. 212.—*Lampropsar guianensis*.

In this genus the wing and tail are almost equal in length. The velvet-like feathers at the base of the forehead are present. The bill is proportionately short and sharply pointed; its width and depth at the base are equal to about half the length of the exposed culmen. The wing is rounded, the third and fourth primaries longest, the second about equal to the fifth, and the first intermediate in length between the seventh and eighth. The tail is rounded at the tip, the outer feather on each side is nearly one-third shorter than the middle ones. The tarsus exceeds the length of the exposed culmen by about one-third. Coloration: male and female alike.

713. *Lampropsar guianensis*.

GUIANA GRACKLE.

Lampropsar guianensis Cab. in Schomb. Reis. Guian. iii. p. 682, 1848; Brabourne & Chubb, B. S. Amer. i. p. 440, no. 4524, 1912.

Lampropsar tanagrinus (nec Spix) Selater, Cat. B. Brit. Mus. xi. p. 388, 1886.

Adult. General colour of both the upper and under surface glossy blue-black; inner webs of flight-quills blackish, with obsolete cross-bars like their under surface; upper surface of tail tinged with steel-green and showing obsolete cross-bars; lower aspect of tail shining black with a slight trace of obsolete cross-bars.

Total length 196 mm., exposed culmen 17, wing 93, tail 90, tarsus 24, middle toe and claw 22.

The specimen from which the description is taken has no exact locality.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. The two specimens that are in the McConnell collection have no exact localities.

Habits. Unrecorded.

Genus **HOLOQUISCALUS** Cass.

Holoquiscalus Cassin, Proc. Acad. Nat. Sc. Philad. 1866, p. 404. Type *H. crassirostris* (Swains.).



Fig. 213.—*Holoquiscalus lugubris*.

In this genus the bill is compressed, pointed, and slightly arched at the tip; its width at the base is less than its depth, the latter being equal to about one-third the length of the exposed culmen. The wing is rounded, the second, third, fourth, and fifth primaries longest and subequal, and the first about equal in length to the sixth. The tail is rounded at the tip, the middle feathers about one-fourth longer than the outermost one on each side. Coloration: male and female similar.

714. **Holoquiscalus lugubris.**

SWAINSON'S GRACKLE.

Quiscalus lugubris Swains. Anim. in Menag. p. 299, 1837 (British Guiana); Selater, Cat. B. Brit. Mus. xi. p. 402, 1886 (Georgetown); Quelch, Timehri (2) v. p. 87, 1891 (Georgetown).

Chalcophanes jamaicensis (♂) Cab. in Schomb. Reis. Guian. iii. p. 683, 1848.

Chlorophanes minor (♀) Cab. in Schomb. Reis. Guian. iii. p. 683, 1848.

Holoquiscalus lugubris Brabourne & Chubb, B. S. Amer. i. p. 440, no. 4530, 1912; Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. Crown of head, sides of face, throat, neck all round, entire back, breast, abdomen, and sides of body glossy blue-black; wings and tail, long upper tail-coverts and under tail-coverts glossy steel-green; under surface of flight-quills and lower aspect of tail shining black.

Total length 235 mm., exposed culmen 25, wing 112, tail 93, tarsus 36.

Adult female. Differs from the adult male in being dull soot-black with very little gloss. Wing 103 mm.

The specimens described were collected on the Abary River in July 1906.

Breeding-season. Unknown in British Guiana.

Nest. "This species makes a flat nest" (*Quelch*).

Eggs. Undescribed from British Guiana.

Range in British Guiana. Abary River, Lamaca (*McConnell collection*); Georgetown (*Brown, Quelch*); Bartica (*Beebe*).

Extralimital Range. Trinidad, Venezuela.

Habits. According to Schomburgk (Reis. Guian. iii. p. 683) this species is found near the coast, where it is met with chiefly on the roads, grass-plots, and footpaths, and in the neighbourhood of the settlers' town. It also visits in smaller numbers farms and houses. The tail, which is peculiar, is nearly always much worn owing to the fact that the bird always runs about on the ground in search of food.

Mr. J. J. Quelch (Timehri (2) v. p. 87), who observed this species in Georgetown, remarks:—"The so-called Black-birds (*Quiscalus lugubris*), which are so often seen in large flocks in the roads and the open grassy spaces around the town, are also members of the Icterine group, though unlike the typical species, they do not make pendent but flat nests—a character in which they resemble the preceding form (*Leistes guianensis*). They feed largely on grains, seeds, and insects.

