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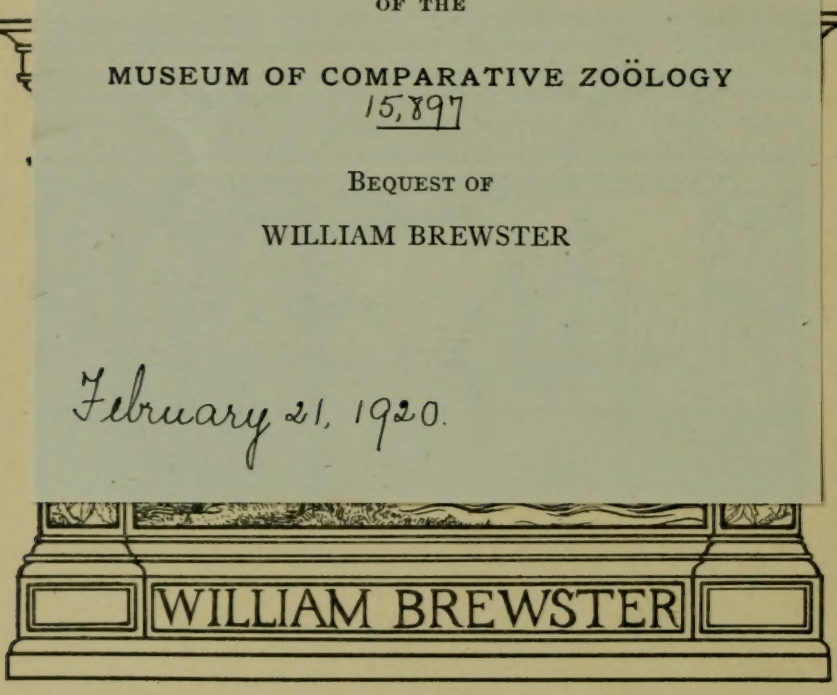

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THE HUMMING BIRD.

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A QUARTERLY

SCIENTIFIC, ARTISTIC and INDUSTRIAL REVIEW.

EDITED BY

A. BOUCARD.

VOLUME V.

SPRING VALE, 1895.

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The Humming Bird.

IMPORTANT NOTICE.

WITH this part ends the publication of the HUMMING BIRD. In future, all my time will be exclusively devoted to the preparation and publication of a GENERA OF BIRDS for which I have already accumulated a large quantity of materials, and I hope that all my Colleagues, Travellers Naturalists, all my friends, Proprietors, Directors and Curators of public and private Museums, and all others interested in Ornithology will help me in adding to my materials as many of the Genera as they will be able to get, amongst those which I do not possess, and of which I give a list in the present Part. I wish to compare and study as many of them as possible, and for this, I ask the help of all.

Either loans, gifts, or exchanges of specimens will be cordially accepted and acknowledged in my work. For those who will be willing to give or to exchange for some of the Genera, which I require, I shall repay them amply with some good and rare species, which I have still by me ; or with some copies of my works on Zoology, and others.

I thank cordially all my friends, contributors, and subscribers to the *Humming Bird,* who have had the welfare of this Review at heart, and who have assisted in various ways in promoting its circulation.

For the convenience of intending purchasers I am willing to supply, *separately,* the *Travels of a Naturalist,* Vol. I.; or the *Genera of Humming Birds.* A. B.

HONORIFIC DISTINCTIONS.

By decree promulgated in Diario de Goberno, dated 2nd day of March, 1875, His Majesty the King of Portugal has been pleased to nominate Mr. Adolphe Boucard, CAVALLEIRO DA ANTIGUA, NOBILISSIMA E ESCLARECIDO ORDEM DE SAO THIAGO, DO MERITO SCIENTICO, LITERARIO E ARTISTICO.

The Professors of the Paris Museum in their general Assembly, held on the 19th of March, 1895, have unanimously elected Mr. Adolphe Boucard, Naturalist, Corresponding Member of the Paris Museum.

BOUCARD'S ORNITHOLOGICAL COLLECTION.

On the occasion of the Centenary of the Jardin des Plantes, our Chief Editor, *Mr. Adolphe Boucard*, made the princely gift of his most valuable and priceless specific Collection of named Bird Skins to the Paris Museum, with the sole conditions that it will be kept separately by itself, that the labels attached to each bird will always be preserved, and that the Collection will always be easy of access to all Ornithological Students and Specialists. These conditions have been accepted by the Director and other Authorities of the Paris Museum.

A large quantity of his duplicates he has offered to the United States National Museum and to the Royal Museums of Madrid and Lisbon, where they will be always accessible to Students.

About 25,000 specimens have already been distributed, and the remainder, including the *Trochili*, are nearly ready, and will be forwarded in the course of a few weeks to their respective destinations.

Mr. Boucard has still in his possession a certain number of rare species which he is willing to exchange for Genera, which he requires for the preparation of his work, the *Genera of Birds*, on which he is actually working.

A list of the Genera still wanted by Mr. Boucard, and another of the duplicates of rare species which he can dispose of, appears in this part, and will be sent to all Ornithologists and Collectors who will apply for them, at the following address :

MR. A. BOUCARD,
Spring Vale,
Isle of Wight,
England.

DESCRIPTION OF A SUPPOSED NEW SPECIES OF PLUSIOTIS,

FROM MEXICO.

PLUSIOTIS HOGEI, sp.n.

P. hogei.—Oblonga parallela, supra veridi-aurea, capite thoraceque viridi-aureis subtiliter, punctulatis ; elytris viridi-

aureis fortiter punctatis, margine aureo ; infra cupreo micante tibiis cupreo-violacis ; tarsis caerulei virescentibus ; antennis fuscis.

Long, 1 inch 4 lines.

Male.—Upperside golden-green. Head and thorax minutely and profusely punctured all over ; clypeus of the same colour, and also minutely punctured ; elytrae strongly punctured all over ; some of these punctures are irregular, others disposed in five longtitudinal striae, the base of the elytrae and pygidium more golden than the rest, the last one with a bright golded margin. Underside brilliant metallic coppery-red ; tibiae dull coppery-purple with brilliant green spots where they join ; tarsi and claws metallic verditer-blue, almost purple-blue in certain lights ; antennae rufous.

Female.—Of the same colour, but more oval in form and slightly shorter ; the striae on the elytra not so apparent ; the underside very brilliant, not so coppery as in the male, more golden ; tibiae greenish ; tarsi and claws like the male, excepting in one specimen in which they are dark metallic green with a very slight bluish tinge.

Types in Boucard's Museum.

This fine new species of Plusiotis was collected at Natlanqui and Tulancigo, Mexico, and was sent to me by the well-known collector, Mr. Hoge, to whom I have the pleasure to dedicate it.

LIST OF HUMMING BIRDS COLLECTED AT CALI AND RIO DAGUA, COLOMBIA, BY W. H. ROSENBERG.

MR. W. H. ROSENBERG, a new Zoological Collector, just returned from Colombia with a fine Collection of Zoological Specimens, chiefly *Coleoptera, Lepidoptera, Reptiles,* and *Birds,* containing many new species, has disposed of his birds in my favour. I intend to publish a complete list of the species as soon as possible, but meanwhile I give the list of the Humming Birds which he collected at my special instigation. Among them are two remarkable new species, which I have just described in the GENERA OF HUMMING BIRDS, now concluded. The places where Mr. Rosenberg

chiefly resided are :—Cali, a town of importance, situated at about seventy miles from *Buenaventura,* the Pacific Columbian port. Cali may be considered as a temperate country. Its elevation over the sea is about 3,000 feet, and is surrounded by mountains. Rio Dagua is only a sort of rancheria, used as a halting-place by those who go from Buenaventura to Cali. It is about midway between the two, and belongs to the hot region. It is well wooded and watered.

Here Mr. Rosenberg was attacked with intermittent fever. This, unfortunately kept him indoors a great part of the six months of his residence there, and even now, he is suffering from it at times. It was in this insalubrious locality that he made his new discoveries in Birds, Reptiles, and Insects. Of the last he collected a large number, and many of them are new to science. The most important novelty among the Coleoptera is what I consider a new genus, of a gigantic size, belonging to the family of HISPIDAE.

The Collection of Mr. Rosenberg can be seen at his place of residence, Trenton Villa, 109, Fernhead Road, St. Peter's Park, Paddington, London, W.

THALURANIDAE.

THALURANIA FANNIAE, Bourc. and Del., Rev. Zool, 1846, p. 310.

Several specimens of both sexes of this fine species were collected at Rio Dagua, Colombia.

AMAZILIIDAE.

POLYERATA ROSENBERGI, Boucard, Gen. Hum. Bird, p. 399.

Several specimens of both sexes of this remarkable new species were collected at Rio Dagua, Colombia.

At first sight, I took them for *P. amobilis;* but in comparing them with that species, I was agreeably surprised to find that they were quite distinct, and even more beautifully coloured on the underside than *P. amabilis* and *decorata.*

URANOMITRA FRANCIAE, Bourc. and Muls., Ann. Soc. Ayr., Lyons, 1846, t. ix., p. 324.

Several specimens of this well-known Columbian species, collected at Rio Dagua, Colombia.

EUCEPHALA GRAYI, Del. and Bourc., Rev. Zool., 1846, p. 307.

One single specimen which I believe to be a junior male, collected at Rio Dagua, Colombia.

SAUCEROTTIA SOPHIAE, Bourc, and Muls., Aun. Soc. Agric., Lyons, 1846, t. ix., p. 318.

Several specimens of both sexes of this well-known species collected at Cali, Colombia.

AMAZILIA FUSCICAUDATA, Fras., P.Z.S., 1840, p. 17.

Several specimens of this common Columbian species, collected at Rio Dagua, Colombia, where it seems to be abundant.

PETASOPHORIDAE.

PETASOPHORA DELPHINAE, Less., Rev. Zool., 1839, p. 44.

Only one specimen of this extensively distributed species, collected at Rio Dagua, Colombia, where it seems to be very rare.

LAMPORNIDAE.

HYPUROPTILA BUFFONI, Less., Trochilidae, 1831, p. 34.

Several specimens of this well-known species, collected at Rio Dagua, Colombia, where it is common.

PHAETHORNIÏDAE.

GLAUCIS AENEA, Lawr., Proceed, Acad. Nat. Scien. Phil., 1867, p. 232.

Two specimens of this species were collected at Cali, Colombia.

GLAUCIS COLUMBIANA, Boucard, Gen. H.B., p. 402.

Only two specimens, male and female, of this new and beautiful species, were collected at Rio Dagua, Colombia. It is the smallest and the most beautiful species known of that genus.

THRENETES RUCHERI, Bourc., P.Z.S., 1847, p. 46.

Only one specimen of this rare species, collected at Rio Dagua, Colombia. I think that it is the first time that this species is recorded from that country.

EREMITA STRIIGULARIS, Gould, Mon. Troch., vol. i., p. 37.

Two specimens of this species were collected at Rio Dagua, Colombia.

On the whole I think Mr. Rosenberg was very lucky in securing two new species, amongst the twelve, which he collected.

A. B.

PROTECTION OF BIRDS.

Lately much has been written and said on this subject, which has had also its special Congress, and it is a good omen that this question is so much taken up at the present time, but it is my opinion that decrees are not sufficient for the extinction of the evil. Better results can be obtained by persuasion and instruction, than by threats of the law.

For centuries, birds have been caught in traps, nets, and otherwise, for the purpose of food, etc.; eggs and young birds have been hunted for, by boys and girls, for pleasure's sake, and the only practical way that I see to remediate this is by teaching the first elements of Natural History in all schools, especially Primaries, and to impress on all children and others the importance of not destroying the eggs, or killing young birds. Special books on the subject, with coloured plates, if possible, should be written by specialists, and distributed freely to all, especially in the country.

As I have advocated before in the *Humming Bird*, local Museums should be erected everywhere, even in the smallest villages possessing a school, which could be used to that effect, and rewards should be awarded to the teachers and to boys or girls, who should contribute in gathering the best specimens, and help most in the formation of these small local Museums.

Little by little, they should be taught the first notions of Natural History, and would learn the importance of preserving not only the Birds, but also the Mammals, and the Insects, which are so useful to Agriculture.

This is a task of which every teacher ought to be proud, and, besides, what a source of enjoyment for all. I defy anyone to contradict me when I say that nothing in this world can be compared to the study of *Nature*. Here all is enjoyment, there is no drawback, and, besides, there is no better opportunity for anyone to show his talents of observation, and in doing this, for ever so little that he may do or discover, he will have the satisfaction to know that he has been working for the welfare of ALL.

NICARAGUA AND PANAMA CANALS PROSPECTS.

A British Expert Declares Them Excellent, and Believes the U.S. Government Should Build.

Mr. Archibald Ross Colquhoun, a well-known explorer, and first Governor of Mashonaland, has returned from several months' mission to Nicaragua, where he thoroughly inspected the Nicaragua Canal route and visited the Panama Canal. He was present at Managua during the British occupation of Corinto.

Asked if the canal scheme was practicable, Colquhoun emphatically replied: "Undoubtedly it is practicable. I feel certain of that. But there are many points of engineering importance requiring consideration and full discussion. The American Commission is composed of men of the highest ability, and will, I believe, issue an impartial report, not in any way based on party lines.

"The total length from Greytown, on the Atlantic, to Brito, on the Pacific, 124¼ miles will be unimpeded navigation of the River San Juan and Lake Nicaragua. Twenty-one and one-half miles will be through artificial basins, making the total distance 142½ miles in which ships can travel with little or no restriction. There will be only twenty-six and three-fourths miles of actual digging to be done.

"From what I have seen of Nicaragua, and in a lengthened visit to the United States (especially the Southern States), I am more than ever convinced of the immense importance to the United States of this project. I feel sure that it is only under the auspices of the United States Government that this great enterprise can be carried through as it should be. That is, by overcoming all difficulties in regard to execution, and throwing the proposed waterway open as an international channel to the world's commerce.

"The canal, in my opinion, will be universally of greater importance than the Suez Canal, and will largely revolutionize the shipping routes of the world. For the United States the canal will have the effect of developing the trade of the Pacific slope and the Southern States."—*Twice-a-Week World.*

I am exactly of the same opinion as Mr. Archibald Ross Colquhoun, and as I have said before, not many years will pass before the opening, not only of the Nicaragua Canal, but also

of the Panama Canal. At the latter place, according to a traveller just returned from Panama, they are working steadily; but I am not at all certain that they will be able to complete the work without the aid of the European and American Governments, because a large sum of money will still be required, and according to my judgment, and the talk which I have had lately in Paris with some of the principal shareholders and bondholders, it will be very difficult to raise the said money in France. They have been so much imposed upon, not to put it in more explicit words, that it will be quite useless to ask them for more capital.

The only way, I think, would be to convene an International Congress, composed chiefly of Governmental representatives, and celebrated engineers, to discuss the ways and means of conjointly completing these gigantic and marvellous works. A. B.

OBITUARY.

FERDINAND GRUT, Honorary Librarian of the Entomological Society of London, died on the 19th July, 1891, aged 71. He was born at St. Peter's Port, Guernsey. He was educated at Edinburgh University, and afterwards was clerk under his father, who was then Secretary of the Palladium (Insurance Office).

In 1852, he was appointed Secretary to Marshall's Charity, which position he held until his death.

For several years he suffered from *angina pectoris,* which caused his very sudden death.

In 1863, he was elected Vice-President of the Entomological Society of London. He was one of the Secretaries from 1871 to 1877.

In 1872, he was elected into the Linnean Society.

Mr. Grut amassed an extensive library, and he also formed a valuable Collection of *Coleoptera,* chiefly Carabidae.

He was most genial and cordial in social intercourses.

His valuable Collection of Carabidae was offered for sale at Stevens' shortly after his death, and I bought the greater part of it. Among many great rarities I found what I considered a new species of *Manticora,* which I described in the *Humming Bird,* vol. ii., part 6, p. 45, and dedicated to his memory.

JOHN OBADIAH WESTWOOD, Professor of Entomology at Oxford University, died on the 2nd of January, 1893, at the great age of 87 years. He was born at Sheffield on December 22nd, 1805. He was at first articled to a solicitor, but although he obtained his admission to the Bar, he never did much in that line of business. All his energy was devoted to the study of Entomology and in drawing insects. These drawings of insects were masterpieces of accuracy and are ranked among the first of this epoch. All orders of insects were familiar to him and many are the monographs which he published, especially on small and difficult families, such as the Paussidae, and others. He was invincibly attracted by all the extraordinary forms found amongst the insects. These early papers appeared in the Natural History Journals of the period. In 1833, the Entomological Society of London was founded, and Westwood identified himself with it from its commencement. He was elected Secretary in 1834, and continued such for several years; he was President on three periods of two years each, and on the occasion of the Jubilee of the Society in 1883 was appointed Honorary Life President.

There is scarcely a family of Insects in any Order on which he did not treat, and this, with the accuracy for which he was well known.

His separate works were many. Among them his *Introduction to the Modern Classification of Insects* can be considered as a masterpiece. This work gained him the Royal Medal of the Royal Society in 1855.

In 1856, his friend, Mr. Hope, presented his collections to the University of Oxford, and endowed a Professorship, which he intended should be of Entomology, but a difficulty was put in the way, and it was compromised by instituting a Chair of Invertebrate Zoology. Westwood was the first Hope Professor. He soon became a striking feature in the University, and under his charge the entomological collection increased vastly.

I had the pleasure of making his acquaintance at the University of Oxford in 1865, and he received me and my friend Sallé with the utmost cordiality. I kept an amicable correspondence with him nearly up to the time of his death, and I saw him in London only a few days before this sad event.

A good portrait and a good biography of Westwood by McLachlan appeared in the Entomologists' Monthly Magazine of February, 1893.

DOCTOR EMIN PASHA.—This eminent man was born at Opella in Silesia, on March 28th, 1840, and was killed by the Arabs in the Manyema country in 1893. Everyone who has read Stanley's last work on "Equatorial Africa" is well acquainted with the name of the celebrated traveller, *Emin Pasha;* but few are those who are aware that he was an enthusiastic collector. Many are the Birds and Insects collected by him and sent to England or to Germany.

He discovered many new species of Birds and Insects which were described by MM. Hartlaub, Shelley, Reichenow, Bates, and others.

Lately, his papers and body were recovered and brought to his native country.

His name is commemorated in Ornithology by the genus EMINIA of Hartlaub. Seven different species of Birds have also been dedicated to him.

J. T. M. BIGOT, French Entomologist died in Paris on the 14th of April, 1893. He had been a member of the Entomological Society of France since 1844, and his first paper appeared in its annals in 1865. During his life-time he formed a magnificent collection of Diptera, and described several score of new species, chiefly in the Annals of the French Entomological Society. His last paper, written just before his death, appeared in the *Humming Bird,* vol. ii., No. 7, p. 49. It was the description of a large new Parasite Diptera, Ornithomyia geniculata, found by myself on the body of the beautiful Trogon bird, *Pharomacrus costaricensis.* Bigot formed also a very valuable collection of grotesque old Japanese figurines. When I saw him last in Paris, he had a very large cabinet crowded with them. Bigot in his social intercourse was very cordial and a true gentleman.

FRANCIS POLKINGHORNE PASCOE, English Zoologist, died at Brighton on the 20th of June, 1893. He was born at Penzance on September 1st, 1813. He was educated at the Grammar School of his native town, and subsequently entered at St. Bartholomew's Hospital as a student. In 1835 he was appointed in the Navy as Surgeon. In 1843 he married Miss Glasson, of Falmouth, and retired from the service. In 1851 he was left a widower, and settled in London, devoting his attention to Natural History generally. He travelled nearly over the whole of Europe, North Africa, Madeira, &c., and once made a voyage to Lower Amazons to study the marvels

of that rich region. His favourite study was the Coleoptera, of which he formed a very extensive collection, especially rich in *Cerambycidae* and *Curculionidae*. Many are the new species which he described of these two families. Among his many papers, *Longicornia Malayana,* enumerating and describing the species collected by Wallace, is very valuable. This collection of Coleoptera, shortly before his death, he sold to the British Museum. It contains about 2,500 type specimens of species described by him. This shows better than anything else what amount of work Pascoe has been doing. He was very active and laborious. In 1880 he published *Zoological Classification,* in which a very large amount of useful information is compressed into a small compass.

He was elected President of the Entomological Society of London in 1864, was a Fellow of the Entomological Societies of France, Belgium, Stettin, and other foreign Societies. He became a Fellow of the Linnean Society in 1852, and was for many years on the Council of the Royal Society and the Scientific Committee of the Royal Horticultural Society. In private life he was very amiable, and preferred the society of other Naturalists, like himself, above all others.

HERMAN AUGUST HAGEN, Entomologist, died at Cambridge, Massachusetts, United States, on the 9th of November, 1893. He was born at Konisberg, East Prussia, on May 30th, 1817. In 1840, he wrote his *Dissertatio Inauguralis,* the subject of which was the synonymy of European Dragonflies. After this, he wrote many hundreds of articles on NEUROPTERA. In 1861 appeared his *Synopsis of the Neuroptera of North America.* In 1867 he was asked by Louis Agassiz, the Director of the Zoological Museum of Harvard University, Cambridge, United States, to take charge of the Entomological Section. Subsequently he became Professor of Entomology at the University. I had the pleasure to make his acquaintance there in 1876. With pride he showed to me, and to my friend Sallé, the extensive and valuable entomological collection of the University under his charge. In 1882, at the age of 65, he joined a long and arduous expedition, and accumulated much materials, one outcome of which was a paper on the genus *Colias*, which attracted much attention. For three years he remained in very poor health and finally died of the results of an attack of influenza.

HENRY WHITELY, Traveller-Naturalist, died on the 11th of July, 1893, in the interior of British Guiana, at the early age of 49 years. Whitely was born at Woolwich, England, on June 18th, 1844. He made his first expedition to Japan in 1864, and the ornithological results were published in the Ibis. But it was in Peru, on the Amazons, and in British Guiana, where he resided mostly, and made many wonderful discoveries of new species of birds. Among them may be cited:— OREONYMPHA NOBILIS, Gould, one of the rarest and finest species known. LOPHORNIS PAVONINUS, Salv., another remarkable and fine species; *Hylocharis guianensis,* Boucard; *Uranomitra whitelyi,* Boucard; *Amazilia cupreicauda,* Salv.; *Aglaeactis caumatonata,* Gould; *Iolaema whitelyana,* Gould; *Hemistephania guianensis,* Boucard; *Milornis rupuninii,* Boucard; *Eremita whitelyi,* Boucard; and many others.

The result of his collecting was described chiefly in Gould's Monograph of the Humming Birds, the Ibis, Proceedings of the Zoological Society of London, and in the *Humming Bird.*

Besides birdskins he also made large collections of insects, chiefly Colcoptera and Lepidoptera, among which were many new species. He was a prince among collectors, and all that he collected was in the finest condition. The make up of his birdskins cannot be surpassed.

I was fortunate enough to acquire from his father, Mr. Henry Whitely, a very large series of skins prepared by his son, and I rank them among the most precious of my collection.

The death of Whitely in the prime of his life is a great loss to science.

MARIE FRANCOIS SADI CARNOT, President of the French Republic, died at Lyon on the 25th of June, 1894, at twenty-minutes-past-twelve in the night, from a wound inflicted by the vile murderer Casario.

It was with the utmost stupefaction and distress, not only in France, but in all the world that the death of Carnot was heard of.

Of all the men, Carnot was the last one for whom a fatal end could have been expected. No one has ever been more popular than him and more fitted to occupy the Presidency of the French Republic. He was a gentleman among gentlemen, always worthy, affable, and courteous to all who approached

him. I shall never forget his visit to the Guatemala Pavilion, the day of its inauguration, during the Paris International Exhibition of 1889. He was most cordial to all of us Commissioners of that Republic.

Mr. Crisanto Medina, our President, at the end of his reception handed him, for Madame Carnot, as a memorandum of the day, a beautiful filigram silver Casket on which I had stuck a fine specimen of *Cometes phaon* of my own collection, displaying all the beauty of its tail. They were so much pleased with it that in the Garden Party at the Elysées, which took place a few days after, they were more than gracious to all of us.

Carnot, who will be always remembered in the future as a great patriot, was born at Limoges on the 24th of August, 1837. He began his studies in the Lycée Bonaparte. From there, he went to the Polytechnic School. In 1860, he passed first in his examinations as Engineer. He was nominated Major in 1863. Until 1870 he worked as Engineer.

During the elections of 1871, he was elected Member of the National Assembly by the Department of Côte d'Or with a great majority. Successively, he was Minister of Public Works and of Finances. It is when he had the last portfolio that he refused to acquiesce to the solicitations of Mr. Wilson.

This act of independence was chiefly the cause of his nomination to the Presidency of the French Republic.

Everyone knows what he did during his Presidency.

The death of Carnot has been a national disaster to France.

GEORGE NEWBOLD LAWRENCE, Ornithologist, died at his house in New York on the 17th January, 1895, at the old age of 89 years. Lawrence was born in the city of New York, where he resided all his life. Although engaged in commercial pursuits of importance, he found time to gather a very valuable Ornithological Collection, exclusively American. In the space of fifty years he amassed a collection embracing about 8000 specimens, among which were 300 types of new species described by him. This collection is now the property of the American Museum of Natural History.

During fifty years, he published scientific Ornithological papers of much interest, chiefly in the annals of the Lyceum of Natural History of New York, the Proceedings of the Academy of Natural Sciences of Philadelphia, the Proceedings

of the United States National Museum, and others. His various writings aggregate the respectable total of 121, of which a complete account has been published in No. 40 of the Bulletin of the United States National Museum, with a very good portrait of him. Messrs. MacLeaman and Ober, two energetic collectors, sent him a large quantity of specimens from Panama and the West Indies, in which Lawrence found a good number of remarkable and new species, which he described in the journals mentioned above.

I had the pleasure to make the acquaintance of Lawrence in the year of the Centennial, in 1876, on my way, with my friend Sallé, to Philadelphia, and I have kept amicable relations with him, up to the time of his death.

From him, I received a certain number of typical specimens collected by Messrs. MacLeaman and Ober. These are now in the Paris Museum. I have also found him a very good friend, and always willing to help his scientific colleagues. His death is a great loss to Science. In memory of our friendship I have made the new Genus *Lawrencius* with the beautiful and rare Humming Bird, formerly known as *E. cupreiceps*, Lawrence.

William Ruxton Davison, Curator of the Raffles Museum, Singapore, died on the 25th of January, 1895, at his post. He was born at Burmah, India, where he resided up to the time of his death. At first he was employed by Mr. A. C. Hume, the celebrated Indian Ornithologist, as a collector, and in this, he was very successful. He collected extensive series of birds, among which were many new species, which were subsequently described by Mr. Hume. Many beautifully-prepared skins of Indian Birds which I have in my collection were prepared by him. A good portrait of Davison will be found in the third volume of Oates' Edition of Hume, *Nests and Eggs of Indian Birds,* published in 1890.

Edward Hargitt, died on the 19th of March, 1895. He was born on May 3rd, 1835, at Edinburgh. At an early age, he studied in the schools of the Royal Scottish Academy, under Robert Scott Lander, and soon became a painter of merit, and his works, chiefly in water colours, were frequently to be seen in Burlington House. It is during his travels as an artist that he acquired the taste of Ornithology, which he kept up until his death. His favourites were the Woodpeckers. In 1890, he produced the Picidae, vol. xviii. of the

Catalogue of Birds, published by the British Museum ; a very good and valuable work. At the time of his death, he was actively engaged in the preparation of a Monograph of these birds, and he had already a large number of coloured plates representing nearly all the species known. It is to be hoped that his work will not be lost to Science.

PASTEUR died on the 28th of September, 1895. He was born at Dôle, in Jura, December 22nd, 1822. At the early age of 18, he was a teacher in the College of Besancon. Then he entered at the Normal School, where he attained successively all his university degrees ; Aggregate of Science in 1846, Doctor in 1847, he was appointed Professor of Physics to the Lycée of Dijon in 1848, Professor of Chemistry in the faculty of Strasburg in 1849, and Professor in 1852.

In 1862, he was elected a Fellow of the Academy of Sciences, and the Rumford Medal was awarded to him by the Royal Society of London for his work on the affinities of the polarisation of light with the hyemedry of crystals. Soon after, Pasteur received from the Austrian Ministry of Agriculture a prize of 10,000 florins for his discovery on the means of struggling with the disease of silk worms.

Successively he received a prize of 12,000 francs from the Society of Encouragement to Sciences, for the whole of his works on silk worms, wines, vinegars, and beers; and an annual pension of 12,000 francs was granted to him by the National Assembly.

But Pasteur will always be still more remembered as a universal benefactor for his magnificent discovery of the virus, curing hydrophobia. When this discovery of his, was made public, it provoked an universal cry of admiration. An international subscription was made, and the money came so readily, that he was soon able to build what is known as *Pasteur's Institute,* where patients of all nationalities are attended with the utmost care by his clever pupils.

Many are the Institutes built all over the world on Pasteur's principles, all of them doing good work.

On the 27th of December, 1892, a very important ceremony took place in the Sorbonne Ampitheatre of Paris, to celebrate the jubilee of the great scholar. Over 6000 persons were present at that *grandiose* ceremony, presided by Carnot, the President of the French Republic.

Praises were then addressed to him, not only by Mr. Dupuy, Minister of Public Instruction, but also by all the Foreign Delegates, who came especially for that purpose.

These eulogiums greatly affected Pasteur, who could only reply with a few words of thanks.

In 1868, Pasteur had a severe illness, the result of overwork, and it was thought at the time that he was going to die, but his strong constitution saved him, although he remained paralysed on his left side, and never recovered entirely the use of his limbs. Fortunately his brain remained intact, and he was able to pursue his important studies nearly up to the end of his life.

HENRY SEEBOHM, Ornithologist, died at his residence in South Kensington, on the 26th November, 1895. He was born at Bradford, in 1832. Seebohm was not only a mere collector, but he made many scientific expeditions in Europe and Asia, and collected many rare specimens of birds and studied their habits. His best captures were made in Siberia. In consequence of the affinity existing between the Siberian and Japanese species, he was very enthusiastic in the study of the birds of the latter country, and in 1890, he published THE BIRDS OF THE JAPANESE EMPIRE, a very good and valuable work. He was also the author of the Vol. V. CATALOGUE OF BIRDS, published by the Trustees of the British Museum, treating of the CICHLOMORPHAE, Part ii., and containing the family TURDIDAE, a special favourite family with him. Many are the memoirs and papers written by him on birds. They appeared chiefly in the Proceedings of the Zoological Society, the Ibis, the Zoologist, and other periodicals. The very fine collection of Birds, which he formed during his lifetime, he has liberally bequeathed to the British Museum.

The death of Seebohm is a great loss to Science.

GENERA OF BIRDS WANTED BY Mr. A. BOUCARD.

FALCONIDAE.
- Cariama
- Serpentarius
- Urotriorchis
- Nisoides
- Buteola
- Harpyhaliaetus
- Thrasaetus
- Lophotriorchis
- Dryotriorchis
- Helotarsus
- Gypohierax
- Nauclerus
- Lophoictinia
- Gypoictinia
- Henicopernis
- Machaeramphus
- Harpagus
- Poliohierax
- Spiziapteryx
- Harpa
- Polioaetus

BUBONIDAE.
- Scotopelia
- Surnia
- Heteroglaux
- Gymnasio
- Sceloglaux
- Micrathene
- Phodilus

CORVIDAE.
- Heterocorax
- Corvultur
- Rhynocorax
- Microcorax
- Phyrocorax
- Macrocorax
- Temnurus
- Uroleuca
- Struthidea

PARADISEIDAE.
- Ianthothorax
- Parypophorus
- Astrarchia
- Lamprotorax
- Prionodura
- Cnemophilus
- Loria
- Xanthochlamys
- Scaenopetes

DICRURIDAE.
- Dissemuroides
- Dicranosteptus

PRIONOPIDAE.
- Eurocephalus
- Poeoptera
- Cuphopterus
- Bradyornis
- Melaenornis
- Hypocolius

CAMPOPHAGIDAE.
- Campochaera
- Pterodopocys
- Clamidochaera
- Lobotus
- Symnorphus
- Artomyias
- Erythromyias
- Poliomyias
- Smicrornis
- Chasiempis
- Muscylva
- Lanioturdus
- Metabolus
- Heteromyias
- Hyliota
- Lioptilus
- Stenostira
- Aethomyias
- Chloropeta
- Cyanomyias
- Chenorhamphus
- Clytomyias
- Erythrocercus
- Trochocercus
- Neomyias
- Zeocephus
- Elminia

Megabias
Smithornis
Pomarea
Cassinia

TIMELIIDAE.
Pinarocichla
Poliolophus
Trichophoropsis

TROGLODYTIDAE.
Ondotorhynchus
Urocichla
Spelaeornis
Sphenocicla
Uropsila
Pnoepyga

MIMIDAE.
Cinclocerthia
Ramphocinclus
Neocichla
Platycichla

THAMNOBIAE.
Callene
Pentholaea
Pinarochroa
Cichladura
Erythropygia
Liopotila
Hodgsonius
Cereotrichus

BRADYPTERI.
Psamathia
Bebrornis
Sphenura
Amytis
Schoenicola
Phlexis
Bradypterus
Euryptila
Rhopophilus
Laticilla
Chaetornis
Calamocichla
Calamonastes

EREMOMELAE.
Apalis
Euprinodes
Dryodromas
Drymocichla
Phyllolais
Eroessa
Eremomela
Hylia
Stiphrornis

CISTICOLAE.
Saya
Thamnornis
Spiloptila
Graminicola
Sericornis

CRATEROPODES.
Pycnoptilus
Drymaoedus
Babax
Pterorhinus
Acanthoptila
Megalurulus
Pinarornis
Xiphoramphus
Stactocichla
Melanocichla
Neocichla
Aethocichla
Chlenasicus
Chalornis

TIMELLAE.
Dumetia
Elaphrornis
Pellorneum
Scotocichla
Crossleyia
Macrosphenus
Ortygocichla
Gyprosphila
Trichostoma
Xanthomixis
Kenopia
Ptilopyga
Malia
Crateroscelis
Corythocichla
Turdinulus
Rimator

LIOTRICHES.
Fulvetta
Moupinia
Dendrobiastes
Liocichla

PARIDAE.
- Psaltria
- Aegithalus
- Sphenostoma

REGULIDAE.
- Leptopoccile

LANIIDAE.
- Xenopirostris
- Laniellus

VIREONIDAE.
- Neochloe
- Laletes

CERTHIIDAE.
- Salpornis

SITTIDAE.
- Hypositta

NECTARINIIDAE.
- Drepanorhynchus

MELIPHAGIDAE.
- Plectrorhynchus
- Entomophila
- Oedistoma
- Moho
- Pycnopygius

DICAEIDAE
- Hemignathus
- Drepanis
- Himatione
- Loxioides
- Loxops
- Psittirostra
- Pinarolaxias
- Oreocharis
- Parmoptila
- Pholidornis
- Lobornis
- Urocharis
- Ramphocharis

HIRUNDINIDAE.
- Cheramoeca

MNIOTILTIDAE.
- Leucopiza
- Ligia

MOTACILLIDAE.
- Xanthocorys
- Oreocorys

COEREBIDAE.
- Oreomanes
- Xenodacnis

TANAGRIDAE.
- Hypophaea
- Delothraupis
- Cyanicterus
- Chlorothraupis
- Creurgops
- Malacothraupis
- Cypsnagra
- Urothraupis
- Microspingus
- Nerospingus
- Conothraupis
- Lamprospiza
- Orchesticus
- Oreothraupis

ICTERIDAE.
- Clypeicterus
- Ocyalus
- Nesopsar

FRINGILLIDAE.
- Camarhynchus
- Cactornis
- Chaunoproctus
- Neorhynchus
- Piezorhina
- Dolospingus
- Amaurospiza
- Pyrrhuloxia
- Loximitris
- Acanthidops
- Rhynchostrutus
- Poliospiza
- Pyrrhospiza
- Urocynchramus
- Porphyrospiza
- Haplospiza
- Saltatricula
- Coryphospiza
- Nesospiza
- Idiopsar
- Spodiornis
- Xenospingus
- Lophospingus

Schistopiza
Tiaris
Rhodospingus

AETAMIDAE.
Pseudochelidon

STURNIDAE.
Sturnornis
Ampeliceps
Charitornis
Cosmopsarus
Cinnamopterus
Pilorhinus
Hagiopsar
Pyrrhocheira
Coccycolius
Heteropsar
Fregilupus

PLOCEIDAE.
Tetraenura
Linura
Philacterus
Pyrenestes
Cryptospiza
Ortygospiza
Stictospiza
Emblema
Pytelia
Stictoptera
Bathilda
Granatina
Icteropsis
Plocella
Histurgops
Textor

ALAUDIDAE.
Heterocorys
Chersophilus
Ramphocorys
Spizocorys
Spilocorydon
Spizalauda
Heliocorys
Lullula
Ammonomanes

ATRICHIIDAE
Atrichia

TYRANNIDAE.
Ochthornis
Ceratroticcus
Pseudotriccus
Orchilus
Hemitriccus
Culicivora
Pogonotriccus
Leptotriccus
Empidagra
Sublegatus
Conopias
Sirystes
Cnipodectes
Lawrencia

PITTIDAE.
Anthocincla
Coracopitta

COTINGIDAE.
Chirocylla
Doliornis
Haematoderus

PITTIDAE.
Coracopitta

XENICIDAE.
Xenicus

EURYLEMIDAE.
Sarcophanops

DENDROCOLAPTIDAE.
Geobates
Clibanornis
Xenerpestes
Coryphistera
Anumbius
Limnornis
Berlepschia
Dendrexetastes
Hybexetastes
Nasica
Drymornis

FORMICARIIDAE.
Thamnistes
Neoctantes
Clytotanctes
Terenura
Psiloramphus
Percnostola

PTEROPTOCHIAE.
Lioscelis
Rhinocrypta

IRRISORIDAE.
Scoptellus

CAPRIMULGIDAE.
Otophanes
Siphonorbis
Heleothreptus
Cosmetornis
Nyctiprogne

MEROPIDAE.
Dicrocercus.

ALCEDINIDAE.
Ceycopsis
Myioceyx

BUCEROTIDAE.
Bucorax
Dichoceros
Aceros
Anorrhinus
Berenicornis
Rhinoplax

TROGONIDAE.
Euptilotis

PICIDAE.
Geocolaptes
Xenopicus
Dendrocoptes
Thripias
Sapheopipo
Verreauxia

INDICATORIDAE.
Indicator.
Prodoticus.

CAPITONIDAE.
Erythrobucco
Smilorhis
Stactolaema

BUCCONIDAE.
Micromonacha
Hapaloptila

CUCULIDAE.
Pachycoccyx
Cercococcyx
Mesocalius
Microdynamis
Ramphomantis
Hyetornis
Rhynococcys
Dryococcyx
Neomorphus

MUSOPHAGIDAE.
Gymnoschizorhis

PSITTACIDAE.
Cyanopsittacus
Pachynus
Geopsittacus

COLUMBAE.
Phabotreron
Drepanoptila
Serresius
Phaenorhina
Nesoenas
Turturaena
Coryphaenas
Ectopistes
Nesopelia
Columbula
Uropelia
Oxypella
Histriophaps
Petrophassa
Lopophaps
Oxyphaps
Eutrygon
Sturnaenas

PHASIANIDAE.
Ammoperdix
Pternistes
Rhizothera
Perdicula
Microperdix
Haematortyx
Caloperdix
Bambusicola
Galloperdix
Ophrysia
Acomus
Chalcurus
Philortyx
Cyrtonyx
Rhynchortyx

MEGAPODIDAE.
Eulipoa
Lipoa

CRACIDAE.
- Nothocrax
- Pauxis
- Aburria

RALLIDAE.
- Cabalus
- Eulabeornis
- Tricholimnias
- Aramidopsis
- Megacrex
- Habroptila
- Aphanopteryx
- Diaphorapteryx
- Himantornis
- Canirallus
- Castanolimnas
- Stictolimnas
- Crecopsis
- Oenolimnas
- Amaurolimnas
- Zapornia
- Pennula
- Aphanolimnas
- Thryorhina
- Ortygops
- Porzanula
- Rougetius
- Neocrex
- Tribonyx
- Pareudiastes
- Porphyriornis
- Psammocrex
- Notornis
- Aptornis

HELIORITHIDAE.
- Podica

ARAMIDAE.
- Aramus

MESITIDAE.
- Mesites

RHINOCHETIDAE.
- Rhinochetus

PARRIDAE.
- Hydralector

OTIDIDAE.
- Lophotis
- Compsotis
- Heterotetrax
- Neotis
- Lissotis
- Houbaropsis
- Houbara
- Eupodotis

LIMICOLAE.
- Carvanaca
- Hemiparra
- Tylibyx
- Lobipluvia
- Pluviorhynchus
- Zonibyx
- Podarocys
- Aegialeus
- Thinornis
- Anarhynchus
- Plegornis
- Stiltia
- Galachrysia
- Rhinoptilus
- Chalcopterus
- Oreophilus
- Attagis

CHIONIDAE.
- Chionis

HAEMATOPODIDAE.
- Melanybix
- Aphriza
- Pluvianellus

PHALAROPIDAE.
- Phalaropus
- Steganopus

SCOLOPACIDAE.
- Symphenia
- Erythroscelus
- Prosobonia
- Tryngites
- Cladorhynchus
- Micropelama
- Arquatella
- Pseudoscolopax
- Nemoricola
- Lymnocryptes
- Coenocorypha
- Xylonota
- Philohela
- Ibidorhyncha

ARDEIDAE.
- Balaeniceps

TINAMIDAE.
- Taoniscus
- Calodromas
- Tinamotis

LIST OF DUPLICATE NAMED BIRD SKINS FOR EXCHANGE.

Scops japonicus, Schl.
Cyanopolius cyaneus, Pall.
Garrulus japonicus, Schl.
Xanthura yucatanica, Dub.
Heteralocha acutirostris, Gould
Ptilorhis paradisea, Sw.
,, magnifica, Vieill.
Drepanornis albertisi, Sclat.
Epimachus speciosus, Bodd.
Paradigalla carunculata, Less.
Paradisea mariae, Reich.
,, minor, Shaw
Uranornonis rubra, Shaw
Cicinnurus regius, L.
Schlegelia wilsoni, Cass.
Semioptera halmaherae, Salv.
Phonygama keraudreni, Less.
Manucodia chalybata, Penn.
Sericulus melinus, Lath.
Ptilonorhynchus violaceus, V.
Chlamydodera cerviniventris
Analcipus traillii, Vig.
Sphecotheres flaviventris, Gould
,, viridis, Vieill.
Irena puella, Lath.
Euryceros prevosti, Less.
Terpsiphone princeps, Tem.
Arses telescopthalmus, Garn.
Piezorhynchus alecto, Tacz.
Peltops blainvilli, Garn.
Geocichla varia, Pall.
Merula cardis, Tem.
Mystacornis crossleyi, Sharpe
Parus minor, Tem. and Schl.
,, varius ditto
Cracticus cassicus, Gray
Vireolanius pulchellus, Sclat. and Salv.
Aethopyga saturata, Hodgs.
,, siparaja, Raffl.
,, ignicauda, Hodgs.
Cinnyris chloropygia, Jard.
,, soui manga, Gmel.
,, superba, Shaw
,, splendida, Shaw
,, notata, Mull.
,, cuprea, Shaw
,, zeylonica, L.
,, aspasiae, Less.
,, verticalis, Lath.
,, frenata, Mull.
Cinnyris pectoralis, Horsf.
,, gutturalis, L.
,, fuliginosa, Shaw
Anthothreptes collaris, Vieill.
,, malaccensis, Scop.
Zosterops japonica, T. and H.
,, palpebrosa, T.
Ptilotis analoga, Reich.
,, sonoroides, Gray
,, auricomis, Lath.
Meliornis novoe hollandiae, Lath.
Prosthemadura novoe zelandiae, Gm.
Euthyrhynchus gymnops, Sclat.
Dacnis ultramarina, Lawr.
,, angelica, Philipi.
,, egregia, Sclat.
Coereba lucida, Sclat. and Salv.
Certhiola mexicana, Sclat.
Chlorophonia longipennis, Dubus.
,, pretrii, Bp.
,, occipitalis, Dubus.
,, callophrys, Cab.
Euphonia elegantissima, Bp.
,, xauthogastra, Swnd.
,, minuta, Cab.
,, typica, L.
,, gouldi, Sclat.
Chlorochrysa calliparia, Tsch.
Calliste tricolor, Gmel.
,, schranki, Spix.
,, guttata, Cab.
,, aurulenta, Lafr.
,, icterocephala, Bp.
,, vitriolina, Cab.
,, cayana, L.
,, versicolor, Lawr.
,, gyroloides, Lafr.
,, nigriviridis, Lafr.
,, larvata, Dubus.
,, francescae, Sclat.
,, nigricincta, Bp.
,, granadensis, Sclat.
,, ruficervix, Prév.
,, labradorides, Boiss.
Ramphocoelus dimidiatus, Lafr.
,, passerinii, Bp.
,, icteronotus, Bp.
Phlogothraupis sanguinolentus, Less.
Tachyphonus luctuosus, Lafr.
Buarremon gutturalis, Lafr.
,, schistaceus, Boiss.

Arremon aurantürostris, Lafr.
Psitospiza riefferi, Boiss.
Saltator atriceps, Less.
Schistochlamys atra, Gmel.
Pytilus poliogaster, Dubus.
Cassicus microrhynchus, Sclat. and Salv.
Amblycercus holosericeus, Licht.
Molothrus atronitens, Cab.
Agelaeus thilius Mol.
,, icterocephalus, L,
Leistes guianensis, L.
Xanthocephalus longipes, Sw.
Icterus bullochi, Sw.
,, chrysocephalus, L.
,, laudabilis, Sclat.
,, prosthemelas, Strickl.
,, igneus, Ridgw.
,, auricapillus, Cass.
,, mesomelas, Wagl.
,, giraudi, Cass.
,, xanthornus, Gmel.
,, auratus, Bp.
,, jamacaii, Gmel.
,, gularis, Wagl.
,, pustulatus, Wagl.
,, leucopteryx, Wagl.
Scolecophagus cyanocephalus, Wagl.
Dives sumichrasti, Sauss.
Chloris kawarahiba, T. and S.
Hedymeles ludovicianus, L.
,, melanocephalus, Sw.
Guiraca concreta, L.
,, cyanea, L.
Oryzoborus torridus, Sw.
Spermophila moreleti, Bp.
,, gutturalis, Licht.
,, luctuosa, Lafr.
,, corvina, Sclat.
Phonipara pusilla, Sw.
Volatinia jacarina, L.
Cardinalis coccineus, Baird
Fringilla montifringilla, L.
Chrysomitris columbiana, Lufr.
,, spinus, L.
Leucosticte brunneinucha, Brandt.
Petronia flavicollis, Frankl.
Passer rutilans, Tem.
Carpodacus erythrinus, Pall.
,, roseus, Pall.
Loxia curvirostra, L.
Pyrrhula rosacea, Secb.
Uragus sanguinolentus, Tem. & Schl.
Emberiza yessoensis, Swinh.
,, rustica, Pall.
,, fucata, Pall.
,, personata, Tem.
,, ciopsis, Bp.
Cyanospiza ciris, L.
,, cyanea, L.
,, amoena, Say.
,, rositae, Lawr.
Pseudochloris aureiventris, Ph. & Lan.
Phrygilus aldunatii, Gray
,, fruticeti, Kittl.
,, alaudinus, Kittl.
Diuca grisea, Less.
Coryphospingus pileatus, New.
Artamus leucogaster, Valenc.
,, superciliosus, Gould
Poliopsar cineraceus, Tem.
Sturnia violacea, Bodd.
Temenuchus pagodarum, Gmel.
Mino dumonti, Less.
Hartlaubius madagascariensis, Bodd.
Pholidauges leucogaster, Gmel.
Aplonis cantoroides, Mull.
Calornis metallica, Tem.
,, chalybea, Horsf.
Lamprotornis caudatus, Mull.
Lamprocolius splendidus, Bonn. and Vieill.
Scissirostrum dubium, Lath.
Penthetriopsis macrura, Gmel.
Pyromelana flammiceps, Sw.
,, franciscana, Isert.
Munia oryzivora, L. (albinos.)
Uroloncha acuticauda, Hodg. (albinos)
Foudia madagascariensis, L.
Nelicurvins nelicourvi, Soun.
Hyphantornis cucullatus, Finsch.
Malimbus malimbicus, Daud.
,, scutatus, Cass.
Alauda liopus, Hodgs.
Pyrrhulauda grisea, Scop.
Taenioptera pyrope, Kittl.
Mecocerculus leucophrys, d'Orb
Sayornis pallida, Sw.
Fluvicola pica, Bodd.
Arundinicola leucocephala, L.
Muscisaxicola macloviana, Garn.
,, flavinucha, Lafr.
,, rubricapilla, Phil.
Centrites niger, Bodd.
Platyrhynchus cancrominus, Rclat.
Todirostrum cinereum, L.
,, schistaceiceps, Sclat.
Oncostoma cinereigulare, Sclat.
Serphophaga parvirostris, Gould
Anaeretes parulus, Kittl.
Cyanotis azarae, Licht.
Mionectus oleaginus, Licht.
Tyrannulus elatus, Lath.
Elainea albiceps, d'orb
Legatus albicolis, Vieill.
Myozetetes texensis, Gir,

Rhynchocyclus cinereiceps, Sclat.
Pitangus derbianus, Sclat.
,, rufipennis, Lafr.
,, maximiliani, Cab.
Myodinastes luteiventris, Bp.
Megarhynchus pitangua, L.
,, mexicana, Sclat.
Myiobius sulphureipygius, Sclat.
,, cinnamomeus, d'Orb
Pyrocephalus mexicanus, Sclat.
Myarchus mexicanus, Kaup.
,, nigricapillus, Ridgw.
Tyrannus pipiri, L.
,, vociferans, Sw.
,, melancholicus, Vieill.
Milvulus tyrannus, L.
Ceratopipra cornuta, Spix.
Cirrhopipra filicauda, Spix.
Masius chrysopterus, Lufi.
Pipra aureola, L.
,, rubricapilla, Briss.
,, mentalis, Sclat.
,, auricapilla, Licht.
,, leucocilla, L.
,, velutina, Berlp.
,, suavissima, Salv.
,, leucorhoa, Sclat.
Machaeropterus striolatus, Bp.
Chiroxiphia pareola, L.
,, lanceolata, Wagl.
,, linearis, Bp.
,, caudata, Shaw.
Chiromachaeris manacus, L.
,, gutturosa, Desm.
,, flaveola, Cuss.
,, candaei, Parz.
Tityra cayana, L.
,, semifasciata, Spix.
Hadrostomus aglaiae, Kaup.
Pachyramphus polychropterus, Vieill.
,, major, Cab.
Lathria cinerea, Vieill.
Lipaugus holerythrus. Selat.
Attila cinereus, Gmel.
Phoenicocercus carnifex, L.
Rupicola peruviana, Lath.
Ampelion areuatus, Lafr.
Pipreola riefferi, Boiss.
Cotinga caerulea, Vieill.
,, cayana, L.
Xipholena pompadora, L.
Heliochera rubricristata, d'Orb
Querula cruenta, Bodd.
,, granadensis, Lafr.
Cephalopterus ornatus, Geoff.
Philepitta jala, Buffon.
Pitta maxima, Mull.
,, granatina, Tem.
Pitta mackloti, Tem.

Eurylaemus ochromelas, Raffl.
Corydon sumatranus, Raffl.
Cymborhynchus macrorhynchus, G.R.
Geositta cunicularia, Vieill.
Cinclodes fuscus, Vieill.
Phloecryptes melanops, Vieill.
Leptasthenura aegithialoides, Kittl.
Synallaxis erythrothorax, Sclat.
Siptornis sordida, Less.
Pseudocolaptes boissoneauti, Lafr.
Automolus cervinigularis, Sclat.
Anabazenops striaticollis, Sclat.
Xenops genibarbis, Ill.
,, rutilus, Licht.
Margarornis perlata, Less.
Glyphorhynchus cuneatus, Licht.
Dendrornis eburneirostris, Less.
,, erythropygia, Sclat.
,, lacrymosa, Lawr.
Xiphocolaptes promeropirhynchus, L.
Picolaptes lacrymiger, Desm.
Xiphorhynchus trochilirostris, Licht,
Dendrocincla turdina, Licht.
Cymbilanius lineatus, Leach.
Thamnophilus melanocrissus, Sclat.
,, major, Vieill.
,, naevius, Gmel.
,, doliatus, L.
,, multistriatus, Lafr.
,, palliatus, Licht.
Myrmotherula surinamensis, Gmel.
,, melaena, Sclat.
Formicivora intermedia, Cab.
,, boucardi, Sclat.
Ramphocaenus rufiventris, Bp.
Cercomacra tyrannina, Sclat.
Pyriglena leucoptera, Vieill.
Pithys albifrons, Gmel.
Grallaria squamigera, Prév.
,, rufula, Lafr.
,, ruficapilla, Lafr.
Conopophaga melanops, Vieill.
Pteroptochus albicollis, Kittl.
Upupa epops, L.
Calypte costae, Bourc.
Selasphorus scintilla, Gould
,, flammula, Salv.
Acestrura mulsanti, Bourc.
,, heliodori, Bourc.
,, decorata, Gould
,, rosae, Bourc.
Tilmatura duponti, Less.
Dorycha enicura, Vieill.
,, bryanthae, Lawr.
Calliphlox roraimae, Boucard
Lophornis ornatus, Bodd.
,, magnificus, Vieill.
,, helenae, Del.
,, stictolophus, Salv.

Lophornis delattrii, Less.
Gouldia popelairii, Dubus.
,, conversi, Bourc.
Cephalolepis delalandii, Vieill.
Bellona cristata, L.
,, superba, Boucard
,, exilis, Gmel.
,, emigrans, Lawr.
Eustephanus fernandensis, King
Oxypogon guerini, Briss.
,, cyanolaemus, Salv.
Eupogonus herrani, Bp.
Lampropogon ruficeps, Gould
Metallura quitensis, Gould
Avocettinus eurypterus, Lodd.
Adelomyia melanogenys, Fras.
Urosticte benjamini, Bourc.
Ramphomicron microrhynchum, Boiss.
Sappho sparganura, Shaw
,, phaon, Gould
Lesbia gouldi, Lodd.
,, gracilis, Gould
,, aequatorialis, Boucard
Cyanolesbia gorgo, Reich
,, meridana, Boucard
,, mocoa, Del.
Thalurania columbiana, Bourc.
,, fanniae, Bourc.
,, furcata, Gmel.
,, nigrofasciata, Gould
Chlorostilbon pucherani, Bourc.
,, angustipennis, Fras.
,, melanorhynchus, Gould
,, assimilis, Lawr.
Prasitis prasina, Less.
Panychlora euchloris, Reich.
,, poortmani, Bourc.
,, stenura, Cab.
Damophila typica, Bp.
Cyanophaia caeruleigularis, Gould
,, goudoti, Bourc.
Chrysuronia aenone, Less.
Polyerata amabilis, Gould
Hylocharis guianensis. Boucard
,, viridiventris, Berlp.
Agyrtria maculicauda, Gould
Uranomitra, franciae, Bourc.
,, whitelyi. Boucard
,, niveipectus, Cab.
Leucochloris albicollis, Vieill.
Aithurus polytmus, L.
Eupherusa eximia, Del.
Polytmus viridissimus, Vieill.
Basilinna leucotis, Vieill.
Eucephala grayi, Del.
Chlorestes caerulea, Vieill.
Saucerottia erythronota, Less.
,, hoffmanni, Cab.
,, cyanifrons, Bourc.
Amazilia fuscicaudata, Fras.
,, viridigaster, Bourc.
,, cupreicauda, Salv.
,, mariae, Bourc.
Clytolaema rubinea, Gmel.
,, rubinoides, Bourc.
,, aequatorialis, Gould
Panoplites flavescens, Lodd.
,, matthewsi, Bourc.
Topaza pella, L.
Lamprolaema rhami, Less.
Delattria viridipallens, Bourc.
Oreopyra leucaspis, Gould
,, calolaema, Salv.
Warszewiezia viola, Gould
Heliotrypha exortis, Fras.
Heliangelus clarissae, Long
,, strophianus, Gould
Aglaeactis cupripennis, Bourc.
,, pamela, d'Orb
Lafresnaya flavicaudata, Fras.
Engyete alinae, Bourc.
Spathura underwoodi, Less.
Threptria aureliae, Bourc.
Eriocnemis vestita, Long.
,, cupreiventris, Fras.
,, luciani, Bourc.
Diphlogaena hesperus, Gould
Helianthea eos, Gould
Hypochrysia bonapartii, Boiss.
,, helianthea, Less.
Homophania torquata, Boiss.
,, fulgidigula, Gould
,, conradi, Bourc.
Bourcieria prunellii, Bourc.
,, wilsoni, Del.
Leadbeatera grata, Bp.
Heliodoxa henrici, Lawr.
Lepidolarynx mesoleucus, Temc.
Floricola longirostris, Vieill.
,, pallidiceps, Gould
Hemistephania ludoviciae, Bourc.
,, johannae, Bourc.
Schistes geoffroyi, Bourc.
Heliothrix auritus, Gmel.
Petasophora cyanotis, Bourc.
,, thalassina, Sw.
,, anais, Less.
,, delphinae, Less.
Hypuroptila buffoni, Less.
,, caeruleiventris, Reich.
Lampornis mango, L.
,, gramineus, Gmel.
,, nigricollis, Vieill.
,, prevosti, Less.
Eulampis jugularis, L.
Sericotes holosericeus, L.
,, chlorolaemus, Gould
Florisuga mellivora, L.