"So far the species which have been under notice are members of the Acromyodian group of the perching birds, that is, those which from the structure of their vocal organs are known as the

singing birds. The remaining Mesomyodian perchers, the songless birds, now call for notice. Of these but three families are represented in Georgetown, two each by one species, while the third, that of the Tyrant Shrikes, comprises many of the commonest of the strictly town perchers."

Family CORVIDÆ.

This family at the time when vol. v. of Sharpe's 'Handlist' was published in 1909 comprised about forty-two genera and two hundred and seventy-three species. It is almost cosmopolitan in its distribution, being most numerously represented, generically, in Asia, viz., by about nineteen genera, while it is most sparsely represented in South America, where only four genera and about twenty-six species occur. One of the genera and two of the species are represented in British Guiana.

Genus **CYANOCORAX** Boie.

Cyanocorax Boie, Isis, 1826, p. 975. Type *C. chrysops* (Vieill.).



Fig. 214.—*Cyanocorax cayanus*.

This genus is distinguished chiefly by the bristle-like feathers on the fore-part of the head. The bill is proportionately short and stout, and the upper mandible is slightly notched at the tip. The wing is rounded, the fourth, fifth, sixth, and seventh primaries longest and equal, the third about equal to the ninth, the second nearly three-fourths the length of the third, and the first about

two-thirds that of the second. The tail is rounded at the tip and nearly equal in length to the wing. The tarsus exceeds the length of the middle toe and claw by about one-third. Coloration: male and female similar.

715. *Cyanocorax cayanus*.

Corvus cayanus Linn. Syst. Nat. i. p. 175, 1766 (Cayenne).

Cyanocorax cayanus Cab. in Schomb. Reis. Guian. p. 683, 1848; Sharpe, Cat. B. Brit. Mus. iii. p. 122, 1877 (British Guiana); Salvin, Ibis, 1885, p. 219 (Bartica Grove, Camacusa); Beebe, Our Search for a Wilderness, pp. 172, 345, 1910; Brabourne & Chubb, B. S. Amer. i. p. 441, no. 4540, 1912; Beebe, Tropical Wild Life in British Guiana, p. 137, 1917 (Bartica).

Adult male. Fore part of head and sides of face black; throat, fore-neck, and sides of neck soot-black; a small blue spot above and below the eye; hinder crown, hind-neck, and a blotch on the fore part of the cheeks white; entire back and scapulars smoke-brown, more or less tinged with purple; outer aspect of wings, upper tail-coverts, and greater portion of the tail purple; inner webs of flight-quills blackish; apical portion of tail white; breast, abdomen, sides of body, thighs, under tail-coverts, axillaries, and under wing-coverts cream-white; the feathers that separate the fore-neck and breast are fringed with white; under surface of flight-quills dark brown, inclining to greyish brown towards the base; lower aspect of tail blackish at the base with obsolete cross-bars and broadly tipped with white.

Total length 350 mm., exposed culmen 20; wing 165, tail 161, tarsus 48.

The specimen described was collected on the Mazaruni River in 1905.

Adult female. Similar to the adult male but rather smaller. Wing 160 mm., tail 151.

Immature. Similar to the adult birds, but the feathers on the throat not so dark and more downy in texture on the entire under surface.

The young bird mentioned above was collected on the Supenaam River.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. Upper Takutu Mountains, Supenaam River, Bonasika River, Makauria River, Abary River, Mazaruni River, Tiger Creek, Arawai River (*McConnell collection*); Bartica, Kamakusa (*Whitely*); Bartica (*Beebe*).

Extralimital Range. Venezuela, North Brazil.

Habits. Schomburgk states (*Reis. Guian. iii. p. 683*) that this species was distributed throughout the woods in the colony, though not in large numbers. It frequented tall trees, flying from one to another uttering its peculiar call, which made it an easy prey for the collector or sportsman. It was a wary bird, and its habits reminded one of the European Jay. Its food consisted of fruit and seeds. Schomburgk found it more or less common in the Canuku Mountains, but he never observed it nesting. The "Warraus" call it *Palletute*.