Oreotrochilus chimborazo, Del.
,, pichinchae, Bourc.
Eupetomena macroura, Gmel.
Phaeochroa cuvieri, Del.
Campylopterus hemileucurus, Licht.
Saepiopterus lazulus, Vieill.
Glaucis hirsuta, Gmel.
,, aenea, Lawr.
Eutoxeres aquila, Bourc.
Threnetes cervinicauda, Gould
Phaethornis superciliosus, Less.
,, longirostris, Less.
,, guianensis, Boucard
,, anthophilus, Bourc.
Anisoterus augusti, Bourc.
Chaetura caudacuta, Lath.
Attelornis pittoides, Lafr.
Coracias indicus, L.
,, garrulus, L.
,, abyssinicus, Bodd.
,, caudatus, L.
Eurystomus glaucurus, Gray
,, australis, Sw.
Merops apiaster, L.
,, superciliosus, L.
,, philippinus, L.
,, ornatus, Lath.
,, albicollis, Vieill.
,, viridis, L.
Nycthiornis athertoni, Jard.
Ceryle maxima, Pall.
,, alcyon, L.
,, americana, Gmel.
Alcedo bengalensis, Gmel.
,, ispida, L.
Syma torotoro, Less.
Carcineutes pulchellus, Horsf.
Sauromarptis gaudichaudi, Quoy.
Halcyon smyrnensis, Less.
,, pileatus, Bodd.
,, senegalensis, L.
,, saurophagus, Gould
,, diops, Tem.
,, macleayi, Jard.
,, sanctus, Vig.
,, vagans, Less.
,, chloris, Bodd.
Tanysiptera margaritae, Hein.
,, galatea, Gray
Eumomota superciliaris, San.
Momotus momota, L.
,, subrufescens, Sclat.
,, lessoni, Less.
,, mexicanus, Sw.
Hylomanes momotula, Licht.
Rhytidoceros plicatus, Forst.
Pharomacrus mocinae, la Llave
,, costaricensis, Cab.
,, antisianus, d'Orb
Pharomacrus auriceps, Hartl.
Prionotelus temnurus, Tem.
Trogon personatus, Gould
,, collarts, Vieill.
,, puella, Gould
,, variegatus, Spix.
,, viridis, Briss.
,, caligatus, Gould
,, atricollis, Vieill.
,, tenellus, Cob.
,, melanocephalus, Gould
,, melanurus, Sw.
,, massena, Gould
,, clathratus. Salv.
Colaptes mexicanus, Sw.
Gecinus awokera, Tem.
,, occipitalis, Vig.
Chloronerpes yucatanensis. Cabot
Melanerpes flavifrons, Vieill.
,, pucherani, Malh.
Dendrocopus cissa, Pall.
,, japonicus, Blak.
,, subcirris, Stej.
Melanobucco vieilloti, Leuch
Gymnobucco calvus, Lafr.
Megalaema marshalorum, Swinh.
Chotorhea versicolor, Raffl.
Cyanops asiatica, Latt.
Mesobuco duvauceli, Less.
Xantholoema haematocephala, Mull.
Capito maculicoronatus. Lawr.
,, richardsoni, Gray
,, granadensis, Shelley
Ramphastos vitellinus, Licht.
Pteroglossus wiedi, Sturm
,, pluricinctus, Gould
,, torquatus, Gmel.
Aulacoramphus prasinus, Licht.
,, albivittatus, Boiss.
,, caeruleigularis, Gould
Galbula ruficauda, Cab.
,, chalcocephala, Deville
,, chalcothorax, Sclat.
Jacamerops grandis, Gmel.
Bucco tamatia, Gmel.
,, radiatus, Sclat.
Coccystes coromandus, L.
,. jacobinus, Bodd.
Cacomatis flabelliformis, Lath.
Chalcococcyx basalis, Horsf.
Eudynamis honorata, L.
,, cyanocephala, Lath.
,, melanorhyncha, Mull.
Centropus menebiki, Less.
,, sinensis, Steph.
,, javanicus, Dup.
,, celebensis, Quoy.
Piaya cayana, L.
Rhinorthia chlorophae, Raffl.

Ramphococeyx calorhynchus, Tem.
Urococcyx erythrognathus, Hartt.
Ceutmochares flavirostris, Sw.
Coua caerulea, L.
Crotophaga major, Gmel.
,, ani, L.
Turacus persa, L.
Musophaga violacea, Isert.
Nestor notabilis, Gould
,, meridionalis, Gmel.
Chalcopsittacus scintillatus, Tem.
Trichoglossus cyanogrammus, Wagl.
,, massena, Bp.
,, novoe hollandioe, Gmel.
,, ornatus, L.
Psitteuteles meyeri, Wald.
Glossopsittacus concinnus, Shaw
,, pusillus, Shaw
Charmosynopsis pulchella, G. R. Gr.
Cyclopsittacus desmaresti, Germ.
Cacatua leadbeateri, Vig.
Ara macavuana, Gmel.
Conurus solstitialis, L.
,, nenday, Wagl.
,, aztec, Souan.
,, aeruginosus, L.
,, ocularis, Sclat.
,, pertinax, L.
Pyrrhura picta, Mull.
,, luciani, Dev.
,, egregia, Sclat.
Psittacula conspicillata, Laf.
,, passerina, L.
Brotogerys jugularis, Mull.
,, chrysopterus, L.
Chrysotis albifrons, Sparm.
Pionus menstruus, L.
,, fuscus, Mull.
Pionopsittacus coccineicollis, Lawr.
Poeocephalus versteri, Goff.
Dasyptilus pecqueti, Less.
Eclectus pectoralis, Salv.
Geoffroyus rhodops, G. R. Gr.
Prioniturus flavicans, Cass.
Tanygnathus muelleri, Tem.
Paleornis cyanocephala, Briss.
Polytelis melanura, Vig.
Loriculus exilis, Schl.
,, stigmatus, Mull.
Barnardius barnardi, Lath.
Nanodes discolor, Shaw
Stringops habroptilus, G. R. Gr.
,, greyi, G. R. Gr.
Vinago australis, L.
,, calva, Tem.
,, delalandii, Bp.
Osmotreron vernans, L.
,, olax, Tem.
Ptilopus swainsoni, Gould
Alectraenas spanzini, Verr.
Megaloprepria magnifica, Tem.
Carpophaga pinon, Quoy.
Lopholaemus antarcticus, Shaw
Columba livia, Boun.
,, rufina, Tem.
,, nigrirostris, Sclat.
Macropygia doreya, Bp.
Reinwardthœnas reinwardti, Tem.
Zenaida auriculata, Desm.
Melopelia leucoptera, L.
Turtur orientalis, Lath.
,, tigrinus, Tem.
Chamaepelia rufipennis, G. R. Gr.
Chalcopelia afra, L.
,, stephani, Reich.
Leptotila plumbeiceps, Sclat.
,, cerviniventris, Sclat.
Geotrygon montana, L.
,, lawrencii, Salv.
Leucosarcia picata, Lath.
Otidiphaps nobilis, Gould
Goura victoriae, Fraser
Caccabis petrosa, Gmel.
Ithagenes cruentus, Hardw.
Lophophorus refulgens, Tem.
Lophura ignita, Shaw
Phasianus versicolor, Vieill.
Gallus gallus, L.
Argusianus grayi, Elliot
Meleagris ocellata, Cuv.
Lophortyx californicus, Shaw.
Eupsychortyx nigrogularis, Gould
Megapodius forsteni, Term.
,, jobiensis, Schl.
,, duperreyi, Less.
Talegalus cuvieri, Tem.
,, jobiensis, Meyer
Ortalis vetula, Wagl.
Rallus indicus, Blyth.
Hypotaenidia philipensis, L.
Tetrax tetrax, L.
Vanellus cristatus, Merz.
Aegialitis nigrifrons, Cuv.
Aegialophilus cantianus, Lath.
Glareola pratincola, L.
Thinocorus rumicivorus, Esch.
Cinclus intrepres, L.
Rhyacophilus glareola, L.
Gambetta calidris, L.
Glottis glottis, L.
Tringoides hypoleucus, L.
Schoeniclus cinclus, L.
Ancylocheilus subarquatus, Gould
Spilura japonica, Bp.
Rhynchaea chinensis, Bodd.
Phaeopus variegatus, Scop.
Nettapus auritus, Bodd.
Radjah radjah, Garn.

And a lot of other species.

NEW SPECIES OF BIRDS AND INSECTS

Described in Vol. V. of The Humming Bird.

AVES.—Trochili.

Polyerata rosenbergi, Boucard, Gen. H. Bird, page 399.

Glaucis columbiana, Boucard, Gen. H. Bird ... „ 402.

INSECTA.—Coleoptera, Rutelidae.

Plusiotis hogei, Boucard, Hum. Bird ... ... page 3.

CONTENTS OF VOLUME V.

	PAGE
Important Notice	3
Honorific Distinctions	3
Boucard's Ornithological Collection	4
Description of a supposed new species of Plusiotis from Mexico	4
List of Humming Birds collected at Cali and Rio Dagua, Columbia, by W. H. Rosenberg	5
Protection of Birds	8
Nicaragua and Panama Canals Prospects	9

OBITUARY.

Grut, Ferdinand	10
Westwood, John Obadiah	11
Emin Pasha...	12
Bigot, J. T. M.	12
Pascoe, Francis Polkinghorne	12
Hagen, Herman August	13
Whitely, Henry	14
Carnot, Marie François Sadi	14
Lawrence, George Newbold	15
Davison, William Ruxton	16
Hargitt, Edward	16
Pasteur	17
Seebohm, Henry	18

PAGE

Genera of Birds wanted by Mr. A. Boucard 19-24

List of Duplicate Bird Skins for Exchange 25-30

Genera of Humming Birds ... ... 203 to end.

Including the following Families:

HELIANGELIDAE 207

HELIANTHEIDAE 263

HELIODOXIDAE 282

FLORICOLIDAE 298

HEMISTEPHANIDAE 305

PETASOPHORIDAE 309

LAMPORNIDAE 322

OREOTROCHILIDAE... 343

CAMPYLOPTERIDAE... 349

PHAETHORNIIDAE 361

Systematic Index of Genera ... ... vii.-xiv.

Errata 403

Alphabetical Index of Genera 404

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A QUARTERLY

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Pachynus
Geopsittacus

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Erythrobucco
Smilorhis
Stactolaema

BUCCONIDAE.
Micromonacha
Hapaloptila

CUCULIDAE.
Pachycoccyx
Cercococcyx
Mesocalius
Microdynamis
Ramphomantis
Hyetornis
Rhynococcys
Dryococcyx
Neomorphus

MUSOPHAGIDAE.
Gymnoschizorhis

TROGONIDAE.
Euptilotis

ALCEDINIDAE.
Ceycopsis
Myioceyx

MEROPIDAE.
Dicrocercus.

BUCEROTIDAE.
Bucorax
Dichoceros
Aceros
Anorrhinus
Berenicornis
Rhinoplax

PICIDAE.
Geocolaptes
Xenopicus
Dendrocoptes
Thripias
Sapheopipo
Verreauxia

COTINGIDAE.
Chirocylla
Doliornis
Haematoderus

PITTIDAE.
Authocincla
Coracopitta

Hemithylaca niveiventris, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 37.

Erythronota niveiventris, Gould, Mon. Troch., 1861, vol. v., p. 319.

Leucodora niveiventris, Muls., Hist. Nat. Ois. Mou., 1876, t. i., p. 313.

White-breasted Erythronote, Gould, Mon. Troch., vol. v. p. 319.

Le Leucodore à ventre d'un blanc de neige, Muls., Hist. Nat, Ois. Mou, 1874, t. i., p. 314.

Habitat.—Veragua, Panama.

Male.—Exactly like the preceding species, from which it differs by the colour of its tail, which is purplish-black, and the undertail-coverts brownish-bronze, margined with white.

Total length, $3\frac{3}{8}$in. Wing, $2\frac{1}{8}$. Tail, $1\frac{1}{2}$. Culmen, $\frac{6}{8}$.

This species was discovered in Panama by M. Seemann.

292. AMAZILIA CUPREICAUDA, Salv. and Godm., Ibis., 1884, p. 452.

Copper-tailed Amazili, Gould, Mon. Troch., Suppl. 1886, p. 88.

l'Amazili à queue bronzée

Habitat.—Roraima, B. Guiana.

Male.—Top of head brilliant metallic green. Upperside bronzy-green, passing to coppery-red on rump and uppertail-coverts. Median and lateral rectrices, dark cinnamon with purple tips, outermost one cinnamon with reddish-bronze tip. Underside brilliant metallic green. A patch on flanks and thighs white. Undertail-coverts cinnamon. Wings purplish. Maxilla black. Mandible flesh colour with black tip.

Total length, $3\frac{5}{8}$in. Wing, $2\frac{1}{8}$. Tail, $1\frac{2}{8}$. Culmen, $\frac{11}{16}$.

Female.—Similar to the male, but less brilliant and slightly smaller. Centre of abdomen dusky-brown. Median and lateral rectrices tipped with bronze.

This species was discovered in British Guiana by the well-known collector, Mr. H. Whitely.

293. AMAZILIA BERYLLINA, Licht. Preiz. Verz. Thier., 1830, No. 26.

Ornismya arsinoe, Lesson, Suppl. Ois. Mou., 1829, pp. 154-156.

Polytmus arsinoe, Gray, Gen. Birds, vol. i., p. 109.

Amazilius arsinoe, Bon., Consp. Gen. Av., 1850, vol. i., p. 77.

Pyrrhophaena berylinna, Cab. and Hein, Mus. Hein, 1860, t. iii., p. 36.

Berylline Amazili, Gould, Mon. Troch., vol. v., p. 312.

Le Pyrrophène d'Arsinoé, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 304.

Habitat.—Mexico.

Male.—Upperside shining green, golden in certain lights. Rump and uppertail-coverts bronzy-violet. Median rectrices purplish-bronze, laterals chestnut-red with purplish-bronze reflections, outermost chestnut. Throat, breast and flanks metallic green with golden reflections. A patch of white feathers on sides of flanks. Lower part of abdomen fawn in very adult males, in others reddish-gray. Undertail-coverts rufous margined with white. Primaries and secondaries chestnut at base, remainder purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, $3\frac{6}{8}$in. Wing $2\frac{1}{8}$. Tail, $1\frac{3}{4}$. Culmen, $\frac{6}{8}$.

Female.—Exactly like the male, but less bright on throat and breast, and more reddish-gray on abdomen and flanks.

I collected many specimens of this species in Mexico.

*294. AMAZILIA, OCAI, Gould, Ann. Mag. Nat. Hist., 1859, vol. iv., p. 96.

Pyrrhophena ocai, Cab. and Hein., Mus. Hein., 1860 t., iii., p. 36.

Hemistilbon ocai, Gould, Int. Troch., 1861, p. 150.

D'Oca's Amazili, Gould, Mon. Troch., vol. 5, p. 289.

Le Pyrrophène d'Oca, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 302.

Habitat. Jalapa, Mexico.

Male.—Crown, sides of the head, throat, and breast glittering grass-green, with a few of the white bases of the

feathers showing on the centre of the throat; back of the neck, and upper part of the back deep green; upper and under wing-coverts, flanks, lower part of the back, uppertail-coverts, and tail greenish-bronze; under surface of the base of the outer tail-feathers, reddish-buff; wings, purplish-brown; base of the secondaries, reddish-buff; abdomen, pale brown; undertail-coverts, light bronze margined with white; bill black, lighter beneath; feet brown (Gould, Mon. Troch).

Total length, 4in. Wing, 2. Tail, $1\frac{1}{2}$. Culmen, $\frac{11}{16}$.

This very rare species was discovered near Jalapa, by the Mexican Naturalist, Mr. Montes de Oca. It was dedicated to him, by Gould.

295. AMAZILIA SUMICHRASTI, Salv., Ann and Mag. Nat. Hist., 1891, p. 376.

Sumichrast's Amazili.

l'Amazili de Sumichrast.

Habitat.—Tehuantepec, S. Mexico.

Male.—Upper surface shining grass-green, darker on the head, more golden-bronze on the rump and upper tail-coverts; throat and breast glittering grass-green, the white bases of the feathers hardly showing anywhere; abdomen and flanks shining grass-green; undertail-coverts rufous; tail rich lustrous coppery-bronze; bases of the inner primaries and secondaries chestnut; maxilla black; mandible flesh colour, the tip black.

Total length, 3-8in. Wing, 2-1. Tail, 1-2. Bill, 0-9.

In some respects, this species resembles to *A. ocai,* but the richer, more coppery colour of the tail, the dull coloured crown and uniform green throat readily distinguish it.

Type in British Museum "Ex. Coll. Godman and Salvin."

This species was discovered in Mexico, by my late friend, Sumichrast.

296. AMAZILIA MARIAE, Bourc., Ann. Soc. Agr. Lyon., 1846, t. ix., p. 319.

Trochilus devillei, Bourc., Rev. Zool., 1848, p. 272

Hylocharis mariae, Bon., Consp. Gen. Av., 1850, vol. i., p. 74.

Smaragdites mariae, Reich., Aufz. der Col., 1855, p. 7.

Saucerottia maria, Bon., Rev. and Mag. Zool., 1854, p. 255.

Chlorestes, mariae, Reich., Troch. Enum., 1865, p. 4.

Panychlora mariae, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 49.

Amazilia dumerili, Salv., Ibis., 1860, p. 270.

Eranna devillei, Heine, Journ. fur Ornith., 1863, p. 188.

Deville's Amazili, Gould, Mon. Troch., vol. v., p. 313.

Le Pyrrhophène de Deville, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 306.

Habitat.—Guatemala.

Male.—Head metallic green. Neck and back dark shining green. Lower part of back and rump reddish-bronze. Upper-tail coverts dark bluish-purple. Tail brilliant red-purple, with bluish-purple tips and margins on all the feathers. Underside brilliant metallic green. Tuft of white between flanks and rump. Tibiae enveloped in white down feathers. Under-tail-coverts rufous with grayish edges. The base of the primaries and secondaries, both above and beneath, chestnut-red, rest purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, $3\frac{1}{8}$in. Wing, $2\frac{2}{8}$. Tail, $1\frac{1}{2}$. Culmen, $\frac{6}{8}$.

Female.—Exactly like the male, but not so brightly coloured, lateral rectrices chestnut-purple, with a slight gray margin on tips, undertail-coverts, pale brown edged with white.

This species was discovered in Guatemala, by Delattre.

*297. AMAZILIA CYANURA, Gould, Mon. Troch, 1850, vol. v., p. 315.

Hemithylaca cyanura, Cab. and Hein, Mus. Hein, 1860, t. iii., p. 38.

Pyrrhophaena cyanura, Gould, Int. Troch., 1861, p. 60.

Blue-tailed Amazili, Gould, Mon. Troch., vol. 5, p. 315.

Le Pyrrhophène cyanure, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 308.

Habitat.—Guatemala, Nicaragua.

Male.—The only difference between this species and *A mariae*, consists in the colour of the tail and upper and under-

tail-coverts which are dark steel blue, the under-coverts fringed with gray.

Total length, $3\frac{1}{2}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{1}{4}$. Bill, $\frac{7}{8}$.

The type of this species is in the British Museum.

FAMILY IX. HELIANGELIDAE,

OR FAMILY OF SUN-ANGEL HUMMING BIRDS.

Size from small in the genus *Steganura* to large in the genera *Panoplites, Clytolaema,* and *Topaza*. Bill of medium size, curved or straight, excepting in the genus *Lafresnaya,* in which it is long. Sheath of both maxilla and mandible smooth. Nasal covers partly exposed. Wings long and narrow, reaching nearly the end of tail. Outermost primary in the genera *Lafresnaya* and *Aglaeactis* very narrow. Tail more or less forked. In the genera *Erebenna, Aglaeactis,* and *Lafresnaya* the outermost rectrices are acutely pointed and curving inwardly. In *Steganura* they are long and ending with spatules. Tibiae more or less clothed, as in many of the species of the preceding family. In many species the tibiae are so enveloped with downy feathers that I was inclined to make a special family of them; but after careful consideration, I have come to the conclusion that it was better not to do so. Throat usually brilliant. Sexes usually unlike but not always.

TYPE: *Heliangelus,* Gould, Int. Troch., 1861, p. 132.

Range—Mexico to Bolivia and South Brasilia.

GENUS LXXXIII. **Margarochrysis,** Reich., Aufz der, Colib, 1854, p. 11.

POLYPLANETA, Heine, Journ. fur Ornith., 1863, p. 182.

TYPE: *T. aurescens,* Gould.

Bill short, stout and straight, slightly longer than the head. Nostrils covered by frontal plumes. Wings long, narrow and pointed, reaching nearly the end of tail. Tail short, slightly forked. Rectrices narrow. Median shortest, the next one slightly longer, the rest slightly longer than the last one, and of the same length. Tarsi partly clothed. Sexes unlike in colouration of plumage.

Habitat—Ecuador, Peru, and Bolivia.

298. MARGAROCHRYSIS AURESCENS, Gould, P.Z.S., 1846, p. 88.

Polytmus aurescens, Gray, Gen. Birds, vol. i., p. 108.

Lampornis aurescens, Bon. Consp. Gen. Av., 1850, vol. i., p. 72.

Campylopterus aurescens, Bon. Rev. and Mag, Zool., 1854, p. 250.

Clytolaema aurescens, Gould, Mon. Troch., vol. iv., p. 250.

Banded Ruby, Gould, Mon. Troch, vol. iv., p. 250.

Le Clytolème à bande bleue sur le front, Muls. Hist. Nat., Ois. Mou. 1876, t. ii., p. 225.

Habitat.—Ecuador, Peru, and Bolivia.

Male.—Forehead metallic greenish-blue, terminating in a point on the crown. Upperside dark green passing to shining green on the rump and undertail-coverts. Median rectrices bronze-green, laterals chestnut-red tipped and margined with bronze-green. Chin black. Throat glittering green, golden on the sides. Breast deep rufous. Abdomen, flanks, and undertail coverts dark green, golden in some specimens. Vent grayish-white. Wings purple. Bill black.

Total length, 4½in. Wing, 2½. Tail, 1½. Culmen, $\frac{6}{8}$.

Female.—Upperside dark shining green. Median rectrices bronze-green, laterals chestnut tipped and margined with bronze-green, outermost ones chestnut, pale at tips. Chin brownish-black. Throat metallic golden-green. Breast rufous. Flanks and abdomen golden-green. Vent grayish-white. Wings purplish-brown. Bill black.

Total length, 4$\frac{3}{8}$in. Wing, 2$\frac{3}{8}$. Tail, 1½. Culmen, $\frac{6}{8}$.

Type of female in my collection.

I have specimens of both sexes of this extremely rare species from Pebas. They were collected by Mr. Hauxwell. I have also two male specimens collected by Buckley, in Ecuador and in Bolivia.

It is a genus quite distinct from *Clytolaema*.

GENUS LXXXIV. **Clytolaema,** Gould, Int. Troch., p. 134.

HELIODOXA, Reich., Aufz. der Colib, 1853, p. 9.

PHAIOLAIMA, Reich., Aufz. der Colib, 1853, p. 9.

PHAEOLEMA, Gould, Mon. Troch., 1858, t. iv., pl. 268.

TYPE: *T. rubineus,* Gmelin.

Bill stout, straight, longer than the head. Nostrils covered by frontal plumes. Wings long, pointed, reaching the end of tail. Tail slightly forked, median rectrices shorter, laterals very slightly and gradually longer. Tarsi partly clothed. Hind toe and nail shorter than fore toe and nail. Sexes unlike. I have united the Genus PHAIOLAIMA to CLYTOLAEMA being unable to see any difference between them.

Habitat.—Brazil, Columbia, Ecuador.

299. CLYTOLAEMA RUBINEA, Gmel. Syst. Nat., 1788, vol. i., p. 493.

Trochilus obscurns, Gmel. Syst. Nat., 1778, p. 495.

Trochilus ruficaudatus, Vieill. Nouv. Dict. vol. xxiii., p. 422.

Ornismya rubinea, Less. Ois. Mouch., 1829, p. 146.

Mellisuga rubinea, Gray, Gen. Birds, vol. i., p. 112.

Heliomaster rubineus, Vieill. Ois. Dorés., pl. 27.

Heliodoxa rubinea, Reich., Aufz. der Colib, 1853, p. 9.

Calothorax rubineus, Burm. Th. Bras., 1856, vol. ii., p. 340.

Brazilian Ruby, Gould, Mon. Troch., vol. iv., p. 249.

le Clytolème rubis-émeraude, Muls., Hist. Nat., Ois. Mou., 1876, t. ii., p. 228.

Habitat.—Brazil.

Male.—Forehead brilliant metallic green, terminating in a point on the crown. Rest of crown and nape bronze-green. Rest of upperside reddish-golden. Median rectrices bronze with a line of rufous along the shaft of external web, terminating gradually before reaching the tips. Laterals deep chestnut tipped and margined on external webs with blackish bronze-green. Throat metallic ruby-red appearing black on chin in certain lights. Spot behind the eye white. Breast and sides of neck shining metallic emerald-green. Abdomen and flanks dull golden-green, showing the gray base of feathers. Undertail-coverts golden-green edged with rufous. Wings purplish-brown, base of inner webs of secondaries rufous. Bill black.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{7}{8}$. Tail, 2. Culmen, $\frac{6}{8}$.

Female.—Upperside golden-green. Underside rufous, paler on throat. Flanks and sides of breast sparingly washed with golden-green. Lateral rectrices paler chestnut than in male, with tips pale buff. Rest of plumage like the male.

This species is common in Brazil.

Type of *Heliomaster rubineus,* Vieillot, in my Collection.

300. CLYTOLAEMA RUBINOIDES, Bourc. and Muls., Ann. Soc. Agri. Lyon., 1846, p. 322.

Mellisuga rubinoides, Gray, Gen. Birds, vol. i., p. 112.

Heliomaster rubinoides, Bon. Consp. Gen Av., 1850, p. 70.

Phaiolaima rubinoides, Reich., Aufz. der Colib., 1853, p. 9.

Heliodoxa rubinoides, Reich., Troch. Enum., 1855, p. 6.

Phaeolaema granadensis, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 30.

Lilac Throat, Gould, Mon. Troch., vol. iv., p. 268.

le Phaeolème rubinoide, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 222.

Habitat.—Columbia.

Male.—Head dark grass-green, with the front and a line in the centre of the crown brilliant metallic green. Upperside dark green. Uppertail-coverts bronze, coppery in some specimens. Tail bronzy-green. Shafts of rectrices reddish-orange. Chin and sides of neck shining green. Spot behind the eye white. Centre of throat metallic purple. Underside dark buff glossed with green on sides of breast and flanks. Undertail-coverts pale green, margined with buff. Base of inner web of secondaries and outer web of first primary rufous. Bill black.

Total length, $4\frac{5}{8}$in. Wing, $2\frac{7}{8}$. Tail, 2. Culmen, $1\frac{3}{8}$.

Female.—Differs from the male by its throat, gray minutely and profusely spotted with green, and a minute pale buff spot on tips of lateral rectrices. It is also slightly smaller.

This species is common in Columbia.

301. CLYTOLAEMA AEQUATORIALIS, Gould, Mon. Troch, 1860, vol. iv., p. 269.

Phaeolema rubinoides, Selater, P.Z.S., 1859, p. 145.

Equatorial Lilac-throat, Gould, Mon. Troch., vol. 4, p 269.

le Phaeolème de l'Equateur, Muls., Hist. Nat. Ois. Mou., 1876, t. 2, p. 223.

Habitat.—Ecuador.

Male.—Very closely allied to the preceding species, but larger. It has no metallic feathers on the crown of the head, which is dark green. The metallic spot of throat is of a rose colour, between purple and ruby.

Total length, 5in. Wing, $2\frac{7}{8}$. Tail, 2. Culmen, $1\frac{3}{8}$.

Female.—Like the male, excepting the throat, which is pale rufous, spotted with green.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{7}{8}$.

My specimens were collected in Ecuador, by Buckley.

*302. CLYTOLAEMA CERVINIGULARIS, Salv,. Ann. Mag. Nat. Hist., 1891, p. 377.

Phaeolema cervinigularis, Salv., Ann., Mag. Nat. Hist., 1891, p. 377.

Rosy-throat.

le Phaeolème à gorge rose.

Habitat.—Ecuador ?

Male.—Similar to *O. rubinoides*, as to the colour of the crown, which has a central glittering green stripe. In size, it equals *O. aequatorialis*, but differs from that species in the colour of the crown, and from both, in having the chin pale chestnut, like the sides of the throat, with hardly a trace of green.

Total length, 5in. Wing, 2-9. Tail, 2. Bill, 1-3.

Only two specimens are known, one "Ex Gould Coll.," and the other, from Mess. Godman and Salvin Museum, both now in the British Museum.

GENUS LXXXV. **Panoplites**, Gould, Mon. Troch., 1854, pt. 8.

BOISSONEAUA, Reich., Aufz des Col., 1854, p. 11 (descr nulla).

GALENIA, Muls. and Verr., Class. Troch., 1865, p. 47.

CALLIDICE, Muls. and Verr., Class. Troch., 1865, p. 65.

ALOSIA, Muls., Ann. Soc. Lynn. Lyon., 1875, vol. xxii., p. 213.

TYPE: *P. flavescens,* Loddiges.

Bill stout, straight, slightly longer than the head. Nostrils exposed. Wings long, pointed, reaching the end of tail. Tail forked, rectrices wide, the middle ones shorter, lateral and outermost ones gradually longer. Size large. Tarsi clothed. Sexes similar in plumage.

Range.—Venezuela, Columbia, Ecuador, and Peru.

303. PANOPLITES FLAVESCENS, Lodd, P.Z.S., 1832, p. 7.

Ornismya paradisea, Boiss, Rev. Zool., 1840, p. 6.

Mellisuga flavescens, Gray, Gen., Birds, vol. i., p. 112.

Amazilia flavescens, Bon. Consp. Gen. Av., 1850, vol. 1, p. 78.

Boissonneaua flavescens, Reich., Troch., Enum., p. 8.

Panoplites flavescens, Gould, Mon. Troch., vol. ii., p. 111.

Yellow-fronted Panoplites, Gould, Mon. Troch., vol. ii., p. 111.

le Panoplite flavescent, Muls., Hist. Nat. Ois. Mou., 1876, t. ii, p. 335.

Habitat.—Venezuela, Colombia, and Ecuador.

Male.—Crown of head and throat brilliant golden-green. Upperside shining dark green. Uppertail-coverts purplish-bronze. Median rectrices greenish-bronze. Laterals light buff, margined and tipped with greenish-bronze. Sides of throat and breast dark green, appearing black in certain lights. Flanks and abdomen green, edged with grayish buff. Vent and line on sides of flanks white. Undertail-coverts pale buff with light green in centre. Base of secondaries, outer web of first primary, and underwing-coverts chestnut. Wings purple-brown. Bill black.

Total length, 4½in. Wing, 3. Tail, 2⅛. Culmen, ⅝.

Female.—Like the male without the bright metallic colour of head and throat, which are dark green.

I have specimens of this species from Columbia, Ecuador and Merida, "Venezuela."

304. PANOPLITES MATTHEWSI, Bourc., P.Z.S., 1847, p. 43.

Mellisuga matthewsi, Gray, Gen. Birds, vol. i., p. 112.

Heliodoxa matthewsi, Reich., Aufz. der Col., 1853, p. 9.

Boissonneaua matthewsi, Reich., Troch. Enum., 1855, p. 8.

Panoplites matthewsi, Gould, Mon. Troch., vol. ii., p. 112.

Matthew's Panoplites, Gould, Mon. Troch., vol. ii., p. 112.

le Clytolème de Matthews, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 231.

Habitat.—Ecuador, Peru.

Male.—Head and throat brilliant metallic golden-green. Upperside dark golden-green, coppery-bronze on lower part of uppertail-coverts. Median rectrices greenish-bronze. Laterals cinnamon, tipped with greenish-bronze. Spot behind the eye buff. Underside deep chestnut-red, washed with golden-green feathers on flanks. Anal region white. Thighs and undertail-coverts buff. Wings purplish-brown; base of inner webs of secondaries, and web of first primary chestnut-red. Bill black.

Total length, 4½in. Wing, 2⅞. Tail, 2. Culmen, ⅝.

This rare species was dedicated by Loddiges to his traveller, Mr. Matthews, who died of fever in South America.

305. PANOPLITES JARDINEI, Bourc., Compt. Rend., 1851, t. xxii., p. 187.

Florisuga jardinei, Reich., Aufz. der Colib., 1853, p. 14.

Panoplites jardinei, Gould, Mon. Troch., vol. ii., p. 110.

Jardine's Panoplites, Gould, Mon. Troch., vol. ii., p. 110.

le Panoplite de Jardine, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 334.

Habitat.—Ecuador.

Male.—Crown of head brilliant metallic dark blue with purplish reflections. Rest of head and neck velvety-black. Rest of upperside brilliant metallic bluish-green. Uppertail-coverts and median rectrices purple-bronze. Laterals white, margined and tipped with purplish-bronze. Chin very dark blue. Throat and sides of neck velvety-black. Breast and abdomen dark brilliant metallic purple-blue. Sides of breast and flanks glittering green. Undertail-coverts purplish-black edged with grayish-white. Upper wing-coverts shining golden-green. Wings purplish-brown, inner webs of secondaries, outer web of first primary, and under wing-coverts chestnut. Bill black.

Total length, 4⅝in. Wing, 3. Tail, 2. Culmen, ⅝.

This splendid species was discovered in Ecuador by Bourcier, who dedicated it to Sir William Jardine, the celebrated Ornithologist. My specimens were collected in Ecuador, by Buckley.

GENUS LXXXVI. **Topaza,** Gray, List. Gen. Birds, 1840, p. 13.

POLYTMUS, Boié. Isis., 1831, p. 545.

LAMPORNIS, Reich., Syst. Av. Nat., 1849, t. xxxix.

TYPE: *T. pella,* Linné.

Bill stout, curved and acutely pointed, longer than the head. Wings long reaching the tips of lateral rectrices. Tail pointed. Median rectrices of the same length as outermost ones. Feather next to the middle one, narrow and elongated, twice as long as the longest lateral, and crossing each other at the tips of the other rectrices, the two next to the outermost, slightly and gradually longer than the middle and outermost ones. Tarsi bare. Feet large. Sexes unlike.

Habitat.—Guiana and Rio Negro on the Amazon.

306. TOPAZA PELLA, L., Syst. Nat., 1766, vol. i, p. 189.

Trochilus paradiseus, L., Syst. Nat., 1766, vol. i, p. 189.

Falcinellus gutture viridi, Klein., Aves, N. xv., p. 103.

Polytmus surinamensis, Briss. Orn., t. iii., p. 690.

Certhia surinamensis, Spal., Vog., t. i., p. 13.

De Topaz Kehlige Kolibri, Schmid., Vog., t. xlviii., p. 61.

Colibri à longue queue de Cayenne, Buff, Hist. Nat. Ois., t. vi., p. 46.

Lampornis pella, Jard, Nat. Libr. Hum. Birds, vol. ii., p. 155.

Topaz Humming Bird, Shaw, Zool., Misc., pl. 513.

Crimson Topaz, Gould, Mon. Troch., vol. ii., p. 66.

Le Colibri-topaze, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 124.

Habitat.—Guiana.

Male.—Head, lores, and a broad line encircling the throat jet-black. Upperside shining purple-red, changing to orange-red on rump. Uppertail-coverts shining gold. Median

rectrices shining gold, greenish at tips, next one on each side, dark purple passing to brownish-black on the elongated parts, the other three, including outermost one, reddish-buff. Throat glittering metallic gold with topaz hue in the centre. Lower part of throat, abdomen, and flanks metallic crimson. Wings dark purple; inner primaries, excepting the tips and the secondaries, cinnamon. Bill black.

Total length, $7\frac{2}{8}$in. Wing, $3\frac{2}{8}$. Tail, $3\frac{6}{8}$. Culmen, 1.

Female.—Upperside shining green with bronze tinge. Uppertail-coverts shining green. Median rectrices dark greenish bronze at base, passing to purplish-black at tips, the two next purplish-black with buff tip on the last, the two outermost ones purplish at base, rest buff. Underside shining green with golden tinge. Centre of throat metallic-red. Wings purplish-brown. Underwing-coverts chestnut. Bill black.

Total length, $5\frac{2}{8}$in. Wing, $2\frac{7}{8}$. Tail, 2. Culmen, 1.

This handsome species is not rare in Guiana. It frequents the densest parts of the tropical forests, near the rivers.

307. TOPAZA PYRA, Gould, P.Z.S., 1846, p. 85.

Fiery Topaz, Gould, Mon. Troch., vol. ii., p. 67.

le Colibri pyra, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 128.

Habitat.—Rio Negro, Upper Amazon.

Male.—Head and neck velvety-black. Upperside including upperwing-coverts glittering red, passing to orange-red on rump. Uppertail and undertail-coverts, luminous golden-green. Median rectrices bronze-green, darker at tips. Laterals, including the elongated ones, deep purple. Throat brilliant golden-green, bright orange-topaz in centre. A broad band of velvety-black on breast, and sides of neck encircling the throat. Lower part of breast, abdomen, and flanks, metallic fiery-red. Underwing-coverts, deep buff. Wings, brown with a bronzy tinge. Bill black.

Total length, $7\frac{6}{8}$in. Wing, $3\frac{1}{8}$. Tail, $4\frac{6}{8}$. Culmen, $\frac{6}{8}$

Female.—Similar to that of *T. pella ;* but has the lateral rectrices dark violet, the inner webs of the external feathers rufous, and the medians, greenish-bronze at base, with tips violet-black.

This species is extremely rare. It was discovered by Mr. Thirion, on the Upper Rio Negro.

Lately, Buckley sent some specimens, which he collected on the Upper Amazon.

My specimens were collected by him.

GENUS LXXXVII. **Lamprolaema,** Reich., Aufz. der Colib., 1853, p. 9.

TYPE: *O. rhami,* Lesson.

Bill straight, slender, with tip acute, and about the length of the head. Feathers of forehead projecting on culmen and partially hiding the nostrils. Wings long, ample, reaching the end of tail. Tail long, and forked, rectrices broad. Median shortest, laterals slightly, and gradually longer, pointed at tips. Feet large. Tarsi clothed. Sexes unlike.

Habitat.—Mexico and Guatemala.

308. LAMPROLAEMA RHAMI, Less., Rev. Zool., 1838, p. 315.

Mellisuga rhami, Gray, Gen. Birds, vol. i, p. 112.

Lampornis rhami, Bon., Consp. Gen. Av., 1850, p. 72.

Delattria rhami, Bon., Rev. and Mag. Zool., 1854, p. 253.

De-Rham's Garnet, Gould, Mon. Troch., vol. ii, p. 61.

le Lamprolème de Rham, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 218.

Habitat.—Mexico and Guatemala.

Male.—Upperside shining green, golden in some specimens on back, rump, and uppertail-coverts. Tail purple. A spot behind the eye white. Throat metallic amethyst-red, surrounded with velvety-black. Breast brilliant metallic dark blue. Rest of underside blackish-brown washed with green. Undertail-coverts purplish-brown washed with green. Greater wing-coverts, secondaries, and basal two-thirds of primaries, chestnut-red with brownish tips, remainder purplish-brown. Bill black.

Total length, $4\frac{5}{8}$in. Wing, 3. Tail, $2\frac{1}{8}$. Culmen, $\frac{11}{16}$.

Female.—Upperside golden-green. Underside grayish-brown washed sparingly with green on sides of breast and flanks. Very adult specimens have in the centre of throat a spot of metallic amethyst-red feathers. Tail purple, with tips of the two outermost ones dark gray.

Total length, 4in. Wing, $2\frac{1}{2}$. Tail, $1\frac{7}{8}$. Culmen, $\frac{11}{16}$.

Young Male.—Scarcely out of nest, has the colouration of an adult male, the wings longer than the tail and the chin black.

Total length, $3\frac{1}{2}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{1}{2}$. Culmen, $\frac{7}{16}$.

This very fine species was discovered by Delattre.

I have collected fine series of both sexes in the temperate and cold countries of Mexico, where it is abundant.

Genus LXXXVIII. **Coeligena**, Less., Ind. and Syn. Ois. Gen. Troch, 1832, p. 18.

Type:—*O clemenciae,* Lesson.

Bill straight, longer than the head. Wings long reaching the end of tail. Tail ample. Rectrices broad, rounded, and of even size. Laterals in both sexes, broadly tipped with white. Tarsi clothed. Sexes unlike.

Habitat.—Mexico.

309. Coeligena clemenciae, Less., Ois. Mouch., 1829, p. 216.

Lampornis clemenciae, Less., Tratié. Ornith., 1831, p. 279.

Mellisuga clemenciae, Gray, Gen. Birds, vol. i., p. 112.

Delattria clemenciae, Bon. Consp. Gen. Av., 1850, p. 70.

Blue-throated Cazique, Gould, Mon. Troch., vol. ii., p. 60.

le Coeligène de Clémence, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 181.

Habitat.—Mexico.

Male.—Upperside bronzy-green, brownish on rump. Upper-tail-coverts greenish-black. Tail purplish-black, the two outermost rectrices broadly tipped with white. Throat metallic azure-blue. Lines from maxilla under the eye, and one behind, white. Ear-coverts brown. Underside dark ashy-gray, washed with green on sides of throat, breast, and flanks. Vent white. Undertal-coverts greenish-gray edged with white. Wings silky-brown. Bill black.

Total length, $5\frac{2}{8}$in. Wing, 3. Tail, $2\frac{2}{8}$. Culmen, 1.

Female.—Upperside like the male. Underside gray sparingly washed with green feathers on breast and flanks.

Total length, 4½in. Wing, 2⅝. Tail 2. Culmen, 1.

Young Male.—Coloured like the female with a yellowish-grey throat.

This species was dedicated by Lesson to his wife, Mrs. Clemence Lesson, daughter of Mr. Dumont de Sainte Croix, author of the Ornithological Notices in the Dictionary of Natural Sciences.

It is common in Mexico, where I collected many specimens in the high lands of that country.

GENUS LXXXIX. **Delattria,** Bon. Consp. Gen. Av., 1850, vol. i., p. 70.

CHARIESSA, Heine, Journ. fur Ornith., 1863, p. 178.

HIMELIA, Muls., Cat. Ois. Mouch., 1875, p. 7.

TYPE: *O. henrica,* Lesson.

Bill short, straight, scarcely longer than the head. Wings long, reaching the end of the tail. Tail very slightly forked, median rectrices slightly shorter than the lateral, all of them pointed at tips. Tarsi clothed. Sexes unlike.

Habitat.—Mexico, Guatemala and Nicaragua.

This genus was dedicated by Bonaparte, to Delattre, the celebrated Traveller Naturalist.

310. DELATTRIA HENRICI, Less. and Delatt. Rev. Zool, 1839, p. 17.

Topaza henrici, Gray, Gen. Birds, vol. i., p. 110.

Lamprolaema henrici, Reich., Aufz. der Colib, 1853, p. 9.

Coeligena henrici, Cab. and Hein, Mus. Hein, 1860, t. iii., p. 15.

Chariessa henrici, Heine, Journ. fur Ornith., 1863, p. 178.

Henri Delattre's Cazique, Gould, Mon Troch., vol. ii., p. 62.

le Coeligène de Henri, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 183.

Habitat.—Mexico, Guatemala.

Male.—Upperside bronzy-green passing into brownish-purple on rump. Uppertail-coverts and tail silky black with a purplish tinge. Throat metallic lilac-red. Behind the eye, a stripe of white. Ear-coverts black. Underside dark gray washed with greenish-bronze feathers on sides of throat, breast, and flanks. Undertail-coverts dark bluish-bronze margined with gray. Wings purplish-brown. Bill black.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{6}{8}$. Tail, 2. Culmen, $\frac{7}{8}$.

Female.—Upperside bronzy-green, brownish on head. Tail purplish-black, laterals broadly tipped with gray. Underside brownish-gray, buffy on throat. Smaller than male.

This rare species was discovered by Delattre, and dedicated by him and Lesson, to Henri Delattre, brother of the former.

I have collected a fine series of this species in the highlands of Mexico. It takes its food chiefly on the flowers of orchids and bromeliacae, so common on the oak and pine trees.

*311. DELATTRIA MARGARITAE, Salv. and Godm. Ibis, 1889, p. 239.

Margarite's Cazique,

le Cacique de Marguerite,

Habitat.—Omilteme, in Sierra Madre del Sur, Mexico, Pacific side.

Male.—D. henrici, affinis, sed gutture violaceo (nec rosaceo) facile distinguenda.

This rare species was dedicated to Mrs. Herbert Smith, by Messrs. Godman and Salvin.

Type in the British Museum.

312 DELATTRIA VIRIDIPALLENS, Bourc. and Muls., Ann. Soc. Lyon., 1846, p. 321.

Polytmus viridipallens, Gray, Gen. Birds, vol. i., p. 108.

Delattria viridipallens, Bon., Consp. Gen. Av., 1850, p. 70.

Agyrtria viridi-pallens, Reich., Aufz. der Colib, 1853, p. 10.

Thaumantias viridi-pallens, Bon., Rev. and Mag. Zool., 1854, p. 255.

Chariessa viridipallens, Heine, Journ. fur Ornith., 1863, p. 178.

Coeligena viridipallens, Mul., Hist. Nat. Ois. Mou., 1874, vol. i., p. 185.

Green-throated Cazique, Gould, Mon. Troch., vol. ii., p. 63.

le Coeligène vert d'eau, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 185.

le Cacique, du Guatemala.

Habitat.—Guatemala.

Male.—Top of head metallic dark green. Upperside bronzy-green changing to coppery-green on the rump. Median rectrices brownish-gray with purplish reflections. Laterals gray. Throat pale metallic green. Stripe behind the eye white. Ear-coverts brownish-green. Breast white. Abdomen grayish-white with a rufous tinge. Sides of breast and flanks shining green, washed with gray on the latter. Undertail-coverts greenish-gray edged with pale gray. Wings purplish-brown. Bill black.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{6}{8}$.

Female.—Upperside bronzy-green. Underside white, washed with green on sides of breast and flanks. Rest of plumage like the male.

Total length, 4in. Wing, $2\frac{3}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{6}{8}$.

This species was discovered in Coban, Guatemala, by Delattre.

The types are now in the New York Museum of Natural History (Ex. Coll. Elliott).

*313. DELATTRIA SYBILLE, Salv and Godm. Ibis, 1892, p. 327.

Nicaraguan Cazique.

le Cacique du Nicaragua.

Habitat.—Matagalpa "Nicaragua."

Male.—D. viridipallenti proximè affinis, sed pectore et hypochondriis viridibus nec albis gula fere concoloribus; tectricibus subcaudalibus et rectricibus pallide griseis, et dorso imo viridi nec cupreo tincto, facile distinguenda.

Long tota, 4-5, poll. Angl., alae, 2-6, candal, rectr med, 1-3, rect. lat., 1-7.

Female.—Unknown.

This species is closely allied to *D. viridipallens.* It was discovered at Matagalpa, Nicaragua, by Mr. W. B. Richardson.

GENUS XC. **Oreopyra,** Gould, Int. Troch., 1861, p. 141.

TYPE: *O. leucaspis,* Gould.

Bill short, stout, straight, scarcely longer than the head. Wings long, reaching nearly the end of the tail. Tail long, forked. Median rectrices the shortest, lateral and outermost ones slightly and gradually longer, and pointed. Tarsi clothed. Feet small. Sexes unlike.

Habitat.—Guatemala, Costa Rica, Veragua.

314. OREOPYRA LEUCASPIS, Gould, Mon. Troch., vol. iv., p. 264.

White-throated Oreopyra, Gould, Mon. Troch., vol. iv., p. 264.

l'Oréopyre à gorge blanche, Muls., Hist. Nat. Ois. Mou., 1878, t. iv., p. 161.

Habitat.—Chiriqui.

Male.—Top of head brilliant metallic silvery-green. Upperside shining green, golden in some lights. Uppertail-coverts dark shining green. Tail bluish-black. Throat silky-white. Stripe behind the eye white. Breast and upper part of abdomen brilliant metallic green. Abdomen and flanks grayish-brown. Undertail-coverts brownish-green, edged with white. Wings purple-brown. Bill black.

Total length, 4in. Wing, $2\frac{3}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{6}{8}$.

Female.—Probably like the male, but paler in colouration. Contrary to the opinion of many authors, I think that the female of this species is not buff underside. However, until I can ascertain if I am right or wrong, I shall give the description of the bird which I have in my collection, sent to me by Arcé, as a female.

Upperside golden-green. Uppertail-coverts shining green. Median rectrices bronze-green. Laterals bronze-green at base, passing to bluish-black with broad white tips on the two outermost ones. Line behind the eye white. Ear-coverts black. Underside reddish-buff. Bill black.

This rare species was discovered by Mr. Warzewicz, on the Volcano of Chiriqui, Veragua.

315. OREOPYRA CINEREICAUDA, Lawr., Ann. N.Y. Lyc. Nat. Hist., vol. viii., p. 485.

Grey-tailed Humming-bird, Gould, Mon. Troch. Suppl., 1886, p. 10.

l'Oréopyre à queue cendrée, Muls. Hist. Nat. Ois. Mou., 1878, t. iv., p. 165.

Habitat.—Costa Rica.

Male.—Very much like the preceding species, from which it differs only by the tail, which is longer and ashy-white with dark tips.

This extremely rare species was discovered by Mr. Garcia, near Cartago, Costa Rica. I have only one specimen which I killed at Navarro, Costa Rica, in May, 1877.

Female.—Unknown, although it has been described as *O. castaneiventris,* by Lawrence; but I am in doubt about it as for the female of *O. leucaspis.*

316. OREOPYRA HEMILEUCA, Salv., P.Z.S., 1864, p. 584.

Oreopyra hemileuca, Boucard, P.Z.S., 1878, p. 69.

Coeligena hemileuca, Elliot, Syn. H. Birds, 1879, p. 31.

White-bellied Cacique, Gould, Mon. Troch., Suppl., 1886, p. 8.

l'Oréopyre à gorge d'un lilas violacé, Muls., Hist. Nat. Ois. Mou., 1878, t. iv., p. 167.

Habitat.—Costa Rica.

Male.—Top of head brilliant metallic green. Neck dark green, black in certain lights. Back dark shining green passing to golden on rump and uppertail-coverts. Median rectrices bronze-green. Laterals bronze-green, darker near the tips which are whitish-gray. Chin and sides of throat metallic green. Throat metallic amethyst. Breast and abdomen pure white. Sides of breast and flanks golden-green. Undertail-coverts pale greenish-brown in centre, edged with white. Wings purplish-brown. Bill black.

Total length, $4\frac{2}{8}$in. Wings, $2\frac{3}{8}$. Tail, $1\frac{5}{8}$. Culmen, $\frac{6}{8}$.

Female.—Same as the male, excepting the throat which is white, spotted with green.

This beautiful and exceedingly rare species was discovered by Arcé, at Turrialba, Costa Rica.

I collected two male specimens at Naranjo, Costa Rica, in April, 1877.

317. OREOPYRA CALOLAEMA, Salv., P.Z.S., 1864, p. 584.

Metallura castaneiventris, Reich., Aufz. der Colib, 1853, p. 8.

Anthocephala castaneiventris, Gould, Mon. Troch., vol. iii., p. 203.

Purple-throated Humming-bird, Gould, Mon. Troch., Suppl., 1886, p. 9.

l'Oréopyre à queue d'un bleu d'acier, Muls., Hist. Nat., Ois. Mou., 1878, t. iv., p. 165.

Habitat.—Veragua.

Male.—Top of head brilliant metallic silvery-green. Upperside dark shining bronzy-green. Uppertail-coverts dark shining green. Tail bluish-black. Throat metallic violet-red. White line behind the eye. Auriculars very dark green, appearing almost black. Breast shining green, passing to golden-green on flanks. Abdomen brown. Undertail-coverts dark green, margined with grayish-white. Wings purplish-brown. Bill black.

Total length, $4\frac{1}{8}$in. Wing. $2\frac{1}{2}$. Tail, $1\frac{1}{2}$. Culmen, $\frac{6}{8}$.

Female.—Upperside shining grass-green. Median rectrices bronze-green. Laterals bronze-green at base, passing to bluish-black, the two outermost ones tipped with grayish-white. Underside reddish-buff. Undertail-coverts brownish-green, margined with gray or buff. Wings purplish-brown. Bill black.

Total length, $3\frac{6}{8}$in. Wing, $2\frac{2}{8}$. Tail, $1\frac{1}{2}$. Culmen, $\frac{6}{8}$.

This fine species was discovered by Arcé, in Veragua, and it is to this species, and to the next, that I attribute all the reddish-buff females.

318. OREOPYRA PECTORALIS, Salv., Ann. Mag., Nat. Hist., 1891, p. 377.

Oreopyra calolaema, Boucard, P.Z.S., 1878, p. 69.

Lilac throated Humming-Bird.

l'Oréopyre à gorge lilas.

Habitat.—Costa Rica.

Male.—Similar to that of *O. calolaema,* in all respects,

except that the breast, when viewed from in front, is nearly black, and not glittering green.

Total length, $4\frac{1}{8}$in. Wing, $2\frac{3}{8}$. Tail, $1\frac{1}{2}$. Culmen, $\frac{7}{8}$.

Young Male.—Has the plumage of the adult male, with only a few metallic feathers on throat.

I collected a fine series of this handsome species in 1877, at Navarro, Rancho redondo, and on the Volcano of Irazu, Costa Rica.

I am of the same opinion as Mr. Salvin, that it can be considered as a distinct species of *O.calolaema,* among which it has been improperly mixed by myself and others.

Genus XCI. Warszewiczia, Nov. Gen.

Type: *H. viola,* Gould.

Bill straight, slender, shorter than the head. Feathers of forehead projecting on culmen, and covering the nostrils. Wings moderately long, reaching between the second and third lateral rectrices. Tail long and much forked in males, median rectrices broad and shortest, the two next gradually longer, the third lateral, one fourth longer than the second, and the outermost one twice as long as the medians. Tarsi partially clothed. Sexes similar.

Habitat.—Ecuador.

319. Warszewiczia viola, Gould, P.Z.S., 1853, p. 61.

Parzudukia viola, Reich., Aufz. der Colib., 1853, p. 12.

Heliotrypha viola, Gould, Mon. Troch., vol. iv., p. 241.

Heliotryphon viola, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 74.

Viola Star-frontlet, Gould, Mon. Troch., vol. iv., p. 241.

l'Héliotryphe violette, Muls., Hist. Nat., Ois. Mou., 1876, t. iii., p. 98.

Habitat.—Ecuador.

Male.—Forehead luminous dark green. Upperside dark shining green with golden reflections, when viewed from behind. Median rectrices bronze-green, the two next bronze-green on outer webs, with tips purplish-black, outermost one purplish-black, with a very slightly marked green-bronze tip. Throat metallic amathyst with purplish reflections.

Breast luminous bluish-green. Flanks and abdomen shining green. Vent rufous. Undertail-coverts green, edged with rufous. Wings purplish-brown. Bill black.

Total length, 5in. Wing, $2\frac{5}{8}$. Tail, $2\frac{1}{2}$. Culmen, $\frac{1}{2}$.

Female.—Coloured like the male, but not so brilliant, the luminous feathers of forehead are of a lighter green. The throat is dark green, appearing brownish-black in certain lights, with the centre metallic bluish-violet, the lower part of the abdomen and undertail-coverts rufous with the centre of feathers green.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{1}{2}$. Tail, $2\frac{1}{8}$. Culmen, $\frac{1}{2}$.

This fine species was discovered in Ecuador by Mr. Warszewicz, to whom we are indebted for many new species of humming birds, chiefly from Colombia, Ecuador, Bolivia, Veragua, etc. Being sufficiently distinct in generic forms from *Heliotrypha*, I have made with it a new genus, which I have named *Warszewiczia,* in memory of that eminent Collector and Naturalist.

Genus XCII. **Heliotrypha**, Gould, Int. Troch., 1861, p. 131.

Parzudakia, Reich., Aufz. der Colib., 1853, p. 12.

Heliotryphon, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 74.

Nodalia, Mulsant, Cat. Ois. Mou., 1875, p. 23.

Helymus, Muls., Cat. Ois. Mou., 1875, p. 23.

Type: *T. exortis*, Frazer.

Bill straight, slender, about the length of the head. Wings long, nearly reaching the end of tail. Tail long and forked. Rectrices broad and rounded at tips, median shortest, lateral and outermost ones gradually longer. Tarsi partially clothed. Hind toe shorter than the middle one. Sexes unlike.

Habitat.—Colombia and Ecuador.

320. Heliotrypha exortis, Fraser, P.Z.S., 1840, p. 14.

Ornismya parzudaki, Long. and Parz., Rev. Zool., 1840, p. 72.

Mellisuga parzudaki, Gray, Gen. Birds, vol. i., p. 112.

Heliangelus parzudaki, Bon. Consp. Gen. Av., 1850, vol. i., p. 76.

Eriopus exortis, Bon. Consp. Gen. Av., 1850, p. 80.

Parzudakia dispar, Reich. Aufz. der Colib., 1853, p. 12.

Heliotrypha parzudaki, Bon. Rev. and Mag. Zool., 1854, p. 252.

Heliotryphon parzudaki, Cab. and Hein. Mus. Hein., 1860, t. iii., p. 74.

Parzudaki's Star-frontlet, Gould, Mon. Troch., vol. iv., p. 240.

l' Héliotryphe de Parzudaki, Muls., Hist., Nat. Ois, Mou., 1876, t. iii., p. 96.

Habitat.—Colombia, and Ecuador.

Male.—Spot on forehead luminous green. Upperside shining dark green, with a bronzy tinge on head and upper-tail-coverts. Median rectrices dark bronzy-green, laterals purplish-black. Chin dark metallic green appearing almost black, and followed by a spot metallic purplish-blue. Centre of throat, beginning just under the blue of chin, metallic purple-crimson, surrounded with black. Breast and sides of neck brilliant metallic green. Abdomen and flanks shining green, nearly black in certain lights, in the centre of abdomen, the feathers are edged with grayish buff. Vent and undertail-coverts pure white. Wings purple. Bill black.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{3}{4}$. Tail, 2. Culmen, $\frac{1}{2}$.

Female.—Upperside bronzy green. Tail like the male with tips of laterals, narrowly edged with white. Throat white, with small brownish spots, and encircled with brownish-black, remainder of underside shining green or golden-green with buffy-gray on centre of abdomen.

Total length, 4in. Wing, $2\frac{3}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{1}{2}$.

This species is very abundant in Colombia.

321. HELIOTRYPHA MICRASTUR, Gould, Ann. and Mag. Nat. Hist., 1872, p. 195.

Helymus micrastur, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 93.

Ecuadorian Star-frontlet, Gould, Mon. Troch. Suppl., 1886, p. 31.

l' Hélyme à gorge brillante, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 94.

Habitat.—Ecuador.

Male.—Spot on forehead luminous green. Upperside shining bronzy-green, bronzy on uppertail-coverts. Median rectrices dark bronzy-green. Laterals bronzy-black. A small spot behind the eye white. Chin and sides of throat dark green appearing almost black. Centre of throat metallic fiery-red. Breast flanks and abdomen dark shining green, most brilliant on breast in certain lights, centre of abdomen grayish-buff. Undertail-coverts white. Wings purplish-brown. Bill black.

Total length, 4in. Wing, $2\frac{5}{8}$. Tail, 2. Culmen, $\frac{9}{16}$.

Female.—Like the male excepting the throat which is white in the centre, surrounded with green feathers appearing dark brown in certain lights. This fine and rare species was discovered in Ecuador, by Buckley. My specimens are from him.

322. HELIOTRYPHA BARRALI, Muls. and Verr. Ann. Soc. Linn. Lyon., 1868, vol. xvii., p. 106.

Heliangelus squamigularis, Gould, P.Z.S., 1871, p. 503.

Nodalia barrali, Muls., Hist. Nat. Ois. Mou., 1877, vol. iii., p. 100.

Olive throated Humming-bird, Gould, Mon. Troch. Suppl., 1886, p. 32.

la Nodalie de Barral, Muls., Hist. Nat. Ois. Mou., 1877, vol. iii., p. 100.

Habitat.—Colombia.

Male.—Top of head very dark green, almost black in certain lights. Throat pale metallic olive-green, silvery in certain lights, margined with black. Rest of plumage shining grass-green, most brilliant on breast. Wings purplish-brown. Median rectrices bronzy-green, laterals blue-black. Under-tail-coverts green in the centre, edged with grayish-white. Bill black.

Total length, $4\frac{3}{8}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{3}{4}$. Culmen, $\frac{5}{8}$.

Female.—Unknown; but probably like the preceding species.

The type of this rare species is in the Museum of New York.—"Ex Coll. Elliot."

I possess a fine male of this species, from which my description was made.

323. HELIOTRYPHA SPECIOSA, Salv., Ann. and Mag., Nat. History, 1891, p. 376.

Olive-green throated Star-fontlet.

la Nodalie à gorge d'un vert-olive.

Habitat.—Colombia.

Male.—Very similar to *H. baralli,* but with a longer bill, and the throat of a more glittering olive-green without the leaden or silvery hue of that species, the feathers of the breast are rather more conspicuously white at the base, but this character is also seen in *H. barrali.*

Total length, 5in. Wing, 2-5. Tail, central rectrices, 1-45; lateral, 1-6. Bill, 1.

Type, Ex. Coll. Salvin and Godman, in the British Museum.

324. HELIOTRYPHA SIMONI; Boucard, Humming Bird, 1892, vol. ii., p. 76.

Simon's Star Frontlet.

la Nodalie de Simon.

Habitat.—Colombia.

Male.—Spot on forehead liminous golden-green. Upper-side shining green with bronze reflections. Median rectrices bronze-green, lateral and outermost ones steel-blue. Throat luminous pale golden-green, very brilliant, sides of throat very dark green, appearing almost black. Breast, abdomen, and flanks shining green. Undertail-covets gray with green tips. Wings bluish-purple. Bill black.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{6}{8}$. Tail, 2. Culmen, $\frac{5}{8}$.

Female.—Unknown. It is closely allied to *H. speciosa,* Salv; but the colour of the throat is distinct. It is a good species if *H. speciosa,* is considered as distinct from *H. barrali,* if not, the two must be considered as varieties of *H. barrali.*

Type in Boucard's Museum.

GENUS XCIII. **Heliangelus,** Gould., Int. Troch., 1861, p. 132.

Anactoria, Reich., Aufz. der Colib., 1853, p. 12.

Diotimia, Reich., Aufz. der Colib., 1853, p. 12.

Peratus, Muls., Cat. Ois. Mou., 1875, p. 23.

TYPE: *O. clarrisae,* Longuemare.

Bill straight, slender, about the same length as the head. Wings long, reaching the end of tail. Tail slightly forked. Median rectrices slightly shorter than the others. Tarsi partially clothed. Hind toe and nail of the same length as the middle toe and nail. Gorget luminous in males, and encircled beneath with a band of white or buff in both sexes. Sexes unlike in plumage?

Habitat.—Venezuela, Colombia, Ecuador, Peru, and Bolivia.

325. HELIANGELUS CLARISSAE, Long, Rev. Zool., 1841, p. 306.

Mellisuga clarissae, Gray, Gen. Birds, vol. i., p. 112.

Anactoria clarissae, Reich., Aufz. der Colib., 1853, p. 12.

Anactoria libussa, Reich., Aufz. der Colib., 1853, p. 12.

Heliangelus taczanowski, Pelz., Ibis., 1877, p. 338.

Sun Angel. Gould, Mon. Troch., vol. iv., p. 242.

l'Héliangèle de Clarisse, Muls., Hist. Nat., Ois. Mou., 1876, t. iii., p. 85.

Habitat.—Colombia.

Male.—Spot on forehead, luminous dark green. Upperside dark bronzy-green, appearing almost black on head in certain lights. Median rectrices bronzy-green, next two, black with the edge of external webs bronzy-green, the two outermost ones black. Chin, lores, and sides of head black. Throat metallic amethystine-violet, beneath which is a narrow band of white, succeeded by one of luminous green. Abdomen and flanks shining-green, mottled with buff. Undertail-coverts white with the centre bronzy-green. Wings purplish-brown. Bill black.

Total length, $4\frac{1}{8}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{7}{8}$. Culmen, $\frac{5}{8}$.

Female.—? Upperside like the male with very minute white tips on lateral rectrices. Throat black with metallic amethystine-lilac feathers in the centre, rest like the male.

Total length, $3\frac{6}{8}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{7}{8}$. Culmen, $\frac{5}{8}$.

I think that the specimens described by all the authors as females with the throat black with mottled brown are only young ; because I have lately received authentic females from the two species, *H. spencei* and *H. mavors* with the colours exactly disposed as in these species. It is abundant in Colombia. It was dedicated by Mr. de Longuemare, to Mrs. Clarisse Parzudaki.

326. HELIANGELUS HENRICI, Boucard, H. Bird, 1891, vol. i., p. 26.

Whitely's Sun Angel.

l' Héliangèle de Whitely.

Habitat.—Ecuador.

Male.—Spot on forehead luminous dark-green. Upperside, including tail-coverts golden-green. Median rectrices bronzy-green as in *H. Clarissae*. Laterals bluish-black. Chin, lores, and sides of neck very dark green, almost black in certain lights. Throat metallic amethystine-red, with purple reflections, surrounded with a narrow band of dark-green, beneath which, is a wide pure white band crossing all the breast. Abdomen and flanks shining green. Undertail-coverts pale golden-green edged with white. Wings purplish-brown. Bill black.

Total length, $4\frac{1}{8}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{1}{2}$. Culmen, $\frac{1}{2}$.

Female.—Unknown.

Type of species in my Collection.

This species comes between *H. clarissae* and *strophianus.*

327. HELIANGELUS STROPHIANUS, Gould, P.Z.S., 1846, p. 45.

Mellisuga strophianus, Gray, Gen. Birds, vol. i., p. 112.

*Anactoria strophania,*Reich, Aufz der Colib, 1853, p. 12.

Gorgeted Sun Angel, Gould, Mon. Troch., vol. iv., p. 243.

l'Héliangèle à rectrices d'un bleu-noir, Muls, Hist. Nat. Ois. Mou., 1876, t. iii., p. 87.

Habitat.—Ecuador.

Male.—Exactly like *H. henrici.*, excepting the tail which is entirely bluish-black.

Total length, $4\frac{1}{8}$in. Wing, $2\frac{6}{8}$. Tail, 2. Culmen, $\frac{1}{2}$.

Female or Young Male.—Head, lower part of back, and uppertail-covets bronzy-green, back shining green. Tail, bluish-black with a bronzy-tinge at base of medians. Throat, white, spotted, and surrounded with black, under which is a narrow white band. Breast, abdomen, and flanks, dark green, base of feathers grayish-black. Undertail-covets white. Wings purple-brown. Bill black.

Total length, $3\frac{7}{8}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{7}{8}$. Culmen, $\frac{1}{2}$.

My specimens of this species were collected in Ecuador, by Buckley.

*328. HELIANGELUS VIOLICOLLIS, Salv., Ann. and Mag. Nat. Hist., 1891, p. 376.

Blue-throated Sun Angel.

l'Héliangèle a gorge d'un bleu-violet.

Habitat.—Ecuador.

Male.—Similar to that of *H. strophianus,* but the upper surface of a darker more rufescent brown, especially in the middle of the back; the abdomen too has a more bronzy hue; the most obvious difference is in the colour of the throat which is glittering violet-blue, without any red or rosy tint.

Young male.—Has the feathers of throat black, with white edges; amongst these, the glittering violet feathers of the adult appear.

Type in British Museum.

*329 HELIANGELUS LATICLAVIUS, Salv., Ann. and Mag. Nat. Hist., 1891, p. 376.

Ecuadorian Sun Angel.

l'Heliangéle de l'Equateur.

Habitat.—Ecuador.

Male.—Very similar to that of *H. clarissae,* and with the upper surface and tail coloured in the same manner; on the undersurface the white pectoral band is much wider, more than double the width of that of the allied form; there is no band of glittering green feathers below the white, and the

middle of the abdomen is more distinctly buff; the under tail-coverts are white with wider dusky shaft-stripes.

Type in the British Museum.

330. HELIANGELUS SPENCEI Bourcier, P.Z.S., 1847, p. 46.

Mellisuga spencei, Gray, Gen. Birds, vol. i., p. 112.

Diotima spencei, Reich, Auzf. der Colib, 1853, p. 12.

Spence's Sun Angel, Gould, Mon. Troch., vol. iv., p. 244.

l'Hélliangèle de Spence, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 89.

Habitat.—Venezuela.

Male.—Spot on forehead metallic silvery-green. Head, lores, and sides of neck very dark green, almost black in certain lights. Upperside shining green, golden on upper-tail-coverts. Median rectices bronzy-green, laterals bronzy-brown, paler on outermost ones. Throat metallic amethystine-red, bluish-purple on chin. A broad pure white band across the breast. Lower part of breast, abdomen, and flanks shining golden-green, rufous in the centre of abdomen. Undertail-coverts golden-green in centre, margined with grayish-white. Wings purplish-brown. Bill black.

Total length, 4$\frac{3}{4}$in. Wing, 2$\frac{5}{8}$in. Tail, 1$\frac{7}{8}$in. Culmen, $\frac{9}{16}$.

Female.—Upperside golden-green. Median rectrices shining bronzy-green, laterals bronzy-brown, darker on internal webs and near the tips. Tips of lateral and outermost ones grayish-white. Lores, throat, and sides of neck very dark green appearing brownish-black in certain lights. Upper part of throat metallic violet-red. Under the black of the throat is a wide band of pure white crossing the breast. Lower part of the breast and flanks golden-green. Abdomen grayish buff. Undertail-coverts pale green in centre, margined with grayish-buff. Wings purplish-brown. Bill black.

Total length, 4$\frac{3}{4}$in. Wing, 2$\frac{5}{8}$. Tail, 1$\frac{7}{8}$. Culmen, $\frac{9}{16}$.

I have a young male of this species exactly coloured as the female, but the metallic part of the throat ends in a point, reaching the band across the chest. This band is buff as in *H. amethysticollis*.

This rare species was dedicated by Bourcier to Mr. Spence, the celebrated English Entomologist. I have a fine series of both sexes collected in Merida, Venezuela, by Mr. S. Briceno.

331. HELIANGELUS AMETHYSTICOLLIS, d'Orb and Lafr., Syn. Av., 1838, p. 31.

Lampornis amethysticollis, Tsch. Faun. Peru, 1844 ,p. 246.

Mellisuga amethysticollis, Gray, Gen. Birds, vol. i., p. 112.

Anactoria amethysticollis, Reich., Aufz. der Colib., 1853, p. 12.

Amethystine Sun-Angel, Gould, Mon. Troch., vol. iv., p. 245.

l'Héliangèle à cou d'améthyste, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 91.

l'Heliangèle à gorge améthyste.

Habitat.—Peru and Bolivia.

Male.—Spot on forehead metallic dark green. Upperside shining green, golden on rump and uppertail-coverts. Median rectrices bronze-green, laterals bronzy-black. Chin bluish-black. Throat metallic amethyst, beneath which is a broad band buff. Lower part of breast and flanks golden-green. Abdomen buff, mottled with green. Undertail-coverts pale bronze in centre, margined with grayish white. Wings purplish-brown. Bill black.

Total length, $4\frac{3}{8}$in. Wing, $2\frac{5}{8}$. Tail, 2. Culmen, $\frac{5}{8}$.

Female, or Young Male.—Less brilliant than the male. Throat deep buff, mottled with brownish black.

This very rare species was discovered in Bolivia, by Mr. Alcide d'Orbigny. I have only one specimen from Peru, and one female or young male, collected in Bolivia, by Buckley.

332. HELIANGELUS MAVORS, Gould, P.Z.S., 1848, p. 12.

Mellisuga mavors, Gray, Gen. Birds, vol. iii., p. 5.

Trochilus mavors, Reich., Aufz. der Colib., 1853, p. 12.

Mars Sun Angel, Gould, Mon. Troch., vol. iv., p. 246.

l'Héliangèle de Mars, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii., p. 92.

Habitat.—Venezuela, and Colombia.

Male.—Spot on forehead metallic fiery-red. Upperside shining green, very dark on head, appearing black in certain lights. Uppertail-coverts golden-green. Median rectrices shining bronzy-green, laterals bronzy-green, dark on inner webs, outermost ones, bronzy-brown with a buffy-white spot on

inner web of tips. Throat metallic fiery-orange-red, beneath which is a band of buff. Spot behind the eye white. Line under the eye, and lores dark green, almost black. Lower part of breast and flanks green mottled with buff. Abdomen buff. Undertail-coverts bronze, margined with buff. Wings purplish-brown. Bill black.

Total length, 4$\frac{2}{8}$in. Wing, 2$\frac{1}{2}$. Tail, 1$\frac{6}{8}$. Culmen, $\frac{5}{8}$.

Female.—Coloured like the male, but the throat is metallic orange-red, only a little more than half its length, and margined beneath with a broad band of bronzy-brown, appearing black in certain lights. Under that band, a broad buff band crossing the breast; lateral and outermost rectrices, with tips narrowly margined with buffy-white, rest like the male.

This extremely rare and fine species was discovered in the parama of Postachuela, Columbia, by M. M. Funck and Schlim. My specimens were collected in the paramo *el Tambor,* near Merida, Venezuela, by Mr. Solomon Briceno.

333. HELIANGELUS ROTSCHILDI, Boucard, Hum. Bird, 1 & 2, p. 77.

Rotschild's Sun Angel.

l'Héliangèle de Rotschild.

Habitat.—Colombia.

Male.—Upperside, including tail, lustrous purple. Outermost rectrices slightly tipped with buff. Throat luminous coppery-gold, with reddish reflections; sides of throat silky-black. Breast grayish-buff. Centre of abdomen grayish, spotted with dark bronze-green, rest of the abdomen and flanks purple. Undertail-coverts white. A white spot behind the eyes. Tail dark lustrous bluish-purple underside. Wings purplish-brown. Bill and feet black.

Total length, 3$\frac{6}{8}$in. Wing, 2$\frac{1}{2}$. Tail. 1$\frac{6}{8}$. Culmen, $\frac{9}{16}$.

Female.—Unknown.

TYPE: Unique in my Collection.

GENUS XCIV. **Panterpe,** Cab. and Hein., Mus. Hein., 1860, t. iii., p. 43.

TYPE.—*P. insignis,* Cabanis and Heine.

Bill straight, slender, about the length of the head. Nostrils exposed. Wings long reaching near the end of tail. Tail

even. Rectrices of same length and pointed. Feet large. Sexes nearly alike.

Habitat.—Costa Rica.

334. PANTERPE INSIGNIS, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 43.

Costa Rican Humming-bird, Gould, Mon. Troch., vol v., p. 336.

le Panterpe insigne, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 26.

Habitat.—Volcano of Irazu, Costa Rica, and Veragua.

Male.—Crown of the head brilliant metallic blue. Neck and upper part of back dark brownish-green appearing black in certain lights, lower part of back and rump shining green. Uppertail-coverts brilliant bluish-green. Tail steel-blue. Throat and sides of breast brilliant metallic gold, fiery in the centre. A patch of shining metallic blue feathers in the centre of the breast. Rest of underside brilliant yellowish green. Wings purplish-brown. Maxilla black. Mandible flesh colour for half its length from the base, remainder black.

Total length, $4\frac{3}{8}$in, Wing, $2\frac{3}{8}$. Tail, $1\frac{7}{8}$. Culmen, $\frac{6}{8}$.

Female.—Coloured like the male, the bill slightly longer.

I collected a fine series of both sexes of this magnificent species on the volcano of Irazu, Costa Rica, in 1877; but, nevertheless, it is very rare. I know of several other collectors who went there after me, and were glad to come back with one or two specimens. It was discovered by Doctor Hoffmann.

GENUS XCV. **Aglaeactis,** Gould, P.Z.S., 1848, p. 2.

AGLAIACTIS, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 69.

TYPE: *T. cupripennis,* Bourcier.

Bill short, straight, about the length of the head. Wings long, primaries falcate. Tail ample, and forked; median rectrices broad, rounded, and shortest; laterals acutely pointed at tips, each one, very slightly and gradually longer. Tarsi partially clothed. Hind toe and nail longer than the middle

toe and nail. Lower part of back and rump brilliantly coloured in males. Sexes similar.

Habitat.—Colombia, Ecuador, Peru, and Bolivia.

335. AGLAEACTIS CUPRIPENNIS, Bourc. and Muls., Ann. Soc. Agr. Lyon, 1843, t. vi., p. 46.

Mellisuga cupripennis, Gray, Gen. Birds, vol. i., p. 212.

Helianthea cupripennis, Reich. Troch. Enum, 1855, p. 6.

Aglaiactis aequatorialis, Cab. and Heine, Mus. Hein, 1860, t. iii., p. 70.

Aglaéactis parvula, Gould, Int. Troch., 1861, p. 106.

Shining Sun-beam, Gould, Mon. Troch., vol. iii., p. 179.

l'Aglaéacte à rectrices bronzées, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 24.

Habitat.—Colombia and Ecuador.

Male.—Head, neck, and back, dark bronzy-brown. A narrow band of rufous on neck. Rump and back, viewed from behind, metallic purple-crimson, passing to greenish-gold on uppertail-coverts. Median rectrices rufous at base, passing to bronze, shaft very apparent for two-thirds of its length pale rufous, laterals rufous, margined and tipped with bronze. Shaft of external wing feather rufous and very apparent nearly to the end. Underside rufous, excepting a pale buff spot on the breast. Wings purplish-brown. Maxilla black. Mandible flesh colour at base, rest black.

Total length, $4\frac{6}{8}$in. Wing, $3\frac{1}{2}$. Tail, $2\frac{2}{8}$. Culmen, $\frac{6}{8}$.

Female.—The only difference with the male consists in having the wings shorter, less brilliant on back, rump, and uppertail-coverts, the band of rufous on neck is broader, and the rufous of the underside is paler.

Total length, $4\frac{6}{8}$in. Wing, $3\frac{1}{8}$. Tail, $2\frac{2}{8}$. Culmen, $\frac{6}{8}$.

There is no difference whatever in the size or colouring between the specimens from Colombia and Ecuador.

*336 AGLAEACTIS CAUMATONOTA, Gould, P.Z.S., 1848, p. 12.

Helianthea caumatonota, Reich. Troch. Enum., 1855, p. 5.

Aglaeactis olivaceo-cauda, Lawr., Aun. N.Y. Lyc. Nat. Hist., 1867, p. 470.

Aglaiactis caumatonota, Cab. and Heine., Mus. Hein, 1860, t. iii., p. 70.

Black-throated Sun-beam, Gould, Mon. Troch. Suppl., 1886, p. 67.

l'Aglaéacte à dos bronzé, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 26.

Habitat.—Peru.

Male.—Top of head, back, cheeks, and throat brownish-black. Loral space and spot behind the eyes rufous. Lower part of back and rump, when viewed from behind, dark crimson, shading into green on the uppertail coverts. Upper part of breast, and sides of neck deep buff. Tuft of buff feathers on the breast. Lower part of breast and flanks dark bronzy-green, almost black. Abdomen and undertail-coverts reddish-buff. Greater wing-coverts olive-green, primaries and secondaries purplish-brown. Shaft of outer primaries rufous for three-fourths of its length. Base of central rectrices bright rufous, remaining portion dark olive-green, the lateral feathers have two-thirds of the basal portion of inner webs rufous, the rest is dark olive-green. Bill and feet black.

Total length, $4\frac{5}{8}$in. Wings, $3\frac{1}{8}$. Tail, $2\frac{1}{4}$. Culmen, $\frac{11}{16}$.

Female.—Lighter coloured than the male. Head, back, throat, and breast pale brown. Lower part of back less brilliant, rest of plumage like the male.

This rare species is one of my desiderata.

337. AGLAEACTIS CASTELNAUDI, Bourc. and Muls., Rev. Zool., 1848, p. 270.

Trochilus castelnaudi, Gray, Gen. Birds, 1849, vol. iii., app., p. 30.

Helianthea castelnaudi, Reich., Troch., Enum., 1855, p. 6.

Aglaeactis castelnaudi, Cab. and Heine., Mus. Hein., 1860, t. iii., p. 69.

Castelnau's Sun-beam, Gould, Mon. Troch., vol. iii., p. 180.

l'Agléacte de Castelnau, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 22.

Habitat.—Peru.

Male.—Upperside dark bronzy-brown. Lower part of back and rump, viewed from behind, luminous metallic

liliaceous-purple. Median rectrices rufous at base and on shaft, rest bronze-green ; laterals rufous, margined and tipped with bronze-green. Throat, breast, and flanks dark bronzy-brown. Loral space, spot behind the eye, and centre of throat rufous. A tuft of elongated feathers on the breast pure white. Centre of abdomen buff. Undertail-coverts rufous. Wing-coverts olive-green ; primaries and secondaries purplish-brown. Shaft of first primary rufous for two-thirds of its basal length. Maxilla black. Mandible flesh colour at base, rest black.

Total length, 5in. Wing, 3. Tail, $2\frac{2}{8}$. Culmen, $\frac{6}{8}$.

Female.—Upperside not quite so dark as in the male. A band of rufous on neck. Some metallic liliaceous-purple feathers on uppertail-coverts. Median rectrices rufous at base, remainder bronze-green ; laterals rufous on inner webs for two-thirds of their length, remainder bronzy-green. Loral space and spot behind the eye rufous. Underside brownish-rufous, with the centre of throat rufous. The tuft of elongated feathers on breast is pale rufous edged with brown. Under-tail-coverts pale buff. Underwing-coverts and shaft of first primary deep rufous. Upperwing-coverts bronzy-green, primaries and secondaries purplish-brown. Maxilla black. Mandible flesh colour at base, rest black.

Total length, $4\frac{6}{8}$in. Wing, 3. Tail, 2. Culmen, $\frac{6}{8}$.

I have two specimens, male and female, of this rare species collected in Peru, by Mr. Whitely.

This species was discovered near Cusco, by Mr. Deville.

It was dedicated to Mr. de Castlenau, by Messrs. Bourcier and Mulsant.

338. AGLAEACTIS PAMELA, D'Orb and Lafr, Syn. Av., 1838, vol ii., p. 29.

Hylocharis pamela, Gray, Gen. Birds, vol. 1, p. 114.

Helianthea pamela, Reich., Troch., Enum., 1855, p. 6.

Pamela's Sunbeam, Gould, Mon. Troch., vol. iii., p. 181.

l'Aglaéacte de Pamela, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 19.

Habitat.—Bolivia.

Male.—Upperside jet-black, passing to glittering golden-green on lower part of back and uppertail-coverts. Tail

chestnut, edged and tipped with brownish-black. Underside jet-black, with the exception of a tuft of pure white feathers on the breast. Undertail-coverts chestnut. Wings dark bronze-green, excepting the primaries which are purplish-brown. Shaft of first primary, from base to half its length, dark chestnut. Bill black.

Total length, 4in. Wing, $2\frac{6}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{5}{8}$.

Female.—Exactly like the male, but not so bright, the black of upper and underside inclining to brownish-black, the luminous colour of lower part of back and uppertail-coverts is not quite so bright as in the male, and not so green. There is a bronzy tinge on each side of shaft of the median rectrices.

This handsome and rare species was discovered in Bolivia, by Mr. Alcide d'Orbigny.

I have a fine series collected in Bolivia, by Buckley in 1874.

GENUS XCVI. **Lafresnaya,** Bon., Compt. Rend., 1850, p. 380.

CALOTHORAX, Gray, Gen. Birds, 1848, vol. i., p. 110.

ENTIMA, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 51.

EUCLOSIA, Muls. and Verr., Class. Trochil, 1865, p. 63.

TYPE: *T. flavicaudata,* Fraser.

Bill narrow, long, curved, much longer than the head. Wings long, pointed, reaching the end of tail, primaries curving inwardly, outer web on the first hardly perceptible, inner webs very narrow. Tail slightly forked in the males. Rectrices pointed, outermost ones longer than the rest. Undertail-coverts reaching two thirds the length of rectrices. Feet moderate. Tarsi clothed. Sexes different in plumage.

Habitat.—Venezuela, Colombia, and Ecuador.

339. LAFRESNAYA FLAVICAUDATA, Fraser, P.Z.S., 1840, p. 18.

Trochilus lafresnayi, Boissonneau, Rev. Zool., 1840, p. 8.

Calothorax lafresnayi, Gray, Gen. Birds, vol. i., p. 110.

Entima lafresnayi, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 51.

Euclosia lafresnaya, Muls., Hist. Nat. Ois. Mou., 1876, vol. ii., p. 187.

Buff-tailed Velvet-breast, Gould, Mon. Troch., vol. ii., p. 85.

l'Euclosie de Lafresnaye, Muls., Hist. Nat. Ois. Mou., 1876. vol. ii., p. 188.

Habitat.—Colombia.

Male.—Upperside dark shining green. Median rectrices shining bronze-green. Laterals pale buff margined and tipped with bronzy-green. Throat, breast, and flanks metallic grass-green. Abdomen velvety-black. Undertail-caverts bronze-green with the base of feathers pale buff. Wings purplish-brown. Bill black.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{5}{8}$. Culmen, 1.

Female.—Upperside golden-green. Median rectrices golden-bronze, the two next pale buff, tipped with bronze, the two outermost ones pale buff tipped with purplish-brown, all the rectrices of the same length. Underside buff, washed with green feathers. Throat minutely spotted with green. Abdomen pale buff. Undertail coverts buff, with green tips on the longest feathers. Wings purplish-brown. Bill black.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{2}{8}$. Tail, $1\frac{5}{8}$. Culmen, 1.

Young Male.—Like the female, but the underside is washed with bright green feathers.

This species was probably discovered by Boissonneau, in Colombia, and was dedicated by him to Mr. Lafresnaye, who had a fine Ornithological collection. Although the name of *T. lafresnayi*, Boissonneau, ought to have the priority on *L. flavicaudata,* Fraser. I have adopted the generical name of *Lafresnaya,* of Bonaparte, and the specific name of Fraser, considering this generific name more honorific for the late Baron de Lafresnaye.

It is abundant in Colombia.

340. LAFRESNAYA CINEREORUFA, Boucard, H. Bird, 1891, vol. i., p. 25.

Gray-rufous brested Lafresnaye.

le Lafresnaye a paitrine gris-roussâtre.

Habitat.—Colombia.

Female ?—Head dark golden green. Upperside ashy-gray passing to rufous on rump, each feather edged with black or rufous. Tail rufous for three-thirds of its length, rest dark

gray, with bronzy tips on medians and purplish-black tips on laterals. Underside rufous with sides of breast and abdomen grayish-white. Undertail-coverts rufous with pale golden-green in centre. Wings purplish-brown. Bill black.

Total length, 4½in. Wing, 1⅞. Tail, 1⅞. Culmen, 1.

Type unique in my Collection.

Count Berlepsch thinks that it is only an accidental variety of *L. flavicaudata*.

341. LAFRESNAYA GAYI, Bourc. and Muls., Ann. Soc. Agri. Lyon., 1846, p. 325.

Trochilus saulae, Bourc. and Delatt., Rev. Zool., 1846, p. 309.

Calothorax gayi, Gray, Gen. Birds, vol. i., p. 110.

Lafresnaya saulae, Bon., Consp. Gen. Av., vol. i., p. 68.

Entima gayi, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 51.

Euclosia gayi, Muls., Hist. Nat. Ois. Mou., 1876, vol. ii., p. 190.

White-tailed Velvet-breast, Gould, Mon. Troch., vol. ii., p. 86.

l Enclosie de Gay, Muls. Hist. Nat. Ois. Mou., 1876, vol. ii., p. 190.

Habitat.—Veuezuela and Ecuador.

Male.—Upperside shining dark green, sometimes with a golden tinge. Median rectrices shining bronze-green. Laterals white with bronze tips, outermost ones white, margined on upper half of external web, and tipped with purplish-brown, sometimes all the tips of laterals are purplish-brown. Throat, breast, and flanks metallic grass-green. Abdomen velvety-black. Undertail-coverts shining green, with the base of feathers white. Wings purplish-brown. Bill black.

Total length, 4⅜in. Wing, 2½. Tail, 1⅝. Culmen, 1.

Female.—Exactly like the male, excepting the tips of lateral and outermost rectrices which are broader, and the underside which is white, washed with green.

Total length, 4⅜in. Wing, 2⅜. Tail, 1⅝. Culmen, 1.

This species is rare. It was dedicated by Messrs. Bourcier and Mulsant, to Mr. Claude Gay, Naturalist, who explored Chili, during fifteen years.

GENUS XCVII. **Erebenna,** Muls. and Verr., Class. Troch., 1865, p. 66.

TYPE: *T. derbyi,* Delattre and Bourcier.

Bill straight, longer than the head, rather stout for all its length. Nostrils exposed. Wings long, narrow, and pointed, reaching the end of tail. Tail forked and acutely pointed. Tarsi clothed. Sexes dissimilar.

Habitat.—Colombia and Ecuador.

342. EREBENNA DERBIANA, Delatt. and Bourc., Rev. Zool., 1846, p. 306.

Eriopus derbyi, Gould, P.Z.S., 1847, p. 17.

Threptria derbyi, Reich., Aufz. der Col., 1859, p. 3.

Eriocnemis derbyanus, Bon., Rev. and Mag. Zool., 1854, p. 252.

Derby's Puff-leg, Gould, Mon. Troch., vol. iv., p. 279.

l'Eriocnemis de Derby, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 60.

Habitat.—Colombia and Ecuador.

Male.—Upperside shining golden-green, bronzy on neck and uppertail-coverts. Uppertail-coverts luminous metallic gold. Tail brownish-black, with a bronze tinge on base of feathers. Underside brilliant golden-green. Undertail-coverts luminous golden-green. Tarsal tufts black. Wings purplish-brown. Feet and bill black.

Total length, $3\frac{6}{8}$in. Wing, $2\frac{2}{8}$. Tail, $1\frac{1}{2}$. Culmen, $\frac{6}{8}$.

Female.—Forehead shining greenish-blue. Upperside shining green, bronzy on neck and rump. Underside metallic golden-green, showing the white base of feathers on the throat and breast, and more so, on centre of abdomen. Tarsal tufts white. Rest as male.

Total length, $3\frac{5}{8}$in. Wing, $2\frac{2}{8}$. Tail, $1\frac{1}{2}$. Culmen, $\frac{6}{8}$.

This excessively rare and fine species was discovered on the volcano of Puracé, near Popayan, by Delattre. It was dedicated by him and Bourcier, to Lord Edward, thirteenth Earl of Derby, who during his lifetime, was one of the most liberal Patrons of natural sciences.

My female specimen of this species was collected at Pasto, by the celebrated alpinist, Mr. E. Whymper.

GENUS XCVIII. **Engyete,** Reich., Syst. Av., 1849, p. xi.

TYPE: *E. alinae,* Bonrcier.

Bill straight, slender, longer than the head, nostrils exposed. A bright metallic spot on forehead. Wings long, pointed, reaching the end of tail. Tail forked, rectrices narrow, pointed at tips, brilliantly coloured. Median shorter, laterals and outermost ones gradually longer. Upper surface similarly coloured. A large white patch on breast. Tarsi clothed. Tuft on anal region black. Sexes nearly similar.

Habitat.—Colombia, Ecuador, and Peru.

343. ENGYETE ALINAE, Bourc., Ann. Soc. Agr. Lyon, 1842, p. 343.

Hylocharis alinae, Gray, Gen. Birds, vol. i., p. 114.

Eriopus alinae, Bon. Consp. Gen. Av., 1850, vol. i., p. 80.

Engyetc alinae, Reich., Aufz. der Col., p. ix.

Metallic Puff-leg, Gould, Mon. Troch., vol. iv., p. 280.

l'Eriocnemis d'Aline, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 31.

Habitat.—Colombia, and Ecuador.

Male.—Upperside shining grass-green. Forehead luminous green. Underside, excepting a white spot on centre of breast, brilliant metallic green. Tarsal tufts white. Wings purplish brown. Bill black.

Total length, $3\frac{3}{8}$in. Wing, 2. Tail, $1\frac{3}{8}$. Culmen, $\frac{5}{8}$.

Female.—Slightly tinged with more white on breast, and throat.

I have two specimens marked, Delattre, Panama, with the forehead patch and all the underside of the most brilliant golden-green, quite different from the Colombian and Ecuadorian specimens; but I consider them as only a variety of colouration. I bought them at Bourcier's sale, and one of them is probably the type of the species.

This pretty species was dedicated by Bourcier to his wife.

My specimens from Ecuador, were collected by Buckley.

*344. ENGYETE DYBOSKii, Tacz., P.Z.S., 1882, p. 39.

Eriocnemis dyboskii, Tacz., P.Z.S., 1882, p. 39.

Dyboski's Puff-leg, Gould, Mon. Troch., Suppl, 1886, p. 68.

l'Eriocnemis de Dybowsky.

Habitat.—Peru.

Male.—Upperside coppery-golden with bluish reflections in certain lights. Tail deeply forked bronzy-green, more brilliant on median rectrices. Underside brilliant metallic green, especially on the abdomen with bluish reflections more accentuated than on the upperside. Centre of breast white at base, then green showing a small space white. Undertail-coverts shining green with the base of feathers buffy-white. Thigh tufts pure white. Wing coverts golden-green. Wing purplish-brown. Maxilla black, Mandible flesh colour with black tip.

Total length, 106 mill. Wing, 52. Tail 31. Culmen, 22.

Female.—Similar to the male in colouration, the white spot on breast more apparent, washed with small green spots, the white base of the throat feathers more apparent, the feathers of the abdomen edged with white.

This rare species was dedicated by Mr. Taczanowski, to Doctor Dybowski, the well-known Siberian explorer.

Types in Warsaw Museum.

This species was discovered in Peru, by the well-known collector Mr. Stolzmann. By the description, it looks exactly the same as my Ecuadorian specimens of *E. alinæ*.

GENUS XCIX. **Spathura**, Gould, Mon. Troch, pl. 164, June, 1849.

OCREATUS, Gould, P.Z.S., 1846, p. 86.

STEGANURUS, Reich., Syst. Av. Nat., December 1849, pl. 40.

URALIA, Muls. and Verr., Class Troch., 1865, p. 81.

TYPE:—*O. underwoodi*, Lesson.

Bill straight, about the length of the head. Nostrils exposed. Wings moderately long (passing slightly the median rectrices. Tail deeply forked. Median rectrices smaller, the next three gradually longer and pointed, outermost

one twice as long as the longest lateral rectrices, having the shaft bare of webs for a portion of its length, and terminating in a spatula. Tarsi hidden in a tuft of downy feathers. Hind toe and nail shorter than the middle toe and nail. Sexes unlike.

Habitat.—Venezuela, Colombia, Ecuador, Peru, and Bolivia.

345. STEGANURA UNDERWOODI, Less., Troch, 1831, p. 105.

Ornismya kieneri, Less., Troch, 1831, p. 165.

Metlisuga underwoodi, Gray, Gen. Birds, vol. i., p. 113.

Steganurus spatuligerus, Reich., Aufz., der Colib, 1853, p. 8.

Spathura underwoodi, Gould, Mon. Troch., vol. iii., p. 162.

White-footed Racket-tail, Gould, Mon. Troch, vol. iii., p. 162.

La Sténagure d'Underwood, Muls., Hist. Nat. Ois. Mou., 1877, t. iv., p. 255.

la Spathure d'Underwood.

Habitat.—Colombia and Venezuela.

Male.—Upperside shining green. Median rectrices bronze-green, laterals bronze-green on outer web, rest bluish-black, outermost ones brownish-black; shafts grayish-brown, very apparent up to the spatula, which is bluish-black with a bronzy dark bluish-green spot at tip. Chin jet black. Throat and breast luminous metallic grass-green. Rest of underside bronzy-green. Tarsal tufts white. Bill black. Feet flesh colour.

Total length, $5\frac{1}{2}$in. Wing, $1\frac{6}{8}$. Tail, $3\frac{6}{8}$. Culmen, $\frac{1}{2}$.

Female.—Upperside shining green, bronzy on head. Median rectrices shining bronze-green, laterals bronze-green on outer webs, bluish-black on inner, with white tips, outermost ones bluish-black margined with brown on outer and inner webs, and with white tips. Underside white spotted with green. Undertail-coverts rufous.

Total length, 3in. Wing, $1\frac{5}{8}$. Tail, $1\frac{3}{8}$. Culmen, $\frac{1}{2}$.

Young Male.—Exactly coloured like the female, with more green spots on the underside and outermost rectrices, with spatula of the same length as adult males. The spatula is longer and narrower than in the adults, and sometimes margined with white at tips.

The length of the tail varies slightly according to age.

This species is very abundant in Colombia, but rare in Venezuela.

It was probably discovered by Mr. Stokes, who sent a drawing of this bird to Lesson, by Mr. Underwood, to whom he dedicated this beautiful and remarkable species.

346. SPATHURA MELANANTHERA, Jard., Contr. Ornith., 1851, p. 111.

Discura melananthera, Bon., Consp. Gen. Av., 1850, vol. i., p. 70.

Ecuadorian Racket-tail, Gould, Mon. Troch., vol. iii., p. 163.

Oblong Racket-tail.

La Stéganure à raquette oblongue, Muls., Hist. Nat. Ois. Mou., 1877, t. iii., p. 258.

la Spathure à raquette oblongue.

Habitat.—Ecuador.

Male.—In colouration, this species is nearly identical with the preceding one, but can be easily distinguished by not having the chin jet black, as mentioned by Elliot, the two being exactly similar in that respect, but by the size of the tail which is much shorter, and also by the smaller size of the spatula, which is also more rounded than in *S. underwoodi.*

In my specimens which were collected in Ecuador, by Buckley, the colour of the underside is more golden, but this don't amount to much, as I have also one specimen from Merida, Venezuela of the same colour, although undoubtedly being, *S. Underwoodi.* The colour of the upperside is also slightly golden-green.

Total length, $4\frac{5}{8}$in. Wing, $1\frac{5}{8}$. Tail, $3\frac{1}{8}$. Culmen, $\frac{1}{2}$.

Female.—Also like that of *S. underwoodi,* but with the underside white, excepting the flanks, which are sparingly spotted with green.

Total length, 3in. Wing, $1\frac{5}{8}$. Tail, $1\frac{7}{16}$. Culmen, $\frac{1}{2}$.

It is much rarer than the preceding species.

*347. SPATHURA SOLSTITIALIS, Gould, Ann. Mag. Nat. Hist., 1871, vol. viii., p. 62.

Ecuador Racket-tail, Gould, Mon. Troch., Suppl. p. 52.

La Stéganure du solstice, Muls., Hist. Nat. Ois. Mou., 1877, t. iii., p. 260.

la Spathure du solstice.

Habitat.—Ecuador.

Male.—Uppersurface, abdomen, flanks, and undertail coverts dark grass-green. Throat and breast luminous grass green. Wings purplish brown. Tarsal tufts very deep buff. Tail dark brown, outer webs of all but the outermost rectrices washed with green. Spatules black. Bill black.

Total length, $5\frac{1}{4}$in. Wing, $1\frac{7}{8}$. Tail, 3. Culmen, $\frac{5}{8}$.

Female.—Upperparts bronzy-green. Entire underparts white spotted with green. Undertail coverts buff. Middle rectrices bronzy-green, outermost one, on either side, brown, tipped with white, remainder brown on inner web, bronzy-green on outer. Bill black.

Total length, $3\frac{1}{4}$in. Wing, $1\frac{3}{4}$. Tail, $1\frac{1}{4}$. Culmen, $\frac{5}{8}$.

This is a very rare species. The types of Gould are in the British Museum.

*348. SPATHURA ADDAE, Bourc., Rev. Zool., 1846, p. 312.

Ocreatus rufocaligatus, Gould, P.Z.S., 1846, p. 86.

Mellisuga rufocaligata, Gray, Gen. Birds, vol. i., p. 113.

Spathura addae, Bon. Consp. Gen. Av., 1850, vol. i., p 80.

Red booted Racket-tail, Gould, Mon. Troch., vol. iii., p. 165.

La Stéganure d'Adda, Muls., His. Nat. Ois. Mou., 1877. t. iii., p. 264.

La Spathure d'Adda.

Habitat.—Bolivia.

Male.—Throat and breast brilliant green; rest of body and middle rectrices bronze-green. Undertail-coverts bronze-green margined with buff. Tarsal tufts rufous. Tail brown; spatules black. Bill black.

Total length, $4\frac{3}{8}$in. Wing, $1\frac{5}{8}$. Tail, $2\frac{3}{8}$. Culmen, $\frac{9}{16}$.

Female.—Upper parts and median rectrices bronze-green. Undersurface white spotted with green. Tarsal tufts and

undertail-coverts rufous. Outermost rectrices brown tipped with white, rest brown on inner web, green on outer one. Bill black.

Total length, 3¼in. Wing, 1⅝. Tail, 1¼. Culmen, ⅝.

"Elliot's Syn. of H. Birds, p. 143."

Type of male in Elliot's Collection, now in the American Museum of Natural History of New York. This rare species is represented in the collection of the British Museum by seven males, and three females. It is closely allied to *St. solstitialis*.

349. SPATHURA ANNAE, Berl. and Stolz. Ibis, 1894, p. 398.

Steganura peruana, Tacz., P.Z.S., 1874, p. 541.

Anna's Racket Tail.

la Spathure d'Anna.

Habitat.—Chanchamayo, Peru.

Male.—*S. addae* maxime affinis, differt basibus plumarum corporis inferioris fuscis, minime albis et rectricibus externis cruciatis.

Closely allied to *S. addae*.

Types in Museum Branicki, Varsovia, and in Museum Berlepsch.

*350. SPATHURA PERUANA, Gould, Mon. Troch., vol. iii., p. 164.

Peruvian Racket-tail, Gould, Mon. Troch., vol. iii., p. 164.

La Stéganure du Pérou, Muls., Hist. Nat. Ois. Mou., 1877, t. iii., p. 262.

La Spathure du Pérou.

Habitat.—Peru.

Male.—Throat and breast metallic grass-green; rest of plumage of body bronzy-green. Wings and tail brown; the outer webs of all the lateral rectrices baonzy-green, outer web of outermosts steel-blue Bill black. Tarsal tufts buff.

Total length, 5in. Wing, 1¾. Tail, 3⅛. Culmen, ⅝.

Female.—Upper surface and median rectrices bronzy-green. Under surface white spangled with green. Tarsal tufts and undertail coverts buff. Outermost rectrices brown

tipped with white; rest brown on inner web, green on outer one. Bill black. Wings brown.

Total length, 3¼in. Wing, 1⅝. Tail, 1¼. Culmen, ⅝.

The types of this rare species are in the British Museum, "Ex Gould Collection." They have two males, two females, and one junior. It was discovered in Peru, by Mr. Matthews, in 1831.

*351 SPATHURA CISSIURA, Gould, P.Z.S., 1853, p. 109.

Steganura cissiura, Gould, P.Z.S., 1853, p. 109.

Uralia cissiura, Muls., Hist. Nat. Ois. Mou., 1877, vol. iii., p. 265.

Scissor-tailed Racket-tail, Gould, Mon. Troch., vol. iii., p. 166.

l'Uralie à queue fendue, Muls., Hist. Nat. Ois .Mou., 1877, vol. iii., p. 266.

La Spathure à queue fourchue.

Habitat.—Peru.

Male.—General plumage bronzy-green; wings purplish-brown; central rectrices green, lateral steel-blue; under surface green, paler on the throat; thighs thickly plumed and of a reddish buff.

Total length, 4¼in. Wing, 1⅝. Tail, 2⅜. Bill, ⅝.

"Gould, loc. c."

I have seen the types of this species in the British Museum, and was unable to see in what they differed from *S. peruana.*

GENUS C. **Threptria**, Reich, Aufz. der Colib., 1854, p. 9.

TYPE: *T. aureliae*, Bourcier and Mulsant.

Bill straight, narrow, and acutely pointed. Nostrils exposed. Wings long, reaching the end of tail. Tail even, slightly rounded. Rectrices of uniform size, excepting the medians which are shorter. Tarsi clothed. Sexes similar.

Habitat.—Columbia, Ecuador, and Bolivia.

352. THREPTRIA AURELIAE, Bourc. and Muls., Ann., Soc., Agr., Lyon, 1846, p. 315.

Hylocharis aureliae, Gray, Gen. Birds, vol. i., p. 114.

Eriopus aureliae, Bon., Consp.,Gen. Av., 1850, vol. i , p. 80.

Eriocnemis aureliae, Reich., Aufz. der Col., 1853, p.9.

Aurelia's Puff-leg, Gould, Mon. Troch., vol. iv., p. 283.

l'Eriocnémis d'Aurélie, Muls. Hist., Nat. Ois. Mou., 1876, t. iii., p. 52.

Habitat.—Columbia.

Male.—Forehead and back shining green. Head, lower part of back, and uppertail-coverts coppery-bronze. Tail bluish-black, underside metallic bronzy-green. Feathers on the vent fringed with white or pale gray. Tarsal tufts intermixed with pale chestnut and white. Undertail-coverts grass-green. Wings purplish-brown. Bill black.

Total length, $3\frac{6}{8}$in. Wing, $2\frac{3}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{6}{8}$.

Female.—Exactly like the male with more white on vent, and the undertail-coverts margined with buff. This species is very abundant in Columbia.

It was dedicated by Messrs. Mulsant and Bourcier, to Miss Aurélic Favre, who married Mr. Jacques Louis Henon, a celebrated Naturalist of Lyon.

353. THREPTRIA RUSSATA, Gould, P.Z.S., 1871, p. 505.

Buff Puff-leg.

l'Eriocnémis á tarses roux.

Habitat.—Ecuador.

This species is closely allied to *T. aurcliae*, but larger. My specimen from Ecuador is more bronzy on back, less shiny on underside with tarsal tufts paler chestnut, and undertail coverts bronze-green.

It may be a female or a male not quite adult.

Total length, $4\frac{3}{8}$in. Wing, $2\frac{1}{2}$. Tail, 2. Culmen, $\frac{6}{8}$.

354. THREPTRIA ASSIMILIS, Elliot, Bull, Soc. Zool. France, 1876, p. 227.

Brown-booted Puff-leg, 1886, p. 70.

l'Eriocnemis de Bolivie.

Habitat.—Bolivia.

Male.—Head, neck, and uppertail-coverts coppery-bronze. Back and wing-coverts shining green. Wings purple-brown. Underside shining green with a coppery lustre. Abdomen buff. Undertail-coverts shining green, margined with buff. Tarsal tufts pale brown. Tail bronze at the base, passing to black at the tips. Bill black. Feet light brown.

Total length, $3\frac{3}{4}$in. Wing, $2\frac{1}{4}$. Tail, $1\frac{5}{8}$. Culmen, $\frac{3}{4}$.

Female.—Slightly smaller and duller in colouration. Type in Elliot's Museum, now the property of the New York American Museum of Natural History.

My specimens of this species were collected in Bolivia, 1876, by Buckley; and probably Elliot's type, was also from the same collector.

355. THREPTRIA LUGENS, Gould, Contr. Ornith., 1851, p. 140.

Hoary Puff-legg, Gould, Mon. Troch., vol. iv., p. 282.

l'Eriocnémis demi deuil, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 54.

Habitat.—Ecuador.

Male.—Upperside bronzy-green inclining to coppery-bronze on the head and uppertail-coverts. Tail bluish-black. Underside dark laden-gray, washed with dark green on sides of abdomen and flanks, the feathers of the chin and throat are edged with white. Undertail-coverts dark greenish-bronze edged with gray. Tarsal tufts pure white. Wings purplish. Bill black. Feet pale brown, probably flesh-colour in life.

Total length, $4\frac{2}{8}$. Wing, $2\frac{1}{2}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{6}{8}$.

It is a very rare species in the Collections.

356. THREPTRIA SQUAMATA, Gould, P.Z.S., 1869, p. 311.

Scaly Puff-leg, Gould, Mon. Troch., vol. iv., p. 281.

l'Eriocnémis à gorge écailleuse, Muls., His. Nat. Ois. Mou., 1876, t. iii., p. 55.

Habitat.—Ecuador.

Male.—Precisely the same as *T. lugens,* except the tarsal tufts, of which the hind portion is buff. I doubt very much that it is a distinct species.

GENUS CI. **Eriocnemis,** Reich., Syst. Av., 1849, pl. xl.

Eriopus, Gould, P.Z.S., 1847, p. 16. Already employed for Lepidoptera.

Threptria, Reich., Syst. Av., 1854, pl. xi.

Phemonoe, Reich., Syst. Av., 1854, pl. ix.

Nania, Muls., Cat. Ois. Mou., 1875, p. 21.

Eriona, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p.28.

TYPE: *O. vestita*, Longuemare.

Bill straight, slender, longer than the head. Nostrils exposed. Wings long, pointed, reaching nearly the end of tail. Tail forked. Median rectrices short and wide, laterals graduating in length up to the outermost ones, which are the longest. Tarsi thickly clothed. Feet small.

Habitat.—Venezuela, Colombia, Ecuador.

357. ERIOCNEMIS NIGRIVESTIS, Bourc. and Muls. Ann. Soc. Agr. Lyon, 1852, p. 144.

Eriocnemis nigriventris, Reich., Aufz. der Colib, 1853, p. 9.

Black-breasted Puff-legg, Gould, Mon. Troch., vol. iv., p. 276.

l'Eriocnémis à robe noire, Mul., Hist. Nat. Ois. Mou., 1876, t. iii., p. 39.

Habitat.—Ecuador.

Male.—Head black with bronze tinge. Upperside black with greenish reflections in certain lights, passing to dark green on rump. Uppertail-coverts dark indigo-blue. Tail bluish-black. Centre of throat metallic blue. Rest of underside black with a greenish tinge, more especially so, on abdomen, and flanks. Undertail-coverts shining indigo-blue. Tarsal tufts white. Wings purplish-black. Bill and feet black.

Total length, 3½in. Wing, 2⅜. Tail, 1⅝. Culmen, ⅝.

Female.—Upperside bronzy-green, becoming pure green on rump, and brilliant green on the uppertail-coverts. Throat blue. Breast golden-bronze. Rest of underside shining green. Undertail-coverts violet-blue.

It is a very rare species. My specimens were collected in Ecuador, by Buckley.

*358. ERIOCNEMIS VENTRALIS, Salv. Ann. and Mag. Nat. Hist. 1891, p. 378.

Amethyst vented Puff-leg.

l'Eriocnémis à ventre améthyste.

Habitat.—Colombia.

Male.—Upper surface shining grass-green, becoming bronzy-black on the hind neck and crown, and glittering olive-green on the rump, and uppertail-coverts; under surface with the throat bronzy-black, a glittering blue gular patch; breast glittering green shading into a glittering amethyst on the abdomen, undertail-covets glittering purplish-blue; tail steel-blue, tibial tufts pure white; bill black.

Total length, 3·9in. Wing, 2·25. Tail, 1·65. Bill, 0·85.

TYPE: Ex. Coll. Salvin and Goodman, now in the British Museum.

359. ERIOCNEMIS VESTITA, Longuem, Rev. Zool., 1838, p. 314.

Trochilus uropygialis, Fras. P.Z.S., 1840, p. 15.