The following notes have been copied from Beebe (*Our Search for a Wilderness, pp. 173, 345*):—"Lavender Jays, and although so far from the home of their family they were no whit the less Jay-like. They constantly hailed each other with a varied vocabulary of harsh cries and calls, and now and then held a morsel of food between the toes and pounded it vigorously. They flapped but seldom, passing with short sailing flights from branch to branch not far from the ground.

"We saw many Lavender Jays restless and numerous, yet curious to know what manner of beings we were. Their alarm note "Keeew" ! accompanied us for a long distance.

716. *Cyanocorax hyacinthinus*.

VIOLACEOUS JAY.

Cyanocorax hyacinthinus Cab. in Schomb. *Reis. Guian. iii. p. 683, 1848.*

Cyanocorax violaceus (nec Dubus) Sharpe, *Cat. B. Mus. iii. p. 125, 1877* (British Guiana); Salvin, *Ibis, 1885, p. 219*; Brabourne & Chubb, *B. S. Amer. i. p. 442, no. 4547, 1912.*

Adult. General colour both on the upper and under surface hyacinth-blue, including the entire back, wings, and tail; paler on the hind-neck and upper back, and deeper in colour on the wings and tail; crown of head, sides of face, throat, and fore-neck soot-black; breast, abdomen, sides of body, thighs, under tail-coverts, axillaries, and under wing-coverts hyacinth-blue.

Total length 360 mm., exposed culmen 27, wing 196, tail 167, tarsus 51.

This species is not represented in the McConnell collection, and the description is taken from the specimen in the British Museum collected by the late Sir Richard Schomburgk. Having compared this specimen (Cabanis's type) with nine others in the National Museum, from East Peru, Ecuador, and Colombia, I find it to be much paler in coloration. I propose, therefore, the British Guiana bird be separated under Cabanis's name.

Breeding-season. Unknown.

Nest. Unrecorded.

Eggs. Undescribed.

Range confined to British Guiana. Canuku Mountains (*Schomburgk*).

Habits. Schomburgk writes (*Reis. Guian. iii. p. 683*) of this species as being rarer than *C. cayanus*, which it surpasses in brilliancy of plumage. He only had one specimen in his collection, which he obtained in the Canuku Mountains.

ADDENDA AND CORRIGENDA.

VOL. I.

Page 12, for *Crypturus variegatus* read:—

Crypturus tetrao.

Tinamou varié de Cayenne Daubent. Pl. Enl. v. pl. 828, 1781.

Perdix tetrao Bodd. Tabl. Pl. Enl. p. 51, 1783.

Crypturus variegatus (Gmel.) Brabourne & Chubb, B. S. Amer. i. p. 4, no. 37, 1912; Chubb, B. British Guiana, i. p. 12, 1916.

Crypturus tetrao Mathews and Iredale, Austral Avian Rec. iii. p. 47, 1915.

Page 186, Genus **SARKIDIORNIS** Eyton, Monogr. Anat. p. 20, 1838.

117 a. *Sarkidiornis sylvicola*.

CARUNCULATED DUCK.

Sarcidiornis sylvicola Ihering, Cat. Faun. Bras. i. p. 72, 1907 (Brazil); Brabourne & Chubb, B. S. Amer. i. p. 54, no. 500, 1912.

Sarcidiornis carunculata Illig. (nec Vieill.), Rodway, Timehri (ser. 3), v. p. 168, 1918 (East Coast, British Guiana).

Sarkidiornis sylvicola Penard, Auk, xxxvi. p. 564, 1919 (East Coast, Dem. at Plin. Hope).

Adult male. Crown of head and hind-neck dark purple, with more or less green reflections; sides of face and neck all round with dark purple tips to the feathers; chin and upper throat uniform white; mantle, breast, abdomen, and under-tail coverts white, with dark fringes to some of the feathers on the mantle, breast, and abdomen; sides of the body soot-black; upper back and scapulars with bluish-green reflections; lower back, rump, and upper tail-coverts soot-black, with bluish-green tips to the

ADDENDA AND CORRIGENDA.

feathers; lesser and median upper wing-coverts bluish green, inclining to bronze-green on the greater series; outer aspect of secondary-quills copper-bronze; bastard-wing, primary-coverts, and flight-quills bronze-brown like the tail; under surface of wing dark bronze-brown, with white margins to some of the coverts; lower aspect of tail similar.

Total length 620 mm., exposed culmen (including the comb) 57, wing 372, tail 125, tarsus 70.

The specimen described is in the British Museum and was collected at Maranham, Salvin-Godman collection.