Hylocharis vestita, Gray, Gen. Birds, vol. i, p. 114.

Ornismya glomata, Less, Echo du Monde Savant, 1843.

Eriopus vestita, Bon. Consp., Gen. Av., 1850, vol. i., p. 80.

Mellisuga ridolfi, Benv. Ann. R. Mus. Flor., 1865, p. 205.

Eriocnemis smaragdinipectus, Gould, Ann. Mag., Nat. Hist., 1868, p. 322.

Glowing Puff-leg, Gould, Mon. Troch., vol. iv., p. 275.

L'Eriocnémis à plaque jugulaire d'un bleu-violet, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 33.

Habitat.—Venezuela, Colombia, and Ecuador.

Male.—Upperside dark shining green. Rump and uppertail-coverts most brilliant metallic golden-green. Tail bluish-black. Centre of throat metallic blue. Rest of throat and breast dark shining green, appearing black in certain lights. Lower part of breast, abdomen, and flanks glittering metallic golden-green. Tarsal tufts pure white. Undertail-coverts shining violet-blue. Wings purplish-brown. Feet and bill black.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{3}{8}$. Tail, $1\frac{7}{8}$. Culmen, $\frac{6}{8}$.

Female.—Upperside shining golden-green, very brilliant on rump and uppertail-coverts. Median rectrices bronze-green

passing to bluish-black at tips. Tail bluish-black. Centre of throat and undertail-coverts shining blue, lighter than in the male. Rest of underside shining golden-green, showing rufous base of feathers on throat and breast, and gray on abdomen.

Total length, 4in. Wing, 2. Tail, $1\frac{6}{8}$. Culmen, $\frac{6}{8}$.

This beautiful species is very abundant in Columbia, and Ecuador, much rarer in Venezuela.

I have one male specimen from Columbia with the throat brilliant metallic pale blue, and under it, a wide band of dark rufous; the breast brilliant dark green, rest of plumage as the other specimens. I think that it is only an accidental variety of colouration.

I have not been able to see any difference between *E. vestita*, and *E. smaragdinipectus*. My adult male specimens, collected by Buckley, in Ecuador, are precisely like those from Colombia, and Venezuela, others not so adult, are brilliant green, up to the blue spot of throat.

*360. ERIOCNEMIS AUREA, Meyer, Auk., 1890, vol. vii., p. 315.

Golden Puff-leg.

l'Eriocnémis doré.

Habitat.—Colombia.

Differs from *E. cupreiventris* by the golden-bronze colour all over, and in part of a most lively tint, even on the shorter tail and wing coverts. The throat and upper breast are of a lighter green than in *E. cupreiventris*, and in certain lights washed with bronze too, and each feather has a concealed white cross band as in *E dybowski*. Further, the long upper tail coverts are not greenish blue, but green, and the under-tail-coverts are not violet, but cobalt-blue, only in certain lights, they are hyacinth-blue, some margined with green. The colour of the wings as well as that of the tail is not as lively as in *E. cupreiventris*, and finally the white plumes on the thighs are much shorter, and not so abundant. It cannot be taken for a young *cupreiventris*, being much more brightly coloured on the whole body than the adult of this species. "Meyer loc. cit."

361. ERIOCNEMIS CHRYSORAMA, Elliot, Ann. and Mag. Nat. Hist., 1874, p. 375.

Blue vented Puff-leg, Gould, Mon. Troch., Suppl., 1886, p. 69.

l'Eriocnémis à gorge dorée, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 44.

Habitat.—Colombia, Ecuador?

Adult.—Upper and lower surface metallic fiery-copper colour. Chin and throat metallic yellowish-green, golden-yellow in some lights. Uppertail-coverts luminous yellowish-green. Undertail-coverts white on their basal half, rest blue. Wings purplish-brown. Tail much forked, steel-black. Tarsal tufts pure white. Bill black.

Total length, 4¼in. Wing, 2¼. Tail, 1¾. Culmen, ⅞.

"Elliott's Syn. of H. Birds, p. 193."

Type of male in Elliot's Museum, now in the American Museum of Natural History of New York.

Female.—Upperside coppery-golden. Uppertail-coverts most brilliant coppery-gold. Median rectrices bronzy-green for two-thirds of their length, rest steel-blue. Lateral, and outermost ones steel-blue. Wings purplish-brown. Throat and undertail-coverts pale metallic-blue. Rest of underside coppery-gold, lighter on breast. Tarsal tufts pure white. Bill and feet black.

Total length, 4in. Wing, 2⅛. Tail, 1⅞. Culmen, ⅝.

Type of female, unique in my Collection.

362. ERIOCNEMIS GODINI, Bourc., Compt. Rend., 1851, t. xxxii., p. 186.

Eriocnemis smaragdinipectus, Gould, Ann. Mag., Nat. Hist., 1868, p. 322.

Godin's Puff-leg, Gould, Mon. Troch., vol. iv., p. 277.

L'Eriocnémis de Godin, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 36.

Habitat.—Ecuador.

Male.—Upperside shining bronzy-green, becoming glittering green on the rump, and uppertail-coverts. Underside glittering golden-green, more coppery on the abdomen, a glittering blue gular spot, gradually shading into the glittering

green of the throat. Tibial tufts pure white. Under tail-coverts glittering blue. Tail steel-blue.

Female.—Like that of *E. vestita.*

*363. ERIOCNEMIS EVELINAE, Ernst. and Hart., Novit. Zool., 1894, vol. i., p. 17.

Eveline's Puff-Leg.

l'Eriocnémis d'Eveline

Habitat.—Rio Pastassa, Ecuador.

Similis femina *E. Godini*, sed rostro breviore, mandibula ad basin carnea, caudae tectricibus splendidioribus, pectore obscuriore.

Total length nearly 4in. Wing, 2·35. Lateral rectrices, 1·6. Central, 1·22. Bill 1·59.

Dedicated to the sister of the Hon. Lionel Walter de Rotschild.

Type unique in Tring Museum.

I have not seen this species.

364. ERIOCNEMIS CUPREIVENTRIS, Fras, P.Z.S., 1848, p. 15.

Ornysmia vestita, female, Longue, Rev. Zool., 1838, p. 314.

Eriopus simplex, Gould, P.Z.S., 1849, p. 96.

Hylocharis cupreoventris, Gray, Gen. Birds, vol. i., p. 114.

Phemonoe, cupreiventris, Reich., Aufz. der Colib, 1853, p. 9.

Coppery-bellied Puff-leg, Gould, Mon. Troch., vol. iv. p. 270.

Olive Coloured Puff-leg, Gould, Mon. Troch., vol. iv., p. 271.

l'Eriocnémis à ventre cuivreux, Muls., His. Nat. Ois. Mou., 1876, t. iii., p. 46.

Habitat.—Colombia and Venezuela.

Male.—Upperside bronzy-green, passing into shining green on uppertail-coverts. Tail bluish-black. Throat and breast shining green, passing to golden on flanks. Abdomen brilliant metallic coppery-red. Undertail-coverts shining blue with purplish reflections in some specimens. Tarsal tufts white. Wings purplish-brown, with a bronze tinge on secondaries. Bill and feet black.

Total length, 4⅛in. Wing, 2⅜. Tail, 1⅝. Culmen, ⅝.

Female.—Exactly the same, but slightly less brilliant.

It is a very common species in Colombia, but rare in Venezuela. From the last country, I have received several specimens from Merida.

365. ERIOCNEMIS ALBOGULARIS, Boucard, Hum. Bird, 1892, p. 78.

White throated Puff-leg.

l'Eriocnémis à gorge blanche.

Male.—Upperside shining green, most brilliant on upper-tail-coverts. Tail steel-blue. Throat pure snow-white. Breast, upper part of abdomen, and flanks shining green. Lower part of abdomen metallic golden. Tarsal tufts pure white. Undertail-coverts shining blue. Wings purplish-brown. Bill and feet black.

Total length, $3\frac{7}{8}$in. Wing, $2\frac{3}{8}$. Tail, $1\frac{7}{8}$. Culmen, $\frac{6}{8}$.

This species is allied to *E. cupreiventris*, but easily distinguishable by the colour of its throat. Possibly it may turn out to be a case of semi-albinism.

Type unique in my Collection.

366. ERIOCNEMIS DYSELIUS, Elliot, Ibis., 1873, p. 294.

Eriocnemis dyselia, Muls. Hist. Nat. Ois. Mou., 1876, t. iii. p. 50.

Black vented Puff-leg, Gould, Mon. Troch. Suppl., 1866, p. 69.

l'Eriocnémis à sous caudales noires, Muls. Hist. Nat. Ois. Mou., 1876, t. iii, p. 51.

l'Eriocnemis noir.

Habitat.—Colombia (not Ecuador).

Male.—Upperside black with a purple gloss. Tail bluish-black with purplish reflections. Wings glossy black. Underside black, with a purple gloss on throat. Tarsal tufts pure white. Bill and feet black.

Total length, 4in. Wing, $2\frac{1}{2}$. Tail, $1\frac{5}{8}$. Culmen, $\frac{6}{8}$.

Female.—Unknown.

TYPE: (Elliott's Collection) now in New York Museum.

I have only one very fine male specimen of this species, which is probably a melanism of *E. cupreiventris*.

*367. ERIOCNEMIS INCULTUS, Elliot, Auk, 1889, p.p. 209-210.

Dark violet Puff-leg.

l'Eriocnémis violet-obscur.

Habitat.—Bogota. (?)

Crown of head, upper parts of body, and uppertail-coverts bluish-black; the feathers on rump and uppertail-coverts margined with rufous. Throat and centre of breast dull lead-colour, feathers of the throat edged with white. Wings deep purple. Sides of breast bluish-black. Flanks black with a deep brownish reflection. Abdomen white spotted with brown. Tail steel-blue, nearly square at tip. Feathers of undertail-coverts gray in centre, glossed with green, and edged with white. Thigh tufts white. Bill black, base of mandible flesh-colour. Feet black.

Length of Wing, $2\frac{2}{12}$in. Tail, $1\frac{5}{12}$. Culmen, $\frac{9}{12}$.

(Elliot's loc. cit.).

The specimen from which the above description was taken is unique in the American Museum of Natural History. It is not in fully adult plumage. It comes close to *E. dyselius*, which species, is from Colombia, not Ecuador, as stated by Mr. Elliot.

In my opinion it is the same species, and probably also a melanism of *E. cupreiventris*.

368. ERIOCNEMIS SIMPLEX, Gould, P.Z.S., 1849, p. 96.

Dark Puff-leg.

l'Eriocnémis obscur.

Habitat.—Colombia.

Male.—Much darker than *E. cupreiventris*, and without any glittering colours, the general tint being very dark greenish olive-bronze, rather more rufescent on the upper surface, and darker on the crown.

I am of the same opinion as Mr. Salvin about this bird, which is probably another doubtful form of *E. cupreiventris*.

*369. ERIOCNEMIS SAPPHIROPYGIA, Tacz., P.Z.S., 1874, p. 139.

Sapphire-vented Puff-leg, Gould, Mon. Troch., Suppl., 1886, p. 71.

l'Eriocnémis à sous candales, couleur de saphir, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 37.

Habitat.—Peru.

Adult.—Upper parts bronzy-green, passing into pure green on the rump and uppertail-coverts. Wings purplish-black. Under surface glittering green. Undertail-coverts shining sapphire-blue. Tarsal tufts white. Tail dark blue. Bill black.

Total length, 4¼in. Wing, 2⅝. Tail, 2. Culmen, 1⅛.

This rare species was discovered in Peru by Mr. Jelski. I think it is unique in the Museum of Varsovia. In my opinion it may turn out to be only a variety of *E. cupreiventris*.

*370. ERIOCNEMIS GLAUCOPOIDES, d'Orb. and Laf., Syn. Av., 1838, t. iii., p. 27.

Trochilus d'orbignyi, Bourc. and Muls., Ann. Sc. Phys. Nat. Lyon, 1846, p. 320.

Hylocharis d'orbignyi, Gray, Gen. Birds, vol. i. p. 114.

Thalurania glaucopoides, Reich., Aufz. der Colib., 1853, p. 7.

Phemonoe d'orbignyi, Reich., Troch. Enum., p. 6, pl. 741, f. 4697.

D'Orbigny's Puff-leg, Gould, Mon. Troch., vol. iv., p. 278.

l'Eriocnémis de d'Orbigny, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 30.

Habitat.—Bolivia.

Male.—Forehead violet-blue, a white spot behind the eye. Uppersurface bronzy-green. Undersurface glittering golden-green, washed with blue on the throat and chest. Tail bluish-black. Bill black. Tarsal tufts white. Undertail-coverts shining blue.

Total length, 4½in. Wing, 2. Tail, 1½. Culmen, ⅝.

Type unique in the Paris Museum.

This rare species was discovered in Bolivia, by the celebrated Naturalist, d'Orbigny. It was dedicated to him, by Messrs. Mulsant and Bourcier, but having been described eight years before by d'Orbigny and Lafrernaye under the name of *Ornismya glaucopoides*, this name has the priority.

371. ERIOCNEMIS LUCIANI, Bourc, Ann. Soc. Agr. Lyon, 1847, p. 624.

Hylocharis luciani, Gray. Gen. Birds, vol. i., p 114.

Eriopus luciani, Bon. Consp. Gen. Av., 1850, vol. i., p. 80.

Buquet's Puff-leg, Gould, Mon. Troch., vol. iv., p. 273.

l'Eriocnémis de Lucien, Muls. Hist. Nat. Ois. Mou., 1876, t. iii., p. 47.

Habitat.—Ecuador.

Male.—Forehead shining greenish-blue. Upperside shining golden-green passing to glittering green on rump and upper-tail coverts. Tail blue-black, with a greenish-bronze tinge on median rectrices on some specimens. Underside metallic golden-green, greener on throat. Undertail-coverts shining blue. Tarsal tufts white. Wings purplish-brown. Bill black.

Total length, 5in. Wing, $2\frac{7}{8}$. Tail, $2\frac{1}{2}$. Culmen, $\frac{13}{16}$

It is a common species in Ecuador.

It was discovered in that country, by Delattre, and dedicated to the late Mr. Lucien Buquet, who was for many years, Treasurer of the French Entomological Society.

372. ERIOCNEMIS MOSQUERAE, Bourc. and Delatt, Rev Zool., 1846, p. 306.

Hylocharis mosquerae, Gray, Gen. Birds, vol. i., p. 114.

Eriopus mosquerae, Bon. Consp., Gen. Av., 1850, vol. i., p. 80.

Threptria mosquerae, Reich., Troch., Enum., p. 6.

Mosquera's Puff-leg, Gould, Mon. Troch., vol. iv., p. 274.

l'Eriocnémis de Mosquera, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 49.

Habitat.—Colombia and Ecuador.

Male.—Forehead, back, and rump bronzy-green, golden on neck, and luminous gold on uppertail-coverts. Median rectrices shining bronzy-green, laterals bronzy-green with black tips, outermost one nearly black with a bronze tinge. Throat metallic golden passing to reddish-gold on neck and breast. Flanks and abdomen shining golden-green. Tarsal

tufts white. Undertail-coverts shining bluish-green. Wings purplish. Bill black.

Total length, $4\frac{5}{8}$in. Wings, $2\frac{7}{8}$. Tail, $2\frac{3}{8}$. Culmen, $\frac{6}{8}$.

This rare species was discovered in Colombia, by Delattre, and dedicated by him and Bourcier, to General Mosquera, then President of the Republic of Colombia.

373. ERIOCNEMIS ISAACSONI, Parz. Rev. Zool., 1845, p. 95.

Hylocharis isaacsoni, Gray, Gen. Birds, vol. i., p. 114.

Eriopus isaacsoni, Bon. Consp. Gen. Av., 1850, p. 80.

Eriocnémis isaacsoni, Bon. Rev. and Mag. Zool., 1854., p. 52.

Phemonoe isaacsoni, Reich., Aufz. der Colib., 1853, p. 9.

Helianthea isaacsoni, Elliot, Ibis, 1874, p. 331.

Saturia isaacsoni, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 299.

Long-billed Puff-leg, Gould, Mon. Troch., vol. iv., p. 272.

la Saturie d'Isaacson, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 300.

Habitat.—Colombia.

Male.—Upper part of head dark metallic green; a small spot of very luminous light grass-green upon the forehead. Back grass-green, inclined to bronze in certain lights. Wings like the back; primaries purplish-brown. Rump and upper-tail-coverts brilliant metallic grass-green. Entire throat brilliant metallic grass-green. Breast metallic green, lighter than the throat. Rest of underparts metallic coppery-bronze, changing in certain lights to red upon the abdomen. Under-tail-coverts brilliant grass-green. Tail brownish-black with a purple shade. Bill black. Tarsi covered with short white feathers.

Total length, $4\frac{3}{4}$in. Wing, $2\frac{3}{4}$. Tail, 2. Culmen, 1.

This extremely rare species, dedicated by Parzudaki to Mr. Isaacson, is only represented in the Collections by three specimens, one the type, "Ex Elliot Collection," is now in the New York Museum of Natural History, the second one is in the Liverpool Museum, and the third in my Collection.

GENUS CII., **Pterophanes**, Gould, Int., Troch., 1861, p. 105.

LEPIDORIA. Muls. and Verr., Class. Troch., 1865, p. 61.

TYPE: *O. temminckii*, Boissonneau.

Bill cylindrical, narrow, longer than the head, slightly curved upward at the point. Wings very large, falcate, longer than the tail. Tail large and forked. Rectrices broad, median shortest, lateral and outermost ones slightly and gradually longer. Feet small, hind toe shorter than the middle one, claws long, slightly curved, and sharp at the point. Sexes unlike.

Habitat.—Colombia, Ecuador, Peru, and Bolivia.

374. PTEROPHANES TEMMINCKI, Boiss., Rev. Zool., 1839, p. 354.

Trochilus cyanopterus, Fras., P.Z.S., 1840, p. 17.

Mellisuga temmincki, Gray Gen. Birds, vol. i., p. 112.

Lepidoria temmincki, Muls. and Verr., Class. Troch., 1865, p. 61.

Temminck's Sapphire-wing, Gould, Mon. Troch., vol. iii., p. 178.

le Ptérophane de Temminck, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 291.

Habitat.—Colombia, Ecuador, Peru, and Bolivia.

Male.—Upperside shining dark green, appearing nearly black on neck and back, in certain lights. Tail shining bronze-green. A white spot behind the eye. Underside brilliant shining dark green. Wings metallic deep blue, each feather tipped with purplish-black. Bill black. Feet flesh colour.

Total length, 6⅞in. Wing, 4⅛. Tail, 3. Culmen, 1⅛.

Female.—Head dark brown. Upperside golden-green. Tail bronze-green, outermost rectrice white, margined with brownish-bronze. Rump and uppertail-coverts shining green. A white spot behind the eye. Throat, breast, and abdomen rufous. Flanks and sides of breast shining golden-green with base of feathers rufous. Undertail-coverts dark green. Greater wing coverts metallic blue, primaries and secondaries purplish-brown. Bill black.

Total length, 6in. Wing, 4. Tail, 2⅞. Culmen, 1⅛.

This species was probably discovered in Columbia, by Boissonneau, the author of the species.

My specimens from Peru, and Bolivia collected by M. M. Whitely and Buckley, are larger, and slightly different in colouration. The upper and underside are of a darker green, the median rectrices and uppertail-coverts are not bronzy, but dark shining green, the lateral and outermost ones are dark bronzy-brown margined with brownish-black. If they should prove distinct, I propose the name of *Pterophanes peruvianus,* for that species, Whitely's specimens from Peru, having been collected first.

FAMILY X. HELIANTHEIDAE,

OR FAMILY OF STAR-FRONTLET HUMMING BIRDS.

Body large. Bill long, nearly straight. Culmen closely feathered at the base; nasal covers completely hidden. Tail forked. Wings long, reaching the end of tail. Sexes unlike.

TYPE: *Helianthea,* Gould, Int., Troch., 1861, p. 130.

Range.—Venezuela, Colombia, Ecuador, Peru, and Bolivia.

GENUS CIII. DIPHLOGAENA, Gould, Int. Troch, 1861, p. 133.

TYPE:—*D. iris,* Gould.

Bill slender, straight, very long, about twice the length of the head. Wings long and pointed, reaching the end of tail. Tail long and forked. Rectrices narrow, median long and shortest, lateral and outermost ones slightly and gradually longer. Tarsi clothed. Sexes unlike in plumage.

Habitat.—Ecuador, Peru, and Bolivia.

375. DIPHLOGAENA IRIS, Gould, P.Z.S., 1853, p. 61.

Helianthea aurora, Gould, P.Z.S., 1853, p. 61.

Hypochrisia aurora, Reich., Aufz. der Colib., 1853, p. 9.

Hypochrysia iris, Reich., Aufz. der Colib., 1859, p. 9.

Leadbeatera warszewiczi, Reich., Aufz. der Colib., 1853, p. 9.

Coeligena warszewiczi, Reich., Aufz. der Colib., 1859, p. 23.

Diphlogaena aurora, Gould, Mon. Troch., vol. iv, p. 248.

Diphlogaena iris buckleyi, Berlepsch, Ibis, 1887, p. 295.

Rainbow, Gould, Mon. Troch., vol. iv., p. 247.

Bolivian Rainbow, Gould, Mon. Troch., vol. iv., p. 248.

la Diphlogène iris, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 302.

la Diphlogène aurore, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 303.

Warzewicz's Inca, Gould, Mon. Troch., Suppl., 1886, p. 21.

Habitat.—Ecuador, Peru, and Bolivia.

Male.—Forehead brilliant metallic golden-green, changing to orange-scarlet on the sides of crown. Centre of crown deep metallic blue. Neck and upper part of back very dark bronze-green appearing almost black in certain lights. Lower part of back, rump, abdomen, uppertail and undertail-coverts, and tail chestnut-red. Throat and breast glittering green, with a small spot of purplish in the centre. Wings purplish-brown, secondaries chestnut margined at tips with purplish-brown. Bill black.

Total length, $5\frac{1}{2}$in. Wing, $3\frac{2}{8}$. Tail, $2\frac{1}{2}$. Culmen, $1\frac{1}{8}$.

Female?—Head and neck golden-green with a bright spot on forehead. Back bronzy-green. Rump, uppertail-coverts, and tail, chestnut-red, all the rectrices, excepting the outermost ones, slightly tipped with bronze. Throat buff, spotted with green. Breast green streaked with grayish buff. Abdomen and flanks chestnut. Vent white. Rest like the male.

Total length, $5\frac{1}{4}$in. Wing, 3. Tail, $2\frac{1}{4}$. Culmen, $1\frac{1}{8}$.

It is a very rare species. It was discovered in Bolivia, by Mr. Warszewicz. The type of the species is in the British Museum. "Ex. Coll. Gould." My specimens were collected by Buckley.

376. DIPHLOGAENA HESPERUS, Gould, Ann., Mag. Nat. Hist., 1865, p. 127.

Ecuadorian Rainbow, Gould, Mon. Troch., Suppl., 1886, p. 20.

la Diphlogéne hesperus, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., 304.

Habitat.—Ecuador.

Male.—Forehead metallic fiery-red on the sides of crown. Centre of crown brilliant metallic blue with purplish reflections. Lower part of head and rest of upperside bronzy-green, appearing nearly black, on head and upper part of back. Uppertail and undertail-coverts, and tail chestnut-red, margined with bronze at tips. Underside brilliant shining green with the throat of the most brilliant gold, under which is a spot of metallic lilac. Wings-coverts bronzy-green, secondaries chestnut-red with the tips margined with purplish-brown, primaries chestnut-red on outer shafts, inner ones purplish-brown. Bill black.

Total length, $5\frac{5}{8}$in. Wing, $3\frac{3}{8}$. Tail, $2\frac{6}{8}$. Culmen, $1\frac{1}{8}$.

Female ?—Head fiery-red with a blue streak in the middle. Underside glittering golden-green washed with grayish-buff. Rest like the male.

Total length, $5\frac{1}{2}$in. Wing, 3. Tail, $2\frac{3}{8}$. Culmen, $1\frac{1}{8}$.

All my specimens of this extremely rare and fine species were collected in Upper Amazon, by Buckley.

I should not be surprised that *D. iris* and *hesperus*, should turn out to be the same species, all the adult male specimens being those with the upper and underside green, and all the others with chestnut on back and abdomen, female or young.

Genus CIV. **Helianthea**, Gould, Int. Troch., 1861, p. 130.

Type: *T. violifera*, Gould.

Bill long, straight, and cylindrical, much longer than the head. Wings moderately long and powerful, reaching the end of tail. Tail long and slightly forked. Rectrices broad, median long, and shortest, the two next, very slightly and gradually longer, the last lateral, and the outermost one very slightly longer, and of the same length. Tarsi short and clothed. Feet very small, hind toe the shortest. Sexes unlike.

Habitat.—Venezuela, Peru, and Bolivia.

377. Helianthea violifera, Gould, P.Z.S., 1846, p. 87.

Mellisuga violifera, Gray, Gen. Birds, vol. i., p. 112.

Helianthea violifer, Bon. Consp., Gen. Av., 1850, p. 75.

Calligenia violifera, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 313.

Violet-throated Star-frontlet, Gould, Mon. Troch., vol. iv., p 239.

la Calligénie volifère, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 314.

Habitat.—Bolivia.

Male.—Spot on forehead brilliant metallic green. Top of head dark green appearing almost black. Back and rump golden-green. Uppertail-coverts and tail rufous tipped with pale bronzy-green. Throat dark green with a broad metallic spot in the lower central part, violet-blue. Breast shining green with a very narrow white band across the middle. Abdomen and flanks rufous washed with golden-green on flanks. Undertail-coverts light rufous. Wing-coverts golden-bronze, secondaries rufous at base, then bronzy-brown, primaries purple ; outer edge of first primary rufous for four-fifths of its length. Bill black.

Total length, $5\frac{2}{8}$in. Wing, $3\frac{1}{8}$. Tail, $2\frac{3}{16}$. Culmen, $1\frac{1}{4}$.

Female.—Like the male with the throat rufous mottled with green.

This very rare species was discovered by Mr. Bridges.

I have only one male specimen, collected in Bolivia, by Buckley.

*378 HELIANTHEA OSCULANS, Gould, P.Z.S., 1871, p. 503.

Calligenia osculans, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 310.

Buff-tailed Star frontlet, Gould, Mon. Troch, Supple., 1886, p. 22.

la Calligénie à gemme violette, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 310.

Habitat.—Peru.

Male.—Very closely allied to *H. violifera,* from which it differs only by being destitute of the white band across the breast, more green on the abdomen, the apical half of the median rectrices, bronzy-green, and the tips of laterals have a large band of bronzy-green.

Total length, $5\frac{3}{8}$in. Wing, 3. Tail, $2\frac{3}{8}$. Culmen, $1\frac{1}{4}$.

Female.—Has no frontal nor gular spot. Throat buff spotted with green, rest like the male.

Type in British Museum.

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GENERA OF HUMMING BIRDS, by A. BOUCARD, pages 1 to 56.

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Contents of Vol. III.

Panama—Grover Cleveland; the elected President of the United States—Descriptions of several supposed New Species of Humming Birds, by A. Boucard—Visits to the Zoological Gardens of London, by W. Rosenberg—Paris International Exhibition of 1900—World's Columbian Exhibition—Chicago Exposition; World's Fair Notes—Relics at the Fair—Big Prizes for Live Stock—World's Fair Souvenirs—Travels of a Naturalist, by A. Boucard—Genera of Humming Birds, by A. Boucard—The Imperial Institute—Anver's International Exhibition—Royal Institution—Description of one supposed New Species of Cetonia, from Syria, by A. Boucard—How Animals are Protected Against Their Enemies, by W. Rosenberg—Abundance of Wasps—Notes on Wasps, by A. Boucard—The Ways of Wasps—Les Guêpes—Rectification of Name for Semioptera gouldi—Alligators—Destructive Insects of Victoria, by French—International Exhibitions—The late World's Fair—International Exhibition of Lyon (France)—International Exhibition of Paris, 1900—International Exhibition of Industry, Science and Art, in Hobart Town, (Tasmania)—International Exhibition in San Francisco (California).

GENERA OF HUMMING BIRDS:—

		PAGE
Genus	Oxypogon, Gould	63
,,	Eupogonus, Muls. and Verr. ...	66
,,	Lampropogon, Bon.	67
,,	Chalcostigma, Reich.	68
,,	Metallura, Gould	70
,,	Avocettinus, Bon.	77
,,	Adelomyia, Bon.	78
,,	Urosticte, Gould	81
,,	Augastes, Gould	83
,,	Phlogophilus, Gould	84
,,	Ramphomicron, Bon.	85
	LESBIDAE.	
Genus	Zodalia, Muls	87
,,	Sappho, Reich.	89
,,	Lesbia, Lesson	91
,,	Cyanolesbia, Steg.	96
,,	Neolesbia, Salv.	99
	THALURANIDAE.	
Genus	Thalurania, Gould	100

NEW SPECIES OF BIRDS AND INSECTS—

DESCRIBED IN VOL. III. OF THE HUMMING BIRD:—

AVES.—TROCHILI.

			PAGE
Metallura peruviana	Boucard	...	6
Lesbia aequatorialis	,,	...	6
Oreotrochilus bolivianus	,,	...	7
Hylocharis brasiliensis	,,	...	7
Amazilia forreri	,,	...	7
Saucerottia wellsi	,,	..	8
Uranomitra whitelyi	,,	..	8
Agyrtria speciosa	,,	..	8
Chrysuronia buckleyi	,,	..	9
Phaethornis garleppi	,,	...	9
Hemistephania guianensis	,,	...	10
Patagona peruviana	,,	Gen. H. Bird	60
Patagona boliviana	,,	Gen. H. Bird	61
Cyanolesbia meridana	,,	..	97
Cyanolesbia columbiana	,,	...	98
Thalurania valenciana	,,	..	102

INSECTA.—COLEOPTERA, CETONIDÆ.

			PAGE
Cetonia delagrangei	Boucard	..	40
Cetonia syriaca?	,,	..	40

Contents of Vol. IV.

Wonderful Discovery in Colorado (Mexico)—Recent Scientific and other Publications, with Notes by the Editor—Annual Report of the Board of Regents of the Smithsonian Institution—The Hawks and Owls of the United States in their relation to Agriculture, by A. K. Fisher—Catalogue of Birds in the British Museum, Volume XXI., Columbae or Pigeons, by T. Salvadori—Catalogue of Birds in the British Museum, Volume XXII., The Game Birds, by Olgilvie Grant—The Proceedings of the Zoological Society of London, Part IV., 1892, and Parts I., II., and III., 1893—Zoological Record, Vol. XXIX., edited by Doctor Sharp—The Ibis, Sixth Series, Vol.V., edited by Philip Lutley Sclater—The Ibis, Vol. VI., No. 21, edited by Philip Lutley Sclatler—Bulletin of the British Ornithologist's Club, 1892-93—Mémoires de la Société Zoologique de France, Tome V., 5ème partie, et Tome VI., 1893—Congres International de Américanistes Compte Rendu de la Huilieme Session tenue à Paris en 1890—Sociedade de Geographia de Lisboa; Indices e Catalagos, A Bibliotheca, 1893—Revista Mensual de la Sociedad Gautemalteca de Ciencias, 1893—The Entomologists' Monthly Magazine, 1893—Ornithologische Monatsberichte, edited by Dr. Ant. Reichenow, Berlin, 1893—The Canadian Entomologist, edited by Rev. C. T. S. Bethune, Ontario, 1893—Twenty-third Annual Report of the Entomological Society of Ontario, 1893—Bulletin of the United States National Museum, Washington, 1892—North American Fauna, No. 7, Part II., Washington, 1893—Anales del Instituto fiscio-geografica del Museo de Costa Rica, Tome III., 1892—Die Vogel der Insel Curacao, by Hans von Berlepsch, 1892—The Flying Man, by the Editor—Visits to the Zoological Society Gardens, London, by W. H. Rosenberg—A Nursery of Insects—Description d'une nouvelle espece de Coquille du Japon du genre ARCA, par le Docteur Félix Joussaume—The Use of Salt for Agricultural Purposes, by the Editor—Are Ants of Aid to Fruit-Growers?—Banana Culture—Strange Phenomenon in California, Formation of an Inland Sea—Waste Products made Useful—How to Preserve Animals—The English Snake, by W. Rosenberg—The Great Lakes, by G. A.—Inhabited Worlds (*The World*)—El Coco—Many-Eyed Monster—The Telescope and the Microscope—Mistakes about Alcohol—Cotton Seed Oil—Genera Avium.

NEW GENERA AND SPECIES OF BIRDS AND SHELL DESCRIBED IN VOL. IV. OF THE HUMMING BIRD:—

AVES.—TROCHILI.

			PAGE
Thalurania boliviana,	Boucard, Gen. H. Bird		107
Gmelinius, N.G.,	,,	,,	
Type, *Gmel. Bicolor*			108
Chlorostilbon wiedi,	,,	,,	120
Chlorostilbon panamensis,	,,	,,	124
Lawrencius, N.G.,	,,	,,	
Type, *L. cupreiceps* ..	...	...	173
SHELLS,			
Arca boucardi, Joussaume, H. Bird	..		41

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EDITED BY

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Pyrenestes
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All Letters containing offers to be directed as under :—

MR. A. BOUCARD, SPRING VALE, ISLE OF WIGHT, ENGLAND.

*379. HELIANTHEA DICHROURA, Tacz., P.Z.S., 1874, p. 138.

Calligenia dichroura, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 309.

Jelsky's Star-frontlet, Gould, Mon. Troch., Suppl., 1886, p. 23.

Habitat.—Peru.

Male.—Very closely allied to *H. osculans,* from which it differs only by the apical band of the tail feathers, which is more apparent in this species, and darker.

For me, it is a doubtful species, probably the same as *H. osculans.*

Type in the Warsaw Museum. It was collected near Maragnioc, Peru, by M. Jelsky.

380. HELIANTHEA EOS, Gould, P.Z.S., 1846, p. 11.

Mellisuga eos, Gray, Gen. Birds, vol. iii., p. 5.

Hypochrysia eos, Reich., Aufz. der Colib., 1853, p. 9.

Calligenia eos, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 311.

Golden Star-frontlet, Gould, Mon. Troch., vol. iv., p. 237.

La Calligénie aurore, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 311.

Habitat.—Venezuela.

Male.—Forehead brilliant metallic golden-green. Rest of head velvety-black, with dark green reflections, when viewed from behind. Back shining golden-green, passing to fiery-gold on rump and uppertail coverts. Tail cinnamon, broadly tipped with golden-bronze. A white spot behind the eye. Throat metallic dark-green, with a broad spot in the centre brilliant metallic violet. Breast brilliant metallic golden-green, passing to gold on lower part and fiery-gold on abdomen and flanks. Undertail-coverts cinnamon. Wing-coverts golden, secondaries cinnamon, margined narrowly at tips with golden-bronze, primaries bronzy-purple, outer edge of first primary for four-fifths of its length cinnamon. Bill black.

Total length, $5\frac{3}{8}$in. Wing, 3. Tail, 2. Culmen, $1\frac{1}{4}$.

Female.—Head dark shining green. Upperside golden-green passing to gold on rump and uppertail-coverts. Tail

cinnamon passing to golden-bronze. Throat rufous mottled with small green spots. Breast golden-green. Abdomen and flanks bright gold, the base of all the feathers of the underside rufous, rest like the male.

Total length, $5\frac{3}{8}$in. Wing, $2\frac{6}{8}$. Tail, 2. Culmen, $1\frac{1}{4}$.

This handsome and rare species was discovered in Venezuela, by M. M. Funch and Schlim.

I have a fine series of this species collected in Venezuela by Mr. Briceno.

Genus CV. **Hypochrysia**, Reich., Aufz. der Colib., 1853, p. 9.

Helianthea, Gould, P.Z.S., 1848, p. 11.

Phemone, Reich., Aufz. der Colib., 1853, p. 9.

Saturia, Muls., Cat. Ois. Mou., 1875, p. 21.

Type: *O. bonapartei,* Boissonneau.

Bill long, straight, cylindrical. Wings long, reaching the end of tail. Tail moderately long and slightly forked. Median rectrices shortest, lateral and outermost ones slightly and gradually longer. Tarsi clothed. Sexes unlike. Rump brilliant metallic.

Habitat.—Colombia, Ecuador.

381. Hypochrysia bonapartei, Boiss., Rev. Zool., 1840, p. 6.

Trochilus aurogaster, Fraz., P.Z.S., 1840, p. 16.

Mellisuga bonapartei, Gray, Gen. Birds, vol. i., p. 112.

Helianthea bonapartei, Gould, Mon. Troch., vol. iv., p. 236.

Bonaparte's Star-frontlet, Gould, Mon. Troch., vol. iv., p. 236.

l'Helianthée de Bonaparte, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 295.

Habitat.—Colombia.

Male.—Forehead brilliant metallic green. Rest of head and back very dark green, appearing almost black on head in certain lights. Rump and uppertail coverts most brilliant metallic fiery-gold. Tail golden-bronze. Throat and breast

metallic brilliant green, brighter on breast. Centre of throat metallic purplish-blue. Abdomen and flanks brilliant metallic fiery-gold. Undertail-coverts shining gold margined with rufous. Wings bronzy-purplish-brown. Bill black.

Total length, $4\frac{6}{8}$in. Wing, 3. Tail, $2\frac{1}{8}$. Culmen, $1\frac{1}{8}$.

Female.—Upperside shining green, golden on rump. Uppertail-coverts fiery-gold. Tail golden-bronze. Throat buff. Breast shining golden-green. Abdomen and flanks buff, washed with brilliant gold. Undertail-coverts buff. Wings bronzy-brown. Bill black.

Total length, $4\frac{5}{8}$in. Wing, $2\frac{6}{8}$. Tail, 2. Culmen, $1\frac{1}{8}$.

It is probable that Mr. Boissonneau was the discoverer of this fine species, which he dedicated to Prince Charles Lucien Bonaparte, the celebrated Ornithologist.

It is a common species in Colombia.

382. HYPOCHRYSIA HELIANTHEA, Less., Rev. Zool., 1838, p. 314.

Mellisuga helianthea, Gray, Gen. Birds, vol. i., p. 112.

Helianthea typica, Gould, Mon. Troch., vol. iv., p. 235.

Helianthea porphyrogaster, Muls., Hist. Nat., Ois. Mou., 1876, t. ii., p. 293.

Star-frontlet, Gould, Mon. Troch., vol. iv., p. 235.

l'Hélianthée à ventre de porphyre, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 294.

Habitat.—Colombia.

Male.—Top of head and lores velvety-black. Forehead brilliant metallic green. Upperside dark green, appearing almost black on head and back. Lower part of rump metallic red-purple. Uppertail-coverts brilliant metallic light green. Tail dark olive bronze-green. Chin and breast very dark green. Centre of throat metallic dark blue. Abdomen and flanks brilliant metallic lilac. Undertail-coverts dark reddish-purple. Wings purplish-brown. Bill black.

Total length, 5in. Wing, $2\frac{7}{8}$. Tail, $2\frac{1}{4}$. Culmen, $1\frac{1}{4}$.

Female.—Upperside shining green, golden on back. Rump and uppertail-coverts brilliant metallic light green margined with purple. Tail and wings like the male. Throat buff. Breast golden-green washed with buff. Abdomen and flanks

buff washed with metallic lilac, especially so on flanks. Under-tail-coverts olive-bronze, margined with buff. Bill black.

Total length, $4\frac{7}{8}$in. Wing, $2\frac{7}{8}$. Tail, 2. Culmen, $1\frac{1}{4}$.

This species is abundant in Colombia.

I have one male specimen, nearly adult, without the frontal spot of forehead, and the abdomen and flanks shining gold with a lilac tinge on flanks. It looks as if it was an hybrid of *H. bonapartei* and *H. typica*. I have also one specimen from Colombia which I described in the *Humming Bird,* 1891, vol. i., p. 26, almost dark bluish-black, with the gular, spot and uppertail-coverts dark silvery-green. Tail purplish-black. Wings black. Maxilla black. Mandible flesh colour at base. Rest black.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{7}{8}$. Culmen, $1\frac{1}{16}$.

If it should prove a distinct species, I propose for it the name of *Hypochrysia nigra*.

Genus CVI. **Calligenia,** Muls., Cat. Ois. Mou., 1875, p. 20.

Type : *T. lutetiae,* Delattre and Bourcier.

Bill straight, cylindrical, long, about twice the length of the head. Feathers of forehead projecting on culmen. Wings long, reaching the end of tail. Tail long, forked. Rectrices narrow. Median long and shortest, the two next, very slightly and gradually longer, the last lateral and outermost ones, slightly longer and of the same length. Tarsi clothed. Sexes unlike.

Habitat.—Ecuador.

383. Calligenia lutetiae, Delatt. and Bourc., Rev. Zool., 1846, p. 307.

Mellisuga lutetiae, Gray, Gen. Birds, vol. i., p. 112.

Helianthea lutetiae, Gould, Mon. Troch., vol. iv., p. 238.

Comte de Paris, Gould, Mon. Troch., vol. iv., p. 238.

la Calligénie à gemme bleue, Muls., Hist. Nat., Ois. Mou., 1876, t. ii., p. 307.

Habitat.—Ecuador and Colombia.

Male.—Forehead brilliant metallic green. Crown and nape velvety-black with dark bronze-green reflections in certain

lights. Upperside dark-green, appearing black in the centre of back in certain lights. Uppertail-coverts bronzy-green. Tail dark bronze-green. Underside brilliant shining green, base of feathers black. Centre of throat brilliant metallic-blue. Vent white. Undertail-coverts, bronze-green, margined with grayish-buff. Wing coverts dark bronzy-green, secondaries pale yellowish-buff, tipped with purplish-brown, primaries purplish. Bill black.

Total length, 5½in. Wing, 3⅛. Tail, 2⅜. Culmen, 1⅜.

Female.—Upperside shining green, golden on uppertail coverts. Tail bronze-green. Throat buff. Underside shining golden-green, base of feathers grayish buff, giving a scaly appearance to that part. Rest like the male.

Total length, 5½in. Wing, 3. Tail, 2⅛. Culmen, 1⅜

This beautiful species was discovered in Ecuador, by Delattre, and dedicated by him and Bourcier, to Comte de Paris.

My specimens were collected in Ecuador, by Buckley. I have also one specimen received from Bogota, Colombia.

Genus CVII. **Eudosia,** Muls., Cat. Ois. Mou., 1875, p. 20.

Type: *D. traviesi,* Mulsant and Verreaux.

Bill straight, long, about twice the length of the head. Wings long, reaching the end of tail. Tail long, slightly forked. Median rectrices shortest, lateral and outermost ones very slightly and gradually longer. Metallic frontal spot. Centre of throat white. No white on tail.

Range, Colombia.

This genus stands exactly between *Homophania* and *Calligenia,* having some of the characters belonging to these two genera.

384. Eudosia traviesi, Muls. and Verr, Ann., Soc., Linn., Lyon, 1866, p. 199.

Traviès Inca, Gould, Mon. Troch. Suppl., 1886, p. 25.

l'Eudosie de Traviès, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii., p. 3.

Habitat.—Colombia.

Male.—Small frontal spot brilliant metallic green with bluish reflections. Head and back very dark bronzy-green appearing almost black, with a greenish gloss in centre of crown. Wing-coverts and rump, bronze-green. Uppertail-coverts shining reddish-purple. Tail dark greenish-bronze. Throat minutely spotted, metallic dark green with a small metallic violet spot in the centre beneath. A broad white band on breast. Abdomen and flanks dark shining green, appearing almost black on lower part of breast. Undertail-coverts golden-green. Wings purplish-brown. Bill black.

Total length, 5⅛in. Wing, 3⅛. Tail, 2⅛. Culmen, 1⅛.

Female.—Unknown.

This extremely rare species came first in a lot of birds sent from Bogota, Colombia. It was dedicated by M. M. Mulsant and Verreaux to Mr. Traviés, a celebrated painter of natural history objects. The type remained for some time in Verreaux's Collection, and finally was sold to the late Count Turati of Milan, whose celebrated collection was given to the Natural History Museum of Milan, by his heirs. Besides the type, I think there are only three other specimens known, one "Ex. Coll. Elliot," now in the Museum of New York, one in the British Museum, and one fine male specimen in my collection, from which the above description was taken.

Genus CVIII. **Homophania,** Reich., Aufz. der Colib., 1853, p. 10.

Polyaena, Heine., Journ. fur Ornith., 1843, p. 215.

Type: *O. torquata,* Boissonneau.

Bill long, straight, about twice the length of the head. Feathers of forehead projecting on the culmen. Nostrils hidden. Wings broad, long, reaching the end of tail. Tail long, slightly forked. Median rectrices broad and long, remainder of rectrices very slightly and gradually longer, nearly all white. Entire breast pure white. Metallic spot in the centre of crown. Sexes unlike in plumage.

Habitat.—Colombia, Ecuador and Peru.

385. Homophania torquata, Boiss., Rev. Zool., 1840, p. 6.

Mellisuga torquata, Gray, Gen. Birds, vol. i., p. 112.

Bourcieria torquata, Gould, Mon. Troch., vol. iv., p. 251.

Collared Inca, Gould, Mon. Troch., vol. iv., p. 251.

l'Homophanie à collier, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 317.

Habitat.—Colombia.

Male.—Centre of crown metallic purplish-blue. Rest of head and back black with greenish reflections when seen from behind. Lower part of back, rump and undertail-coverts dark shining green. Median rectrices dark olive-green, rest white, tipped with bronzy-black, outermost one white for two-thirds of its length, rest olive-bronze. Throat black with dark green in centre. Breast pure white. Abdomen and flanks black with greenish reflections. Undertail-coverts dark shining green. Wings purplish-brown. Bill black.

Total length, $5\frac{1}{4}$in. Wing, 3. Tail, 2. Culmen, $1\frac{2}{8}$.

Female.—Crown bluish-green. Upperside shining green, with golden reflections when seen from behind, darker on neck. Tail bronze-green, laterals white, tipped with bronzy-black, outermost one margined on upper part of outer web and tipped with blackish-bronze. Chin white, spotted with green. Breast pure white. Abdomen and flanks gray, washed with green, especially on flanks. Undertail-coverts bronze-green. Wings purplish-brown. Bill black.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{7}{8}$. Tail, $1\frac{6}{8}$. Culmen, $1\frac{2}{8}$.

Young. — Upperside black with greenish reflections. Uppertail-coverts and median rectrices dark olive-green. Laterals white with black tips, outermost ones white at base, margined on outer web, and tipped with purplish-black. Underside black with streaks of white feathers on breast. Undertail-coverts dark shining green, margined with white. Wings purple. Bill black.

Total length, $4\frac{5}{8}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{7}{8}$.

Some of my specimens of this species were collected in Colombia by Mr. Salmon, another in Ecuador, by Buckley.

386. HOMOPHANIA FULGIDIGULA, Gould, Mon. Troch., vol. iv., p. 252.

Bourcieria fulgidigula, Reich., Troch. Enum., 1855, p. 7.

Green Throated Inca, Gould, Mon. Troch., vol. iv., p. 252.

l'Homophanie à gorge brillante, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 319.

Habitat.—Ecuador.

Male.—Exactly like the preceding species, with the exception of the centre of crown which is metallic bluish-green or metallic silvery-green, and the chin and throat which are brilliant metallic dark green.

Total length, $4\frac{5}{8}$in. Wing, $3\frac{1}{8}$. Tail, $2\frac{7}{8}$. Culmen, $1\frac{3}{8}$.

Female.—Crown metallic grass-green with bluish reflection. Upperside dark golden-green when viewed from behind. Median rectrices dark bronze-green, lateral and outermost ones white with purplish-black tips. Throat dark shining green with the centre white. Breast pure white. Abdomen and flanks gray, washed with green, more so, on flanks. Undertail-coverts green, margined with white. Wings purplish. Bill black.

Total length, $4\frac{1}{16}$in. Wing, $2\frac{7}{8}$. Tail, $1\frac{7}{8}$. Culmen, $1\frac{3}{8}$.

My specimens of this species were collected in Ecuador, in 1879, by Buckley.

*387. HOMOPHANIA INSECTIVORA, Tschudi, Faun., Peru, 1844, p. 248.

Bourcieria insectivora, Gould, Int. Troch., 1861, p. 135.

l'Homophanie insectivore.

Tschudi Inca, Gould, Mon. Troch., Suppl., 1886, p. 26.

Habitat.—Peru.

Male.—Head and back of neck, jet black, with the centre of the crown metallic grass-green. Back, uppertail-coverts, abdomen, and undertail coverts, shining grass-green. Breast pure white. Wings purplish-brown, their coverts like the back. Median rectrices shining grass-green, remainder pure white, tipped with green, most extensive on the outermost feathers. Bill black.

Total length, $5\frac{1}{8}$in. Wing, $3\frac{1}{8}$. Tail, $2\frac{1}{8}$. Culmen, $1\frac{1}{4}$.

Female.— Entire upper parts and throat shining green. Median rectrices green, rest white, tipped with black and glossed with green. Rest like the male. "Elliot's Syn. H. Birds, p. 76."

Type of species in the Museum of Neuchatel.

Type of male, "Elliot's Coll.," now in the New York Museum of Natural History.

This species is one of my desiderata.

388. HOMOPHANIA CONRADI, Bourc., P.Z.S., 1847, p. 45.

Mellisuga conradi, Gray, Gen. Birds, vol i., p. 112.

Bourcieria conradi. Gould, Mon. Troch., vol. iv., p. 253.

Conradinia conradi, Reich., Aufz. der Colib., 1853, p. 10.

Conrad's Inca, Gould, Mon. Troch., vol. iv., p. 253.

l'Homophanie de Conrad, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 321.

Habitat.—Venezuela.

Male.—Top of head and part of crown shining golden-green. Upperside dark green with golden reflections, when viewed from behind. Uppertail-coverts and median rectrices golden-green. Lateral and outermost ones white for two thirds of their length from base, rest golden-green. Chin, throat, abdomen, flanks and undertail-coverts brilliant metallic green, more so, on throat. Breast pure white. Wings purplish, with a bronzy-gloss. Outer shaft of first primary, reddish-buff for about three-thirds of its length. Bill black.

Total length, $5\frac{1}{2}$in. Wing, $3\frac{1}{8}$. Tail, $2\frac{1}{8}$. Culmen, $1\frac{1}{4}$.

Female. — Upperside shining grass-green. Uppertail-coverts and median rectrices golden-green. Lateral and outermost ones white with golden-green tips, darker on outermosts. Throat buffy-white, with the sides metallic-green. Breast pure white. Abdomen, flanks and undertail-coverts shining green, grayish in the centre of abdomen. Wing like that of the male. Bill black.

Total length, $5\frac{3}{8}$in. Wing, $2\frac{5}{8}$. Tail, $1\frac{7}{8}$. Culmen, $1\frac{1}{4}$.

I have a fine series of this beautiful species collected in Merida, Venezuela, by Mr. Briceño.

The type is in the Loddige's Collection.

389. HOMOPHANIA INCA, Gould, Jard. Contr. Ornith., 1852, p. 136.

Bourcieria inca, Bon., Rev. and Mag., Zool., 1854, p. 252.

Inca, Gould, Mon. Troch., vol. iv., p. 254.

l'Homophanie inca, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 322.

Habitat.—Peru and Bolivia.

Male.—A luminous emerald-green spot on forehead. Rest of head jet black, with golden reflections, when viewed from

behind. Upperside brilliant metallic green. Uppertail-coverts brilliant golden-green. Median rectrices bronzy-green, remainder white, with their terminal third bronzy-green. Throat black, tips of feathers metallic golden-green. Breast deep reddish-buff. Abdomen and flanks glittering dark golden-green. Undertail-coverts shining green. Wings purple. Bill black.

Total length, 5½in. Wing, 3⅛. Tail, 2¼. Culmen, 1⅜.

Female.—Upperside dark golden-green, darker on head in consequence of the black base of feathers. Uppertail-coverts shining golden-green. Median rectrices bronze-green, lateral and outermost ones white, margined on outer webs, and tipped with bronze-green. Throat reddish-buff spotted with brown. Breast deep buff. Rest of underside metallic green washed sparingly with buff. Undertail-coverts green, margined with grayish-buff.

Total length, 5in. Wing, 2⅞. Tail, 1⅞. Culmen, 1¼.

This rare and handsome species was discovered in Bolivia, by Mr. Warszewicz.

My specimens were collected by Buckley.

390. HOMOPHANIA LAWRENCEI, Boucard, H. Bird, 1892, vol. ii., p. 87.

Lawrence's Humming Bird.

l'Homophanie de Lawrence.

Habitat.—Colombia.

Male.—Crown metallic dark green. Upperside dark bronzy-green, black in certain lights. Uppertail-coverts shining green Median rectrices bronze-green, laterals pale buff with tips bronze-green. Wings purplish. Throat and sides of breast metallic dark green, most brilliant. Breast pure white. Abdomen and flanks dark bronzy-green, almost black. Undertail-coverts shining green, with the base of feathers pale buff. Bill black. Feet flesh colour with black nails.

Total length, 4⅞in. Wing, 2⅝. Tail, 2. Culmen, 1⅛.

This species is easily distinguished from *H. insectivora* by the colour of its rectrices.

Type unique in my collection.

GENUS CIX. **Urochroa,** Gould, Int. Troch., 1861, p. 56.

TYPE: *T. bougueri,* Bourcier.

Bill straight, twice the length of the head. Nostrils exposed. Wings long, reaching the end of tail. Tail square, rectrices rounded at tips, all of the same length. Feet large. Tarsi partly clothed, hind toe of the same length as the middle toe.

Habitat.—Ecuador.

391. UROCHROA BOUGUERI, Bourc., Compt. Rend., 1851, t. xxxii., p. 186.

Coeligena bougueri, Reich., Aufz. der Colib., 1853, p. 7.

Urochroa leucura, Lawr., Ann. N.Y. Lye., Nat. Hist., 1864, vol. viii., p. 43.

Pied-tail, Gould, Mon. Troch., vol. ii., p. 57.

l'Urochoé de Bouguer, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 193.

Habitat.—Ecuador.

Male.—Upperside coppery-bronze. Median rectrices very dark bronze-green, the others white, margined on outer webs, and tipped with blackish-brown. Spot behind the eye buff. Chin, throat, and upper part of breast metallic dark blue with greenish reflections. Rest of underside dark grayish-brown washed with green. Undertail-coverts bronzy-green. Wings purplish-brown. Bill black.

Total length, $5\frac{3}{8}$in. Wing, $3\frac{2}{8}$. Tail, $2\frac{3}{8}$. Culmen, $1\frac{2}{8}$.

Female.—Unknown.

This very rare species was discovered in Ecuador, by Bourcier. He dedicated it to Mr. Pierre Bouguer.

I have only one specimen, "Ex. Coll. Rucker."

GENUS CX. **Bourcieria,** Bon. Compt. Rend, 1850, p. 380.

LAMPROPYGIA, Reich., Aufz. der Colib., 1853, p. 10.

PILONIA, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii, p. 4.

TYPE.—*T. prunellei,* Bourcier.

Bill very long, straight, pointed at tip. Wings long, reaching the end of tail. Patch of white feathers on sides of breast. Tail long, broad, slightly forked, median shortest,

lateral and outermost ones very slightly and gradually longer. Tarsi bare. Sexes alike.

Habitat.—Venezuela, Colombia, Ecuador, Peru and Bolivia.

392. BOURCIERIA PRUNELLEI, Bourc. and Muls., Ann. Soc., Agr., Lyon, 1843, p. 36.

Mellisuga prunelli, Gray, Gen. Birds, vol. i., p. 112.

Homophania prunelli, Reich., Aufz. der Colib., 1853, p. 10.

Coeligena prunelli, Gould, Mon. Troch., vol. iv., p. 257.

Lampropygia prunelli, Gould, Int. Troch., 1861, p. 137.

Pilonia prunelli, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 4.

Prunelle's Coeligene, Gould, Mon. Troch., vol. iv. p. 255.

la Pilonie de Prunelle, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 5.

Habitat.—Colombia and Ecuador.

Male.—Head black with a bronzy-greenish gloss. Neck black with a bluish gloss. Upperside black, but when seen from behind it is brilliant metallic purplish-red passing to golden on rump. Uppertail-coverts bluish-purple. Tail purplish black. Underside purplish-black. Centre of throat metallic bluish-green. A broad white patch on each side of breast. Shoulders brilliant metallic silvery-blue. Undertail-coverts bronzy-black fringed with white. Wings purple. Bill black.

Total length, $5\frac{2}{8}$in. Wing, $3\frac{1}{8}$. Tail, $2\frac{1}{8}$. Culmen, $1\frac{1}{8}$.

Female.—Coloured like the male, but not so black. Lateral and outermost rectrices with tips slightly margined with dark gray.

This species was dedicated to Doctor Prunelle by Messrs. Mulsant and Bourcier.

I have one specimen from Ecuador, collected by Buckley.

393. BOURCIERIA ASSIMILIS, Elliott, Ibis., 1876, p. 56.

Elliot's Inca, Gould, Mon. Troch. Suppl., 1886, p. 26.

Coeligène semblable.

Male.—Exactly like the preceding species, excepting the colour of throat, which is metallic purple.

I don't consider it as a species, having received in the same box, and from the same locality, specimens coloured like this mixed with the others.

394. BOURCIERIA PURPUREA, Gould, Mon. Troch., vol. iv., p. 256.

Purple Coeligene, Gould, Mon. Troch., vol. iv., p. 256.

le Coeligène pourpre.

Male. — Exactly like the preceding species with more purple on back, when seen from behind. I don't consider it a species, but a young male of *B. prunelli.*

I have received specimens from Bogota, corresponding exactly to the above description.

395. BOURCIERIA WILSONI, Delatt and Bourc., Rev. Zool., 1846, p. 305.

Mellisuga wilsoni, Gray, Gen. Birds, vol. i., p. 112.

Coeligena wilsoni, Bon., Consp. Gen. Av., 1850, p. 73.

Lampropygia wilsoni, Reich., Troch. Enum., p. 7.

Pilonia wilsoni, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 7.

Wilson's Coeligene, Gould, Mon. Troch., vol. iv., p. 258.

la Pilonie de Wilson, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 7.

Habitat.—Colombia and Ecuador.

Male.—Upperside dark bronzy-brown, coppery on neck more or less, according to specimens, with a bright silvery greenish gloss on back and rump when seen from behind. Uppertail-coverts bronzy-brown, reddish at lower part. Tail bronze-green, or reddish-bronze. Throat metallic purple. A broad patch of white on each side of breast. Underside rufous-brown, bronzy-green on flanks. Vent white. Under-tail-coverts bronzy-green, margined with deep buff. Wings purplish-brown. Bill black.

Total length, 5in. Wing, $2\frac{6}{8}$. Tail, $1\frac{7}{8}$. Culmen, $1\frac{2}{8}$.

Female.—Like the male, but paler in colouration, sides of throat blackish brown, rectrices margined with buff. Same size as the male.

I have one specimen with the throat metallic purple intermixed with green; but I think nothing of it, these birds varying much in colouration according to age.

This species was discovered at Juntas, Colombia, by Delattre, who dedicated it to Mr. Thomas Wilson, a liberal

patron of Natural Sciences, who gave his ornithological Collection to the Museum of the Academy of Philadelphia.

GENUS CXI. **Lampropygia,** Cab. and Heine., Mus. Hein., t. iii., p. 78.

COELIGENA, Bon. Compt., Rend., 1850, p. 380.

TYPE.—*O. coeligena,* Lesson.

Bill long, straight, nearly twice the length of the head. Wings narrow, long, and pointed, reaching the end of tail. Tail long, slightly forked. Median rectrices long, shortest, lateral and outermost ones, slightly and gradually longer. Undertail-coverts very short. Sexes similar.

Habitat.—Venezuela, Colombia, and Bolivia.

396. LAMPROPYGIA COELIGENA, Cab. and Heine, Mus. Hein., t. iii., p. 78.

Coeligena typica, Bon. Consp., Gen., Av., 1850, p. 73.

Ornismya coeligena, Less. Troch., 1832, p. 141.

Mellisuga coeligena Gray, Gen. Birds, vol. i., p. 112.

Coeligene, Gould, Mon. Troch., vol. iv., p. 255.

la Lampropygie coeligène, Muls., Hist. Nat. Ois. Mou, 1876, t. iii., p. 11.

Habitat.—Venezuela.

Male.—Upperside shining coppery-purple, with the rump brilliant metallic-green, when seen from behind. Tail dark olive-bronze with purplish reflections. Throat grayish-white, with blackish-brown in centre of each feather. Lower part of breast, abdomen, and flanks dark gray with a rufous tinge, and washed with reddish-bronze on flanks. Undertail-coverts rufous. Wings shining purple. Bill black.

Total length, 5½in. Wing, 3. Tail, 2¼. Culmen, 1¼.

Female.—Exactly like the male, but slightly paler in colouration. Tips of lateral and outermost rectrices pale buff.

I have one specimen of this species, "Ex. Coll. Costa de Beauregard," which I believe to be the type of Lesson. The others were collected in Venezuela, by my friend, Doctor Carlos Rojas.

397. LAMPROPYGIA COLUMBIANA, Elliot, Ibis, 1876, p. 57.

Colombian Inca, Gould, Mon. Troch. Suppl., 1886, p. 27.

le Coeligène de Colombie.

Habitat.—Colombia.

Male.—Upperside golden-brown. When viewed from behind it shines brilliantly, and the rump appears metallic silvery-green. Tail shining golden-bronze. Throat white, with the centre feathers blackish-brown. Underside smoky-gray, darker on the abdomen, and washed with golden-bronze on flanks. Undertail-coverts greenish-bronze margined with rufous. Wings purple. Bill black.

Total length, 5in. Wing, $2\frac{7}{8}$. Tail, $2\frac{1}{8}$. Culmen, $1\frac{1}{8}$.

Female.—Slightly paler in colouration, lateral rectrices and outermost ones margined with grayish-buff. Abdomen and undertail-coverts rufous.

This species has been confused by many authors for the preceding one of Lesson. Mr. Elliot was the first to separate them, and I am of his opinion.

The type of the male "Ex. Elliot Collection" is now in the New York Museum of Natural History.

Among my specimens, the typical female from which the the above description was taken was collected in Colombia, by Mr. Salmon.

398. LAMPROPYGIA BOLIVIANA, Gould, Int. Troch., p. 137.

Bolivian Inca, Gould, Mon. Troch., Suppl., 1886, p. 27.

la Coeligène de Bolivie.

Habitat.—Bolivia.

Male.—Exactly like the preceding species from which it could not be distinguished if it was not for its tail which is dark olive-brown, passing to purplish-brown, the brownish streaks of throat are more conspicuous than in the specimens of *B. colombiana*, and the upperside is darker.

Total length, $5\frac{1}{2}$in. Wing, $3\frac{1}{4}$. Tail, $2\frac{3}{8}$. Culmen, $1\frac{1}{4}$.

Female.—Upperside golden-bronze. When viewed from behind, the rump is metallic pale green. Uppertail-coverts purple, margined with rufous. Tail golden-bronze at base, passing to dark purple, all the tips of rectrices margined with buff. Throat grayish-buff with olive-brown in the centre of

feathers. Breast grayish-brown. Abdomen and flanks rufous-gray washed with pale bronze-green on flanks. Undertail-coverts olive-brown margined with rufous. Wings purple. Bill black.

Total length, $4\frac{5}{8}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{7}{8}$. Culmen, 1.

Type of female in my collection.

It was collected in Bolivia, by Buckley.

I have given the descriptions of the three species known of *Lampropygia,* as former authors have done ; but I should not be surprised, when more specimens of these birds are collected by true Ornithologists, that it will be found that they are all females, or young males, of *Bourcieria wilsoni,* and probably of another or several allied species.

FAMILY XI. HELIODOXIDAE.

OR FAMILY OF BRILLIANT HUMMING BIRDS.

Size moderately large. Bill of moderate length, or long and straight. Sheath of box maxilla and mandible smooth. Nasal covers completely concealed. Wings narrow and long. Tail more or less forked. Males usually very brilliant. Brilliant gular spot, or throat brilliant, as in the genera Eugenes and Sternoclyta. Sexes unlike.

TYPE: *Heliodoxa,* Gould, P.Z.S., 1849, p. 95.

Range.—United States, Mexico, Guatemala, Costa Rica, Colombia, Venezuela, Ecuador, Peru, Guiana and Brasilia.

GENUS CXII. **Leadbeatera,** Bon., Consp., Gen. Av., 1850, p. 70.

TROCHILUS, Tsch. Faun., Per., 1845-46, t. 23, p. 249.

ASPATA, Hein., Journ. fur Ornith., 1863, p. 179.

HYPOLIA, Muls., Cat. Ois., Mou., 1875, p. 17.

Bill short, stout, and straight. Feathers of the forehead projecting on the maxilla, and covering the nostrils. Crown metallic. Wings, long, narrow and pointed, reaching the end of tail. Tail forked. No gular spot. Tarsi clothed. Sexes unlike.

TYPE: *Leadbeatera grata,* Bon., Consp. Gen. Av., 1850, p. 70.

Range: Colombia, Venezuela, Peru, and Bolivia.

399. LEADBEATERA GRATA, Bon., Consp. Gen. Av., 1850, p. 70.

Heliodoxa leadbeateri, Bourc., Rev. Zool., 1843, p. 102.

Trochilus otero, Tsch. Faun., Peruana, 1845-46, t. xxiii., p. 249.

Leadbeatera otero, Reich., Aufz. der Colib., 1853, p. 7.

Leadbeatera sagitta, Reich., Aufz. der Colib., 1853, p. 7.

Caeligena sagitta, Reich., Aufz. der Colib., 1853, p. 23.

Heliodoxa otero, Gould, Mon. Troch., vol. ii., p. 96.

Leadbeatera splendens, Gould, Int. Troch., 1861, p. 74.

Aspasta leadbeateri, Hein., Journ. for Ornith, 1854, p. 180.

Hypolia leadbeateri, Muls., Hist. Nat. Ois. Mou. 1876, vol. ii., p. 207-211.

Heliodoxa parvula, Berlepsch., Col. Art., 1888, p. 8.

Leadbeater's Brilliant, Gould, Mon. Troch., vol. ii., p. 96.

Otero Brilliant, Gould, Mon. Troch., vol. ii., p. 96.

Hypolie de Leadbeater, Muls., Hist. Nat. Ois. Mou., 1876, vol. ii., p. 207.

Habitat.—Venezuela, Colombia, Peru and Bolivia.

Male.—Crown of head metallic blue with purplish reflections or metallic bluish-green. Nape and uppertail-coverts coppery-red. Upperside golden-green. Median rectrices bronze, laterals blackish-bronze with bronze tips in some specimens, in others, the three outermost ones are bluish-black. Throat and breast metallic brilliant golden-green or brilliant emerald green. Abdomen and flanks dark shining green. Undertail-coverts green, margined with gray. Vent white. Wings purple-brown. Bill black.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{7}{8}$. Culmen, $\frac{6}{8}$.

Female.—Forehead shining metallic green. Neck coppery-red. Upperside golden-green. Median rectrices bronze, laterals bluish-black, typed with white. Underside white, each feather tipped with metallic-green or golden-green.

Lower part of abdomen rufous. Undertail-coverts olive-green, edged with gray and rufous.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{6}{8}$.

This species is abundant in Colombia, but rarer elsewhere. I am of the same opinion as Mr. Elliot about the difficulty of separating the specimens from Venezuela, Peru and Bolivia, having in my collection some specimens from Colombia, exactly like those from Venezuela and Bolivia, known as *H. otero* and *H. splendens*. They vary very much in colouration.

Type of Bourcier from Colombia in my collection. It is labelled *Leadbeatera leadbeateri*. It was dedicated by him to Mr. John Leadbeater.

Genus CXIII. **Hylonympha**, Gould, Ann. and Mag. Nat. Hist., 1873, p. 429.

Type: *H. macrocerca*, Gould.

Bill longer than the head, stout, and slightly curved. Feathers of forehead covering the nostrils. Wings long and narrow. Tail very long, deeply forked, the external rectrices are twice the length of the one next to it, very broad, and rounded at tip. Feet small. Tarsi partly clothed. Sexes unlike.

Habitat—Brazil ?

400. Hylonympha macrocerca, Gould, Ann. and Mag. Nat. Hist., 1873, p. 429.

Great forked tailed Humming-bird, Gould, Mon. Troch. Suppl., 1886, p. 37.

l'Hylonymphe à grande queue, Muls., Hist. Nat. Ois. Mou., 1876, vol. iii., p. 57.

Habitat.—Brazil ?

Male.—Forehead and crown metallic violet-blue. Nape and back dark bronze, nearly black. Rest of upperside dark green. Throat and breast metallic emerald-green. Flanks dark green. Abdomen black, washed with green. Undertail-coverts brownish-black. Tail glossy black.

Total length, 8in. Wing, $2\frac{6}{8}$. Tail, $5\frac{1}{2}$. Culmen, $\frac{7}{8}$.

Female.—Differs from the male by a much shorter tail and is very varied in colouration, the outermost feather is tipped with grayish-white. Laterals bluish-black with outer webs rufous. Medians bluish-black. Throat and breast white, spangled with green. Abdomen and flanks rufous. Rest like the male.

Total length, $5\frac{7}{8}$in. Wing, $2\frac{1}{2}$. Tail, $2\frac{3}{4}$. Culmen, 1.

A good number of specimens of this remarkable species were offered for sale in 1873 at the London Docks. Another lot came shortly after. No more has come since. The typical specimen was a poor skin. It was secured by Mr H. Whitely, and sold by him, to John Gould. I remember as if it was yesterday, and the excitement it caused to him. At that time I was living at Great Russell Street. He brought it to me at once, and I could scarcely believe that it was a real species. We thought at first that it was a tail of something else stuck into the body of a Chalybura, but after a careful examination we agreed that it was a new and remarkable genus. I have never been able to know, with certainty, where it came from, but it is probable that the locality for this curious bird is North Brazil or Trinidad.

GENUS CXIV. **Heliodoxa,** Gould, P.Z.S., 1849, p. 95.

LEADBEATERA, Bon. Consp., Gen. Av., 1850, p. 70.

TYPE : *H. jacula,* Gould.

Bill short, stout and straight, slightly longer than the head. Feathers of the forehead projecting on the bill and covering the nostrils. Wings long, narrow and pointed, reaching the tips of the second lateral rectrices. Tail long, forked ; medians shortest, laterals gradually longer, outermost ones slightly longer than the last lateral. Brilliant gular spot. Tarsi clothed. Sexes unlike.

Habitat.—Venezuela, Colombia, Ecuador, Peru and Bolivia.

401. HELIODOXA JACULA, Gould, P.Z.S., 1849, p. 96.

Leadbeatera jacula, Bon. Consp., Gen. Av., 1850, p. 70.

Coeligena jacula, Reich., Troch. Enum., 1855, p. 4.

Green-crowned Brilliant, Gould, Mon. Troch., vol. ii., p. 94.

l'Heliodoxe à fer de lance, Muls., Hist. Nat. Ois. Mou., 1876, vol. ii., p. 202.

Habitat.—Colombia.

Male.—Crown of the head and underside brilliant metallic emerald-green. Upperside dark green, bronzy on neck and uppertail-coverts. Median rectrices purplish-bronze, next one bluish-black margined and tipped with purplish-bronze, remainder of rectrices bluish-black. In the centre of the throat a good spot of metallic blue. Abdomen and flanks dark shining golden-green. Undertail-coverts dark green, sometimes edged with grayish-white. Wings purple-brown. Bill black. Vent and line on sides of flanks white.

Total length, 5in. Wing, 3. Tail, $2\frac{1}{2}$. Culmen, $\frac{6}{8}$.

Female.—Forehead metallic green. Upperside bronzy-green on neck. Four median rectrices bronzy-green, remainder bluish-black tipped with white. Underside white with the tips of all the feathers bright green. Centre of abdomen grayish-buff, rest like the male.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{6}{8}$. Tail, 2. Culmen, $\frac{6}{8}$.

Young males have a line beneath the eyes and lores, reddish-buff.

I have a fine series of this species from Colombia.

402. HELIODOXA JAMESONI, Bourc., Compt., Rend., 1851, t. xxvii., p. 187.

Coeligena jamesoni, Reich., Aufz. der Colib., 1853, p. 7.

Leadbeatera jamesoni, Bon. Rev. and Mag. Zool., 1854, p. 251.

Jameson's Brilliant, Gould, Mon. Troch., vol. ii., p. 95.

l'Héliodoxe de Jameson, Muls. Hist. Nat. Ois. Mou., 1876, t. ii., p. 205.

Habitat.—Ecuador.

Male.—Closely allied to the preceding species, but has only the front and a narrow line on the crown metallic green, the tail is bluish-blue in its entirety, and the glittering part of the underside is not so dark.

Total length, $5\frac{3}{8}$in. Wing, $3\frac{1}{8}$. Tail, $2\frac{3}{8}$. Culmen, 1.

Female.—Exactly like that of *H. jacula.*

Total length, $4\frac{6}{8}$in. Wing, $2\frac{5}{8}$. Tail, 2. Culmen, 1.

I think that Professor Jameson, of Quito, is the discoverer of this species. It was dedicated to him by Bourcier.

My specimens were collected in Ecuador, by Buckley.

403. HELIODOXA HENRICI, Lawr. Ann., Nat. Hist., 1866, p. 402.

Heliodoxa berlepschi, Boucard, H. Bird, 1892, vol. ii., p. 75.

Costa-Rica Brilliant.

l'Heliodoxe de Costa Rica.

Habitat.—Costa Rica, Veragua.

Male.—Crown of the head, throat, and breast glittering metallic green with golden reflections. Upperside dark green passing to shining-green on rump, and golden-green on uppertail-coverts. Median rectrices steel-blue, margined with greenish-bronze, laterals steel-blue. Centre of throat spotted with metallic blue. Abdomen, flanks and undertail-coverts, golden-green. Wings purplish-brown. Bill black.

Total length, 5in. Wing, 3. Tail, $2\frac{1}{2}$. Culmen, $\frac{6}{8}$.

Female.—Underside shining-green with a golden tinge on the head and neck. Median rectrices bronze-green passing to bluish-black at tips. Laterals bluish-black tipped with white. Underside white, each feather tipped with golden-green. Wings dark brown. Bill black.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{6}{8}$. Tail, 2. Culmen, $\frac{7}{8}$.

Young Male.—Upper and underside golden-green with sides of throat rufous.

This species is closely allied to *H. Jamesoni,* but it is much more bright on flanks, the crown is fully metallic, the bill is shorter, and the female has not the rufous abdomen of *H. Jamesoni.*

I collected my specimens at Naranjo, and on the Volcano of Irazu, Costa Rica, in 1877, but I have also some specimens collected by Arcé, in Veragua.

My friend, Count Berlepsch, to whom I communicated my typical specimens of *H. berlepschi,* informed me that it was identical with *H. henrici,* Lawr.

GENUS CXV. **Lampraster,** Tacz., P.Z.S., 1874, p. 140.

TYPE : *L. branicki,* Taczanowski.

Bill longer than the head, straight. Tail as long as the body, greatly forked. Undertail coverts exceed half the length of the rectrices. Tarsi covered with feathers to the toes.

Habitat.—Peru.

*404. LAMPRASTER BRANICKI, Tacz., P.Z.S., 1874, p. 140.

Count Branicki Humming-bird, Gould, Mon. Troch. Suppl., 1886, p. 18.

le Lampraste de Branicki, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 200.

Habitat.—Peru.

Male.—Centre of the crown occupied by a line of brilliant green, which commences at the base of maxilla and changes to blue in the centre of the head. Upper parts shining green. Throat metallic rose, changing to violet in certain lights. Chin brilliant green. Breast shining green. Lower part of abdomen, undertail-coverts, and tarsi white. Greater wing-coverts grass-green, secondaries rufous at base and blackish-brown on remaining parts. Median rectrices grass-green. Laterals black, glossed with violet. Maxilla black. Mandible flesh colour

Total length, 105mill. Wing, 68. Tail, 40. Bill at gape, 26.

Female.—Unknown.

This unique bird is in the Warsaw Museum, and was discovered in Peru by Mr. Jelski.

It was dedicated by Taczanowski to the late Count Constantin Branicki, the liberal patron of the Warsaw Museum.

GENUS CXVI. **Xanthogenyx,** d'Hamonville, Bull., Soc. Zool. de France, 1883, t. viii., p. 77.

TYPE.—*H. xanthogenys,* Salvin.

Bill short, straight, scarcely longer than the head. Feathers of forehead projecting on culmen, and covering the nostrils. Wings long, nearly reaching the end of tail. Tail short, pointed, and slightly forked. Median rectrices shortest, the others slightly and gradually longer. Tarsi clothed. Sexes unlike.

Habitat.—Roraima, British Guiana.

405. XANTHOGENYX SALVINI, d'Ham., Bull., Soc. Zool. de France, 1883, t. 8., p. 77.

Heliodoxa xanthogenys, Salvin. Ibis., 1881, p. 80.

Guiana Brilliant, Gould, Mon. Troch., Suppl., 1886, p. 19.

la Xanthogenye de Salvin, d'Ham., Bull., Soc. Zool. de France, 1883, t. viii. p. 77.

Habitat.—Roraima, British Guiana.

Male.—Forehead glittering golden-green, terminating in a point on the crown. Rest of crown and nape dark bronzy-green, appearing black in certain lights. Rest of upperside shining green, with a bronze tinge on the back. Uppertail-coverts shining green. Median rectrices brownish-bronze, laterals brownish-black. Chin, throat, and breast glittering emerald-green, golden on chin. In the centre of the throat a spot of glittering purple-blue feathers. Abdomen and flanks dark bronzy-green. Spot behind the eye and vent white. Undertail-coverts dark green, edged with gray. Wings purple-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, 4½in. Wing, $2\frac{5}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{11}{16}$.

Female.—Upperside shining green, with a bronzy tinge, metallic on forehead. Median rectrices bronze-green, dark on tips, laterals bluish-black, two of them and the outermost ones slightly tipped with grayish-white. Underside white, each feather tipped with metallic-green. Centre of abdomen and vent, white. Wings purple-brown, maxilla black, mandible flesh colour, with black tip.

Total length, 4½in. Wing, $2\frac{1}{2}$. Tail, $1\frac{5}{8}$. Culmen, $\frac{6}{8}$.

This very fine species was discovered at Roraima, British Guiana, by Mr. Henry Whitely. My specimens of both sexes are from him. It is a very rare species.

*406. XANTHOGENIX HYPOSTICTA, Gould, P.Z.S., 1862, p. 124.

Aphantochroa hyposticta, Gould, P.Z S., 1862, p. 124.

Spotted breasted Humming-bird, Gould, Mon. Troch., Suppl., 1886, p. 7.

la Xanthogenye tachetée.

Habitat.—Ecuador.

Upperparts dark green. Wings purplish-brown. Feathers of throat, breast, and abdomen white at base and tipped with green. Flanks green; undertail-coverts green, edged with white. Median rectrices, green, remainder green at base,

shading into black and edged with white. Bill black, except base of mandible, which is flesh-colour.

Total length, 4½in. Wing, 2¾. Tail, 1⅞. Culmen, 1.

I am of opinion that the bird described by Gould as *Aphantochroa hyposticta,* finds its proper place here.

407. XANTHOGENIX ALEXANDRI, Boucard, H. Bird, 1891, vol. i., p. 18.

Aphantochroa alexandri, Boucard, H. Bird, vol. i., p. 18.

Alexander's Humming Bird.

la Xanthogenye d'Alexandre.

Habitat.—Demerara, "British Guiana."

Female, or Young Male.—Forehead metallic golden-green. Upperside shining golden-green. Uppertail-coverts shining green. Median rectrices dark bronze-green. Laterals bronzy at base passing to brownish-black with a small buffy-white spot on tips of the two outermost ones. Underside brilliant metallic golden-green with a line of pale buffy-white in the centre of the abdomen. Undertail-coverts dark green, edged with rufous. Wings very narrow, purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, 4in. Wing, 2½. Tail, 1½. Culmen, ⅞.

Type unique in my collection.

It was collected at Demerara, by Mr. Alexander, from whom I purchased it in 1878.

Since I described this species in 1891, I have sent my typical specimen to Count Berlepsch, who, after a careful examination, identified it as XANTHOGENIX SALVINI. As to the genus I quite agree with him, but not as to the species. My opinion is that it is a species quite distinct from *X. salvini,* and that it is better to leave it so for the present.

GENUS CXVII. **Iolaema,** Gould, Int. Troch., 1861, p. 73.

IONOLAIMA, Reich., Aufz. der Colib, 1853, p. 9.

IONOLOEMA, Gould, Mon. Troch., 1857, pt. xiii.

TYPE: *T. schreibersi,* Bourcier.

Bill stout, straight, longer than the head, nostrils hidden by frontal feathers. Wings long, reaching the tips of third lateral

rectrices. Tail long, and deeply forked. Median rectrices the shortest, lateral and outermost ones gradually longer. Tarsi clothed. Feet large, hind toe shorter than middle toe. Sexes unlike.

Habitat.—Colombia, Ecuador and Peru.

408. IOLAEMA SCHREIBERSI, Bourcier, P.Z.S., 1845, p. 43.

Thalurania schreibersi, Bon. Consp. Gen. Av., 1850, vol. i., p. 77.

Calothorax schreibersi, Gray, Hand. List. Birds, vol. i., p. 136.

Campylopterus schreibersi, Bon., Rev. and Mag., Zool., 1854, p. 250.

Heliodoxa schreibersi, Reich., Troch., Enum., 1855, p. 6.

Ionolaima frontalis, Lawr., Ann., Lyc. Nat. Hist., N.Y., vol. vi., p. 263.

Schreiber's Humming Bird, Gould, Mon. Troch., vol. ii., p. 93.

Emerald-fronted Humming Bird, Gould, Mon. Troch., vol. ii., p. 92.

l'Iolème de Schreiber's, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 139.

Habitat.—Ecuador.

Male.—Front brilliant metallic green, golden in some specimens. Rest of head and upperside golden-green passing to shining green on uppertail-coverts. Tail steel-blue with greenish reflections. Chin, upper part of throat, middle of breast, and abdomen black. Rest of throat metallic violet-blue, beneath which is a broad band of glittering golden-green. Flanks dark bronze green. Undertail-coverts blackish-blue. Wings purple-brown. Bill black.

Total length, $5\frac{1}{2}$in. Wing, $2\frac{7}{8}$. Tail, $2\frac{1}{2}$. Culmen, $\frac{7}{8}$.

Female ?—Upperside shining green, golden on lower part of head and neck. Median rectrices bronze-green, laterals steel-blue, the outermost ones tipped with white. Underside grayish-white passing to light buff on centre of abdomen, each feather tipped with metallic green. Undertail-coverts olive-bronze, edged with buffy-gray. Wings purplish-brown. Bill black.

Total length, $4\frac{5}{8}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{7}{8}$. Culmen, $\frac{7}{8}$.

This fine and rare species was discovered by Mr. Natterer, and sent to Mr. Loddiges, in which collection it is still. It was described by Bourcier, and dedicated to Mr. Schreibers, Director of the Vienna Museum of Natural History, at that time. It was a male specimen, not quite adult, without the metallic feathers of the forehead.

Many years after, Mr. Lawrence, of New York, received some fine adult males, so different from the type, that he described it again as *I. frontalis*, but I am quite certain that they all belong to one species.

I have in my collection some very adult males, females, and young, exactly like the type of *I. schreibersi*.

*409. IOLAEMA WHITELYANÀ, Gould, Ann. and Mag. of Nat. Hist., 1872, p. 4.

Whitely's Humming Bird, Gould, Mon. Troch., Suppl., 1886, p. 16.

l'Iolème de Whitely, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 141.

Habitat.—Peru.

Male.—Very closely allied to the preceding species. I have examined Gould's types, one male adult and one male junior, now in the British Museum, and the only difference which I have been able to see between the two are the following:—The lower part of the throat is not so purple, and it has no golden-green band beneath it, that part is black. I am not certain about the validity of this species.

It was collected in Peru, by Mr. H. Whitely.

*410. IOLAEMA LUMINOSA, Elliot, Ibis, 1878, p. 188.

Lawrence's Sapphironia, Gould, Mon. Troch., Suppl., 1886, p. 97.

l'Iolème brillant.

Habitat.—?

Male.—Top of head and nape dull dark green. Chin and sides of throat black. Centre of throat most brilliant topaz, changing, according to the light, into a flame-colour or a brilliant emerald-green. Back bronzy-green, graduating into a rich purplish-red upon the uppertail-coverts. Breast, flanks

and abdomen brilliant metallic coppery-red. Wings dark purple. The tail has the median rectrices bronze. The laterals are dark purple tinged with green on the outer webs. Under-tail-coverts, reddish-bronze, margined with white. Bill black. Feet brownish-black.

Total length, 4½in. Wing, 2¾. Tail, 2. Bill, 1.

"Elliot's Syn. of H. Birds, page 58."

The type of this most beautiful species is unique in the British Museum. "Ex. Gould Coll."

GENUS CXVIII. **Sternoclyta,** Gould, Int. Troch., 1861, p. 57.

TYPE: *S. cyanopectus,* Gould.

Bill long, stout, rather arched, and much longer than the head. Wings long and pointed, reaching near the end of tail. Tail moderate, and forked, rectrices rounded at tips, median shortest, lateral and outermost ones slightly and gradually longer. Tarsi partly clothed. Sexes unlike. Size large.

Habitat.—Venezuela.

411. STERNOCLYTA CYANIPECTUS, Gould, P.Z.S., 1846, p. 88.

Polytmus cyanopectus, Gray, Gen. Birds, vol. i., p. 108.

Lampornis cyanopectus, Bon., Consp., Gen. Av., 1850, p. 72.

Saepiopterus cyanopectus, Reich., Aufz. der Colib., 1853, p. 11.

Campylopterus cyanopectus, Bon., Rev. and Mag. Zool., 1854, p. 250.

Blue-breast, Gould, Mon. Troch., vol. ii., p. 58.

la Poitrine bleue.

Habitat.—Venezuela.

Male.—Upperside dark grass-green, spot on forehead brilliant golden-green. Median rectrices dark bronze-green, purplish at tips, lateral and outermost ones purplish-brown, the two outermost ones tipped with white internally. A white spot behind the eye. Ear-coverts dark-green. Throat brilliant metallic emerald-green. Breast brilliant metallic blue, with purplish reflections, and encircled with dark green, appearing almost black in certain lights. Flanks dark green. Abdomen grayish-buff, washed with green. Undertail-coverts

green, margined with grayish-buff. Wings purplish, with the internal webs of tertiaries chestnut. Bill black.

Total length, $5\frac{1}{2}$in. Wing, $2\frac{7}{8}$. Tail, $2\frac{1}{8}$. Culmen, $1\frac{2}{8}$.

Female.—Upperside like the male. Underside gray, the feathers tipped with green.

This rare species was discovered in Venezuela, by Mr. David Dyson, in 1866.

My specimens are from Porto-Cabello, Venezuela, and were presented to me by my friend, Mr. Eugène Simon.

Genus CXIX. **Eugenia,** Gould, P.Z.S., 1855, p. 92.

Type : *E. imperatrix,* Gould.

Bill stout, straight, longer than the head. Nostrils covered with feathers. Wings long and pointed, reaching the end of second lateral. Tail long and much forked. Rectrices narrow, the median very short, next one slightly longer, the third twice the length of medians, the fourth two-and-a-half the length of medians, outermost ones three times longer than the medians. Feet strong. Tarsi feathered nearly to the toe. Sexes unlike.

Habitat.—Ecuador.

412. Eugenia imperatrix, Gould, P.Z.S., 1855, p. 92.

Empress Humming Bird, Gould, Mon. Troch., vol. iv., p. 234.

l'Eugénie impératrice, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 198.

Habitat.—Ecuador.

Male.—Spot on forehead brilliant metallic green. Upperside dark shining green with golden reflections when seen from behind. Tail bronzy-brown. A white spot behind the eye. Chin and throat dark metallic green. In the centre of the throat a spot of metallic violet. Breast shining dark green. Abdomen and flanks brilliant metallic golden-green. Undertail-coverts shining green. Thighs white. Wings purple-brown. Bill black.

Total length, $5\frac{6}{8}$in. Wing, 3. Tail, 3. Culmen, 1.

Female.—Upperside shining green. Underside grayish-white spangled with green. Median rectrices olive, laterals dark brown. Undertail-coverts grass-green.

Total length, $5\frac{1}{2}$in. Wing, $2\frac{7}{8}$. Tail, $2\frac{3}{8}$. Culmen, $\frac{7}{8}$.

Young Male.—Like the male with no frontal spot. Chin buff. Throat dark shining green.

This fine and rare species was discovered in Ecuador by Professor Jameson. It was dedicated by Gould, to Empress Eugénie.

GENUS CXX. **Docimastes,** Gould, Mon. Troch., 1849, pl. 233.

MELLISUGA, Gray, Gen. Birds, vol. i., p. 112.

DOCIMASTER, Bon. Consp., Gen. Av., 1850, vol. i., p. 74.

TYPE: *O. ensifera, Boissonneau.*

Bill very long, generally of the same length as the whole bird, inclining upwards at the tip and compressed laterally for nearly all its length, broader, and rounded close to the tip. Wings long and pointed, reaching the end of second lateral. Tail long and forked, medians shortest, lateral and outermost ones gradually longer, outermost ones twice as long as medians. Feet small, with the hind toe shorter than the middle one. Tarsi partly clothed. Sexes unlike

Habitat.—Colombia, Venezuela, Ecuador and Peru.

413. DOCIMASTES ENSIFERUS, Boiss., Rev. Zool., 1839, p. 354.

Trochilus derbyanus, Fras. P.Z.S., 1840, p. 16.

Mellisuga ensifera, Gray, Gen. Birds, vol. i., p. 112.

Docimaster schliephackei, Hein., Journ. fur Ornith., 1863, p. 215.

Sword-bill, Gould, Mon. Troch., vol. iv., p. 233.

le Docimaste porte épée, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 287.

Habitat.—Venezuela, Colombia, Ecuador, and Peru.

Male.—Head coppery-green. Upperside bronzy-green with golden reflections, when seen from behind. Tail dark bronze. Throat dark green-bronze, appearing almost black in certain lights, base of feathers black. Sides of neck, and upperpart of breast shining emerald-green, only to be seen by presenting the bird to the light. Abdomen and flanks bronzy-green, centre of the former dark gray. Undertail-

coverts green, margined with white. Wings purple. Bill black.

Total length, $7\frac{1}{2}$ to $8\frac{1}{2}$in. Wing, $3\frac{1}{8}$. Tail, $2\frac{6}{8}$. Culmen, 3-4.

Female.—Upperside like the male, but usually more golden. Lateral rectrices tipped with grayish-white, outermost ones with the outer webs and tips gray. Throat white with a central dark brownish-green streak. Underside shining green, base of feathers white giving a scaly appearance to that part, and more brilliant on breast. Centre of abdomen white or pale buff, rest like the male.

Total length, $7\frac{1}{2}$ to $8\frac{1}{2}$in. Wing, 3. Tail, $2\frac{2}{8}$. Culmen, 3-4.

I cannot see any difference between the specimens from Colombia and Ecuador.

This remarkable species was probably discovered in Colombia, by Mr. Boissonneau, who described it. I have specimens from Colombia, Ecuador and Venezuela. Those from Ecuador were collected by Buckley, and one specimen only, collected by Mr. Briceno, in Merida, Venezuela, where it seems to be very rare.

Genus CXXI. Eugenes, Gould, Int. Troch., 1861, p. 57.

Type: *T. fulgens, Swainson.*

Bill straight, longer than the head. Wings long and pointed, reaching the end of tail. Tail moderate and slightly forked, rounded at tips, median rectrices shortest, lateral and outermost ones slightly and gradually longer. Tarsi clothed, feet small, hind toe about equal in length to the middle one. Crown and throat luminous in male. Sexes unlike.

Habitat.—United States, Mexico, Guatemala and Costa Rica.

414. Eugenes fulgens, Sw., Phil. Magaz., 1827, p. 441.

Ornismya rivoli, Less., Ois. Mou., 1829, p. 48.

Mellisuga fulgens, Gray, Gen. Birds, vol. i., p. 112.

Delattria fulgens, Bon., Consp., Gen. Av. 1850, p. 70.

Coeligena fulgens, Reich., Aufz. der Colib., 1853, p. 7.

Eugenes viridiceps, Boucard, Ann. Soc., Linn. Lyon., 1878.

The Rivoli, Gould, Mon. Troch., vol. ii., p. 59.

l'Eugène de Rivoli, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 213.

Habitat.—United States, Mexico and Guatemala.

Male.—Top of head and crown brilliant metallic violet-blue. Upperside shining bronze-green, appearing almost black on neck and upper part of back, and with golden reflections when seen from behind. Median rectrices bronze-green, remainder bronzy-brown. A white spot behind the eye. Ear-coverts black. Throat brilliant metallic green. Underside dark bronze-green appearing almost black on breast and upper part of abdomen. Flanks bronze-green with golden reflections. Vent white. Undertail-coverts pale green, margined with white. Wings purplish. Bill black.

Total length, 5in. Wing, $2\frac{7}{8}$. Tail, 2. Culmen, 1.

Female.—Upperside light golden-green, brownish on head. Median rectrices bronzy-green, coppery at tips, lateral and outermost ones bronze-green at base, with a broad subterminal black bar and white tips. Underside gray, washed with green, rest like the male.

Total length, 5in. Wing, $2\frac{5}{8}$. Tail, $1\frac{6}{8}$. Culmen, 1.

I have collected this species in Mexico and Guatemala, where it is abundant in the highlands.

I have one specimen of a young male from Guatemala which I have described in 1875, in the Annals of the Linnean Society of Lyon, under the name of *E. viridiceps;* but I think now that it is only a curious variety of plumage of this species.

It has the crown of head metallic silvery-green, the throat reddish-gray, and the rest of underside gray, washed with golden-green on sides of breast and on flanks, the lateral and outermost rectrices are broadly tipped with white, the bill is very long.

415. EUGENES SPECTABILIS, Lawr., Ann., N.Y., Lyc., Nat. Hist., 1867, vol. viii., p. 472.

Eugenes spectabilis, Boucard, P.Z.S., 1878, p. 68.

Costa Rica Humming Bird, Gould, Mon. Troch., Suppl., 1886, p. 17.

l'Eugène remarquàble, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 215.

l'Eugène de Costa Rica.

Habitat.—Costa Rica.

Male.—Forehead very dark green, nearly black. Top of head and occiput brilliant metallic dark blue, with purplish reflections. Neck and upper part of back dark green, appearing almost black in certain lights. Lower part of back, rump, and uppertail-coverts shining green. Tail bronze-green. A white spot behind the eye. Throat metallic dark green. Lores and ear-coverts dark green, appearing black. Underside dull golden-green, with base of feathers gray. Vent and a tuft of feathers on flanks white. Undertail-coverts pale green, margined with grayish-buff. Wings purplish. Bill black.

Total length, $5\frac{5}{8}$in. Wing, $3\frac{2}{8}$. Tail, $1\frac{6}{8}$. Culmen, $1\frac{1}{8}$.

Female.—Upperside golden-green, brownish on head. Median rectrices bronze-green, laterals bronze-green, passing to brownish-black near the tips, which are white, outermost ones brownish-bronze, tipped with white. Underside gray. Throat spotted minutely with pale green, breast pale golden-green, abdomen and flanks washed with pale golden-green, rest like the male.

Total length, $5\frac{1}{2}$in. Wing, $2\frac{7}{8}$. Tail, $2\frac{1}{8}$. Culmen, $1\frac{1}{2}$.

This is a very rare species, a young one, collected in Costa Rica, was sent by Mr. Garcia to Mr. Lawrence, who described the species. It was the only specimen known. When I went to Costa-Rica, in 1877, I collected two fine specimens, male and female, at Rancho redondo. I described the male in the P.Z.S. 1878, p. 68, and now I describe the female. The types of male and female are in my collection, and the type of a young male or female in the New York Museum of Natural History (Ex. Coll. Lawrence).

FAMILY XII. FLORICOLIDAE,

OR FAMILY OF LONG-BILLED STAR-THROAT HUMMING BIRDS.

Size moderately large. Bill long, nearly straight. Culmen closely feathered at the base, Nasal covers completely hidden. Wings narrow and long. Tail short, narrow, and rounded, excepting in the genera LEPIDOLARYNX and CALLIPERIDIA

in which it is forked in the males. Throat and crown, or crown alone metallic. Sexes unlike.

TYPE: *Floricola,* Elliot, Syn., Troch., 1879, p. 82.

Range.—Mexico to Peru, Colombia, Venezuela, Brazilia, Paraguay, Guiana and Trinidad.

GENUS CXXII. **Heliomaster,** Bon., Compt., Rend., 1850, p. 382.

CALLIPERIDIA, Reich., Aufz. der Colib., 1853, p. 12.

CALLOPISTRIA, Reich., Bon., Ann. Sc. Nat., 1854, p. 37.

TYPE.—*T. furcifer,* Shaw.

Bill long, slender, straight, about twice the length of the head. Wings narrow, reaching the end of second median rectrices. Tail deeply forked, rectrices narrow, median shortest, lateral and outermost ones gradually longer, outermost one longest. Sexes unlike.

Habitat.—Brazil and Paraguay.

416. HELIOMASTER FURCIFER, Shaw., Gen. Zool., vol. viii., p. 280.

Trochilus caudacutus, Vieill., Nouv. Dict., Hist. Nat., 1817, p. 347.

Heliomaster regis, Schreib., Naturfors., Wien., Sept., 1832.

Ornismya angelae, Less. Illust., Zool., 1833, pl. 45.

Heliomaster angelae, Bon., Compt. Rend., 1850, p. 382.

Ornithomya angelae, Bon., Rev. and Mag., Zool., 1854, p. 251.

Campylopterus inornatus, Burm., Reise., durch. Plata., Staat., 1861, p. 447.

Callipedia regis, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 278.

Angela Star-throat, Gould, Mon. Troch., vol. iv., p. 263.

la Callipédie d'Angèle, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 279.

Habitat.—Brazil and Paraguay.

Male.—Head brilliant metallic silvery-green. Upperside shining golden-green, mixed with shining metallic green

feathers on upper part of back. Tail glossy dark green. Spot behind the eye white. Throat metallic crimson. A line from mandible, and the elongated feathers of throat glittering deep blue. Underside glittering deep blue. Undertail-coverts dark green. Vent and spot on side of flanks white. Wings purplish-brown. Bill black.

Total length, 5in. Wing, $2\frac{1}{8}$. Tail, $2\frac{2}{8}$. Culmen, $1\frac{1}{8}$.

Female.—Upperside golden-green. Lateral and outermost rectrices tipped with white. Underside grayish-white washed sparingly with green on sides of breast and flanks.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{2}{8}$. Tail, $1\frac{5}{8}$. Culmen, $1\frac{1}{8}$.

The discoverer of this fine and rare species is probably Mr. Felix de Azara.

Genus CXXIII. **Lepidolarynx,** Reich., Aufz. der Colib., 1853, p. 13.

Ornithomya, Bon., Rev. and Mag. Zool., 1854, p. 251.

Type: *T. mesoleucus,* Temminck.

Bill straight, twice as long as the head. Feathers of forehead advancing to a point on the maxilla. Tail forked. Rectrices narrow, median rectrices shortest, laterals slightly and gradually longer, outermost ones longer than the third lateral, and shorter than the fourth. Sexes unlike.

Habitat.—Brazil.

417. Lepidolarynx mesoleucus, Temm., Pl. Color., pl. 317.

Trochilus squamosus, Temm., Pl. Color., pl. 203.

Trochilus mystacinus, Vieill., Ois. Dorés, t. iii., pl. 21.

Mellisuga squamosus, Steph., Gen. Zool., vol. xiv., p. 245.

Ornismya temmincki, Less., Ois. Mou., 1829, p. 110.

Mellisuga melanoleuca Gray, Gen. Birds, vol. i., p. 112.

Heliomaster mesoleucus, Gould, Mon. Troch., vol. iv., p. 262.

Ornithomya mesoleucus, Bon., Rev. and Mag. Zool., 1854, p. 251.

Calothorax mesoleucus, Burm., Th. Bras., 1856, vol. ii., p. 339.

Stripe-breasted Star-throat, Gould, Mon. Troch., vol. iv., p. 262.

le Lepidolarynx médiastin, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 284.

Habitat.—Brazil.

Male.—Top of head metallic silvery-green. Upperside dark bronzy-green, with golden reflections when seen from behind. Four median rectrices bronzy-green, last lateral dark bronzy-green, outermost one darker. Throat metallic crimson with purplish reflections. Underside dark shining green. In the centre, a white line from the breast to the undertail-coverts. Vent and tuft of feathers on sides of flanks white. A spot behind the eye and a line under it white. Undertail-coverts dark green margined with white. Wings purplish-brown. Bill black.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{3}{8}$. Tail, $1\frac{1}{2}$. Culmen, $1\frac{1}{8}$.

Female.—Upperside dull bronzy-green or golden-green. Median rectrices bronze-green, lateral and outermost ones bronze-green with a subterminal blackish bar, and with white tips. Underside grayish-white with brownish spots on throat and some few scattered green feathers on sides of breast and flanks. Bill black.

Total length, $4\frac{1}{8}$in. Wing, $2\frac{3}{8}$. Tail, $1\frac{3}{8}$. Culmen, $1\frac{1}{8}$.

Young Male.—Upperside dull golden-green, sometimes with metallic green feathers on forehead, outermost rectrices tipped with white. Feathers of the throat dark olive-green margined with white. Underside dark green, with the white line in centre, as in adult males. Undertail-coverts olive-green margined with white.

What Elliot has described as the female is certainly a young male.

It is a common species in Brazil.

In the *Humming Bird,* 1891, vol. i., p. 26, I have mentioned a specimen of my collection agreeing exactly with the description of the adult male; but it has a very short bill, hardly $\frac{6}{8}$ of an inch long.

GENUS CXXIV. **Floricola,** Elliot, Syn. Troch., 1879, p. 82.

Trochilus, Sw., Zool. Journ., 1827, p. 357.

Trochilus, Boié, Isis, 1831, p. 547.

Heliomastes, Bon., Rev. and Mag. Zool., 1854, p. 251.

Selasopherus, Reich., Troch. Enum., 1855, p. 11.

TYPE: *T. longirostris,* Vieillot.

Bill straight, longer than half the body, hooked at tips. Maxilla denuded of feathers at base, nostrils exposed. Wings narrow, rather long, reaching the end of tail. Tail slightly rounded, all the rectrices nearly of the same length. Sexes unlike.

Habitat.—Venezuela, Trinidad, Brazil, Guiana, Colombia, Ecuador and Peru.

418. FLORICOLA LONGIROSTRIS, Vieill, Ois. Dor., 1802, t. i., p. 107.

Trochilus superbus, Shaw, Nat. Misc., vol. xiii., pl. 517.

Ornismya superba, Less, Ois. Mou., 1829, p. 40.

Ornismya longirostris, d'Orb and Lafr., Syn. Av., 1838, t. ii., p. 29.

Mellisuga longirostris, Gray, Gen. Birds, vol. i., p. 112.

Selasphorus longirostris, Reich., Aufz. der Colib., 1853, p. 13.

Heliomastes longirostris, Bon., Rev. and Mag., Zool, 1854, p. 251.

Heliomaster stuartae, Lawr., Ann. Lye. Nat. Hist. N.Y., 1860, p. 261.

Heliomaster albicrissa, Gould, P.Z.S., 1871, p. 504.

Long-billed Star-throat, Gould, Mon. Troch., vol. iv., p. 259.

l'Héliomaste de Corinne, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 272.

White-vented Star-throat, Gould, Mon. Troch. Suppl., 1886, p. 30.

Habitat.—Venezuela, Trinidad, Brazil, Guiana, Colombia, Ecuador and Peru.

Male.—Forehead and crown metallic green with bluish reflections. Upperside dark bronzy-green. A patch of white feathers in the middle of the rump. Median rectrices bronze-green, laterals bronze-green at base, passing to black with a spot of white on tips on the two laterals close to outermost ones, and larger on these last ones. Spot behind the eye, and

line under it white. Chin black. Throat metallic crimson. Underside gray, washed with green on sides of breast, and on flanks. A line of white from the centre of breast to lower part of abdomen, and vent white. A tuft of white feathers on flanks. Undertail-coverts greenish-black, margined with white. Wings purplish-brown. Bill black.

Total length, $4\frac{5}{8}$in. Wing, $2\frac{2}{8}$. Tail, $1\frac{1}{2}$. Culmen, $1\frac{3}{8}$.

Female.—Upperside bronzy-green. Throat white, margined with black, and sometimes with metallic crimson feathers on lower part. Underside gray, washed sparingly with pale green, on sides of breast and on flanks. Centre of abdomen and vent white, rest like the male.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{1}{8}$. Tail, $1\frac{1}{4}$. Culmen, $1\frac{3}{8}$.

It is a common species.

Excepting a little more white on the centre of the abdomen, I cannot see any difference between the specimens from Guiana, Colombia, etc., and those from Ecuador, hence my authority for considering *H. albicrissa*, of Gould, as a synonym of this species.

419. FLORICOLA PALLIDICEPS, Gould, P.Z.S., 1871, p. 504.

Pale green-headed Star-throat.

l'Héliomaste à tête d'un vert pâle, Muls. Hist. Nat. Ois. Mou, 1876, t. ii., p. 275.

Habitat.—Guatemala, Costa Rica, Veragua, and Panama.

Male.—Forehead and crown metallic green. Upperside shining golden-green. A patch of white feathers in the middle of the rump. Median rectrices golden-bronze, next one of same colour, black at tips, lateral and outermost ones golden-bronze from the base to half their length, then black with white tips. Spot behind the eye, and line under it white. Ear-coverts brownish-black, chin black, throat metallic-crimson. Underside dark golden-green. Centre of breast gray, passing to white in centre, and lower part of abdomen. Vent and patch on flanks white. Undertail-coverts black, margined with white. Wings purplish. Bill black.

Total length, $4\frac{5}{8}$in. Wing, $2\frac{3}{8}$. Tail, $1\frac{5}{8}$. Culmen, $1\frac{3}{8}$.

Female.—Upperside shining golden-green, with a white patch on the rump. Tail like that of the male, but the white

tips on lateral and outermost rectrices are more conspicuous. Throat black margined with white. Underside gray, washed with golden feathers on sides of breast and on flanks. Centre of abdomen white, rest like the male.

Total length, 4½in. Wing, 2⅜. Tail, 1½. Culmen, 1⅜.

This species is common in Guatemala.

I have four specimens, three males and one female, collected in Veragua by Arcé, which are very distinct in the colouration of the throat and the underside. The throat is metallic lilac with steel-blue reflections, the underside is gray or grayish-white, washed sparingly with golden-green feathers on flanks, remainder of plumage like *H. pallidiceps*. The female is coloured the same, excepting the throat, which is black margined with white. If it should prove a distinct species, I propose for it the name of *Heliomaster veraguensis*.

420. FLORICOLA CONSTANTI, Delatt., Echo. du Mond. sav., 1843, p. 1069.

Trochilus leocardiae, Bourc, Ann. Sc. Nat. Lyon, 1852, t. iv., p. 141.

Selasopherus constanti, Reich., Aufz. der Colib, 1853, p. 13.

Heliomastes constanti, Bon., Rev. and Mag., Zool., 1854, p. 251.

Heliomaster pinicola, Gould, Mon. Troch., vol. iv., p. 261.

Selasphorus longirostris, Reich., Aufz. der Colib, 1853, p. 13.

Heliomastes leocardiae, Bon., Rev. and Mag., Zool., 1854, p. 251.

Constant's Star-throat, Gould, Mon. Troch., vol. iv., p. 260.

Pine Star-throat, Gould, Mon. Troch., vol. iv., p. 261.

l'Héliomaste de Constant, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 270.

l'Héliomaste de Léocardie, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 277.

Habitat.—Mexico, Guatemala, and Costa-Rica.

Male.—Upperside pale bronzy-green, golden when seen from behind, with a patch of white feathers in the centre of

rump. Four median rectrices bronzy-green, dark at tips, laterals bronze-green with a broad subterminal black bar and white tips on inner webs. Spot behind the eye, and line from mandible to end of ear-coverts white. Ear-coverts brownish-black. Chin black. Throat metallic scarlet in some specimens, in others metallic rubi. Underside dark gray, washed with pale green on sides of breast and on flanks. Line in the centre of abdomen, vent, and tuft on flanks white. Under-tail-coverts olive-brown margined with white. Wings purplish-brown. Bill black.

Total length, $5\frac{2}{8}$in. Wing, $2\frac{5}{8}$. Tail, $1\frac{11}{16}$. Culmen, $1\frac{3}{8}$.

Female.—Upperside like the male, with all the lateral and outermost rectrices tipped with white. Chin and throat brownish-black, and the lower part metallic crimson, all the feathers tipped with gray. Underside like the male, but of a lighter gray.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{5}{8}$. Tail, $1\frac{1}{2}$. Culmen, $1\frac{3}{8}$.

This rare species was probably discovered in Guatemala, by Delattre.

I have collected some specimens in Mexico, and in Costa-Rica, where it is rare. I have also two specimens from Guatemala. As it is easy to see, the description of my female specimen, which I collected at San José, Costa-Rica, in 1877, corresponds exactly to the description of *H. leocardiae.* For me, there is only one species which varies greatly in the colouring of throat, according to age and sex.

FAMILY XIII. HEMISTEPHANIDAE,

OR FAMILY OF LANCE-BILL HUMMING BIRDS.

Size small. Bill long, straight and slender, slightly upturned in the shape of a lance, and feebly serrated. Wing narrow and short. Tail short and rounded. Forehead of males glittering. Sexes unlike.

TYPE: *Hemistephania,* Elliot, Syn. Troch., p. 81.

Range.—Veragua, Colombia, Venezuela, Guiana, Ecuador, and Bolivia.

GENUS CXXV. **Hemistephania,** Reich., Aufz. der Colib., 1859, p. 9.

DORYFERA, Gould, P.Z.S., 1847, p. 95, (name previously employed in Entomology by Illiger).

DORIFERA, Bon., Consp. Gen. Av., 1849, vol. i., p. 68.

DORYPHORA, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 77.

TYPE: *T. ludoviciae,* Bourcier and Mulsant.

Bill very long, straight, slender and sharpely pointed. Wings long, reaching the end of tail, outer web of first primary nearly obsolete. Tail rounded. Rectrices broad, outermost shortest, laterals and medians slightly and gradually longer.

Habitat.—Veragua, Colombia, Venezuela, Ecuador and Bolivia.

421. HEMISTEPHANIA LUDOVICIAE, Bourc. and Muls., Ann. Soc. Agr. Lyon., 1847, p. 136.

Mellisuga ludoviciae, Gray, Gen. Birds, vol. i., p. 112.

Dorifera ludoviciae, Bon., Consp., Gen. Av., vol. i., p. 68.

Doryfera ludovicia, Gould, Mon. Troch., vol. ii., p. 88.

Doryphora ludoviciae, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 69.

Doryfera rectirostris, Gould, Int. Troch., 1861, p. 71.

Green-fronted Lance-bill, Gould, Mon. Troch., vol. ii., p. 88.

Ecuadorean Lance-bill, Gould, Mon. Troch. Suppl., 1886, p. 28.

le Doryfère de Louise, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 201.

Habitat.—Venezuela, Colombia, Ecuador and Bolivia.

Male.—Forehead metallic grass-green or golden-green. Crown and nape coppery-bronze. Back dark shining green, passing into bluish-silvery-green on uppertail-coverts. Tail dark bronze at base, passing to black, and tipped with gray. Underside brownish-green, the base of each feather dark gray. Undertail-coverts bluish-green, broadly margined with gray. Wings purplish-brown. Bill black.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{3}{8}$. Tail, $1\frac{1}{2}$. Culmen, $1\frac{3}{8}$.

Female.—Exactly like the male. Possibly it may be the specimens with golden forehead which are the females. There is scarcely any blue tinge on the undertail-coverts.

I have one specimen which I consider as an adult female which has the underside more grayish and no frontal spot.

Type of Bourcier in my collection.

This species was dedicated by M.M. Bourcier and Mulsant to Mrs. Louise Isidore Geoffroy Saint-Hilaire.

I consider *H. rectirostris*, Gould, as a synonym of this species, the only difference which I can see between them is the length of the bill which is one-eight of an inch longer, but I have some specimens from Colombia with the bill very nearly as long.