Adult female. Similar to the adult male in the colour of plumage, but differs in the absence of the comb on the culmen and the much smaller measurements. Wing 87 mm.

The female specimen described, which is also in the British Museum, was collected at Ajo, Buenos Aires, Gibson collection.

Breeding-season. Unknown in British Guiana.

Nest. Unrecorded in British Guiana.

Eggs. Undescribed from British Guiana.

Range in British Guiana. East Coast.

Extralimital Range. Brazil, Paraguay, Northern Argentina.

Habits. Unrecorded in British Guiana.

Page 483, for *Chloronerpes rubiginosus* read *Chloronerpes rubiginosus*
quinæ Hellmayr, Verh. Ornith. Ges. Bayern, xiii. p. 314,
1918 (Bartica Grove, Merumé Mts., Roraima).

Chloronerpes rubiginosus roraimæ Penard, Proc. New Engl.
Zool. Club, vii. p. 21, 1919 (Mount Roraima).

Page 488, 338 a. *Veniliornis kirkii monticola*.

Veniliornis kirkii monticola Hellmayr, Verh. Ornith. Ges.
Bayern, xiii. p. 315, 1918 (Roraima, British Guiana).

This subspecific form is not represented in the McConnell collection—and only by two female specimens in the British Museum.

ADDENDA AND CORRIGENDA.

VOL. II.

Page 26, for *Myrmotherula pygmæa* read:—

***Myrmotherula brachyura*.**

Petit Gobe-mouche tacheté de Cayenne, Pl. Enl. v. pl. 831,
fig. 2, 1781.

Muscicapa brachyura Herm. Tabl. Affinit. Anim. p. 229,
note, 1783.

„ 63, line 12 from the bottom for *Hypocnemis cantator*
read

***Hypocnemis cantator notæa*.**

„ 63, between lines 3 and 4 from the bottom read:—

Hypocnemis cantator notæa Hellmayr, Anzeiger Ornith.
Ges. Bayern, no. 3, p. 19, Oct. 15, 1920 (Merumé Mts.,
British Guiana).

„ 79, delete the bottom line.

„ 81, the nestling described under *Grallaria varia* is the
young of *Myrmoderus ferrugineus*, p. 61.

„ 82, line 5 from the top, for *Grallaria brevicauda* read *Myr-*
mothera campanisona.

Myrmornis campanisona Hermann, Tabl. Affinit. Anim.
p. 189, note 1783.

Myrmothera campanisona Stresem. Nov. xxvii. p. 329, 1920.

„ 103, line 23 from the top, for *turdius* read *turdinus*.

„ 104, for *Automolus alligularis* read:—

Automolus roraimæ Hellmayr, Verh. Ornith. Ges. Bayern,
xiii. p. 199, 1917.

„ 162, after line 11 from the top, add:—

WHITELEY'S PYGMY TYRANT.

„ 163, line 3 from the top, for *C. pilaris* (Cab.) read *C. guleata*
(Bodd.).

„ 264, line 3 from the bottom, for *melorhyphus* read
meloryphus.

ADDENDA AND CORRIGENDA.

- Page 266, line 5 from the top, delete Unrecorded in British Guiana and add:—Schomburgk states (Reis. Guian. iii. p. 701) that the mode of life of this species is the same as that of *Elanea cayennensis*.
- „ 287, line 13 from the bottom, delete Unrecorded in British Guiana, and add:—According to Schomburgk (Reis. Guian. iii. p. 686) the habits of this species are the same as those of *Dasycephala uropygialis*, p. 286.
- „ 304, line 13 from the top, for *Iodopleura* read *Jodopleura*.
- „ 304, line 1 from the bottom, delete Unrecorded, and add:—Schomburgk states (Reis. Guian. iii. p. 697) that the inhabitants of the backwoods of the Demerara River informed him that this bird was only an irregular visitor in their neighbourhood.
- „ 401, after line 9 from the top, add:—
- GUIANA GREENLET SHRIKE.
- „ 402, line 9 from the top, for *P. americana* read *C. americana*.
- „ 456, line 17 from the bottom, for Rupuruni River read Rupununi River.
- „ 480, line 10 from the bottom, for *cyana* read *cyanea*.
- „ 531, Text-fig. 193 reproduced below to replace fig. in text.



Fig. 193.—*Tachyphonus rufus*.

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