My specimens were collected in Ecuador and Bolivia, by Buckley, in Venezuela, by Briceño, and the rest are from Colombia.

422. HEMISTEPHANIA VERAGUENSIS, Salv., P.Z.S., 1867, p. 154.

Doryfera veraguensis, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 199.

Veraguan Lance-bill, Gould, Mon. Troch. Suppl., 1880, p. 29.

le Doryfère de Veragua, Muls., Hist. Nat. Ois. Mou. 1874, t. i., p. 199.

Habitat.—Veragua.

Male.—Forehead metallic green, nape purplish-red. Back bronzy-green passing to pale green on rump. Uppertail-coverts bluish-green. Tail black, lateral and outermost ones tipped with gray. Underside dark grayish-bronze, nearly black on throat. Undertail-coverts bluish-green, margined with gray. Wings purplish-brown. Bill black.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{2}{8}$. Tail, $1\frac{1}{2}$. Culmen, $1\frac{3}{8}$.

I have only one specimen of this rare species collected by Arcé, in Vergua, where he discovered the species.

423. HEMISTEPHANIA JOHANNAE, Bourcier, P.Z.S., 1847, p. 45.

Trochilus violifrons, Gould, P.Z.S., 1847, p. 95.

Mellisuga johannae, Gray, Gen. Birds, vol. i., p. 112.

Doryfera johannae, Gould, Mon. Troch., vol. ii., p. 87.

Doryphora johannae, Cab. and Hein., Mus. Hein., t. iii., p. 78.

Doryfera euphrosinae, Muls. and Verr., Ann., Soc., Linn., Lyon, 1870-71, t. xxviii., p. 319.

Doryphora euphrosinae, Sclat. and Salv., Nomenclator, Av., p. 82.

Blue-fronted Lance-Bill, Gould, Mon. Troch., vol. ii., p. 87.

le Doryfère de Jeanne, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 197.

Mulsant's Lance-bill, Gould, Mon. Troch., Suppl., 1886, p. 28.

le Doryfère d'Euphrosine, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 198.

Habitat.—Colombia.

Male.—Forehead metallic-blue, with violet reflections. Nape dark bronze, almost black in certain lights. Upperside bronze-green. Uppertail-coverts grayish-blue. Tail black, glossed with dark blue. Underside dark bluish-black, with dark bluish-green on sides of breast and on flanks. Undertail-coverts dark violet-blue. Wings purplish-brown, with a glossy dark bluish tinge on tertiaries. Bill black.

Total length, 4in. Wing, $2\frac{2}{8}$. Tail, $1\frac{3}{8}$. Culmen, $1\frac{1}{8}$.

Female.—Forehead metallic bluish-green. Upperside bronze-green, coppery on nape. Uppertail-coverts grayish-blue. Tail bluish-black, with gray tips. Underside pale bluish-gray, with greenish reflections. Undertail-coverts pale bluish-purple. Wings like the male. Bill black.

Total length, $3\frac{6}{8}$in. Wing, $2\frac{2}{8}$. Tail, $1\frac{3}{8}$. Culmen, $1\frac{1}{16}$.

This rare species was discovered in Colombia by Mr. Matthews, and was dedicated by Mr. Bourcier to Miss Jane Loddiges, daughter of Mr. George Loddiges. The type is still in the Loddiges' collection.

With the female, Messrs. Mulsant & Verreaux made a new species under the name of *D. euphrosinae ;* but I am certain that they are only the females of *H. johannae.*

424. HEMISTEPHANIA GUIANENSIS, Boucard, H. Bird, 1893, vol. iii., p. 10.

Guiana's Lance-bill.

l'Hemistéphanie de la Guyane.

Habitat.—British Guiana.

Male.—Exactly like the preceding species, with a dark shining bronze-green tinge on the throat and breast when presented flat, the bill against the light.

Total length, $4\frac{1}{8}$in. Wing, $2\frac{1}{8}$. Tail, $1\frac{1}{2}$. Culmen, $1\frac{1}{8}$.

Female.—Forehead metallic green. Head purplish-bronze. Back golden-green. Uppertail-coverts grayish-black. Tail bluish-black with grayish-white tips on lateral and outermost rectrices. Chin rufous. Underside dark gray glossed with bronze. Undertail-coverts bluish margined with gray. Wings purplish. Bill black.

Total length, $3\frac{6}{8}$in. Wing, $2\frac{1}{8}$. Tail, $1\frac{3}{8}$. Culmen, $1\frac{1}{8}$.

This new species was discovered in British Guiana by the late Mr. Henry Whitely. He collected the male on the Carimang River, and the female in Merume Mountains.

Types in Boucard's Museum.

FAMILY XIV. PETASOPHORIDAE,

OR FAMILY OF VIOLET-EAR HUMMING BIRDS.

Size variable. The size of bill varies greatly. In the genera *Heliothrix* and *Schistes* it is cuneate, wide at base and gradually compressed towards the tip. In *Petasophora* the bill is slightly curved and feathered at the base, the nasal covers are also feathered, except along their lower edges. In the genera *Schistes* and *Heliothrix* the nasal covers are completely hidden. Maxilla and mandible more or less serrated. Wings long, reaching the end of tail. Tail metallic, slightly forked in *Petasophora*, cuneate in *Heliothrix*, and rounded in *Schistes*. Glittering blue or violet ear tufts. Sexes similar.

TYPE: *Petasophora,* Gray, List. Gen. Birds, 1840, p. 13.

Range.—Mexico to Bolivia, Brasilia, Venezuela, Guiana and Trinidad.

GENUS CXXVI. **Schistes,** Gould, Contr. Ornit., 1851, p. 140.

TYPE: *T. albogularis,* Gould.

Bill straight, wedge shaped at tip, shorter than the head. Wings long, reaching nearly the end of tail. Tail rounded, rectrices broad, outermost one shortest, lateral and median ones slightly and gradually longer. Tarsi partially clothed. Feet small, hind toe and nail shorter than middle toe and nail. Sexes similar in plumage.

Habitat.—Colombia and Ecuador.

425. SCHISTES GEOFFROYI, Bourc. and Muls., Ann. Soc. Agri. Lyon., 1843, t. iv., p. 37.

Petasophora geoffroyi, Gould, P.Z.S., 1847, p. 9.

Polytmus geoffroyi, Gray, Gen. Birds, vol. i., p. 108.

Colibri geoffroyi, Bon., Consp. Gen. Av., 1850, vol. i., p. 69.

Geoffroy's Wedge-bill, Gould, Mon. Troch., vol. iv., p. 218.

le Schiste de Geoffroy, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 155.

Habitat.—Colombia.

Male.—Crown, upper part of back, and wing-coverts, bronze-green, coppery on neck, on lower part of back, and on uppertail-coverts. Median rectrices bronze. Laterals bronze-green at base, with a broad subterminal bar dark bluish-green, then bronze-green margined with white at tips. Throat and a small spot on each side of forehead luminous green, and mingling with the green of the breast. A white spot behind the eye. Ear coverts dark brown. On each side of breast a tuft of metallic lilac-blue feathers, beneath which is a broad band of white. Underside shining green. White tuft behind the thighs. Undertail-coverts green, edged with gray. Wings purplish-brown. Bill black.

Total length, $3\frac{5}{8}$in. Wing, $2\frac{1}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{1}{2}$.

Female, or *male junior.*—Upperside like the male. Throat white, spotted with green. On each side of the breast a small spot of metallic bluish-green, and under it, a narrow band of white. Underside green, washed with white. Undertail-coverts pale green, margined with white. The tips of lateral and outermost rectrices are more broadly margined with white than in the males.

This species was dedicated by Messrs. Bourcier & Mulsant to Mr. Isidore Geoffroy Saint Hilaire.

426. SCHISTES ALBOGULARIS *junior*, Gould, Jard. Contr. Ornith., 1851, p. 140.

Schistes personatus, Gould, P.Z.S., 1860, p. 311.

Schistes geoffroyi, Selat, P.Z.S., 1860, p. 70.

Masked Wedge-bill, Gould, Mon. Troch, vol. iv. p. 219.

White-throated Wedge-bill, Gould Mon. Troch., vol. iv., p. 220.

le Schiste masqué, Muls., Hist. Nat. Ois. Mou., 1876, t. iii., p. 153.

Habitat.—Ecuador.

Male.—Forehead, face and throat glittering pale green, behind which is a patch of dark blue appearing black in certain lights. Upperside dark green, bronzy on back of forehead, on rump, and on upper part of uppertail-coverts. Median rectrices dark bronzy-green. Laterals light shining bronze-green at base, and tips crossed with a subterminal bar of dark bluish-green extending on inner webs, near the base. Spot behind the eye white. Ear coverts dark bronze-green. On each side of breast a tuft of metallic violet-blue feathers, reddish-purple in certain lights. Across the upper part of breast a broad crescentic white bar. Rest of underside dark green. Wings purplish-brown. Bill black,

Total length, $4\frac{3}{8}$in. Wing, $2\frac{1}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{1}{2}$.

Female.—Upperside dark green, bronzy on head, rump and uppertail-coverts. Tail like the male, with tips of lateral and outermost rectrices margined with white. Throat white. Underside green, washed with white.

This rare species was discovered at Pallatanga, Ecuador, by Mr. Fraser.

GENUS CXXVII. **Heliothrix,** Boié, Isis., 1831, p. 547.

Heliothrys, Gray, List. Gen. Birds, 1840, p. 14.

TPYE.—*T. auritus,* Gmelin.

Bill slightly longer than the head, broad at base, narrowing rapidly towards the middle, the apical half greatly compressed laterally. Tips slender and sharply pointed. Feathers of forehead projecting on the culmen. Wings long, narrow, and pointed. Tail long and rounded at tips, outermost rectrices shortest, laterals and medians slightly and gradually longer.

In the female, the outermost rectrices are about half the length of the medians, the lateral next to the two medians of the same length as the latter. Uppertail-coverts very long in the male, it reaches two thirds of the length of tail. Tarsi clothed to the toes. Sexes similar in colour.

Habitat.—Central America, Colombia, Ecuador, Peru, Venezuela, Guiana, and Brazil.

427. HELIOTHRIX AURITUS, Gmel., Syst. Nat., 1788, vol. i., p. 493.

Trochilus auritus, Vieill., Nouv. Dict. Hist. Nat., 1817, t. vii., p. 368.

Oiseau Mouche à oreilles, Vieill., Nouv. Dict. Hist. Nat., 1817, t. vii., p. 368.

Trochilus lencocrotophus, Vieill., Nouv. Dict. Hist. Nat., 1817, t. vii., p. 374.

Ornismya aurita, Less., Ois. Mou., 1829, t. x.-xi., p. 63.

Heliothrix nigrotis, Gray, Gen. Birds, vol. i., p. 115.

Heliothrix longirostris, Gould, P.Z.S., 1862, p. 124.

Cayenne Fairy, Gould, Mon. Troch., vol. iv., p. 213.

l'Héliothrix à oreilles, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 238.

Habitat.—Brazil, Guiana, Venezuela, Colombia, Ecuador and Peru.

Male.—Head shining metallic green. Upperside dark shining green with a golden tinge on back. Uppertail-coverts shining green. Four middle rectrices bluish-black, remainder pure white. Lores and a line below the eye black, ending in metallic voilet-blue. Below this line, is another extending from the gape which is luminous green. Entire underside pure white. Wings purplish black. Maxilla black. Mandible flesh colour at base, rest black.

Total length, $4\frac{6}{8}$in. Wing $2\frac{5}{8}$. Tail, $2\frac{1}{4}$. Culmen, $\frac{5}{8}$.

Female.—Upperside shining green with a bronze tinge on back. On the lateral rectrices there is an oblique bluish-black bar near the base. Line from gape passing under the eye bluish-black. Underside all white with pale brown spots on throat, rest like the male.

Total length, $5\frac{1}{2}$in. Wing, $3\frac{6}{8}$. Tail, 3. Culmen, $\frac{5}{8}$.

Type of Vieillot "Ex. Coll. Riocour" in my Collection.

My specimens from Colombia and Ecuador are very distinct in their colouration.

The male has the forehead luminous green, exactly of the same colour as the line from the gape to the ear. The neck, rump and undertail-coverts are shining green, golden in certain lights. The back and upperwing-coverts golden-green, luminous in certain lights. The remainder of plumage is like *H. auritus*. The female is also more golden on upperside, and the throat more spotted than the specimens of Brazil and Guiana. If it should prove a distinct species, I propose the name of *Heliothrix columbianus* for it.

Total length of male, $4\frac{1}{2}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{6}{8}$.

Female. — Total length, $5\frac{1}{8}$in. Wing, $2\frac{1}{2}$. Tail, $2\frac{7}{8}$. Culmen, $\frac{6}{8}$.

The young male has the head rufous and no violet-blue ear.

428. HELIOTHRIX AURICULATUS, Licht., Nordm. Erman. Reise, 1835, p. 5.

Ornismya poucheti, Less, Rev. Zool., 1840, p. 72.

Heliothrix aurita, Burm., Th. Bras., vol. ii., p. 336.

Heliothrix phainolaema, Gould, P.Z.S., 1855, p. 87.

Brazilian Fairy, Gould, Mon. Troch., vol. iv., p. 214.

Green-throated Fairy, Gould, Mon. Troch., vol. iv., p. 215.

l'Héliothrix de Pouchet, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 340.

Habitat.—Brazil.

Male.—Head, chin, and sides of neck luminous golden-green. Upperside golden-green, shining brilliantly on neck. Four median rectrices bluish-black, remainder pure white. Lores and line behind the eye black, ending in metallic violet-blue. Underside white. Wings purplish-black. Maxilla black. Mandible flesh-colour at base, rest black.

Total length, 5in. Wing, $2\frac{5}{8}$. Tail, $2\frac{2}{8}$. Culmen, $\frac{5}{8}$.

Female.—Like *H. auritus*, but more spotted on throat in my specimens.

I have two specimens, collected in Ecuador, by Buckley, which differs in the colouration and are smaller. The head,

chin and sides of neck are luminous green, not golden. The upperside shining green without the luminous golden tinge on neck. Rest like the above description.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{5}{8}$. Tail, $2\frac{3}{8}$. Culmen, $\frac{5}{8}$.

If it should prove a distinct species, I propose the name of *Heliothrix aequatorialis* for it.

429. HELIOTHRIX BARROTI, Bourc., Rev., Zool., 1843, p. 72.

Heliothrix purpureiceps, Gould, P.Z.S., 1855, p. 87.

Columbian Fairy, Gould, Mon. Troch., vol. iv., p. 217.

Purple Crowned Fairy, Gould, Mon. Troch., vol. iv., p. 216.

l'Héliothrix de Barrot, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 243.

Habitat.—Colombia and Ecuador.

Male.—Top of head purplish-blue. Upperside shining green. Four median rectrices bluish-black, remainder pure white. Lores and line behind the eye black, ending with metallic purplish-blue. Line beneath luminous green. Underside pure white. Wings purplish-black. Bill black, with base of mandible flesh colour.

Total length, $4\frac{3}{8}$in. Wing, $2\frac{1}{2}$. Tail, $2\frac{1}{4}$. Culmen, $\frac{5}{8}$.

Female.—Like the female of *H. auritus,* but of a darker green on the lower part of back and uppertail-coverts.

Total length, $4\frac{3}{4}$in. Wing, $2\frac{1}{2}$. Tail, $2\frac{6}{8}$. Culmen, $\frac{5}{8}$.

This rare species was discovered in Colombia by Mr. Ferdinand Barrot, French Consul at Cartagena. It was dedicated to him by Messrs. Bourcier and Mulsant.

My unique specimen of this species was collected in Ecuador, by Buckley.

430. HELIOTHRIX VIOLIFRONS, Gould, Int. Troch., 1861, p. 122.

Heliothrix violifrons, Gould, Mon. Troch., vol. iv., p. 217.

Veraguan Fairy.

l'Héliothrix de Veragua.

Habitat.—Veragua.

Male.—Forehead beautiful violet-blue, nape, upper surface, uppertail-coverts, upper and underwing-coverts beautiful

golden-green; mark below the eye and ear-coverts black, terminating in a small tuft of blue; below the black line, a streak of rich luminous green. Wings purplish-black. Central tail feathers bluish-black. Lateral tail feathers, chin, throat, and under surface pure white. Bill black. Feet flesh colour.

Total length, 4⅝in. Wing, 2½. Tail, 2. Culmen, ⅝.

Female.—Crown bronzy-green instead of violet-blue; ear-coverts and moustache blackish, the feathers of the throat are slightly speckled with brown, and the lateral tail-feathers banded near their base with purplish-black.

Total length, 5in. Wing, 2½. Tail, 2½. Culmen, ⅝.

My specimens of this species were collected in Panama and Veragua. I consider this species quite distinct from *H. barroti.*

Genus CXXVIII. **Pinarolaema,** Gould, Ann. and Mag., Nat. Hist., 1880, p. 480.

Type.—*P. buckleyi,* Gould.

Bill moderately decurved, culmen feathered at the base, nasal covers also feathered. Wings normal, no apparent auricular tufts. Tail forked, rectrices brown, glossed with purple, and with a subterminal bar of steel-blue.

431. Pinarolaema buckleyi, Gould, Ann. and Mag. Nat. Hist., 1880, p. 480.

Pinarolaema buckleyi, Gould, Mon. Tro., Suppl., 1880, p. 8.

Buckley's Humming Bird.

Sex ?—Brown with a purplish gloss on the back, uppertail-coverts brown, tail feathers brown glossed with purple and with a subterminal bar of steel blue; undersurface brown, apparently tinged with metallic olive-green; undertail-coverts whitish, washed with brown at the base, bill black.

Total length, 5in. Wing, 2.95. Tail, 1.85. Bill, 1.2.

Having studied carefully the type in the British Museum, I have come to the conclusion that it is probably only a faded specimen of the well known *Petasophora anais.*

GENUS CXXIX. **Petasophora**, Gray, List., Gen. Birds, 1840, p. 13

COLIBRI, Spix., Av. Bras., 1824, p. 80.

COELIGENA, Tschudi, Faun., Peru, 1844, p. 39.

LOPHORNIS, Tschudi, Faun., Peru, 1844, p. 39.

PRAXILLA, Reich., Aufz. der Colib, 1853, p. 13.

COLIBRI, Bon., Consp. Gen. Av., 1850, p. 69.

TELESIELLA, Reich., Aufz. der Colib., 1853, p. 13.

TELESILLA, Cab., Mus. Hein., 1860, t. iii, p. 27.

DELPHINELLA, Reich., Bonn., Ann. Scien. Nat., 1854, p. 137.

TYPE.—*T. serrirostris,* Vieillot.

Bill longer than the head, straight, and acutely pointed at tips. Feathers of forehead projecting on the culmen, and covering the nostrils. Wings long, pointed, reaching the end of tail, primaries slightly falcate. Tail broad, ample, and rounded, median rectrices shorter than the lateral and outermost ones, which are nearly of the same length. Feet large and strong. Tarsi clothed. Hind toe and nail shorter than middle toe and nail. Sexes similar in plumage.

Habitat.—Mexico, Central America, Venezuela, Trinidad, Guiana, Brazil, Colombia, Ecuador, Peru, and Bolivia.

432. PETASOPHORA SERRIROSTRIS, Vieillot, Nouv. Dict. Hist. Nat., 1817, vol. 7, p. 359.

Colibri crispus, Spix., Av. Bras., 1824, vol. i., p. 80.

Grypus vieillotti, Steph., Gen., Zool., t. xiv., p. 256.

Trochilus petasophorus, Pr. Max., Reis. Bras., t. ii., p. 191.

Ornismya petasophora, Less., Ois. Mou., 1829, p. 37.

Polytmus serrirostris, Gray, Gen. Birds, vol. i., p. 108.

Petasophora gouldi, Bon., Consp., Gen Av., 1850, vol. i., p. 69.

Petasophora chalcotis, Reich., Aufz. der Colib., 1853, p. 13.

Petasophora crispa, Burm., Th. Bras., 1856, t. ii., p. 335.

Brazilian Violet-ear, Gould, Mon. Troch., vol. iv., p. 223.

Le Pétasophore à sous caudales blanches, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 164.

Habitat.—Brazil, Bolivia ?

Male.—Upperside shining green. Median rectrices bronze-green, bluish at tips. Laterals bronze-green, with a subterminal bluish-green bar. Ear-coverts purplish-amethyst. Chin, throat and breast bright metallic green, with bluish reflections near the ear-coverts, and on lower part of breast. Abdomen and flanks dull green, edged with grayish-white. Undertail coverts white. Wings purplish-brown. Bill black.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{7}{8}$. Culmen, $\frac{13}{16}$.

Female.—Not quite so brilliantly coloured as the male, with the lower part of abdomen white, and a narrow white margin at tips of lateral rectrices, and white tips on outermost rectrices.

Total length, $4\frac{3}{8}$in. Wing, $2\frac{5}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{13}{16}$.

This species came abundantly years ago, from Brazil, but now it is seldom seen.

I have in my collection what I consider to be the type of Vieillot "Ex. Coll. Riocour." It is labelled *Oiseau mouche, bec en scie, Trochilus serrirostris, Vieill.*

433. PETASOPHORA CYANOTIS, Bourc., Rev. Zool., 1843, p. 101.

Polytmus cyanotus, Gray, Gen. Birds, vol. i., p. 108.

Ornismya anais, Less., Troch., 1831-1832, p. 151.

Colibri cyanotis, Bon., Consp. Gen. Av., 1850, vol. i., p. 69.

Praxilla cyanotis, Reich., Aufz. der Colib., 1853, p. 13.

Little Violet-ear, Gould, Mon. Troch., vol. iv., p. 228.

le Pétasophore à oreilles d'azur, Muls., Hist., Nat. Ois. Mou., 1875, t. ii., p. 151.

Habitat.—Venezuela, Colombia, Ecuador, Peru, and Bolivia.

Male.—Upperside shining green, bronzy on rump, and uppertail-coverts. Median rectrices, bronzy-green at base, then bronzy with a dark green subterminal bar. Laterals bronzy-green with dark bluish-green subterminal bar. Line behind the eye, and ear-coverts metallic dark blue. Chin, throat, and breast luminous green, each feather with a dark central green streak, giving a scaly appearance to these parts. Abdomen and flanks shining green. Vent white. Undertail-coverts green, margined with buff. Wings purplish-brown. Bill black.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{6}{8}$. Tail, 2. Culmen, $\frac{6}{8}$.

Female.—Upperside golden-green, remainder of plumage like the male, but less brilliant, and pale golden on abdomen and flanks.

Total length, $3\frac{7}{8}$in. Wing, $2\frac{3}{8}$. Tail, $1\frac{1}{2}$. Culmen, $\frac{6}{8}$.

This species is very abundant in Colombia. My other specimens were collected in Venezuela, by Doctor Carlos Rojas, and in Ecuador and Bolivia, by Buckley.

434. PETASOPHORA CABANISI, Lawr., Ann. Lyc., Nat. Hist., N.Y., t. ix., p. 126.

Petasophora cabanidis, Heine, Journ. fur Ornith., 1863, p. 182.

Cabanis little Violet-ear.

le Pétasophore de Cabanis.

Habitat.—Costa Rica, Veragua.

Male.—Exactly like the preceding species, but the feathers of the chin and throat are much smaller, of a darker green, and with scarcely any sign of the central dark green streak. There is a bluish tinge on the breast, on the abdomen, and on all the tail feathers, which do not exist in the specimens of *P. cyanotis*. Undertail-coverts shining green, with a pale buff margin on the lowest only. It forms the passage between *P. cyanotis* and *P. thalassina*.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{7}{8}$. Tail, 2. Culmen, $\frac{7}{8}$.

Female.—Like the male, but less brilliant.

I collected this species in May, 1877, on the Volcano of Irazu, Costa Rica, and I have also some specimens collected by Arcé, in Veragua.

435. PETASOPHORA THALASSINA, Sw. Phil. Mag., 1827, p. 441.

Ornismya anais, Less., Colib., 1831, p. 104.

Ramphodon anais, Less., Troch., 1831-32, p. 148.

Polytmus thalassinus, Gray, Gen. Birds, vol. i., p. 108.

Colibri thalassinus, Bon., Consp., Gen. Av., 1850, vol. i., p. 69.

Praxilla thalassina, Reich., Aufz. der Colib., 1853, p. 13.

Mexican Violet-ear, Gould, Mon. Troch., vol. iv., p. 227.

le Petasophore dún vert de mer, Muls., Hist. Nat. Ois. Mou., 1875, t. ii., p. 149.

Habitat.—Mexico, and Guatemala.

Male.—Precisely like *P. cabanisi,* excepting that the blue line passing under the eyes starts from the chin, and the centre of abdomen which is shining dark blue, the undertail-coverts are margined with buff like *P. cyanotis.*

Total length, $4\frac{3}{8}$in. Wing, $2\frac{9}{16}$. Tail, 2. Culmen, $\frac{6}{8}$.

Female.—Like the male, but less brilliant.

I have collected this species in Mexico and in Guatemala.

436. PETASOPHORA ANAIS, Less., Troch., 1831, p. 146.

Ramphodon anais, Less., Troch., 1831, p. 146.

Polytmus anais, Gray, Gen. Birds, vol. i., p. 108.

Trochilus thalassinus, Jard., Hum. Birds, vol. ii., p. 47.

Trochilus anais, Jard., Hum. Birds, vol. ii., p. 47.

Colibri anais, Bon., Consp., Gen. Av., 1850, vol. i., p. 69.

Praxilla anais, Reich., Aufz. der Colib., 1853, p. 13.

Petasophora iolata, Gould, P.Z.S, 1847, p. 9.

Polytmus iolata, Gray, Gen. Birds, vol. i., p. 108.

Colibri iolata, Bon., Consp., Gen. Av., 1850, vol. i., p. 59.

Petasophora rhodotis, "Gould," Sauc. Mus. Hein.

Paxilla iolata, Reich., Aufz. der Colib., 1853, p. 13.

Pinarolaema buckleyi, Ann. and Mag., Nat. His., vol. x., p. 489.

Columbian Violet-ear, Gould, Mon. Troch., vol. iv., p. 224.

Bolivian Violet-ear, Gould, Mon. Troch., vol. iv., p. 225.

le Pétasophore d'Anais, Muls., Hist. Nat. Ois. Mou., 1875, vol. ii., p. 145.

Habitat.—Venezuela, Colombia, Ecuador, Peru and Bolivia.

Male. — Upperside shining or golden-green. Median rectrices bronze-green, laterals bluish-green with a subterminal dark bluish bar. Chin, line under the eye, ear coverts, and centre of the abdomen metallic blue. Breast luminous green, each feather with a dark central green streak, giving a scaly appearance to that part. Undertail-coverts shining

green margined with pale buff or grayish-white. Vent white. Wings purplish-brown. Bill black.

Total length, 5in. Wing, $3\frac{1}{8}$. Tail, $2\frac{2}{8}$. Culmen, $\frac{7}{8}$

Female.—Coloured precisely like the male, always golden on upperside, and slightly duller on underside, much smaller in size.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{7}{8}$. Culmen, $\frac{7}{8}$.

This species is very abundant in Venezuela, Colombia, and Ecuador. The males have been named by Gould *P. iolata*, and the name of *P. anais* has always been given to the females, but I am certain that they all belong to this species.

I have a very large series of both sexes from Venezuela. "Rojas," Ecuador and Bolivia, "Buckley," Peru, "Whitely," Colombia, "Salmon," and others.

One of my male specimens, from Colombia, has all the upperside and flanks brown, with green reflections, the tail feathers brownish-green, with the subterminal band dark blue, the undertail-coverts pale green, edged with white. The remainder of plumage is like the ordinary male of that species.

Although I consider also *Petasophora corruscaus*, Gould, and *rubrigularis*, Elliot, as accidental varieties of colouration of *P. anais*, I give below the descriptions of the two specimens in my collection, agreeing with the original descriptions of Messrs. Gould and Elliot.

437. PETASOPHORA CORRUSCANS, Gould, P.Z.S., 1846, p. 44.

Cheequered Violet-ear, Gould, Mon. Troch., vol. iv., p. 226.

Exactly like *P. anais*, with the centre of throat bright metallic rosy-bronze. Undertail-coverts buff, with bluish-green in centre.

Total length, $4\frac{1}{2}$in. Wing, 3. Tail, $2\frac{1}{8}$. Culmen, $\frac{7}{8}$.

Habitat.—Colombia.

438. PETASOPHORA RUBRIGULARIS, Elliot, Ibis., 1876, p. 405.

Petasophora corruscaus, Boucard, H. Bird, 1891, vol. i., p. 25.

Habitat.—Colombia.

Exactly like *P. anais*, with the centre of throat metallic pink. Undertail-coverts green, edged with buff.

Total length, $4\frac{6}{8}$in. Wing, 3. Tail, $2\frac{1}{8}$. Culmen, $\frac{7}{8}$.

*439. PETASOPHORA GERMANA, Godm. and Salv., Ibis., 1884, p. 451.

Guiana Violet-ear, Gould, Mon. Troch., Suppl., 1886, p. 15.

le Pétasophore de Guiane.

Habitat.—Roraima, British Guiana.

P. anai affinis et ejusdem staturae, sed gula multo magis caerulea; gutture quoque toto caerulescentiore et fronte caeruleo suffusa distinguenda.

Though the difference between the present bird and *P. anais*, of the Andes, is not great, we feel justified in separating them, the ranges of the two being doubtless broken by the low-lying lands of the Orinocco Valley. "Godm. and Salv."

Discovered by Mr. H. Whitely, in British Guiana. This species looks very much the same as *P. anais*.—(Edit).

440. PETASOPHORA DELPHINAE, Less., Rev. Zool., 1839, p. 44.

Polytmus delphinae, Gray, Gen. Birds, vol. i., p. 108.

Colibri delphinae, Bon., Consp., Gen. Av., 1850, p. 69.

Telesiella delphinae, Reich., Aufz. der Colib., 1853, p. 13.

Telesilla delphinae, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 27.

Brown Violet-ear, Gould, Mon. Troch., vol. iv., p. 229.

le Pétasophore de Delphine, Muls., Hist. Nat. Ois. Mou. 1875, t. ii., p. 158.

Habitat.—Guatemala, Veragua, Trinidad, Guiana, Colombia, Ecuador, Peru, and Bolivia.

Male.—Upperside dark olive-brown, greenish in specimens from British Guiana, and Bolivia. Uppertail-coverts dark purplish-bronze, margined with rufous. Tail bronzy-brown with a subterminal dark brown band. Ear-coverts purplish-blue. Throat metallic bronzy-green terminating with blue. Underside smoky-brown. Undertail-coverts rufous with bronzy-olive centre. Wings purplish-brown. Bill black.

Total length, $4\frac{3}{8}$in. Wing, $2\frac{7}{8}$. Tail, 2. Culmen, $\frac{5}{8}$.

Female.—Like the male, but paler in colouration. The specimens which I have from Merume Mountains, British Guiana, are darker than the specimens from Guatemala, Veragua, Trinidad, Colombia, and Ecuador.

FAMILY XV. LAMPORNIDAE,

OR FAMILY OF MANGO HUMMING-BIRDS.

Size moderately large. Bill serrated, stout, more or less curved, upturned in the genus *Avocettula,* feathered at base; nasal covers partially exposed. Wings long, reaching the end of tail. Tail rounded in the genus *Sericotes*, slightly forked in the genera *Hypuroptila* and *Eulampis*, forked in the genus *Lampornis*. Rectrices broad, brilliant metallic in the genus *Avocettula;* lateral rectrices metallic purple or reddish-purple in the other genera. Undertail-coverts normal, except in the genus *Hypuroptila,* in which they are large and full. Sexes unlike, except in the genera *Eulampis* and *Sericotes*.

TYPE: *Lampornis*, Swainson, Zool. Journ., 1827, vol. iii., p. 358.

Range.—Mexico to Ecuador, Brasilia, Guiana, Trinidad and West Indies.

GENUS CXXX. **Hypuroptila,** Gould, Mon. Troch., 1854, vol. ii., pl. 89.

CHALYBURA, Reich., Aufz. der Colib., 1854, p. 10.

METHON, Muls., Cat. Ois. Mou., 1875, p. 7.

TYPE: *T. buffoni,* Lesson.

Bill stout, straight, slightly curved, and acutely pointed at tips, longer than the head. Wings long, reaching the end of tail. Tail long, slightly forked. Median rectrices shortest, lateral and outermost ones very slightly and gradually longer. Undertail-coverts greatly developed, plume like. Sexes unlike.

Habitat.—Costa Rica, Veragua, Venezuela, Colombia, and Ecuador.

441. HYPUROPTILA BUFFONI, Less., Trochil, 1831, p. 34.

Polytmus buffoni, Gray, Gen. Birds, vol. i., p. 108.

Lampornis buffoni, Bon., Consp. Gen. Av., p. 72.

Agyrtria buffoni, Reich., Troch. Enum., 1855, p. 7.

Hypuroptila buffoni, Gould, Mon. Troch., vol. ii., p. 89.

Buffon's Plumeteer, Gould, Mon. Troch., vol. ii., p. 89.

le Chalybure de Buffon.

Habitat.—Colombia.

Male.—Upperside shining green, bronzy on neck and uppertail-coverts. Median rectrices dark bronze, laterals bluish-black margined with bronze on outer webs, outermost ones bluish-black. Underside metallic emerald-green. Vent and undertail-coverts pure white. Wings purple. Bill black.

Total length, $4\frac{5}{8}$in. Wing, $2\frac{6}{8}$. Tail, 2. Culmen, $\frac{7}{8}$.

Female.—Upperside shining green, coppery on uppertail-coverts. Median rectrices bronze with the tips bluish-black, next one, bronze at base with a broad bluish-black tip, third bluish-black with bronze margin on outer webs and white tips, the two outermost ones bluish-black with white tips. Underside grayish-white, washed with green on sides of breast and flanks. Vent and undertail-coverts white. Wings purple. Bill black.

Total length, 4in. Wing, $2\frac{1}{2}$. Tail, $1\frac{5}{8}$. Culmen, 1.

This species was dedicated by Lesson to the eminent Naturalist, Buffon.

442. HYPUROPTILA AENEICAUDA, Lawr., Proceed., Acad. Nat. Scien., Phil., 1865, p. 38.

Bronzy-tailed Plumeteer.

le Chalybure à queue cuivrée.

Habitat.—Venezuela and Colombia.

Male.—This species is closely allied to the preceding one; but can be easily distinguished by the colour of its tail, which has the median rectrices shining bronze, the laterals reddish-bronze on outer web of rectrices, and the colour of the underside, which is more golden.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{7}{8}$. Tail, $2\frac{2}{8}$. Culmen, 1.

Female.—Has also the median rectrices bright green-bronze, rest like the female of *C. buffoni.*

My specimens of this species were collected at Puerto-Cabello, Venezuela, and Valencia, Colombia.

443. HYPUROPTILA MELANORRHOA, Salv., P.Z.S., 1864, p. 585.

Chalybura carmioli, Lawr., Proceed. Acad., Nat. Scien., Philad. 1865, p. 39.

Lampornis melanorrhoa, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 174.

Black-vented Plumeteer, Gould, Mon. Troch., Suppl., 1886, p. 14.

le Chalybure à région anale noire.

Habitat.—Costa Rica, Veragua.

Male.—Upperside shining green, bronzy on neck and rump. Uppertail-coverts and lower part of rump purplish-bronze. Tail bronzy-purple. Underside dark shining grass-green. Undertail-coverts purplish-bronze. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, $4\frac{3}{4}$in. Wing, $2\frac{6}{8}$. Tail, 2. Culmen, $\frac{7}{8}$.

This is a very rare species. I have only one male from Costa Rica.

444. HYPUROPTILA ISAURAE, Gould, P.Z.S., 1861, p. 199.

Lampornis isaurae, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 174.

Isaure's Plumeteer.

le Chalybure d'Isaure.

Habitat.—Veragua, Costa Rica.

Male.—Head greenish-bronze with purple reflections. Back shining green passing to purple on lower part of rump and uppertail-coverts. Tail dark bronze with purplish reflections. Throat, breast, and upper part of abdomen dark metallic bluish-green. Lower part of abdomen, and flanks dark gray washed with green. Undertail-coverts white. Wings purple. Maxilla black. Mandible flesh colour with black tip.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{6}{8}$. Tail, 2. Culmen, 1.

Female. Upperside shining green. Rump and tail shining bronze. Underside ashy. Vent white. Outermost and two of the lateral rectrices tipped with white. Wings brown. Maxilla black. Mandible flesh colour with black tip.

This is a rare species. It was dedicated by Gould to Mrs.

Isaure de Lafresnaye, wife of the well known Naturalist, of that name, Collaborator of Buffon.

445. HYPUROPTILA UROCHYSEA, Gould, P.Z.S., 1861, p. 198.

Lampornis urochrysia, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 176.

Golden-tailed Plumeteer, Gould, Mon. Troch., vol. ii., p. 90.

la Chalybure *à queue dorée.*

Habitat.—Panama.

Male.—Head and back dark-green, passing to a bronzy-hue on the wing, and uppertail-coverts. Wings purplish-brown. Tail rich golden-bronze, both above and beneath. Throat and breast grass-green. Abdomen bronzy-green. Thighs, vent, and undertail-coverts pure white. Upper mandible black. Lower mandible fleshy-red with black tip. Tarsi yellow or flesh-colour.

Total length, $4\frac{3}{4}$in. Wing, $2\frac{3}{4}$. Tail, $1\frac{7}{8}$. Culmen, $1\frac{1}{8}$.

" Gould, loc. cit."

This description corresponds exactly to that of *C. isaurae,* and I really believe that it is the same species. It was collected in Veragua, by Mr. Warzewiecz.

446. HYPUROPTILA INTERMEDIA, Ernst. and Hart. Novit., Zool., vol. i., 1894, p. 2.

Chalybura intermedia, Ernst. and Hart. Novit., Zool., vol. i., 1894, p. 2.

Intermediate Plumeteer.

le Chalybure intermédiaire.

Habitat.—Ecuador.

Male.—Chalybura supraviridis, gutture aureo-viridi, abdomine caerulescente vel beryllino, cauda chalybea, mandibula ad basin carnea.

Closely allied to *Chalybura caeruleiventris*

Types in Museum Rotschild.

I have not seen this species.—ED.

447. HYPUROPTILA CAERULEIVENTRIS, Reich., Aufz., der Colib., 1853, p. 10.

Trochilus caeruleogaster, Gould, P.Z.S., 1847, p. 96.

Polytmus caeruleogaster, Gray, Gen. Birds, vol. i., p. 108.

Cyanochloris caeruleiventris, Reich., Troch., Enum., 1855, p. 7.

Aygrtria caeruleiventris, Reich., Troch., Enum., 1855, p. 7.

Chalybura caeruleiventris, Cab. and Hein., Mus., Hein., 1860, t. iii., p. 20.

Hypuroptila caeruleogaster, Gould, Mon. Troch., vol. ii., p. 91.

Lampornis caeruleiventris, Bon., Rev. and Mag., Zool., 1864, p. 220.

Blue-breasted Plumeteer, Gould, Mon. Troch., vol. ii., p. 91.

le Chalybure à ventre bleu.

Habitat.—Colombia.

Male.—Forehead metallic golden-green, passing to golden on neck. Upperside golden-green, very dark in certain lights. Uppertail-coverts golden-green or purplish-golden. Tail steel-blue. Chin and throat metallic-green, or golden-green, passing to a bright dark blue on the breast and abdomen. Flanks shining green. Undertail-coverts, vent, and spot behind the flanks, pure white. Wings purple. Bill black.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{6}{8}$. Tail, $2\frac{1}{8}$. Culmen, 1.

Female.—Upperside golden-green. Underside pale gray, washed with green. Tips of lateral rectrices white.

This species is rather rare.

I have one male specimen from Colombia so distinct in its colouration that a new species could be made with it; but I consider that it is only accidental. It is as follows:—Upperside dark green with a bluish tinge. Rectrices of tail steel-blue. Underside purplish-gray, washed all over with bluish-green feathers. Undertail coverts white. Wings purple. Bill black.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{1}{2}$. Tail, 2. Culmen, 1.

Genus CXXXI. **Lampornis**, Swainson, Zool. Journ., 1827, vol. iii., p. 358.

Anthracothorax, Boié., Isis., 1831, p. 546.

Smaragdites, Boié., Isis., 1831, p. 546.

FLORESIA, Reich., Aufz. der Colib., 1853, p. 11.

HYPOPHANIA, Reich., Aufz. der Colib., 1853, p. 11.

MARGAROCHRYSIS, Reich., Aufz. der Colib., 1853, p. 11.

EUDOXA, Heine., Journ. fur Ornith., 1866, p. 179.

TYPE: *T. mango,* Linné.

Bill longer than the head, slightly curved. Wings long, reaching the end of tail. Tail forked. Outermost rectrices slightly shorter than the others, which are always metallic in colouration. Feet moderate, tarsi bare. Sexes unlike.

Habitat.—Mexico to Colombia, including the West Indies.

448. LAMPORNIS MANGO, Linné., Syst. Nat., 1766, p. 191.

Mango Bird, Albin. Birds, vol. iii., p. 45.

Trochilus porphyrurus, Shaw., Nat. Misc., vol. ix., pl. 333.

Polytmus porphyrurus, Gray, Gen. Birds, vol. i., p. 108.

Lampornis floresi, Bon., Rev. and Mag. Zool., 1854, p. 250.

Floresia porphyrura, Reich., Aufz. der Colib., 1853, p. 11.

Anthracothorax porphyrurus, Reich., Troch., Enum., 1855, p. 8.

Eudoxa porphyrura, Heine., Journ. fur Ornith., 1863, p. 179.

Porphyry-Tailed Mango, Gould, Mon. Troch., vol. ii., p. 81.

le Lampornis porphyrure, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 164.

Habitat.—Jamaica.

Male.—Upperside shining dark olive-brown with a reddish tinge all over, but more accentuated on the neck. Median rectrices shining purplish-black. Laterals shining reddish-purple margined and tipped with blue. Throat and breast velvety-black, passing to brownish-black on abdomen and flanks, and washed on these parts with dark bronzy-green feathers. From the bill, under and behind the eye, is a broad band of metallic purple passing to brilliant reddish-purple on sides of neck. Undertail-coverts dark greenish-black. Anal region and spot on each side of flanks white. Wings purplish-brown. Bill black.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{7}{8}$. Tail, $1\frac{7}{8}$. Culmen, 1.

Female.—Exactly like the male in colouration, excepting the chin, and throat, which are metallic purplish-blue with a green tinge, and the tips of lateral rectrices which are edged with grayish-white.

In this species, the female is brighter than the male.

449. LAMPORNIS DOMINICUS, Linné, Syst. Nat., 1766, p. 191.

Trochilus margaritaceus, Gmel., Syst., Nat., 1788, p. 490.

Trochilus aurulentus, Vieill., Ois., Dorés, 1802, pl. 12.

Polytmus margaritaceus, Gray, Gen. Birds, vol. i., p. 108.

Lampornis margaritaceus, Bon., Consp. Gen. Av., 1850, vol. i., p. 72.

Margarochrysis aurulenta, Reich., Aufz. der Colib., 1853, p. 11.

Hypophania dominica, Reich., Aufz. der Colib., 1853, p. 11.

Eulampis aurulentus, Bon., Rev. and Mag., Zool., 1854, p. 250.

St. Domingo Mango, Gould, Mon. Troch., vol. ii., p. 79.

le Lampornis à collier d'or, Muls., Hist. Nat. Ois. Mou., 1874, t. ii., p. 153.

Habitat.—San Domingo, Hayti, Porto Rico.

Male.—Upperside shining green, golden in some specimens. Undertail-coverts shining golden-green. Median rectrices purplish-bronze in some specimens, purplish-blue in others. Laterals purple-violet bordered with steel-purplish-blue. Throat metallic golden-green. Underside velvety-black. Flanks golden-green. Vent and spot on side of flanks white. Undertail-coverts dark purple with a bronze tinge. Wings purplish-brown. Bill black.

Total length, 5in. Wing, $2\frac{5}{8}$. Tail, 2. Culmen, $\frac{7}{8}$.

Female.—Upperside golden-green. The median rectrices vary in colour as in the males. Laterals purplish-chestnut with a subterminal bluish-black bar and white tips. Underside gray. Sides of neck, breast, abdomen, and flanks bronze-green.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{6}{8}$. Culmen, 1.

I have a fine series of this species from Hayti, and Puerto Plata, "Santo Domingo."

*450. LAMPORNIS ELLIOTI, Cory. Auk., vol. vii., p. 374.

Elliot's Mango.

le Lampornis d'Elliot.

Habitat.—Anegada, West Indies.

Male.—Similar to *Lampornis dominicus,* but differs from it in being smaller, in having the wings and tail shorter, and in having the belly crissum, and the undertail-coverts much paler. Two central tail feathers golden-green.

Total length, 4^{in}-20. Wing, 2-45. Tail, 1-50. Bill, 0.87.

451. LAMPORNIS VIRGINALIS, Gould, Mon. Troch., vol. ii., p. 80.

St. Thomas Mango, Gould, Mon. Troch., vol. ii., p. 80.

le Lampornis de Saint Thomas.

Habitat.—St. Thomas.

Male.—Very closely allied to the preceding species, but more golden on upperside. Median rectrices purplish-bronze. Laterals purple-violet, edged and tipped with brownish-blue. Throat more golden than in *L. dominicus.*

Total length, 5in. Wing, $2\frac{7}{8}$. Tail, 2. Culmen, $\frac{7}{8}$.

Female. — Upperside golden-green. Median rectrices shining reddish-bronze, next one same colour, darker near the tip which is white. Laterals reddish-bronze on outer webs, bluish-black on inner, tips white. Outermost ones brownish on outer web, chestnut on inner, with a shining dark blue subterminal bar and white tip. Underside grayish-white.

It is a rare species.

*452. LAMPORNIS CALOSOMA, Elliot, Ibis., 1872, p. 351.

Chlorolampis chlorolaemus, Elliot, Ann., Mag., Nat. Hist., 1870, vol. vi., p. 346.

Elliot's Topaz, Gould, Mon. Troch., Suppl., 1886, p. 12.

Le Lampornis calosome, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 177.

Habitat.—Brazil.

Male.—Top of head and neck pale metallic silvery-green, in some lights purplish, a black band across the back, rest of upper parts dark green. Tail fiery copper-colour, feathers margined with blackish-purple; throat brilliant emerald-

green; under parts purplish-black; spot of white on the flanks; undertail-coverts chestnut. Bill black.

Total length, 4in. Wing, $2\frac{1}{4}$. Tail, $1\frac{5}{8}$. Culmen, $\frac{5}{8}$.

"Elliot's Synopsis of the Humming Birds, p. 41."

Type "Ex. Elliot's Collection" in the American Museum of Natural History, New York.

453. LAMPORNIS GRAMINEUS, Gmel., Syst., Nat., 1788, vol. i., p. 488.

Trochilus maculatus, Gmel., Syst., Nat., 1788, vol. i., p. 488.

Trochilus pectoralis, Lath., Ind. Ornith., 1790, vol. i., p. 306.

Trochilus gularis, Lath., Ind. Ornith., vol. i., p. 563.

Trochilus marmoratus, Vieill., Encycl., Méth., p. 567.

Trochilus pectoralis, Viell., Ois. Dorés, pl. 9.

Polytmus dominicus, Gray, Gen. Birds, vol. i., p. 108.

Green-throated Mango, Gould, Mon. Troch., vol. ii., p. 77.

le Lampornis à cravate verte, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 149.

Habitat.—Guiana, Trinidad, Venezuela.

Male.—Head and neck shining green, remainder of upper plumage golden-green. Uppertail-coverts bright reddish golden-green. Median rectrices dark brown with bluish-black reflections. Laterals purple or purple-green, margined and tipped with shining steel-blue. Throat brilliant metallic grass-green. Centre of breast and abdomen black. Flanks golden-green or shining green. Undertail-coverts purplish-green. Vent and spot on each side of flanks white. Wings purplish-brown. Bill black.

Total length, $4\frac{5}{8}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{6}{8}$. Culmen, 1.

Female.—Upperside golden-green. Underside white with the central portion of throat and breast greenish-black. Sides of breast and flanks golden-green. Median rectrices bronzy-green. Laterals chestnut with purple gloss, a subterminal bluish-black bar, and white tips.

Young Male.—Like the male with the sides of the throat chestnut or white with a margin of chestnut. Centre of

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GENERA OF HUMMING BIRDS, by A. BOUCARD, pages 1 to 56.

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Contents of Vol. III.

Panama—Grover Cleveland; the elected President of the United States—Dercriptions of several supposed New Species of Humming Birds, by A. Boucard—Visits to the Zoological Gardens of London, by W. Rosenberg—Paris International Exhibition of 1900—World's Columbian Exhibition—Chicago Exposition; World's Fair Notes—Relics at the Fair—Big Prizes for Live Stock—World's Fair Souvenirs—Travels of a Naturalist, by A. Boucard—Genera of Humming Birds, by A. Boucard—The Imperial Institute—Anver's International Exhibition—Royal Institution—Description of one supposed New Species of Cetonia, from Syria, by A. Boucard—How Animals are Protected Against Their Enemies, by W. Rosenberg—Abundance of Wasps—Notes on Wasps, by A. Boucard—The Ways of Wasps—Les Guêpes—Rectification of Name for Semioptera gouldi—Alligators—Destructive Insects of Victoria, by French—International Exhibitions—The late World's Fair—International Exhibition of Lyon (France)—International Exhibition of Paris, 1900—International Exhibition of Industry, Science and Art, in Hobart Town, (Tasmania)—International Exhibition in San Francisco (California).

GENERA OF HUMMING BIRDS:—

		PAGE
Genus	Oxypogon, Gould	63
,,	Eupogonus, Muls. and Verr. ...	66
,,	Lampropogon, Bon.	67
,,	Chalcostigma, Reich.	68
,,	Metallura, Gould	70
,,	Avocettinus, Bon. ...	77
,,	Adelomyia, Bon.	78
,,	Urosticte, Gould	81
,,	Augastes, Gould	83
,,	Phlogophilus, Gould	84
,,	Ramphomicron, Bon.	85
	LESBIDAE.	
Genus	Zodalia, Muls	87
,,	Sappho, Reich.	89
,,	Lesbia, Lesson	91
,,	Cyanolesbia, Steg.	96
,,	Neolesbia, Salv.	99
	THALURANIDAE.	
Genus	Thalurania, Gould	100

NEW SPECIES OF BIRDS AND INSECTS—

DESCRIBED IN VOL. III. OF THE HUMMING BIRD:—

AVES.—TROCHILI.

			PAGE
Metallura peruviana	Boucard	...	6
Lesbia aequatorialis	,,	...	6
Oreotrochilus bolivianus	,,	...	7
Hylocharis brasiliensis	,,	...	7
Amazilia forreri	,,	...	7
Saucerottia wellsi	,,	...	8
Uranomitra whitelyi	,,	...	8
Agyrtria speciosa	,,	...	8
Chrysuronia buckleyi	,,	...	9
Phaethornis garleppi	,,	...	9
Hemistephania guianensis	,,	...	10
Patagona peruviana	,,	Gen. H. Bird	60
Patagona boliviana	,,	Gen. H. Bird	61
Cyanolesbia meridana	,,	...	97
Cyanolesbia columbiana	,,	...	98
Thalurania valenciana	,,	...	102

INSECTA.—COLEOPTERA, CETONIDÆ.

		PAGE
Cetonia delagrangei	Boucard	40
Cetonia syriaca?	,,	40

Contents of Vol. IV.

Wonderful Discovery in Colorado (Mexico)—Recent Scientific and other Publications, with Notes by the Editor—Annual Report of the Board of Regents of the Smithsonian Institution—The Hawks and Owls of the United States in their relation to Agriculture, by A. K. Fisher—Catalogue of Birds in the British Museum, Volume XXI., Columbae or Pigeons, by T. Salvadori—Catalogue of Birds in the British Museum, Volume XXII., The Game Birds, by Olgilvie Grant—The Proceedings of the Zoological Society of London, Part IV., 1892, and Parts I., II., and III., 1893—Zoological Record, Vol. XXIX., edited by Doctor Sharp—The Ibis, Sixth Series, Vol.V., edited by Philip Lutley Sclater—The Ibis, Vol. VI., No. 21, edited by Philip Lutley Sclatler—Bulletin of the British Ornithologist's Club, 1892-93—Mémoires de la Société Zoologique de France, Tome V., 5ème partie, et Tome VI., 1893—Congres International de Américanistes Compte Rendu de la Huilieme Session tenue à Paris en 1890—Sociedade de Geographia de Lisboa; Indices e Catalagos, A Bibliotheca, 1893—Revista Mensual de la Sociedad Gautemalteca de Ciencias, 1893—The Entomologists' Monthly Magazine, 1893—Ornithologische Monatsberichte, edited by Dr. Ant. Reichenow, Berlin, 1893—The Canadian Entomologist, edited by Rev. C. T. S. Bethune, Ontario, 1893—Twenty-third Annual Report of the Entomological Society of Ontario, 1893—Bulletin of the United States National Museum, Washington, 1892—North American Fauna, No. 7, Part II., Washington, 1893—Anales del Instituto fiscio-geografica del Museo de Costa Rica, Tome III., 1892—Die Vogel der Insel Curacao, by Hans von Berlepsch, 1892—The Flying Man, by the Editor—Visits to the Zoological Society Gardens, London, by W. H. Rosenberg—A Nursery of Insects—Description d'une nouvelle espece de Coquille du Japon du genre ARCA, par le Docteur Félix Joussaume—The Use of Salt for Agricultural Purposes, by the Editor—Are Ants of Aid to Fruit-Growers?—Banana Culture—Strange Phenomenon in California, Formation of an Inland Sea—Waste Products made Useful—How to Preserve Animals—The English Snake, by W. Rosenberg—The Great Lakes, by G. A.—Inhabited Worlds (*The World*)—El Coco—Many-Eyed Monster—The Telescope and the Microscope—Mistakes about Alcohol—Cotton Seed Oil—Genera Avium.

NEW GENERA AND SPECIES OF BIRDS AND SHELL DESCRIBED IN VOL. IV. OF THE HUMMING BIRD:—

AVES.—TROCHILI.

			PAGE
Thalurania boliviana,	Boucard, Gen. H. Bird		107
Gmelinius, N.G.,	,,	,,	
Type, *Gmel. Bicolor*			126
Chlorostilbon wiedi,	,,	,,	120
Chlorostilbon panamensis,	,,	,,	124
Lawrencius, N.G.,	,,	,,	
Type, *L. cupreiceps*		...	173
SHELLS,			
Arca boucardi, Joussaume, H. Bird		,,	41

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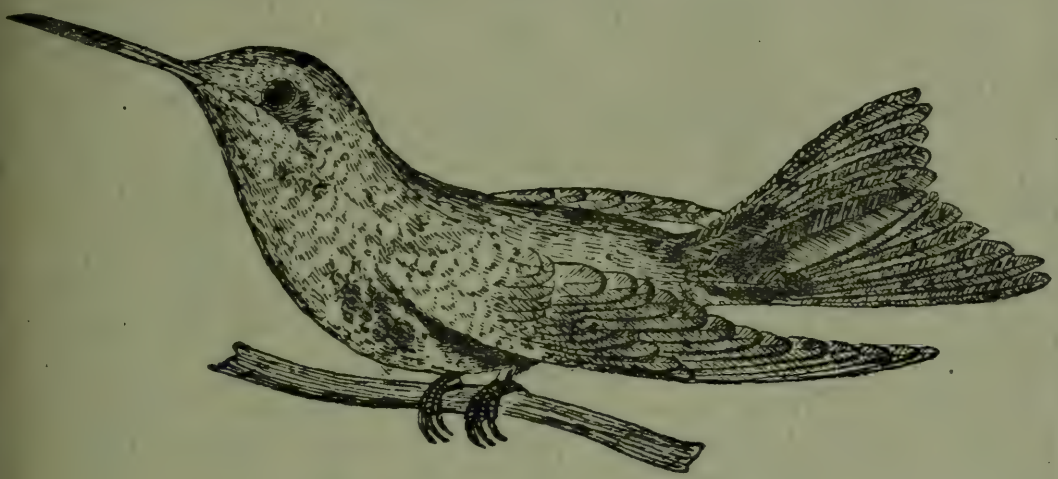

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Pytelia
Stictoptera
Bathilda
Granatina
Icteropsis
Plocella
Histurgops
Textor

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Clypeicterus
Ocyalus
Nesopsar

COEREBIDAE.
Oreomanes
Xenodacnis

ALAUDIDAE.
Heterocorys
Chersophilus
Ramphocorys
Spizocorys
Spilocorydon
Spizalauda
Heliocorys
Lullula
Ammonomanes

AETAMIDAE.
Preudochilldon

STURNIDAE.
Sturnornis
Ampeliceps
Charitornis
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Hagiopsar
Pyrrhocheira
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MR. A. BOUCARD, SPRING VALE, ISLE OF WIGHT, ENGLAND.

abdomen black, margined with white. Tail like that of the male.

This species is common in Guiana and in Trinidad.

I have two specimens Ex. Riocour's Collection. The two are labelled *Colibri Hausse-Col vert.* One is marked *Trochilus pectoralis Vieill,* and I consider it, as the type of that author. It is from Cayenne. I have one male specimen from Trinidad with the tail of a bright greenish-blue underneath.

I have also another specimen golden above, with the chin, the throat, the centre of breast, and the abdomen black. Sides of throat and breast shining green. Abdomen brown. Flanks golden green. Undertail-coverts olive green.

454. LAMPORNIS NIGRICOLLIS, Vieillot, Nouv. Dict. Hist. Nat., 1817, vol. vii., p. 349.

Trochilus quadricolor and atricapillus, Vieill., Encycl. Méthod., p.p. 553-55.

Le Plastron noir, Vieill., Oiseaux dorés, p. 20.

Trochilus fasciatus, Shaw, Gen. Zool., vol viii., p. 303.

Trochilus lazulus, Less., Traité. d'Ornith., 1832, p. 290.

Trochilus mango, d'Orb and Lafr., Syn. Av., 1838, t. ii., p. 32.

Polytmus mango, Gray, Gen. Birds, vol. i., p. 107.

Anthracothorax mango, Reich., Aufz. der Colib., 1853, p. 11.

Lampornis iridescens, Gould, Int. Troch., 1861, p. 65.

Lampornis violicauda, Elliot, Ibis., 1872, p. 351.

Le Mango, Gould, Mon. Troch., vol. ii., p. 74.

Le Lampornis Mango, Muls., Hist. Nat. Ois. Mou., 1874, t. ii., p. 157.

Habitat.—Brazil, Guiana, Venezuela, Panama, Colombia and Ecuador.

Male.—Upperside golden-green in some specimens, in others dark shining green. Median rectrices dark bronzy-green in some specimens, in others dark bluish-purple with part of the external webs rufous. Laterals violet-red margined with bluish-purple. Underside black with a dark bluish tinge. A dark metallic blue line, with greenish reflections

along the sides of the neck and throat, and running from the bill to the flanks. Undertail-coverts violet-brown or green. Wings purplish-brown. Bill black.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{5}{8}$. Culmen, $\frac{15}{16}$.

Female.—Upperside golden-green or dark green. Underside white with a black line from the throat to lower part of abdomen. Flanks golden-green or dark green. Undertail-coverts bronzy-green edged with white. Lateral rectrices tipped with white.

Same size as the male.

This species varies very much in its colouration, according to age and localities, but it is impossible to separate them, as these variations of plumage exist in specimens from the same locality.

I have in my collection one specimen from Brazil, which I have mentioned in the Proceedings of the Zoological Society, 1879, p. 178, as a variety of *nigricollis*, and described in the Humming Bird, vol. i., 1891, page 25, under the name of *L. violicauda*. It is as follows:—

Male.—Upperside purplish-black, lighter on the rump. Tail-coverts and median rectrices black. Laterals metallic reddish-purple with the edges and tips blackish-blue. Underside black, paler on flanks. A line of lustrous dark, with greenish tinge, from the bill to the flanks, on sides of breast. Undertail coverts purplish-black. Wings brownish-black. Feet and bill black.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{5}{8}$. Culmen, $\frac{14}{16}$.

It is probably a melanism of *L. nigricollis*.

455. LAMPORNIS PREVOSTI, Less. Nat. Hist. Col., 1831, p. 87.

Polytmus prevosti, Gray, Gen. Birds, vol. i., p. 108.

Autracothorax prevosti, Reich. Aufz. der Colib., 1853, p. 11.

Lampornis prevosti thalassinus, Ridgw. Proc. U.S. Mus., t. viii., p. 573.

Prevost's mango, Gould, Mon. Troch., vol. ii., p. 75.

Le Lampornis de Prévost, Muls., Hist. Nat. Ois. Mou., 1876, vol. i., p. 161.

Lampornis Hendersoni, Cory Auk., 1887, p. 336.

Habitat.—Old Providence, West Indies, Mexico, and Central America.

Male.—Upperside shining golden-green. Median rectrices bronze-green with a reddish tinge. Laterals purplish-red or bright violet margined with brownish-black. Chin and throat black. Sides of throat, breast, and centre of abdomen shining bluish-green. Rest of underside golden-green. Undertail-coverts green with base and edges gray. Vent and spot on sides of flanks white. Wings purplish-brown. Bill black.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{5}{8}$. Tail, $1\frac{6}{8}$. Culmen, 1.

Female.—Upperside golden-green. Underside white. A black line on chin and throat passing to green on breast and abdomen. Flanks golden-green. Lateral rectrices purplish-red at base, passing to bluish-black and broadly tipped with white.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{5}{8}$. Culmen, 1.

The young male of this species is like the female in colouration, with a rufous line on each side of chin, throat, and breast.

I have one specimen sent to me by Mr. Chas. Cory, of Boston, as *L. hendersoni*. It was collected by Mr. Henderson, at Old Providence, West Indies, but I cannot see any difference between that specimen and the Mexican ones.

I have collected this species in several parts of Mexico and Guatemala. Gaumer collected some for me, in Yucatan.

456. LAMPORNIS VERAGUENSIS, Gould, Mon. Troch., vol. ii., p. 76.

Sericotes veraguensis, Reich., Aufz. der Colib., 1853, p. 11.

Anthracothorax veraguensis, Reich., Troch., Enum., 1855, p. 9.

Veraguan Mango, Gould, Mon. Troch., vol. ii., p. 76.

le Lampornis de Veragua, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 146.

Habitat.—Veragua and Panama.

Male.—It is closely allied to the preceding species, but can be easily distinguished by the chin and throat metallic-green, the breast and centre of abdomen shining blue. Undertail-coverts dark purple. Remainder of plumage like *L. prevosti.*

Total length, 4⅜in. Wing, 2 ⅝. Tail, 1⅝. Culmen, 1.

Female.—Like that of *L. prevosti*, excepting the lateral rectrices underneath which are bluish-green at base, then beautiful violet-purple, with a broad subterminal bar bluish-green, and white tips. Same size as the male.

I collected this species at Panama and Colon. I have also some specimens collected by Arcé in Veragua.

457. LAMPORNIS VIRIDIS, Audub and Vieillot, Ois. Dor., 1802, vol. i., p. 34.

Chalybura viridis, Reich., Aufz. der Colib., 1853, p. 10.

Agyrtria viridis, Reich., Troch. Enum., 1855, p. 7.

Blue tailed Mango, Gould, Mon. Troch., vol. ii., p. 78.

le Lampornis vert, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 172.

Habitat.—Porto Rico.

Male.—Upperside shining bronzy-green showing a bluish tinge on back, rump, and uppertail-coverts. Tail steel-blue with greenish reflections. Underside shining green. Wings purplish-brown. Bill black.

Total length, 4½in. Wing, 2½. Tail, 1⅝. Culmen, 1.

Female.—Upperside golden-green, brownish on head. Underside ashy white, tinged with green on the sides and flanks. Median rectrices bronze-green. Laterals shining dark blue on their inner webs, and golden brown on the outer with white tips. It is a rare species in the Collections.

GENUS CXXXII. **Avocettula,** Reich., Syst. Av. Nat., 1849, pl. 39.

AVOCETTINUS, Bon., Consp., Gen. Av., 1850, vol. i., p. 75.

STREBLORAMPHUS, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 76.

TYPE: *T. recurvirostais,* Swainson.

Bill longer than the head, turned up at the point. Nostrils exposed. Wings long and pointed, projecting over the tail. Tail slightly rounded.

Habitat.—Guiana.

458. AVOCETTULA RECURVIROSTRIS, Swains., Zool. Illus., vol. ii., pl. 105.

Mellisuga recurvirostris, Steph. Shaw, Gen. Zool., vol. xiv., p. 248.

Ornismya recurvirostris, Less., Ois. Mou., 1829, p. 36.

Campylopterus recurvirostris, Sw., Class, Birds, 1836, vol. ii., p. 330.

Hylocharis avocetta, Gray, Gen. Birds, vol. i., p. 114.

Avocettinus recurvirostris, Bon., Consp., Gen. Av., 1850, vol. i., p. 75.

Strebloramphus recurvirostris, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 76.

Fiery-tailed Avocet, Gould, Mon. Troch., vol. iii., p. 201.

L'Avocettule à bec recourbé, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 263.

Habitat.—Guiana.

Male.—Upperside bronze-green. Uppertail-coverts shining green. Median rectrices dark bronze-green, passing to bluish-black at tips; laterals above, coppery-brown margined with bluish-black; beneath, metallic fiery-copper-red; outermost ones coppery-brown. Throat and breast shining emerald-green. Abdomen black. Flanks bronze-green. Undertail-coverts shining green. Bill black. Wings bluish-black.

Total length, $3\frac{5}{8}$in. Wing, $3\frac{5}{8}$. Tail, $1\frac{2}{8}$. Culmen, $\frac{5}{8}$.

Female.—Not known for certain.

It is a very rare species.

GENUS CXXXIII. **Eulampis,** Boié, Isis, 1831, p. 547.

Culampis, Less., Ind. Gen. and Syn. Gen. Troch., 1832, p. 7.

TYPE: *T. jugularis,* Linné.

Bill stout, short and curved, slightly longer than the head; feathers of forehead projecting on the culmen, nostrils partly covered. Wings long, reaching the end of tail, and brilliantly coloured in all their length. Tail moderate, slightly forked. Rectrices wide, terminating with a small acute point. Median rectrices shorter, the others gradually and slightly longer. Tarsi bare. Sexes alike.

Habitat.—Nevis, Martinica, Dominica, and Santa Lucia.

459. EULAMPIS JUGULARIS, Linné, Syst., Nat., 1766, p. 190.

Trochilus auratus, Gmél., Syst., Nat., 1788, vol. i., p. 487.

Torchilus granatinus, Lath. Ind. Ornith., 1790, vol. i., p. 305.

Soui-manga prasinoptère, Vieill., Ois. Dorés, 1802, vol. ii., p. 65.

Trochilus grammaticus, Vieill., Ois. Dorés, 1802, vol. ii., p. 17.

Culampis auratus, Less., Ind. Gen. Syn. Gen. Troch., 1834, p. 7.

Polytmus jugularis, Gray, Gen. Birds, vol. i., p. 110.

Topaza violacea, Gray, Gen. Birds, vol. i, p. 110.

Purple-breasted Carib, Gould, Mon. Troch., vol. ii., p. 82.

l'Eulampe grenat, Muls., Hist. Nat. Ois. Mou., 1875, vol. ii., p. 132.

Habitat.—Nevis, Martinica, Dominica, and Santa Lucia.

Male.—Upperside velvety-black. Upper and undertail-coverts metallic brilliant bluish-green. Tail dark shining blackish-green. Wings and their coverts glittering metallic dark green. Chin, throat, and breast shining vinous-purple. Abdomen, glossy black. Bill black.

Total length, $4\frac{6}{8}$in. Wing, 3. Tail, $1\frac{6}{8}$. Culmen, $\frac{7}{8}$.

Female.—Like the male.

I have one specimen with the primaries metallic dark green, secondaries and tertiaries dark golden-green.

This species is abundant in all the Lesser Antilles. It varies slightly in the colour of wings, upper and undertail coverts, as also in the form and size of bill. Some have the bill longer, and more or less curved than others. The female and young have the longer bills. It is the only species which has the wings and coverts so brilliantly coloured.

GENUS CXXXIV. **Sericotes,** Reich., Aufz. der Colib, 1853, p. 11.

TYPE : *T. holosericeus,* Linné.

Bill slender, longer than the head, the feathers of the forehead projecting on the culmen, nostrils partly covered.

Wings long, reaching the end of tail. Tail short and cuneate, each rectrice pointed at tip. Outermost smaller. Laterals slightly and gradually longer. Tarsi bare. Sexes alike.

Habitat.—St. Thomas, Martinica, Dominica, Grenada, Santa Lucia, Nevis.

460. SERICOTES HOLOSERICEUS, Linné, Syst. Nat., 1766, vol. i., p. 191.

Polytmus holosericeus, Gray, Gen. Birds, vol. i., p. 108.

Eulampis holosericeus, Gould, Mon. Troch., vol. ii., p. 83.

Anthracothorax holosericeus, Reich., Troch. Enum., 1855, p. 9.

Lampornis holosericeus, Cab. and Heine, Mus. Hein, 1860, t. iii., p. 19.

Green breasted Càrib, Gould, Mon. Troch., vol. ii., p. 83.

l'Eulampe vert et noir, Muls., Nat. Ois. Mou., 1875, t. ii., p. 135.

Habitat.—St. Thomas, Martinica, Dominica, Santa Lucia, Nevis, St. Croix.

Male.—Upperside shining dark green, coppery on rump. Uppertail-coverts glittering green with bluish reflections. Tail dark shining blue. Throat metallic grass-green, yellowish-golden in some specimens, especially in those from Martinica. In the middle of the breast, bordering the green, is a small patch of bright blue feathers. Abdomen black. Flanks bronzy-green. Vent and a spot on each side of flanks white. Undertail-coverts glittering blue, edged with green. Wings purplish-brown. Bill black.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{3}{8}$. Tail, $1\frac{1}{2}$. Culmen, $\frac{6}{8}$.

Female.—Has less blue on the breast, is not quite so bright in colouration, and has the bill longer. This species is rather abundant in all the Lesser Antilles, and I think that when full, series of each island will be sent to Europe, it is possible that it will be necessary to separate them in two or three species.

461. SERICOTES CHLOROLAEMUS, Gould, Mon. Troch., vol. ii., p. 84.

Antracothorax chlorolaemus, Reich., Troch. Enum., 1855, p. 9.

Lampornis chlorolaemus, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 19.

Eulampis longirostris, Gould, Int. Troch., 1861, p. 69.

Eulampis chlorlaemus, Boucard, H. Bird, 1891, vol. i., p. 25.

Grass-green and blue breasted Carib, Gould, Mon. Troch., vol. ii., p. 84.

le Caribe à gorge verte.

Habitat.—Grenada.

Male.—Upperside shining dark green, with a reddish tinge on rump. Uppertail-coverts brilliant metallic green in centre, with bright blue feathers on each side. Tail bright dark purplish-blue. Throat dark metallic grass-green, followed with a broad band of brilliant dark purplish-blue. Abdomen and flanks glossy black, tinged with dark green. Undertail-coverts brilliant purplish-blue. Vent and a spot on side of flanks pure white. Wings purplish-brown. Bill black.

Total length, 4½in. Wing, 2½. Tail, 1½. Culmen, ⅞.

Female.—The reddish tinge on lower part of back and rump is more apparent than in the male, the green of the throat is not so bright, the band of breast is not so extensive and more blue, and the bill is longer. It is the *E. longirostris,* of Gould.

I have a fine series of this rare species from Grenada, sent to me, by Mr. Wells.

Genus CXXXV. **Florisuga,** Bon., Compt., Rend., 1850, p. 382.

Orthorhynchus, Ill. Prod., Syst., Mamm., p. 209.

Lampornis, Lesson, Tab. Esp. Ois. Mou., 1829, p. 23.

Type: *T. mellivorus,* Linné.

Bill strong, nearly straight, about the length of the head. Wings long, reaching the end of tail. Tail ample, slightly forked. Median rectrices shorter, lateral and outermost ones slightly and gradually longer. Uppertail-coverts reaching the tips of median rectrices. Sexes unlike.

Habitat.—Mexico, Guatemala, Veragua, Guiana, Venezuela, Trinidad, Brazil, Colombia, Ecuador, and Peru.

462. FLORISUGA MELLIVORA, L. Syst., Nat., 1766, vol. i., p. 193.

Trochilus fimbriatus, L. Syst., Nat., 1766, vol. i., p. 193.

Oiseau Mouche dit la Jacobine ou à collier, Vieill., Ois. Dor., p. 55.

Mellisuga surinamensis, Steph., Gen. Zool., vol. ix., p. 243.

Trochilus flabellifera, Gould, P.Z.S., 1846, p. 45.

Topaza mellivora, Gray, Gen. Birds, vol. i., p. 110.

Jacobin, Gould, Mon. Troch., vol. ii., p. 113.

Great Jacobin, Gould, Mon. Troch., vol. ii., p. 114.

la Florisuge jacobine, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 179.

Habitat.—Guatemala, Veragua, Panama, Venezuela, Colombia, Tobago, Trinidad, Guiana, Brazil, Ecuador, and Peru.

Male.—Head, throat, and upper part of breast shining cobalt-blue. Across the neck, a broad cuneate-shaped white band; rest of upperside, including uppertail coverts, shining dark green in some specimens, bright, golden-green in some others. Breast and flanks shining-green or golden-green. Abdomen pure white. Undertail-coverts white. Tail pure white narrowly margined and tipped with purplish-brown. Wings purple-brown. Bill black.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{6}{8}$.

Female.—Upperside golden-green, darker on the crown. Tail bronzy-green, with a sub-terminal bar of deep blue, slightly margined on laterals with gray or white, outermost blackish-blue with base of external web and tip white. Throat and upper part of breast white, spotted with dark brown. Sides of breast, abdomen and flanks golden-green. Centre of abdomen white. Undertail-coverts blackish-brown, tipped with white. Wings purplish-brown. Bill black.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{5}{8}$. Culmen, $\frac{6}{8}$.

Young Male.—Coloured like the male, with a buff band on each side of the blue of the throat.

This is a very common species. I have large series from Guatemala, Chiriqui, Guiana, Trinidad, Tobago, Brazil, and Colombia, which varies in colouration, but otherwise are quite the same; but I have some others which varies so much in the colouration of the tail that I think a description is necessary.

Male.—From British Guiana. Upperside shining golden-green, excepting the head, which is greenish-blue with the centre of crown golden-bronze. White spot on neck. Median rectrices white at base, then greenish-bronze with bluish-black tips, rest white with a bluish-black spot at tip, narrowly margined with white. Throat dark blue with greenish reflections. Flanks golden-green, rest of underside pure white.

I propose the name of *F. guianensis* for this species, if it should prove distinct. I have three specimens, one from Demerara and two from River Atapuroni, B. Guiana, collected by H. Whitely.

Male.—From Ecuador and Pebas, Peru. Head, throat, and upperpart of breast dark greenish-blue, passing to shining green close to the white spot of neek. Rest of upperside shining green with golden reflections. Median rectrices white at base passing to bluish black, the next one white with bluish-black tip, the last three white with a very minute brown spot on tip of the one next to outermost one, this last one, pure white. Wings purplish-brown. Bill black.

Total length, $4\frac{5}{8}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{7}{8}$. Culmen, $\frac{6}{8}$.

Female.—Upperside bright golden-green, brownish on head. Uppertail-coverts shining green. Median rectrices and the three next ones bronze-green with bluish-black tips, and slightly margined with white, outermost ones bronze-green at base with broad subterminal bluish-black bar, margined on outer web with broad white tips. Chin and abdomen pure white, throat and upper part of breast pure white, margined with black. Side of neck, lower part of breast and flanks white, washed with golden-green. Under-tail-coverts gray at base, then dark bluish-black margined with white. Wings purplish-brown. Bill black.

Total length, $4\frac{5}{8}$in. Wing, $2\frac{5}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{7}{8}$.

I propose the name of *F. peruviana* for this species, if it should prove distinct. I have four specimens of this species, one collected by Buckley in Ecuador, two collected by Garlepp in Ecuador, and one by Hauxwell, at Pebas, Peru, in 1866. I have also one specimen exactly like the preceding with the bill one inch long. I believe that it is what Gould described as *F. flabellifera.*

463. FLORISUGA SALLEI, Boucard, Hum. Bird, 1891, vol. i., p. 18.

Sallé's Jacobin.

la Jacobine de Sallé.

Habitat.—Mexico.

Male.—Head and neck dark shining green with bluish reflection in the centre of throat, and passing to golden on nape, beneath which is a broad band pure white. Rest of upperside, including tail coverts, shining bronzy-gold. Median rectrices white at base, passing to bluish-green; next one white, margined on external web with bluish-green and with bluish-black tip, the two next white, margined on external web and tipped with bluish-black, outermost one white with a small bluish-black spot at tip. Lower part of breast and flanks golden. Rest of underside pure white. Wings purplish-black. Bill black.

Total length, 4½in. Wing, 2½. Tail, 1⅜. Culmen, ⅝.

Female.—Unknown.

Type unique in my Collection.

GENUS CXXXVI. **Melanotrochilus,** Deslongchamps, Ann., Mus. Caen., t. i., p. 225.

TYPE: *T. fuscus,* Vieillot.

Bill short, stout, slightly curved, about the length of the head. Wings longer than the tail. Tail ample, long, and slightly forked; rectrices broad and rounded, median shortest, lateral and outermost ones slightly and gradually longer. Uppertail-coverts short. Feet rather large. Tarsi clothed. Sexes similar.

Habitat.—Brazil, Colombia, and Ecuador.

464. MELANOTROCHILUS FUSCUS, Vieill., Nouv. Dict. Hist. Nat., 1817, vol. vii., p. 348.

Trochilus ater, Pr., Max. Reis. Braz., vol. i., p. 366.

Trochilus niger, Sw., Zool. Ill., vol. ii., pl. 82.

Ornismya lugubris, Less., Hist. Nat. Ois. Mou., 1829, t. i., p. 132.

Trochilus atratus, Licht., Doubl., p. 14.

Trochilus leucopygius, Spix., Av. Bras., 1824, t. i., pl. 81.

Mellisuga atra, Shaw, Gen. Zool., t. xiv., p. 243.

Topaza atra, Gray, Gen. Birds, vol. i., p. 110.

Florisuga atra, Bon., Consp., Gen. Av., vol. i., p. 74.

Florisuga fusca, Reich., Aufz. der Colib., 1853, p. 14.

Pied Jacobin, Gould, Mon. Troch, vol. ii., p. 115.

la Florisuge demi deuil, Muls., Hist. Nat. Ois. Mou., 1876, t. ii.. p. 184.

Habitat.—Brazil, Colombia, and Ecuador.

Male.—Head, neck, and upper part of back black. Remainder of upperside dark bronzy-green, appearing black in certain lights. Uppertail-coverts dark bronzy-green, sometimes with reddish reflections. Median rectrices dark shining-green, purplish in some specimens. Laterals white tipped with purplish-brown. Underside black with shiny dark green reflections on throat in certain lights. Flanks white. Undertail-coverts purplish brown. Wings purple-brown. Upper and under wing-coverts greenish-bronze. Bill black.

Total length, 5in. Wing, $3\frac{2}{8}$. Tail, $2\frac{2}{8}$. Culmen, $\frac{6}{8}$.

Female or Young Male. — Upperside brownish-black. Uppertail-coverts purplish-black margined with rufous. Tail purplish excepting the rectrice near the outermost one, which is white on its external web, and the rest purplish, outermost one white. Underside sooty-brown with a dark reddish-rufous band on each side of throat. Undertail-coverts dark bronze, margined with white or rufous. Flanks white.

Total length, $4\frac{1}{2}$in. Wing, 2. Tail, 2. Culmen, $\frac{6}{8}$.

My specimens of this species were collected in Brazil, Colombia, and Ecuador.

My specimen from Colombia is much smaller, and has more white on flanks.

Its size is as follows :—Total length, $4\frac{3}{8}$in. Wing, 3. Tail, $1\frac{7}{8}$. Culmen, $\frac{6}{8}$.

FAMILY XVI. OREOTROCHILIDAE.

OR FAMILY OF HILL STAR HUMMING BIRDS.

Size large. Bill slender, short, and curved. Sheath of both maxilla and mandible smooth. Nasal covers completely hidden. Wings narrow and long. Rectrices very narrow. Throat and crown metallic in the males of the genus *Oreotrochilus*. In the new genus, *Alcidius*, the throat only is metallic. Female dull.

TYPE: *Oreotrochilus*, Gould, P.Z.S., 1847, p. 10.

Range.—Ecuador.

GENUS CXXXVII. Oreotrochilus, Gould, P.Z.S., 1847, p. 10.

OREOTROCHILUS, Gould, Int. Trochilidae, p. 62.

OREOTROCHILUS, Cab. and Hein, Mus. Hein., 1860, t. iii., p. 15.

TYPE: *O. chimborazo*, Delattre and Bourcier.

Bill almost cylindrical and slightly incurved, about the length of the head. Wings rather long and powerful. Tail large, the feathers narrow and rigid; rectrices of the same length, excepting the outermost ones, which are slightly longer. Feet strong. Tarsi clothed, hind toe and nail about the same length as the middle toe and nail. Throat and head luminous in males, females unadorned.

Habitat.—Ecuador.

465. OREOTROCHILUS CHIMBORAZO, Delattre and Bourc., Rev. Zool., 1846, p. 305.

Chimborazian Hill Star, Gould, Mon. Troch., vol. ii., p. 68.

l'Orotrochile du Chimborazo, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 167.

Habitat.—Volcano of Chimborazo, Ecuador.

Male.—Head glittering metallic dark-blue with violet reflections. Upperside olive-bronzy-green, each feather on rump and uppertail-coverts margined with gray. Median rectrices dark bronze-green, laterals white, margined on outer webs with brownish-black, outermost ones white at base, rest

greenish-black. Throat metallic violet-blue, encircled with a narrow band of black. A triangular large spot of brilliant metallic green in the centre of the lower part of throat, just above the black band. In one of my specimens, there is a narrow metallic blue band under the green, and another black band under the blue one. Breast, abdomen, and flanks pure white—the latter sparingly spotted with olive-green feathers. In the centre of the abdomen a line of brownish-black. Undertail-coverts pale olive-green. Wings purplish-brown. Bill black.

Total length, $5\frac{1}{4}$in. Wing, $2\frac{7}{8}$. Tail, $2\frac{1}{2}$. Culmen, $\frac{6}{8}$.

Female.—Upperside olive-green. Median rectrices dark bronzy-green, next one of the same colour sometimes with white tips, laterals white at base, passing to greenish-brown, and with white tips. Throat white, minutely spotted with brown-olive, rest of underside pale olive-brown margined with white. Same size as the male.

For a long time, this species, discovered by Delattre, on the Volcano of Chimborazo, has been very rare in the collections; but in 1885, the well-known collector, Henry Buckley, brought to England a large series of this species, and of *O. pichincha*.

All my specimens were collected by him.

466. OREOTROCHILUS PICHINCHA, Bourc. and Muls., Ann. Acad. Sc., Lyon., 1849, p. 427.

Oreotrochilus jamesoni, Jard., Contr. Ornith., 1849, p. 42.

Pinchinchian Hill Star, Gould, Mon. Troch., vol. ii., p. 69.

l'Orotrochile du Pichincha, Muls., Hist. Nat. Ois. Mon., 1876, t. ii., p. 162.

Habitat.—Volcano of Pichincha, Ecuador.

Male.—Exactly like the preceding species, without any green on the throat.

Total length, $5\frac{1}{4}$in. Wing, $2\frac{7}{8}$. Tail, $2\frac{1}{2}$. Culmen, $\frac{6}{8}$.

Female.—Like that of *O. Chimborazo*, slightly whiter on throat, and more minutely spotted. Without knowing the exact localities where they come from, it is nearly impossible to distinguish the females of one species from another.

This fine species was discovered in Ecuador, by the late Bourcier, who was then, French Consul in Quito.

All my specimens were collected by Buckley.

GENUS CXXXVIII. **Alcidius,** Nov. Gen.

OREOTROCHILUS, Gould, P.Z.S., 1847, p. 10.

TYPE: *O. estellae,* d'Orbigny.

Bill short, slender, slightly curved, about the length of the head. Throat brightly coloured in males. Wings narrow, long, reaching nearly the end of tail. Tail pointed, feathers narrow and rigid, outermost shortest, laterals slightly and gradually longer, medians of the same length as the laterals next to it, or slightly longer. Feet strong, the hind toe and nail about equal in length to the middle toe and nail. Tarsi clothed. Sexes unlike in plumage.

Habitat.—Peru, Bolivia and Chili.

467. ALCIDIUS ESTELLAE, D'Orb and Lafr., Syn. Av., 1838, p. 32.

Orthorhynchus estella, d'Orb, Voy., Amer., Mérid., 1835-44, t. 4, p. 376.

Trochilus ceciliae, Less., Rev. Zool., 1843, p. 43.

Oreotrochilus estellae, Gould, Mon. Troch., vol. ii., p. 70.

Estella's Hill Star, Gould, Mon. Troch., vol. ii., p. 70.

l'Oreotrochile d'Estelle, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 170.

Habitat.—Bolivia and Peru.

Male.—Upperside olive-green, passing to bronze-green on the uppertail-coverts. Median rectrices dark bronzy-green, remainder white, bordered and tipped with brown. Throat brilliant grass-green, bordered beneath by a line of bluish-black. Breast and abdomen white. In the centre of the later a line of deep chestnut. Undertail-coverts and flanks olive-brown. Wings brown, with purplish reflections. Bill black.

Total length, 5in. Wing, $2\frac{6}{8}$. Tail, $2\frac{1}{4}$. Culmen, $\frac{6}{8}$.

Female.—Differs from the male in having the throat spotted with brown, the underside rufous-brown, and the lateral tail feathers white, crossed with a band of green in the centre.

It is a very rare species.

I have made a new genus with this species and the four following ones, because they are quite distinct, in generical

forms, especially in the form of the tail, and in the metallic colouring of head and throat, from the two well-known species, *O. pichincha* and *O. chimborazo*. For these two last species, I have retained the generic name of *Oreotrochilus,* Gould considering that it was more proper to make a new genus, in honour of D'Orbigny, with the species discovered by this eminent Naturalist. I hope that all my scientific colleagues will agree with me in this, and will adopt it.

468. ALCIDIUS BOLIVIANUS, Boucard, H. Bird, 1893, vol. iii., p. 7.

Oreotrochilus bolivianus, Boucard, H. Bird, 1893, vol. iii., p. 7.

Bolivian Hill Star.

l'Alcide de Bolivie.

Habitat.—Bolivia.

Male.—Upperside olive-brown passing to shining reddish-bronze on uppertail-coverts. Median rectrices dark shining bronze-green, laterals white edged outwardly with dark brown, outermost ones white at base internally, and the remainder dark greenish-black. Throat glittering green, with an imperceptible dark blue margin at base. Breast and abdomen grayish-white passing to grayish-buff on flanks. A narrow line of greenish-blue in the middle of the abdomen. Undertail-coverts grayish-brown. Wings brown externally, and purplish internally. Bill black and curved.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{7}{8}$. Tail, $2\frac{1}{8}$. Culmen, 1.

Female.—Upperside like that of the male. Lateral and outermost rectrices with white tips. Underside grayish-brown with minute green spots on throat. This new species is closely allied to *O. lencopleurus,* from which it differs by the band of the throat which is scarcely perceptible, the line in the centre of abdomen which is very narrow, and greenish-blue, and the tail and uppertail-coverts differently coloured. It forms the passage between *O. estellae* and *O. leucopleurus.*

Discovered by Buckley, in Bolivia. Types in Boucard's Museum.

469. ALCIDIUS LEUCOPLEURUS, Gould, P.Z.S., 1847, p. 10.

Oreotrochilus leucopleurus, Gould, Mon. Troch., vol. ii., p. 71.

White-Sided Hill Star, Gould, Mon. Troch., vol. ii., p. 71.

l'Orotrochile à flancs blancs, Muls., Hist. Nat. Ois. Mou., 1876, t. ii., p. 172.

Habitat.—Chili.

Male. — Upperside olive-brown with a bronze tinge in some specimens and a coppery tinge in others. Uppertail-coverts in some bronzy-green, in others coppery-bronze. Median rectrices dark green-bronze in some specimens, in others brownish-black with greenish reflections, laterals white with a slight margin on outer web and dark brown tips, outermost one white at base passing to purplish-black. Throat brilliant golden-green, beneath which is a narrow band of metallic bluish-black feathers. Breast, upper part of abdomen and flanks pure white. Centre and lower part of abdomen bluish-black. Undertail-coverts olive-green. Wings purplish-brown. Bill black.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{6}{8}$. Tail, $2\frac{1}{8}$. Culmen, $\frac{6}{8}$.

Female. — Like the male, but buffy-white underneath sparingly glossed with pale olive-green on sides of breast. Throat white minutely spotten with greenish-blue. Lateral and outermost rectrices white, crossed with a subterminal green band, and with white tips.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{1}{2}$. Tail, $2\frac{1}{8}$. Culmen, $\frac{6}{8}$.

My specimens of both sexes of this species were collected in Chili, by Mr. E. Reed. It was first discovered in the Andes of Acon.

*470. ALCIDIUS MELANOGASTER, Gould, P.Z.S., 1847, p. 10.

Oreotrochilus melanogaster, Gould, Mon. Troch., vol. ii., p. 72.

Black-breasted Hill Star, Gould, Mon. Troch, vol. ii., p. 72.

l'Orotrochile à ventre noir, Muls., Hist. Nat. Ois. Mou., 1876, t. ii, p. 176.

Habitat.—Peru.

Male.—Upper-parts olive-brown, throat metallic grass-green, under-parts bluish-black. Uppertail-coverts shining green, under-coverts olive-brown, margined with buff. Tail steel-blue, with green reflections. Bill and feet black.

Total length, 4⅝in. Wing, 2⅞. Tail, 2. Culmen, ¾.

Female.—Upper-parts light brown, with a greenish lustre. Uppertail-covers shining green. Throat white, unspotted. Under-parts brownish-white, tinged with buff. Undertail-coverts buffy-brown. Tail shining green, all the lateral feathers tipped with white.

"Elliot's Synopis of the Humming Birds, p. 36."

This rare species is one of my desirata. The specimens from which Mr. Elliot made his descriptions were collected in Peru, by Mr. Jelsky.

471. ALCIDIUS ADELAE, d'Orb. and Lafr., Syn. Av., 1838, p. 33.

Orthorhynchus adda, d'Orb., Voy. Amer., Mérid., vol. iv., p. 377.

Oreotrochilus adelae, Gould, Mon. Troch., vol. ii., p. 73.

Adela's Hill-Star, Gould, Mon. Troch., vol. ii, p. 73.

l'Orotrochile d'Adèle, Muls., Hist. Nat. Ois. Mou., 1876, t. ii, p. 175.

Habitat.—Bolivia.

Male.—Upperside olive-brown. Tail cuneate. Median rectrices dark brown, remainder pale buff, margined and tipped with olive-brown. Throat metallic golden-green, beneath which is a narrow band of black. Underside deep chestnut with a central line, and the lower part of abdomen black. Vent buff. Undertail-coverts olive-brown, margined with buff. Wings brown, with a bronzy-green gloss. Bill and feet black.

Total length, 5in. Wing, 2⅝. Tail, 2⅛. Culmen, 1.

Female.—Differs by having the throat white, spotted with olive-brown, underside wholly rufous, and the lateral tail feathers buff, with a subterminal black bar, and tipped with white on the inner webs.

This is a very rare species. I have only one fine male specimen, collected in Bolivia, by Buckley. It was discovered in the neighbourhoods of Chuquisaca, Bolivia, by Mr. Alcide d'Orbigny.

FAMILY XVII. CAMPYLOPTERIDAE.

OR FAMILY OF SABRE WING HUMMING BIRDS.

Size large. Bill stout, nearly straight or curved. Sheath of both maxilla and mandible smooth. Nasal covers partly exposed. Wings short, shafts of the outer primaries swollen. Tail cuneate or rounded, excepting in the Genus *Eupetomena* in which it is very developed and forked. Sexes sometimes alike, and at other times dissimilar.

TYPE: *Campylopterus*, Swainson, Zool. Journ., 1826, p. 358.

Range.—Mexico, Guatemala, Costa Rica, Colombia, Ecuador, Peru, West Indies, Guiana and Brazilia.

GENUS CXXXIX. Sphenoproctus, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 11.

PAMPA, Reich., Aufz. der Col., 1853, p. 11.

TYPE: *O. pampa,* Lesson.

Bill nearly straight, longer than the head. Nostrils covered by a membrane. Wings long, shafts of three primaries in the male broad and flattened, the first primary falcate. Tail cuneate. Outermost rectrices smaller, all the others gradually longer. Sexes alike.

Habitat.—Mexico and Guatemala.

472. SPHENOPROCTUS PAMPA, Less., Ois. Mou. Suppl., 1829, p. 127.

Polytmus pampa, Gray, Gen. Birds, vol. i., p. 107.

Pampa campyloptera, Reich., Aufz. der Col., 1853. p. 11.

Campylopterus pampa, Gould, Mon. Troch., vol. ii., p. 43.

Wedge-tailed Sabre-wing, Gould, Mon. Troch., vol. ii., p. 43.

Le Campyloptère pampa, Muls., Hist Nat. Ois. Mou., 1874, vol. i., p. 115.

Habitat.—Guatemala.

Male.—Top of head and occiput metallic blue with purplish reflections. Upperside shining green, bluish on uppertail-coverts. Median rectrices bronze-green, brownish at tips, next one of the same colour with broad brownish-black tip,

laterals bronze at base, remainder bluish-black. Outermost ones brownish-black, with grayish rufous on the external web reaching nearly the tip. Underside pale gray, nearly white on lower part of abdomen. Line above the eye pale rufous. Spot behind the eye white. Wings purplish-brown. Bill black.

Total length, $5\frac{2}{8}$in. Wing, $2\frac{5}{8}$. Tail, $2\frac{3}{8}$. Culmen, $\frac{7}{8}$.

Female.—Like the male, but smaller, the two outermost rectrices broadly tipped with gray, the medians not so long as in the male. Underside grayish-white, paler than in the male.

Total length, $4\frac{3}{8}$in. Wing, $2\frac{3}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{7}{8}$.

All my specimens of this species are from Guatemala and Yucatan, Mexico.

473. SPHENOPROCTUS CURVIPENNIS, Licht. Preiz. Verz. Mex. Thier., 1830, No. 32.

Sphenoproctus pampa, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 11.

Mexican Sabre-wing, Gould, Mon. Troch. Suppl., 1886, p. 5.

le Campyloptère du Mexique.

Habitat.—Mexico.

Male.—The only differences which I can see between this species and the preceding one is the colour of the upperside which is more golden, and the underside whiter. I doubt that they are sufficient to consider it as a distinct species.

I collected my specimens in Mexico. It is one of the species found in the forests, which I could easily recognise by its song.

GENUS CXL. **Eupetomena,** Gould, Mon. Troch., 1853, p. 6.

PROGNORNIS, Reich., Aufz. der Colib., 1853, p. 11.

TYPE: *T. macrourus,* Gould.

Bill stout, short, slightly longer than the head and very slightly curved. Wings long, shaft of first and second primaries in the male broad and flattened. Tail very long, deeply forked, median rectrices broad and short, the two next

ones gradually longer, the fourth much longer than the third, and the outermost one much longer, turning slightly outward at the tip in some specimens. Sexes alike.

Habitat.—Guiana, Brazil, Peru.

474. EUPETOMENA MACROURA, Gmel., Syst., Nat., 1788, vol. i., p. 487.

Trochilus forcipatus, Lath., Ind. Ornith., 1790, vol. i., p. 304.

Ornismya hirundinacea, Less., Ois. Mou., p. 98.

Polytmus macrourus, Gray, Gen. Birds, vol. i., p. 107.

Prognornis macroura, Reich., Aufz. der Colib., 1853, p. 11.

Eupetomena hirundinacea, Gould, Mon. Troch., vol. ii., p. 42.

Swallow Tail, Gould, Mon., Troch., vol. ii., p. 42.

l'Eupétomène hirondelle, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 112.

Habitat.—Brazil.

Male.—Head and neck metallic prussian-blue. Upperside dark shining green passing to bronze on upper parts of upper-tail-coverts; these are dark steel-blue like the tail. Chin, throat and breast metallic prussian-blue. Rest of underside dark shining green. Tufts of feathers of anal region and on sides of flank pure white. Undertail-coverts dark steel-blue. Wings purplish-brown. Bill black.

Total length, 7in. Wing, 3. Tail, 4. Culmen, $\frac{7}{8}$.

Female.—Slightly paler in colour, and the tail shorter.

Total length, $5\frac{5}{8}$in. Wing, $2\frac{6}{8}$. Tail, 3. Culmen, $\frac{7}{8}$.

Common in Brazil.

475. EUPETOMENA HIRUNDO, Gould, Ann. and Mag. Nat. Hist., 1875.

Western Swallow Tail, Gould, Mon. Troch. Suppl., 1886, p. 4.

l'Eupétomène hirondelle du Pérou.

Habitat.—Peru.

Male.—Exactly like the preceding species in colouration and size, with the lower part of breast dark shining greenish-blue, abdomen and flanks lighter green, and head dark greenish blue.

Total length, $6\frac{5}{8}$in. Wing, $3\frac{1}{8}$. Tail, 4. Culmen, $\frac{7}{8}$.

This rare species was discovered by Mr. H. Whitely, at Huiro, Valley of Santa Anna, Peru.

GENUS CXLI. **Aphantochroa**, Gould, Mon. Troch., 1852, vol. ii., p. 54.

AGAPETA, Heine, Journ. fur Ornith., 1863, p. 178.

PLACOPHORUS, Muls., Cat. Ois. Mou., 1873, p. 6.

TYPE: *T. cirrhochloris*, Vieillot.

Bill stout, about the length of the head, very slightly arched. Wings broad, long, reaching the end of tail. Tail square, the rectrices of the same length and pointed at tips. Tarsi clothed. Hind toe short. Sexes alike.

Habitat.—Guiana, Brazil, Ecuador?

476. APHANTOCHROA CIRROCHLORIS, Vieill., Nouv. Dict., Hist. Nat., t. 23, p. 430.

Ornismya simplex, Less., Ois. Mou., 1829, p. 119.

Polytmus cirrochloris, Gray, Gen. Birds, vol. i., p. 107.

Trochilus campylostylus, Licht., Verzich Doubl., p. 14.

Campylopterus cirrochloris, Bon., Consp. Gen. Av., 1850, vol i, p. 71.

Sombre Humming Bird, Gould, Mon. Troch., vol. ii., p. 54.

l'Aphantochroé cirrochlore, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 140.

Habitat.—Brazil.

Male.—Upperside dark bronze-green. Median rectrices dark bronze-green, next one darker with reddish tinge at tip, the rest bronze at base changing to dark brown. Underside grayish-brown washed with pale green on throat, breast, and flanks. Undertail-coverts dark brown, edged with white. Wings purplish-brown. Bill black.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{6}{8}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{6}{8}$.

Female.—Exactly like the male but slightly smaller.

*477. APHANTOCHROA GULARIS, Gould, P.Z.S., 1860, p. 310.

Puce Throated Humming Bird, Gould, Mon. Troch., vol. ii., p. 55.

l'Aphantochroé à gorgerette, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 142.

Habitat.—Ecuador.

Male.—Very much like *A. cirrochloris* excepting a metallic lilac spot on the throat and the green colour of the general plumage. I have examined the type of Gould, which is now in the British Museum, and my impression was that it is a poor specimen of *Hypuroptila buffoni,* to which the natives have stuck some purple feathers of *Clytolaema rubinoides* on the throat.

GENUS CXLII. **Phaeochroa,** Gould, Int. Troch., 1861, p. 55.

TYPE: *P. cuvieri,* Del. and Bourc., Rev. Zool., 1846, p. 310.

Bill stout and straight, slightly longer than the head and with the tips acutely pointed. Wings long nearly reaching the end of tail, shafts of the two primaries broad and flattened in the middle. Tail rounded, outermost rectrices shortest, the others very slightly and gradually longer. Sexes alike.

Range.—Guatemala to Colombia.

478. PHAEOCHROA CUVIERI, Delatt. and Bourc., Rev. Zool., 1846, p. 310.

Aphantochroa cuvieri, Bon., Rev. and Mag. Zool., 1854, p. 250.

Phaeochroa cuvieri, Gould, Int. Troch., 1861, p. 55.

Aphantochroa roberti, Salv., P.Z.S., 1861, p. 203.

Campylopterus roberti, Gould, Mon. Troch., vol. ii., p. 53.

Phaeochroa roberti, Gould, Int. Troch., 1861, p. 55.

Cuvier's Sabre-wing, Gould, Mon. Troch., vol. ii., p. 52.

Owen's Sabre-wing, Gould, Mon. Troch., vol. ii., p. 53.

l'Aphantocroé de Cuvier, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 137.

le Campyloptère de Cuvier.

Habitat.—Guatemala to Colombia.

Male.—Upperside shining green. Four median rectrices shining greenish-bronze, next one shining bronze-green with dark brownish spot on inner web near the inner tip which is white, last lateral and outermost ones shining bronzy-green with a subterminal blackish bar and broadly tipped with white. Underside dull bronze-green passing to gray, with rufous tinge on abdomen and flanks. Undertail-coverts bronzy-green fringed with white. Wings purplish-brown. Maxilla black. Mandible flesh colour for a little more than half its length, rest black.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{7}{8}$. Tail, $1\frac{7}{8}$. Culmen, $\frac{7}{8}$.

Female.—Exactly like the male.

The differences between *C. roberti,* and this species are so slight, that I cannot see how they can be separated.

In one specimen which I have from Guatemala, the base of the mandible is flesh colour, and the lateral rectrices have a broader blackish subterminal bar, but the base is also bronzy-green.

It is a rare species.

I have collected my specimens in Guatemala, Costa Rica, and Colon. I have also one specimen collected by Arcé, at Chiriqui.

The type of this species was discovered by Delattre, in Guatemala, and it was dedicated by him and Bourcier, to the eminent French Naturalist, Cuvier.

GENUS CXLIII. **Campylopterus,** Swainson, Zool. Journ., 1826, p. 358.

POLYTMUS, Gray, Gen. Birds, 1848.

PLATYSTYLOPTERUS, Reich., Aufz. der Colib., 1853, p. 11.

LOXOPTERUS, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 13.

TYPE: *T. largipennis,* Bodd.

Bill long and curved, broad and flat at base. Wings ample, shafts of primaries in the male broad and flat on their basal half. Tail ample, rounded; rectrices broad, outermost ones shortest, the next one slightly longer, the rest of same length. Size large, female smaller. Sexes alike in plumage.

Habitat.—Guatemala, Guiana, Ecuador, Peru.

479. CAMPYLOPTERUS LARGIPENNIS, Bodd., Pl. Enl. d'Aubent., 1783, pl. 672.

Trochilus cinereus, Gmel., Syst. Nat., 1788, p. 490.

Trochilus campylopterus, Gmel., Syst. Nat., 1788, vol. i., p. 499.

Trochilus latipennis, Lath., Ind. Ornith., vol. i., p. 310.

Ornismya latipennis, Less., Ois. Mou., 1829, p. 121.

Polytmus largipennis, Gray, Gen. Birds, vol. i., p. 107.

Broad-shafted Sabre-wing, Gould, Mon. Troch., vol. ii., p. 48.

Le Campyloptère largipenne, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 120.

Habitat.—Guiana.

Male.—Upperside shining grass-green. Median rectrices dark bronze-green, next one bronze for about half its length, then bluish-black and slightly margined with white at tips, the others bronze at base, then bluish-black to half their length, the rest pure white. Underside dark ashy-gray, sparingly washed with green on sides of neck, breast and flanks. Wings shining purplish-brown. Maxilla black. Mandible flesh-colour with black tip.

Total length, $5\frac{3}{8}$in. Wing, $3\frac{1}{8}$. Tail, $2\frac{2}{8}$. Culmen, 1.

Female.—Smaller and slightly paler in colouration, otherwise exactly like the male. Lateral rectrices with scarcely any bronze at base, but bluish-black for half their length, and the rest white. Only very adult males have the shafts of the primaries broad and flat on their basal half. I have some very fine males where this peculiarity is scarcely visible.

My fine series of this species were collected by Mr. H. Whitely, in British Guiana.

480. CAMPYLOPTERUS OBSCURUS, Gould, P.Z.S., 1848, p. 13.

Campylopterus aequatorialis, Gould, Int. Troch., p. 54.

Sombre Sabre-wing, Gould, Mon. Troch., vol. ii., p. 49.

le Campyloptère obscur.

I cannot see any differences between this species and the preceding one, and I am of the same opinion as Messrs. Elliot and Mulsant that they all belong to one species.

My specimens were collected in Ecuador, and Upper Amazons, by Buckley.

481. CAMPYLOPTERUS HEMILEUCURUS, Licht., Preiz. Verz. Mex. Thier., 1833, No. 33.

Orismya delattrei, Less., Rev. Zool., 1839, p. 14.

Mellisuga delattrei, Gray, Gen. Birds, vol. i., p. 113.

Campylopterus delattrei, Gould, Mon. Troch., vol. ii., p. 45.

Delattre's Sabre-wing, Gould, Mon. Troch., vol. ii., p. 45.

Le Campyloptère de Delattre, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 125.

Habitat.—Mexico to Veragua.

Male.—Top of head and lores dull greenish-black. Upperside bright metallic purple-blue passing to dark shining green on rump. Uppertail-coverts shining dark green. Median rectrices dark bronzy-green, next one bluish-black, the rest bluish-black for half their length, remainder pure white. Underside bright metallic violet-blue. A small spot behind the eye, anal region, and line on sides of flanks white. Wings purplish-brown. Bill black.

Total length, $5\frac{6}{8}$in. Wing, $3\frac{1}{8}$. Tail, $2\frac{1}{2}$. Culmen, $1\frac{1}{8}$.

Female.—Upperside shining green, dark golden-brown on head. Tail like that of the male, excepting the two median rectrices, which are shining bronzy-green. Centre of throat metallic purple-blue. Rest of underside gray, sparingly washed with green on sides of breast and flanks.

Total length, $5\frac{3}{8}$in. Wing, $2\frac{7}{8}$. Tail, $2\frac{1}{8}$. Culmen, $1\frac{1}{16}$.

I have some specimens from Veragua with the tips of median rectrices brownish-black and the abdomen and flanks metallic greenish-blue; but I do not think it is sufficient to make a species with it.

It is a common species in Mexico and Guatemala. In Costa Rica and Veragua it is rarer. I have collected this species in different parts of Mexico, and in the semi-tropical forests of Costa Rica.

482. CAMPYLOPTERUS ENSIPENNIS, Swains. Zool. Illust., vol. ii., pl. 107.

Campylopterus ensipennis, Less., Ois. Mou., 1829, p. 124.

Polytmus ensipennis, Gray, Gen. Birds, vol. i., p. 107.

Blue-throated Sabre-wing, Gould, Mon. Troch., vol. ii., p. 46.

Le Campyloptère ensipenne, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 122.

Habitat.—Trinidad and Tobago.

Male.—Head brilliant metallic green, golden in certain lights. Upperside shining green. Median rectrices dark bronzy-green, the next one bluish-black, the others bluish-black at base, rest pure white. Chin and throat dark metallic lazuline-blue. Remainder of underside shining metallic golden-green. Wings purplish-brown. Bill black.

Total length, $5\frac{1}{2}$in. Wing, 3. Tail, $2\frac{2}{8}$. Culmen, $1\frac{1}{8}$.

Female.—Differs from the male in having the centre of the throat lazuline-blue and a white stripe from maxilla to ear-coverts. Centre of breast and abdomen gray. Anal region white.

Total length, 5in. Wing, $2\frac{7}{8}$. Tail, 2. Culmen, $1\frac{2}{8}$.

A few years ago, this species was sent abundantly from Trinidad, but lately I have not seen any.

Genus CXLIV. **Saepiopterus,** Reich., Aufz. der Colib., 1853, p. 11.

Type: *T. lazulus,* Vieillot.

Bill curved, longer than the head. Nostrils covered by a membrane. Wings long nearly reaching the end of tail; shafts of the three primaries in the males broad and flattened. Tail rounded with a small pointed tip in median rectrices in some species. Rectrices broad of the same length. Sexes alike.

Habitat.—Venezuela, Colombia, Ecuador, Trinidad and Tobago.

483. Saepiopterus lazulus, Vieillot, Tabl. Encycl., part ii., p. 557.

Trochilus lazulus, Bonnat., Encycl., Méth., 1791, vol. ii., p. 557.

Trochilus falcatus, Less., Ois. Mou., 1829, p. 126.

Campylopterus lazulus, Bon., Rev. and Mag. Zool., 1854, p. 250.

Lazuline Sabre-wing, Gould, Mon. Troch., vol. ii., p. 44.

Le Campyloptère lazulite, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 132.

Habitat.—Venezuela, Colombia, Ecuador.

Male.—Head and neck bright metallic golden-green. Rest of upperside shining green with golden reflections. Median rectrices deep chestnut, tipped with shining green, the next one of the same colour with one side of tip shining green, the next one bluish-black, last lateral and outermost ones deep chestnut, slightly tipped with bluish-black. Throat, breast, and upper part of abdomen dark metallic blue with a purple lustre, passing to glittering green on flanks and lower part of abdomen. Undertail-coverts chestnut with green edges on the upper feathers. Wings purplish-brown. Bill black.

Total length, $5\frac{2}{8}$in. Wing, $2\frac{6}{8}$. Tail, 2. Culmen, 1.

Female.—Like the male, but smaller and not quite so brilliant.

Young Male.—Upperside shining green. Outermost rectrices chestnut, the others like that of the male. Centre of throat shining blue. Rest of underside gray washed with shining green feathers on sides of breast, and on flanks. Under-tail coverts rufous, edged with gray.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{5}{8}$. Tail, $1\frac{6}{8}$. Culmen, 1.

In my opinion all former authors have described young birds as females.

It is a common species in Colombia.

I have specimens of both sexes from that country, and others collected at Merida (Venezuela).

One fine male collected by Goering, at Merida, has the throat and breast of a lighter blue, and the median rectrices with bluish-black tips. If it should prove a distinct species, I propose the name of *Saepiopterus goeringi* for it.

484. SAEPIOPTERUS PLAINOPEPLUS, Salv. and Godm., Ibis., 1879, p. 202.

Simons's Sabre-wing.

le Campyloptère de Simons.

Habitat.—Sierra Nevada of Santa Marta, Colombia.

Male.—Top of head dark shining green. Head and neck glittering metallic green. Rest of upperside glittering green, darker on the uppertail-coverts. Tail shining dark purplish-blue with some greenish-bronze along the inner web of median rectrices; this bronzy part does not reach the tips. Throat and breast dark metallic blue passing to glittering dark green with blue reflections in certain lights on the lower part of breast, abdomen and flanks. Undertail-coverts shining green passing to greenish-blue on lower part. Wings purplish-brown. Bill black.

Total length, $5\frac{1}{8}$in. Wing, $2\frac{5}{8}$. Tail, 2. Culmen, 1.

The above description was taken from a splendid specimen in my collection.

Female? — Upperside shining green. Tail steel-blue. Underside gray.

This splendid and very rare species was discovered by Mr. Simons in the Sierra Nevada of Santa Marta, in 1879, at an altitude, between 4,000 and 15,000 feet.

*485. SAEPIOPTERUS VILLAVICENCIO, Bourc., Compt. Rend., vol. xxxii, p. 187.

Heliomaster villavicencio, Reich., Aufz. der Colib., 1853, p. 13.

Campylopterus splendens, Lawr., Ann., N.Y., Lyc. Nat. Hist., 1858, vol. vi., p. 262.

Villavicencio's Sabre-wing, Gould, Mon. Troch., vol. ii., p. 47.

Le Campyloptère de Villavicencio, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 130.

Habitat.—Rio Napo (Ecuador).

Male.—Top of head metallic golden-green. Upper parts and flanks dark green. Wings purplish-brown. Throat deep metallic purplish-blue. Under surface dark greenish-gray. Median rectrices dark green, remainder steel-blue. Bill black.

Total length, $5\frac{1}{8}$in. Wing, $2\frac{5}{8}$. Tail, $2\frac{1}{4}$. Culmen, 1.

Female?—Top of head metallic golden-green. Upper parts golden-green. Under surface ashy-white. Tail like that of the male but with the lateral feathers tipped with grayish-white. Maxilla black. Mandible flesh colour. "Elliot's H. Syn. Birds, p. 270."

It is one of my desiderata.

486. SAEPIOPTERUS RUFUS, Less., Rev. Zool., 1840, p. 73.

Polytmus rufus, Gray, Gen. Birds, vol. i., p. 107.

Platystylopterus rufus, Reich., Aufz. der Colib., p. 11.

Fawn-breasted Sabre-wing, Gould, Mon. Troch., vol. ii., p. 50.

Le Campyloptère roux, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 134.

Habitat.—Guatemala.

Male.—Upperside golden-green. Median rectrices shining golden-green passing to reddish-gold on tips, next one more brilliant with a darkish brown subterminal bar near the tip which is rufous, remainder rufous for half their length passing to golden-green, less apparent on the outermost rectrices, then bluish-black with pale rufous tips; the outermost rectrices have all the external web rufous. Underside buff. Wings purplish-brown. Maxilla black. Mandible flesh-colour with black tip.

Total length, $5\frac{2}{8}$in. Wing, 3. Tail, $2\frac{2}{8}$. Culmen, 1.

Female.—Slightly smaller than the male.

It is a rare species.

487. SAEPIOPTERUS HYPERYTHRUS, Cab., Schomb. Reise., Brit. Guiana, 1848, vol. iii., p. 709.

Platystylopterus hyperythrus, Reich., Aufz. der Colib., 1853, p. 11.

Loxopterus hyperythrus, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 13.

Rufous-breasted Sabre-wing, Gould, Mon. Troch., vol. ii., p. 51.

Le Campyloptère rougeâtre, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 135.

Habitat.—Guiana.

Male.—Upperside shining golden-green, darker and greener on head. Four central rectrices shining metallic golden-bronze. Laterals and outermost ones rufous. Underside dark rufous. Wings purplish-brown. Maxilla black. Mandible flesh-colour at base, remainder brownish-black.

Total length, 5in. Wing, $2\frac{1}{2}$. Tail, $2\frac{2}{8}$. Culmen, $\frac{13}{16}$.

Female.—Exactly like the male, but slightly smaller.

Total length, $4\frac{6}{8}$in. Wing, $2\frac{1}{2}$. Tail, 2. Culmen, $\frac{13}{16}$.

This extremely rare species was discovered by the well-known explorer, Mr. Schombourg, at Roraima (British Guiana). The type remained unique from 1843 to 1883, when the active collector, Mr. H. Whitely, Junior, re-discovered the bird at the same place.

My specimens, male and female, were collected by him.

It is a very good species, quite distinct from *C. rufus*.

FAMILY XVIII. PHAETHORNIIDAE,

OR FAMILY OF HERMIT HUMMING-BIRDS.

Size from very small to large. Bill long, more or less curved. Sheath of both maxilla and mandible smooth; nasal covers partially exposed. Wings narrow and short. Tail rounded, cuneate, or with the median rectrices much elongated. Sexes alike. In the Genus Euxtoxeres the bill is curved to the third of a circle.

TYPE: *Phaethornis,* Swainson, Zool. Journ., 1827, p. 357.

Range.—Mexico to Bolivia, Colombia, Venezuela, Brazil, Guiana, Trinidad and West Indies.

GENUS CXLV. Glaucis, Boié. Isis, p. 545.

TYPE: *T. hirsitus,* Gmelin.

Bill long, much curved, stout and high at base. Wings long and narrow. Tail short, rounded. Rectrices narrower and pointed in females or young. Outermost one shortest, the other rectrices gradually longer. Median shorter than the lateral, close to it, and of the same length as the next one. Sexes alike.

Habitat.—Venezuela, Guiana, Trinidad, Grenada, Brazil, Colombia, and Ecuador.

488. GLAUCIS HIRSUTA, Gmel., Syst. Nat., 1788, t. i., p. 490.

Trochilus braziliensis, Lath., Ind. Ornith., 1790, vol. i., p. 308.

Trochilus ferrugineus, Wied. Beiltr, vol. iv., p. 120.

Trochilus dominicus, Licht. Doublt., p. 10.

Polytmus hirsutus, Gray, Gen. Birds, vol. 1, p. 108.

Hairy Hermit, Gould, Mon. Troch., vol. i., p. 5.

Le Glaucis hirsute, Muls., Hist. Nat. Ois. Mou., 1873, vol. i., p. 40.

Habitat.—Brazil, Trinidad, Grenada.

Male.—Upperside shining green, darker on head, upper-tail coverts, margined with buff and tipped with gray. Median rectrices shining greenish-bronze, darker near the tips, which are white. Laterals deep chestnut, passing to bluish-black near the tips, which are white; the outermost ones of the same colour margined on outer web, and tipped with bluish-black. Chin pale buff, passing to dark rufous on throat. Auriculars blackish-brown. Breast and flanks buff. Abdomen light rufous. Undertail-coverts light rufous, margined and edged with grayish-white. Wings purplish-brown. Maxilla black. Mandible flesh-colour with brown tip.

Total length, $5\frac{2}{8}$in. Wing, $2\frac{6}{8}$. Tail, 2. Culmen, $1\frac{3}{8}$.

Female.—Upperside like that of the male; median rectrices pointed with their tips white, next one dark chestnut at base bronzy on outer web and near the tip which is white, the rest bronzy on outer webs and passing to dark bluish-brown near the tips which are white. Underside bright buff excepting the centre of lower part of abdomen and anal region which are white. Undertail-coverts pale buff, edged with grayish-white. Wings purplish-brown. Maxilla black. Mandible flesh-colour with black tip. Size smaller than the male.

Total length, $4\frac{5}{8}$in. Wing, $2\frac{5}{16}$. Tail, $1\frac{1}{2}$. Culmen, $1\frac{2}{8}$.

I have a fine series of this species from Trinidad and Grenada. The last ones were sent to me in 1891. They were collected by Mr. Wells, and the sexes are carefully recorded.

*489. GLAUCIS DORHNI, Bourc., Ann. Soc., Sci., Lyon., 1852.

Grypus spixi, Gould, P.Z.S., 1860, p. 304.

Spix's Saw Bill, Gould, Mon. Troch., vol. i., p. 2.

Dohrn's Hermit, Gould, Mon. Troch., vol. i., p. 10.

le Glaucis de Dohrn, Muls., Hist. Nat. Ois. Mou., 1873, vol. i., p. 45.

Habitat.—Brazil.

Resembles very much *G. hirsuta,* but the females have all the rectrices reddish-bronze tipped with white, most extensively so on the outermost ones.

Total length, $4\frac{7}{8}$in. Wing, $2\frac{3}{4}$. Tail, $1\frac{3}{4}$. Culmen, $1\frac{1}{2}$.

490. GLAUCIS MAZEPPA, Less., Troch., 1831, p. 18.

Trochilus superciliosus, Less., Col., 1831, t. vi.

Glaucis lanceolata, Gould, Mon. Troch., vol. i., p. 8.

Mazeppa Hermit, Gould, Mon. Troch., vol. i., p. 6.

le Glaucis de Mazeppa.

Habitat.—Tobago, Guiana, Brazil.

Crown of the head dull brown; all the upper surface, wing, and tail-coverts bronzy-green, the latter fringed with gray; wings purplish-brown; under surface deep fawn colour, fading into buffy-white on the chin; a small mark behind, and a stripe below each eye buffy-white; two centre tail-feathers green at base, the remainder rich deep cinnamon-red, crossed by a band of black near the extremity, and tipped with white; upper mandible black; lower mandible yellow at the base, black at tip; feet yellow or flesh colour.

491. GLAUCIS LANCEOLATA, Gould, Mon. Troch., vol. 1, p. 8.

Lanceolate Hermit, Gould, Mon. Troch., vol. i., p. 8.

le Glaucis à queue en forme de lance.

Habitat.—Para.

Closely allied to *G. mazeppa,* but the tail feathers are narrower, and much more pointed or lance-shaped.

492. GLAUCIS MELANURA, Gould, Mon. Troch., vol. i., p. 9, P.Z.S., 1860, p. 364.

Black-tailed Hermit, Gould, Mon. Troch., vol. i., p. 9.

le Glaucis à queue noire.

Habitat.—Napo and Rio Negro.

Much smaller than all the other species, and a greater amount of black colouring in its tail, the extreme base, and only that of the inner webs of the feathers being marked with

chestnut; in fact, when the tail is closed and viewed from beneath, it appears to be entirely black, the under-coverts concealing the buff colouring.

493. GLAUCIS ROJASI, n.sp.

Rojas Hermit.

le Glaucis de Rojas.

Habitat.—Caracas, Venezuela.

This species is very closely allied to the preceding one, but has the abdomen buffy-gray, and the bill shorter.

Total length, 4½in. Wing, 2⅜. Tail, 1⅝. Culmen, 1⅛.

Type in my collection.

It was sent to me by my friend Doctor Carlos Rojas, an enthusiastic naturalist, who collected the specimens sent to me, in Caracas. I have much pleasure in dedicating this species to him.

494. GLAUCIS RORAIMAE, n.sp.

Roraima's Hermit.

Glaucis de Roraima.

Habitat.—Roraima Mountains, British Guiana.

Male.—Upperside shining green, darker on head, and golden on lower part of back, rump, and uppertail-coverts, each feather on these last parts being margined with blackish-brown, giving them a scaly appearance. Median rectrices shining bronzy-green, with scarcely-visible brownish band near the tips, which are white. Laterals red chestnut at base, with a broad sub-terminal bronzy-black bar and broad white tips, outermost rectrice margined with brownish-black on outer web. All the rectrices pointed. Chin grayish-buff, passing to dark buff on throat, breast, and flanks. Lower part of breast and abdomen dark sooty-gray. Sides of throat washed with shining green feathers. Undertail-coverts buff, margined with grayish-white. Wings purplish-brown. Secondaries and tertiaries tipped or margined with buffy-white. Maxilla black. Mandible flesh-colour with tip.

Total length, 5⅛in. Wing, 2½. Tail, 1 ⅞. Culmen, 1⅜.

Female.—Exactly coloured like the male but the colour of the throat and flanks is of a paler buff and the abdomen and

anal region are grayish-white. Rectrices narrow and pointed, as in the male.

This new species was discovered in the Roraima Mountains, British Guiana, by the late Mr. H. Whitely, the well known Collector.

495. GLAUCIS AENEA, Lawr., Proceed. Acad. Nat. Scien. Phil., 1867, p. 232.

Glaucis affinis, Lawr., Ann. Lyc., N.Y., t iv., p. 261.

Golden Hermit.

le Glaucis doré.

Habitat.—Costa Rica, Panama, Upper Amazons, Colombia, and Ecuador.

Male.—Upperside shining green, golden in certain lights. Uppertail-coverts shining green edged with gray. Median rectrices shining green, edged with bluish-black near the tips which are white. Laterals reddish-chestnut slightly margined near the tips with bronzy-black, tips white. Outermost ones brownish on outer web and near the tip which is white. Chin dark gray, passing to dark rufous-gray on all the under parts, and washed with dark shining green feathers on the throat, the sides of the neck, and breast, centre of abdomen, and flanks gray. Undertail-coverts pale gray or pale rufous with white edges. Wings purple-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, 5in. Wing, $2\frac{1}{2}$. Tail, $1\frac{7}{8}$. Culmen, $1\frac{2}{8}$.

Female.—Upperside like the male. Tips on median rectrices broad and white. Laterals from base to half their length red-chestnut, remainder brownish-black with white tips.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{2}{8}$. Tail, $1\frac{6}{8}$. Culmen, $1\frac{2}{8}$.

I have a fine series of this species which cannot be confused with any of the others in consequence of the dark colouration of its underparts.

GENUS CXLVI. **Ramphodon,** Lesson, Ind., Gen., Ois. Genr. Troch, 1832, p. 8.

GRYPUS, Spix. Av. Sp., Nov., 1824, p. 79., (name already employed in 1817 for a genus of Colcoptera).

TYPE: *T. naevius,* Dumont.

Bill nearly twice as long as the head, curved, edges of mandible in the male serrated near the tip, which is hooked, culmen compressed at base. Mandible of female curving slightly upwards near the tip, leaving an open space between it and the maxilla. Wings long and ample. Outermost rectrice the shortest, the next one gradually longer, the others including the medians of same length. Sexes alike.

Habitat.—Brazil.

496. RAMPHODON NAEVIUS, Dumont, Dict. Sc. Nat., t. xvii, p. 432.

Grypus ruficollis, Spix, Av. Bras., 1824, vol. i., p. 79.

Ramphodon maculatum, Less., Colib., 1831, p. 18.

Saw Bill, Gould, Mon. Troch., vol. i., p. 1.

Le Grype tacheté, Muls., Hist. Nat. Ois. Mou., 1873, vol. i., p. 34.

le Ramphodon tacheté.

Habitat.—Brazil.

Male.—Head dark brownish-green. Upperside dark golden-green, each feather margined with dark brown, giving a scaly appearance to all that part. Uppertail reddish-bronze, margined with blackish-brown, and edged with rufous. Median rectrices reddish-bronze, darkest at the tip, next one also bronze tipped with buff. Lateral and outermost ones purplish-black at base and largely tipped with buff. These buff tips run in an oblique direction, and are more extensive on the outer webs. Chin and a line in the centre of throat black. Sides of throat reddish-buff. Line behind the eye buff. Ear coverts black. Underside black on the breast conspicuously edged with white. Abdomen and flanks blackish-brown, edged with buff. Undertail-coverts brownish-black in centre, broadly edged with buff. Wings purplish. Maxilla black. Mandible flesh colour with brownish tip.

Total length, 6½in. Wing, 3. Tail, 2½. Culmen, 1½.

Female.—The black line of chin and throat is very narrow, remainder of throat and breast reddish-buff. Rest of plumage like that of the male. Size smaller.

Total length, 4⅝in. Wing, 2½. Tail, 2. Culmen, 1⅜.

It is a rare species in the Collections.

GENUS CXLVII. **Androdon,** Gould, Ann., Mag. Nat. Hist., 1863, p. 247.

TYPE: *A. aequatorialis,* Gould.

Bill twice as long as the head, straight, broad at base and tapering to a point. Cutting edges serrated and tip hooked. Wings long, reaching nearly the end of the tail, which is rather short, broad, and rounded. Feet moderate, tarsi naked. Size large.

Habitat.—Ecuador.

*497. ANDRODON AEQUATORIALIS, Gould, Ann., Mag. Nat. Hist., 1863, p. 247.

Grypus aequatorialis, Muls. Hist. Nat. Ois. Mou., 1873, t. i., p. 32.

Ecuadorian Tooth-Bill, Gould, Mon. Troch. Suppl., 1886, p. 2.

Le Grype de l'Equateur, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 32.

l'Androdon de l'Equateur.

Habitat.—Ecuador.

Male.—Bill long, straight, hooked at point, serrated on the edges of both maxilla and mandibles. Forehead dark gray, feathers tipped with metallic grass-green, occiput and nape metallic dark blue. Back bright metallic light grass-green. Rump white, a few dark blue feathers on the edge of the green of the back. Underparts white, edges of feathers blackish-brown. Undertail-coverts olive-green, central part and tips of feathers white. Wings dark purple. Median feathers of tail greenish-gray, tipped with dark green; lateral feathers greenish-gray, with a subterminal bar of dark green, tips white. Maxilla black. Mandible flesh-colour.

Total length, $5\frac{1}{4}$. Wing, $2\frac{3}{4}$. Tail, $1\frac{7}{8}$. Culmen, $1\frac{3}{4}$.

The female differs by the colouration of the head, which has the forehead dark purplish-brown, the top of the head bronze, and the occiput dark metallic green.

"Elliot's Syn. of the H. Birds, page 5."

It is a very rare species, and one of my desiderata.

GENUS CXLVIII. **Eutoxeres,** Reich., Syst. Av. Nat., 1849, t. xi.

MYIAETINA, Bon., Rev. and Mag. Zool., 1854, p. 249.

TYPE: *T. aquila*, Bourcier.

Bill greatly curved, forming nearly one third of a circle, wide at base, narrowing suddenly and becoming compressed laterally, mandible entirely hidden in maxilla except at the point. Cutting edges of bill not serrated. Tail cuneate, feathers pointed, long, of same length, except the two outermost ones which are gradually and slightly smaller. Feet large. Tarsi bare. Sexes alike.

Habitat.—Costa Rica, Veragua, Colombia and Ecuador.

498. EUTOXERES AQUILA, Bourc., P.Z.S., 1847, p. 42.

Polytmus aquila, Gray, Gen. Birds, 1844-49, vol. 1, p. 108.

Myiaetina aquila, Bon., Rev. and Mag. Zool., 1854, p. 249.

Eutoxeres salvini, Gould, Ann. Mag., Nat. Hist., 1868, vol. i., p. 458.

Eutoxeres heterura, Gould, Ann. Mag., Nat. Hist., 1868, vol. i., p. 455.

Sickle Bill, Gould, Mon. Troch., vol. i., p. 3.

l'Eutoxère aigle, Muls., Hist. Nat. Ois. Mou., 1873, vol. i., p. 28.

Habitat.—Costa Rica, Veragua, Columbia and Ecuador.

Male.—Upperside dark shining green, dark brown on head. Uppertail-coverts shining green, margined with rufous. Median rectrices shining dark green, tipped with white. Laterals dark green on outer webs, brownish-green on inner, and broadly tipped with white. Underside blackish-brown, striated with buffy white on throat and breast. On the abdomen the striated feathers are white in centre, and margined with grayish-black, sometimes intermixed with buff. Sides of breast and abdomen washed with shining green. Undertail coverts buff in centre, margined with black, and edged with buff. Wings purplish. Maxilla black. Mandible flesh colour.

Total length, 5in. Wing, 3. Tail, $2\frac{2}{8}$. Culmen, 1.

The small differences in the colour of the striated feathers of the underside between the specimens from Central America

and Ecuador are not sufficient to separate these birds. I have some specimens from Colombia which are exactly like those from Central America and Ecuador. It is a remarkable bird. It was discovered in Veragua by Mr. Warszewicz.

499. EUTOXERES BARONI, Ernst. and Hart., Novit. Zool. vol. i., 1894, p. 12.

Habitat.—Rio Penado, Ecuador.

Closely allied to *E. heterura* and *aquila,* from which species it may be distinguished by its olive-gray tail with a faint metallic hue only, if any, and with small white tips to the rectrices, sometimes restricted to the central pair, and sometimes altogether absent.

"Ernst. and Hartert, Novit. Zool., p. 12."

Type in Museum Rotschild.

I have not seen this species, but I am of opinion that it is not valid. It must be the well known *E. aquila.*

500. EUTOXERES CONDAMINEI, Bourcier, Compt., Rend., 1851, t. xxxii., p. 186.

Myioetina condaminei, Bon. Rev. and Mag., Zool. 1854, p. 249.

Condamine's Sickle Bill, Gould, Mon. Troch., vol. i., p. 4.

l'Eutoxère de la Condamine, Muls. Hist. Nat. Ois. Mou., 1873, t. i., p. 30.

Habitat.—Ecuador.

This species is easily distinguished from the preceding one by the shining metallic green spot on each side of upperpart of breast and neck, and the three outermost rectrices which are buff with white tips.

It is a rare species. My specimens were collected in 1877, at Napo, by Buckley. It was discovered by Bourcier, and dedicated by him to Mr. Charles de la Condamine, the celebrated French Astronomer.

GENUS CXLIX. **Threnetes,** Gould, Int. Troch., 1861, p. 40.

TYPE: *T. leucurus,* Linné.

Bill twice as long as the head, straight, sharply pointed, and

slightly curved at tip. Wings long, nearly reaching the end of tail. Tail short, rectrices broad, pointed at tips, of the same length, excepting the outermost ones which are slightly shorter. Feathers of forehead projecting on culmen. Nostrils partially hidden. Sexes alike.

Habitat.—Guatemala, Central America, Panama, Colombia, Ecuador, and Guiana.

501. THRENETES LEUCURUS, Linné, Syst. Nat., 1766, vol. i., p. 190.

White-tailed Humming Bird, Lath., Gen. Syn., vol. ii., p. 757.

Polytmus leucurus, Gray, Gen. Birds, vol. i., p. 108.

Glaucis leucurus, Bon., Consp., Gen. Av., 1850, p. 67.

White-tailed Barbed throat, Gould, Mon. Troch, vol. i., p. 14.

Le Glaucis à queue blanche, Muls., Hist. Nat. Ois. Mou., 1873, vol. i., p. 50.

Habitat.—Guiana.

Male.—Upperside bronze-green, darker on the head. Uppertail-coverts bronze-green, edged with gray. Median rectrices bronze-green, slightly margined at tips with white, laterals white, outermost ones margined and tipped more or less with brownish-black. Chin and throat deep buff with the centre of chin black. Lores and auriculars brown. A band of black on breast just under the buff. Breast and flanks shining dark green. Abdomen grayish-buff. Undertail-coverts shining green, edged with gray. Wings purple. Maxilla black. Manbible flesh colour with black tip.

Total length, 4½in. Wing, 2½. Tail, 1¼. Culmen, 1⅛.

It is a very rare species.

502. THRENETES CERVINICAUDA, Gould, P.Z.S., 1854, p. 109.

Fawn-tailed Barbed-throat, Gould, Mon. Troch., vol. i., p. 15.

le Glaucis à queue fauve.

Habitat.—Colombia, Ecuador and Peru.

Male.—Upperside shining green, passing to bronzy on the uppertail-coverts. Median rectrices bronze-green, slightly

margined at tips with pale buff. Lateral and outermost ones pale buff. Chin and ear-coverts black. Throat buff; just under it, in the centre, is a large spot of dark green feathers appearing quite black. Breast shining bronzy-green. Abdomen and flanks pale buff. Undertail-coverts shining green, edged with buff. Wings purple. Maxilla black. Mandible flesh-colour for a little more than half its length, the rest black.

Total length, 4½in Wing, 2½. Tail, 1½. Culmen, 1⅝.

Female.—Upperside like the male. Chin brownish-black. A band of pale buff on the upper part of breast. Sides of breast and flanks shining green with rufous edges. Rest of underside grayish-brown, white in the centre of abdomen. Lateral rectrices purplish with buffy-white tips. Outermost ones pale buff with a broad purplish tip.

Slightly smaller than the male.

I have also two specimens, one from Pebas, collected by Hauxwell, and one from Napo, collected by Buckley. They differ in having a white band on each side of the black of the chin, the band of the throat is buff but narrower, the black band under it is also narrower, the abdomen is grayish with a rufous tinge, and the two outermost rectrices are largely margined on outer webs and with blackish-purple tips.

If it should prove a distinct species, I propose the name of *T. hauxwelli* for it, as he collected it before Buckley. On the label it has the date of 26/6/67.

503. THRENETES RUCKERI, Bourcier, P.Z.S., 1847, p. 46.

Polytmus ruckeri, Gray, Gen. Birds, vol. i., p. 108.

Glaucis ruckeri, Gould, Mon. Troch., vol. i., p. 11.

Rucker's Hermit, Gould, Mon. Troch., vol. i., p. 11.

Le Glaucis de Rucker, Muls., His. des Ois Mou., 1873, t. i., p. 48.

Habitat.—Veragua, Ecuador.

Male.—Upperside shining green, darker on the head. Median rectrices shining green, darker near the tips which are white. Lateral and outermost ones white at base, then bluish-black with white tips. Auriculars, chin, and upper part of breast black, lower part of breast rufous, a buffy stripe behind the eye. Abdomen and flanks brownish-gray washed

with green feathers on the sides. Anal region pale rufous. Undertail-coverts shining green, margined with rufous. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{2}{8}$. Tail, $1\frac{1}{2}$. Culmen, $1\frac{3}{8}$.

Female.—Slightly paler in colouration.

It is a rare species. It was discovered in Veragua by Mr. Warezewicz, and dedicated by Bourcier to the late Mr. Sigimond Rucker, a city merchant, who formed a very fine collection of Humming Birds during his lifetime.

504. THRENETES FRASERI, Gould, Mon. Troch., vol. i., p. 12.

Fraser's Hermit, Gould, Mon. Troch., vol. i., p. 12.

le Glaucis de Fraser.

Habitat.—Guatemala.

Male.—Upperside shining golden-green. Median rectrices bronzy-green with white tips. Lateral and outermost ones white at base, then black with white tips. Underside like *T. ruckeri*, excepting the undertail-coverts which are bronzy-green broadly margined with buff.

Total length, $4\frac{1}{2}$in. Wing, $2\frac{1}{2}$. Tail, $1\frac{6}{8}$. Culmen, $\frac{1}{8}$.

It was dedicated to Mr. Fraser, who, I believe, was the discoverer of the species.

It is very rare in the collections.

GENUS CL. **Dnophera,** Heine., Journ. fur Ornith., 1863, p. 175.

TYPE : *T. antoniae,* Bourcier and Mulsant.

Bill twice as long as the head, slightly curved. Wings long and narrow, nearly reaching the end of tail. Rectrices of tail narrow and short, without any white on tips. Outermost shortest, the next one slightly longer, the others slightly longer and of the same length. Feet small. Sexes alike.

Habitat.—Guiana.

505. DNOPHERA ANTONIAE, Bourc. and Muls., Ann. Soc. Agr., Lyon., 1846, p. 329.

Lampornis antoniae, Bon., Consp., Gen. Av., 1850, vol. i., p. 72.

Aphantochroa antoniae, Reich., Aufz. der Col., 1853, p. 15.

Polytmus antoniae, Gray, Gen. Birds, vol. i., p. 108.

Threnetes antoniae, Gould, Mon. Troch., vol. i., p. 15.

Glaucis antoniae, Muls., Hist. Nat. Ois. Mou., 1873, vol. i., p. 46.

Sooty Barbed-throat, Gould, Mon. Troch., vol. i., p. 15.

Le Glaucis d'Antonie, Muls., Hist. Nat. Ois. Mou., 1873, vol i., p. 46.

Habitat.—Guiana.

Male.—Upperside shining greenish-bronze. Tail dark shining green-bronze, darker at tips. Chin and upperpart of throat black. Rest of throat and breast dark shining bronzy-green, passing to brown on flanks, abdomen, and undertail-coverts. Maxilla black. Mandible flesh colour with black tips.

Total length, $4\frac{2}{8}$in. Wing, $2\frac{2}{8}$. Tail, $1\frac{1}{2}$. Culmen, $1\frac{2}{8}$.

Female.—Upperside bronzy-reddish-green. Rectrices of tail wider than in the male and very slightly margined with buffy-gray. Chin brownish-black in the centre, pale brown on the sides. A small buffy-bronze spot in the centre of throat, just under the black of the chin. Underside bronzy-green, with lower parts of flanks and abdomen pale brown.

Same size as the male.

This very rare species was dedicated by Messrs. Bourcier and Mulsant to Mrs. Antonie Perroud, whose husband was a liberal patron of Science.

Genus CLI. **Toxateuches,** Cab. and Heine, Mus. Hein, 1860, t. iii., p. 11.

Toxoteuches, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 55.

Type: *T. guyi,* Lesson.

Bill much longer than the head, curved, and acutely pointed. Wings long, reaching the end of the third lateral rectrices. Median rectrices in males wide and longest, with a very short narrow tip. In the females this narrow tip is about three times longer. Lateral rectrices gradually longer, the fourth reaching nearly the elongated tip of the median rectrice. Outermost ones shortest. Nostrils exposed. Feet small. Sexes unlike.

Habitat.—Costa Rica, Veragua, Colombia, Ecuador and Trinidad.

506. TOXATEUCHES EMILIAE, Bourc. and Muls., Ann Soc., Agr. Lyon., 1846, p. 17.

Trochilus apicalis, Tschudi, Faun. Peruana, 1844, p. 243.

Trochilus yaruqui, Bourc., Compt. Rend., 1851, t. xxii, p. 187.

Guyornis yaruqui, Bon., Rev. and Mag. Zool., 1854, p. 249.

Toxateuches yaruqui, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 2.

Yaruquian Hermit, Gould, Mon. Troch., vol. i., p. 27.

Le Phaethornis d'Emilie.

Habitat.—Costa Rica, Veragua, Colombia, and Ecuador.

Male.—Upperside dark shining green. Superciliary stripe and one at base of mandible buff. Uppertail-coverts shining blue. Tail shining blue at base, then black. Central feathers tipped with white. Underside dark shining green all over in very old males, in others dark slaty-gray on breast, abdomen, and flanks. Undertail-coverts shining bronzy-blue, edged with white. Wings purplish-black. Maxilla black. Mandible flesh-colour with black tip.

Total length, $5\frac{1}{2}$in. Wing, $2\frac{2}{8}$. Tail, $2\frac{1}{2}$. Culmen, $1\frac{6}{8}$.

Female.—Upperside dark shining-green, brown on head. Uppertail-coverts shining blue, edged with white. Centre of throat, stripe behind the eye, and one from maxilla running under the ear-coverts, buff. Rest of underside slaty-gray, passing to buff on the abdomen. Lateral rectrices with tips margined with white, as are also the long tips of central feathers. Size and rest of plumage like the male.

I have collected both sexes of this species in Costa Rica, in 1877. I have also some specimens collected by Arcé, in Veragua, by Buckley, in Ecuador, one specimen collected by Whitely, at Huiro, Peru, and others from Colombia. To me there is no doubt whatever that *P. yaruqui*, is identical with this species, and I believe that *P guyi* will probably turn out to belong also to the same species.

507. TOXATEUCHES GUYI, Less., Hist. Troch., 1831, t. xliv., p. 119.

Guyornis typus, Bon., Rev. and Mag., Zool., 1854, p. 249.

Guy's Hermit, Gould, Mon. Troch., vol. i., p. 26.

Le Phaethornis de Guy, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 58.

Habitat.—Trinidad.

Male and Female.—Exactly the same as the preceding species, from which it differs only by the green of the upper-tail-coverts, and base of rectrices.

GENUS CLII. **Phaethornis,** Swainson, Zool., Journ., 1827, p. 357.

PHRETHORNIS, Boiè, Isis, 1831, p. 548.

PHAETHORNIS, Less., Ind. Gen. and Syn., 1832, p. 14.

PTYONORNIS, Reich., Aufz. der Colib., 1853, p. 14.

TYPE: *T. superciliosus,* Linné.

Bill curved, much longer than the head, slender and terminating with a sharp point. Wings long and pointed. Tail cuneate or rounded. Median pair of rectrices twice longer than the longest lateral, and always tipped with white in both sexes. Nostrils exposed. Feet small. Tarsi bare. Sexes similar.

Habitat.—Mexico to Bolivia on the Pacific, and to South Brazil on the Atlantic.

508. PHAETHORNIS SUPERCILIOSUS, Linné, Syst. Nat., 1766, t. i., p. 189.

Brin blanc, Vieill., Ois. Dor., 1802, t. i., p. 37.

Trochilus malaris, Norden., Erm. Reise. Alt., 1835, pl. 2.

Cayenne Hermit, Gould, Mon. Troch., vol. i., p. 17.

Le Phaethornis à bande sourcillère, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 62.

Habitat.—Guiana.

Male.—Upperside dark shining greenish bronze, all the feathers of the rump and uppertail-coverts bronze, then black edged with rufous, the base of feathers pale gray. Tail

shining bronze at base, followed by bronzy-black, and tipped with pale buff. Central rectrices, twice as long as the longest of lateral, bronze at base, then black, the remaining part beyond the lateral white, and rounded at tips. Chin dark bronze, black in certain lights. Rest of underside brown changing to pale buff on the abdomen. Undertail-coverts pale bronze in the centre, and margined with pale buff. Stripe over the eye, spot behind, and one from the maxilla running under the eye pale buff. Ear coverts brownish-black. Wings purplish-brown. Maxilla black. Mandible flesh-colour, probably red in life, with black tip.

Total length, $6\frac{6}{8}$in. Wing, $2\frac{1}{2}$. Tail, $3\frac{2}{8}$. Culmen, $1\frac{5}{8}$.

Female.—Similar to the male but slightly paler and smaller.

All the specimens of this species that I have seen were from Guiana. It is the largest species of the genus.

509. PHAETHORNIS EURYNOME, Lesson, Troch, 1831, t. xxxi., p. 91.

Phaethornis melanotis, Reich., Troch. Enum., 1855. p. 12.

Eurynome Hermit, Gould, Mon. Troch., vol. i., p. 16.

Le Phaethornis d'Eurynome, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 81.

Habitat.—Brazil.

Male.—Head blackish-brown, each feather margined with rufous. Upperside, including uppertail-coverts, shining bronze-green, then black, edged with pale rufous, and giving to that part a scaly appearance. Tail bronze at base, then black with white tips. Centre of throat black, margined with rufous. A buff line behind the eye and under the cheeks and ear coverts black. Breast grayish-brown, rest of underside pale buff. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, 6in. Wing, $2\frac{1}{2}$. Tail, $2\frac{7}{8}$. Culmen, $1\frac{1}{2}$.

Female.—Upperside like the male, but greener on back and wing-coverts. Chin rufous with black or brown in the centre of feather. Slightly smaller than the male.

Dedicated by Lesson to Eurynome, mother of the three Graces.

510. PHAETHORNIS LONGIROSTRIS, Less. and Delatt., Echo du Monde, Savant, 1843, p. 1070.

Trochilus cephalus, Bourc. and Muls., Rev. Zool., 1848, p. 269.

Ptyonornis cephala, Reich., Aufz. der Col., 1853, p. 14.

Phaethornis cassini, Lawr., Ann., N.Y. Lyc., Nat. Hist., vol. viii., p. 347.

Mexican Hermit, Gould, Mon. Troch., v. i., p. 19.

Le Phaethornis céphale, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 65.

Habitat.—Mexico, Guatemala and Costa Rica.

Male.—Head brownish-black. Upperside golden-green, passing to golden-rufous on rump and uppertail-coverts, each feather margined with brownish-black, the rufous of the under-tail-coverts very apparent. Tail bronze at base, then black tipped with pale buff. Median rectrices bronze at base, then brownish-black, with tips pure white for nearly their entire length beyond the laterals. Wings purplish-brown. Gular stripe buff, passing to grayish-white on breast. Stripe over the eye and one from the maxilla going under the eye and ear-coverts pale buff. Ear-coverts black. Rest of underside pale buffy-brown, paler on breast and pale buff on vent and flanks. Near the gular stripe of chin the pale buff feathers are washed with black. Undertail-coverts pale buff. Maxilla black. Mandible flesh colour, with black tip.

Total length, 6in. Wing, $2\frac{1}{2}$. Tail, $2\frac{7}{8}$. Culmen, $1\frac{1}{2}$.

Female.—Underside lighter in colour than the male, and slightly smaller.

This species was probably discovered in Guatemala, by Delattre. I am surprised that Elliot, in his Synopsis of the Humming Birds, says that it is hardly separable from *P. superciliosus.* They are quite distinct and impossible to confuse.

511. PHAETHORNIS PANAMENSIS, Boucard, Hum. Bird, 1892, p. 83.

Panama's Hermit.

Le Phaethornis de Panama.

Habitat.—Panama and Veragua.

Male.—Very closely allied to the preceding species, from which it is only to be distinguished by the darker colour of the underside, the gular stripe and the tips of rectrices, which are deep buff.

I discovered this species in Panama, in January, 1877. I have also some specimens collected at Agua Dulce, Veragua.

512. PHAETHORNIS CONSOBRINUS, Bourcier, M.S., Reich., Aufz. der Colib., 1853.

Phaethornis moorei, Lawr., Ann. Lyc. Nat. Hist., N.Y., vol. iv., p. 259.

Columbian Hermit.

le Phaethornis de Colombie.

Habitat.—Colombia, Ecuador.

Male.—Upperside bronzy-green, darker on the head, the undertail-coverts margined with rufous. Tail bronze at base, then brownish-black with white tips. Gular strike, one from the maxilla going under the ear-coverts and line behind the eye pale rufous. Ear-coverts brownish-black. Underside grayish-brown with bronzy tinge passing to pale rufous on the abdomen. Undertail-coverts grayish-white. Maxilla black. Mandible flesh colour with black tip.

Total length, $5\frac{6}{8}$in. Wing, $2\frac{1}{2}$. Tail, 3. Culmen, $1\frac{5}{16}$.

Female.—Like the male but slightly smaller.

513. PHAETHORNIS GUIANENSIS, Boucard, H. Bird, 1891, vol. i., p. 17.

Guiana Hermit.

Le Phaethornis de la Guyane.

Habitat.—Guiana and Trinidad.

Male.—Upper surface golden with purple reflections. These purple reflections exist only in the type of the species, others which I have received since are golden, then bordered with black, and with rufous edges. Wings purple. Tail bronze at base, then purplish-black, edged with white; the lateral rectrices are very pointed. Median rectrices bronze at base, then black, passing to brown and tipped with white or pale rufous. Gular strike, one from the maxilla going under the ear-coverts, line behind the eye, breast and abdomen pale buff,

darker on sides of the gular strike. Undertail-coverts whitish-gray. Maxilla black. Mandible coral colour, with black tip.

Total length, 6½in. Wing, 2½. Tail, 3. Culmen, 1½.

Female.—Coloured like the male, but paler.

Types in Boucard's Museum.

I have some specimens of this species from Trinidad, Demerara, Bartica Grove, Meriame Mountains, and Quoya, collected by Mr. H. Whitely and others.

By the colour of the underside, which approaches that of *P. syrmatophorus,* this species is easily recognisable.

514. PHAETHORNIS BOLIVIANA, Gould, Int. Troch., p. 42.

Bolivian Hermit.

Le Phaethornis de la Bolivie.

Habitat.—Bolivia.

Male.—This species is closely allied to the preceding one in the colouration of the upperside and underside; but can be easily distinguished by the following characters:—Median rectrices bronzed at base, then brown with white tips. Lateral and outermost rectrices bronze at base, then brownish-black, margined and tipped with rufous. Undertail-coverts rufous.

I have only one specimen of this rare species. It was collected, in Bolivia, by Buckley.

515. PHAETHORNIS SYRMATOPHORUS, Gould, Contr. Ornith.. 1851, p. 139.

Phaethornis columbianus, Boucard, H. Bird, 1891, vol. i., p. 17.

Train-bearing Hermit, Gould, Mon. Troch., vol. i., p. 20.

Le Phaethornis syrmatophore, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 68.

Habitat.—Peru, Ecuador and Colombia.

Male.—Head brownish-black. Upperside shining golden-green, edged with buff, especially on the rump. Uppertail-coverts deep buff. Median rectrices greenish-bronze at base, passing to brownish-black, with the elongated tips white. Gular stripe white, margined with blackish-brown. Stripe over the eye,

and one from the maxilla going under the cheeks and ear-coverts, buff. Auriculars black. Underside buff, with the central lower part of abdomen and vent white. Lateral rectrices greenish-bronze at base, passing to bluish-black and largely tipped with deep buff. Wings purplish-brown. Maxilla black. Mandible orange red, with black tip.

Total length, 6in. Wing, $2\frac{1}{2}$. Tail, $2\frac{6}{8}$. Culmen, $1\frac{11}{16}$.

This rare species was discovered near Quito, by Professor Jameson.

After a careful comparison between the specimen, which I described in the Humming Bird under the name of *P. columbianus,* I have come to the conclusion that my typical specimen is probably a young male of *P. syrmatophorus.*

516. PHAETHORNIS BERLEPSCHI, Ernst. and Hart., Novit. Zool., vol. i., 1894, p. 14.

Berlepsch's Hermit.

le Phaethornis de Berlepsch.

Habitat.—Ecuador.

Slightly smaller than *P. syrmatophorus,* the middle of the abdomen not distinctly white, the rump like the back and the uppertail-coverts of a rich ochraceous-buff, the feathers of the upper parts are much more distinctly margined with buff than is the case in *P. syrmatophorus.*

Length of Wing 2·2 to 2·4 in. Tail 2·7 to 2·8. Culmen 1·5 to 1·6.

Type in Museum Rotschild.

Although I have not seen the bird, it seems to me that it is a very doubtful species.

517. PHAETHORNIS ANTHOPHILUS, Bourc., Rev. Zool., 1843, p. 71.

Pallid Hermit, Gould, Mon. Troch., vol. i., p. 24.

Le Phaethornis antophile, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 83.

Habitat.—Colombia and Venezuela.

Male.—Upperside shining green in some specimens, golden-green in others, darker on the head. Uppertail-coverts bronzy-green, margined with buff. Tail pale shining green at

base, passing to dark brown near the tip which is white. In the outermost rectrices there is a subterminal black bar near the tip. Chin white spotted with black, rest of underside grayish-white tinged with very pale buff on sides of breast, flanks and on the abdomen. Stripe over and behind the eye buffy-white. Auriculars black. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, $5\frac{2}{8}$in. Wing, $2\frac{3}{8}$. Tail, $2\frac{2}{8}$. Culmen, $1\frac{1}{2}$.

In some of my specimens, the chin is of the same colour as the rest of the underside, without any black spots. Perhaps they are females?

518. PHAETHORNIS HISPIDUS, Gould, P.Z.S., 1846, p. 90.

Trochilus oseryi, Bourc. and Muls., Ann. Soc. Agri., Lyon, 1852, vol. iv., p. 139.

Ptyonornis hispida, Reich., Aufz. der Colib., 1853, p. 14.

Ametrornis oseryi, Reich., Aufz. der Colib., 1853, p. 14.

Orthornis oseryi, Bon., Rev. and Mag. Zool., 1854, p. 249.

Phaethornis villosus, Lawr., Ann. N.Y. Lyc., Nat. Hist., vol. vi., p. 259.

Hairy Hermit, Gould, Mon. Troch., vol. i., p. 22.

D'Osery's Hermit, Gould, Mon. Troch., vol. i., p. 23.

le Phaethornis hispide, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 71.

Habitat.—Colombia to Bolivia.

Male.—Upperside shining dark green. Uppertail-coverts bronzy-green with a black or gray bar and margined with white or pale rufous. Tail silvery green at base, passing to bronzy-brown and tipped with white. Above and behind the eye a line of white. Underside brownish-gray passing to white on abdomen and flanks. In the centre of throat a white line nearly reaching the abdomen. Undertail-coverts white with the centre brownish-green. Wings purple-brown. Maxilla black. Mandible flesh-colour with black tip.

Total length, $5\frac{1}{2}$in. Wing, $2\frac{3}{8}$. Tail, $2\frac{1}{4}$. Culmen, $1\frac{2}{8}$.

Female.—Coloured like the male but the underside paler gray with a yellowish tinge on sides of neck and breast.

I have one fine specimen from Peru, which has the upper-parts bronzy-green, the bill more curved, smaller, and thinner

and the wings shorter. That is the bird named *P. oseryi* by Bourcier and Mulsant. This species was first collected by d'Orbigny, but remained undescribed until 1852. Gould described the species in 1841, from specimens collected by Bridges, in Peru and Colombia.

GENUS CLIII. **Ametrornis,** Reich., Aufz. der Col., 1853, p. 14.

AMETRORNIS, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 85.

TYPE: *T. bourcieri,* Lesson.

Bill straight, acutely pointed, much longer than the head. Wings long and pointed, reaching the tips of lateral rectrices. Median rectrices wide at base, with elongated narrow tips, wider and rounded at the end. Lateral rectrices wide, gradually longer from the outermost to the last, and pointed at tips. Nostrils exposed. Feet small. Sexes similar.

Habitat.—Guiana, Peru and Bolivia.

519. AMETRORNIS BOURCIERI, Less. Troch., 1832, p. 62.

Ametrornis abnormis, Reich., Journ. fur Ornith., 1853, p. 14.

Orthornis bourcieri, Bon., Rev. and Mag. Zool., 1854, p. 249.

Phaethornis whitelyi, Boucard, H. Bird, 1891, vol. i., p. 18.

Bourcier's Hermit, Gould, Mon. Troch., vol. i., p. 25.

Le Phaethornis de Bourcier, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 86.

Habitat.—Peru, Guiana.

Male.—Upperside bronze-green, the feathers on the rump and uppertail-coverts with a sub-terminal blackish bar, and edged with rufous. Tail bronze-green at base, passing to black upwards and tinged with buff. The elongated tips of median rectrices white. Throat pure white. Rest of underside grayish buff. Wings purplish. Maxilla black. Mandible flesh colour, with black tip. Bill straight.

Total length, $5\frac{2}{8}$in. Wing, $2\frac{2}{8}$. Tail, $2\frac{6}{8}$. Culmen, $1\frac{2}{8}$.

Female.—Slightly paler underside.

Having acquired some more specimens from British Guiana since I described *P. whitelyi* in the Humming Bird, I have

come to the conclusion that it is only a darker variety of *P. bourcieri*. It is also the opinion of Count Berlepsch. This rare species was dedicated by Lesson to the late Jules Bourcier, a celebrated collector of Humming Birds in Ecuador, where he resided many years as French Consul, and a well known author on Trochilidae.

*520. AMETRORNIS PHILIPPI, Bourcier, Ann. Soc. Agr. Lyon., 1847, p. 623.

Trochilus filippi, Bourc., Rev. Zool., 1847, p. 401.

Orthornis de filippii, Bon., Rev. and Mag. Zool., 1854, p. 249.

Ametrornis de filippi, Reich., Aufz. der Col., 1853, p. 14.

De Philippi's Hermit, Gould, Mon. Troch., vol. i., p. 21.

Le Phaethornis de Filippi, Muls., Hist. Nat. Ois. Mou., 1874, t. i., p. 88.

Habitat.—Bolivia.

Head and back bronzy-green. Uppertail-coverts shining green with a subterminal dark brown bar and largely tipped with dark rufous, this last colour giving the predominent hue to this part. Wings purplish-brown. Entire under parts rich dark buff. The median rectrices have the base bronzy-green, graduating into brownish-black with their elongated tips white. Lateral and outermost ones shining bronze-green at base followed with a broad black bar, and tipped with rufous. Bill straight. Maxilla black. Mandible flesh-colour tip brown.

Total length, $5\frac{3}{4}$in. Wing, $2\frac{3}{8}$. Tail, $2\frac{3}{4}$. Culmen, $1\frac{1}{4}$.

"Elliot's Syn. of the H. Birds, page 12."

I believe it is still unique in Elliot's Museum, now in the American Museum of Natural History of New York.

GENUS CLIV. **Milornis,** Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 77.

TYPE: *T. squalidus,* Temminck.

Bill longer than the head, slightly curved, and acutely pointed. Wings long and narrow, reaching nearly the tips of the fourth lateral rectrice. Outermost rectrice shortest, laterals gradually longer. Medians pointed with elongated

tip nearly twice the length ol the longest lateral. Feet small. Sexes similar.

Habitat.—Brasilia and Guiana.

521. MILORNIS SQUALIDUS, Temm., Pl. Col., 1823. 120 fig. 1.

Phaethornis leucophrys, Gray, Gen. Birds, vol. i., p. 104.

Phaethornis brasiliensis, Gray, Gen. Birds, 1844-49, vol. i., p. 104.

Trochilus leucophrys, Licht., Nordm., Reis. Att., p. 2.

Phaethornis intermedius, Gould, Mon. Troch., vol. i., p. 30.

Ptyonornis intermedia, Reich., Aufz. der Col., p. 14.

Middle-sized Hermit, Gould, Mon. Troch. vol. i., p. 30.

Le Phaethornis squalide, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 78.

Le Milornis squalide.

Habitat.—Brazil.

Male.—Upperside bronze with the base of feathers brown, slightly darker on head. Median rectrices shining bronze-green passing into brownish-black close to the elongated tip, which is white. Lateral and outermost ones bronze-green at base, passing to brownish-black and tipped with buff. The lateral rectrice next to the median has generally a white tip. Underside dark grey-buff, darker on breast and flanks. Throat striated with brownish-black. Line over and behind the eye, and another under the ear-coverts buff. Auriculars black. Wings purple. Maxilla black. Mandible flesh-colour with black tip.

Total length, $4\frac{1}{2}$in. Wing, $1\frac{7}{8}$. Tail, $2\frac{2}{8}$. Culmen, $\frac{7}{8}$.

Female.—Like the male with the uppertail-coverts bronzy-green, and broadly margined with rufous. Underside buff, slightly lighter than in the male.

This species was discovered in Brazil, by Natterer.

522. MILORNIS RUPUNUNII, Boucard.

Phaethornis rupurumii, Boucard, H. Bird, vol. ii., p. 1.

Rupununi's Hermit.

le Milornis de Rupunini.

Habitat.—Rupunini River (British Guiana.)

Male.—Upperside pale golden-green, brownish on head. Uppertail-coverts golden-green, with rufous edges. Throat black. Lines under and above the eyes, pale rufous. Ear coverts black. Breast, abdomen, and flanks rufous-gray. Undertail-coverts white. Median rectrices bronze-green, paler near the tips, which are white, the next one of the same colour with the edges near the tip, and the tip white. Rest of lateral and outermost ones bronze at base, then purplish-black with white tips. Wings purplish-brown. Maxilla black. Mandible flesh colour for two-thirds of its length, the rest black.

Total length, $4\frac{2}{8}$in. Wing, $1\frac{6}{8}$. Tail, 2. Culmen, 1.

Type in my collection.

This pretty species was discovered by Mr. H. Whitely on the river Rupununi, not Rupurumi, as formerly stated; hence the change of orthography in the name of this species.

*523. MILORNIS NATTERERI, Berlepsch, Ibis, 1887, p. 290.

Phaethornis nattereri, Berlepsch, Ibis, 1887, p. 290.

Phaethornis longuemareus, Pelz., Orn. Bras., p. 27.

Natterer's Hermit.

le Milornis de Natterer.

Habitat.—Matogrosso, Brazil.

Ph. longuemarei affinis, differt rectricibus omnibus imprimis externis multo angustioribus intermediis inter apicem album et basin pallidius bronzinum griseo-brunneis (nec nigrescentibus) submediis ante apicem album laete rufis, externis apice et extus latissime rufis, corpore subtus pallidiore, nigredine gulae vel nulla vel inconspicua; tectricibus subcaudalibus fulvis, nec albis, supracaudalibus fere unicoloribus badio rufis.

Long tot. circ., 100, al., 48-$45\frac{3}{4}$, rect. intermed., 47-44, submed., $34\frac{1}{2}$-34, extern., $20\frac{1}{2}$-$18\frac{3}{4}$, rostr., $24\frac{3}{4}$-$22\frac{3}{4}$ m.m.

This species was discovered by Natterer, and confused with *P. longuemarei.* The most important point of distinction seems to consist in the form of the tail feathers, which in *Ph. nattereri* are rather narrow, while they are usually broad in *P. longuemarei.* The colouration of the tail is also different, the two middle feathers being pale brownish-gray

in their middle portion, not blackish as in *P. longuemarei* and presenting a paler bronze tint to their bases. The next following pair of rectrices possess a great amount of rufous on the outer webs, and a slight suffusion on the inner web, before the white tips. In *P. longuemarei* there is none or but little rufous tint on the submedian tail feathers.

The outer tail feathers in *P. nattereri,* possess very long rufous tips; in *P. longuemarei,* there is a narrow white or rufous border to the tip. The middle portion of these rectrices in *P. nattereri,* is only slightly tinged with violaceous on the inner web, while they are altogether blacker for a long distance on both webs in *P. longuemarei.* Besides, the underparts of the body are of a paler fulvous, the jugulum only being slightly suffused with rufous. The throat does not show the large black spots so conspicuous in *P. longuemarei.* In *P. nattereri,* they are either completely wanting or invisible except at the extreme bases when the feathers are raised. The top of the head is a paler sandy rufous-brown The uppertail-coverts are nearly uniform dark rufous with no trace of the green spots to be seen there in the other species. The black tip of the mandible is reduced to a minimum, being much shorter than in *P. longuemarei.* *P. apheles* Heine comes very close, this species differing only by the pure black and broad sub-apical band to the outer tail feathers and in its shorter wings.

*524. MILORNIS APHELES, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 8.

Phaethornis apheles, Cab. and Heine, Mus. Hein., 1860, t. iii., p. 8.

Habitat.—Brasilia?

Adult.—Very similar to *M. nattereri,* from which it differs only by the pure black and broad sub-apical band to the outer tail feathers, and its shorter wings.

Very doubtful species.

525. MILORNIS LONGUEMAREI, Less. Troch., 1831, p. 15,

Phaethornis longuemareus, Gray, Gen. Birds, vol. i., p. 104.

Phaethornis intermedius, Bon., Consp. Gen. Av., 1850, p. 67.

Pygmornis longuemareus, Cab. and Hein., Mus. Hein, 1860, t. iii., p. 7.

Longuemare's Hermit, Gould, Mon. Troch., vol. i., p. 31.

Le Phaethornis de Longuemare, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 100.

Le Milornis de Longuemare.

Habitat.—Guiana and Trinidad.

Male.—Head dark-brown. Upperside bronzy-brown, margined with buff on lower part of uppertail-coverts. Median rectrices bronze, passing into brown near the tips, which are white. Lateral and outermost ones, bronzy at base, passing into blackish-brown, slightly margined at tip with buffy-white. Superciliary stripe, and one from the base of maxilla buff. Lores and ear-coverts black. Chin and upper part of throat black. Underside buff, lighter on the abodmen, and flanks. Undertail-coverts buff in some specimens, nearly white in others. Wings purple. Maxilla black. Mandible flesh-colour for two-thirds of its length, rest black.

Total length, $3\frac{7}{8}$in. Wing, $1\frac{6}{8}$. Tail, $1\frac{5}{8}$. Culmen, $\frac{15}{16}$.

Female.—Differs from the male in not having scarcely any black on the chin and on the upper part of breast. Median rectrices longer than in the male, and broadly tipped with white.

Dedicated to Mr. Longuemare, by Lesson.

*526. MILORNIS CHAPADENSIS, Allen, Bull, Amer., Mus., Nat. Hist., 1893, p. 122.

Pygmornis chapadensis, Allen, Bull, Amer., Mus., Nat. Hist., 1893, p. 122.

Chapada Hermit.

Le Milornis de Chapada.

Similar to *P. longuemareus,* but much paler in all parts. The bronzy-green of the back is much paler; the rump and uppertail-coverts are rusty-buff instead of rufous; the middle tail feathers are more attenuated, their basal portion lighter bronze-green and less dusky and the light apical portion longer and whiter; the lower parts are strong buff rather than rufous; the chin is only slightly dusky instead of blackish; the lowertail-coverts are buff instead of white, and the outer vanes of the outer tail feathers are strong rusty-buff, which colour also occupies the apical portions of the inner vanes.

Bill dusky, the lower mandible whitish for the greater part of its length.

Wing, 1·20 in. Tail, 1·75. Bill, 1·10.

Type, and only specimen, male adult, collected at Chapada, Matto Grosso, Brazil, by Mr. H. H. Smith.

*527. MILORNIS IDALIAE, Bourc. and Muls., Ann. Soc. Linn. Lyon., 1856, vol. iii., p. 187.

Phaethornis obscura, Gould, P.Z.S., 1857, p. 14.

Pygmornis obscura, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 7.

Phaethornis viridicaudata, Gould, Mon. Troch., vol. i., p. 33.

Pygmornis aspasiae, Gould, Int. Troch., 1861, p. 47.

Obscure Hermit, Gould, Mon. Troch., vol. i., p. 38.

Le Pygmornis d'Idalie, Muls. Hist. Nat. Ois. Mou., 1874, t. i., p. 91.

Le Milornis d'Idalie.

Habitat.—Brazil.

Head dark brown above; upper surface shining green. Wings purple Buff stripe behind the eye ; ear-coverts black. Buffy-white stripe along the side of the throat. This last is black becoming chestnut on the breast, dark gray on the abdomen, and white on the vent. Undertail-coverts grayish-white. Tail dark bronze tipped with white. Maxilla black. Mandible flesh-colour, tip brownish-black.

Total length, $3\frac{3}{8}$in. Wing, $1\frac{3}{8}$. Tail, $1\frac{1}{4}$. Culmen, $\frac{5}{8}$.

Female.—Throat and underparts buff, palest on abdomen. Tail bronze-green passing into blackish-brown with white tips.

" Elliot's Synopsis of H. Birds, page 19."

According to Mulsant, this species was discovered by Mr. Chabrillac.

GENUS CLV. **Eremita,** Reich., Aufz. der Col., 1853, p. 14.

PYGMORNIS, Bon., Rev. and Mag. Zool., 1854, p. 250.

MOMUS, Muls. and Verr., Class. Troch., 1865, p. 18.

PYGORNIS, Muls. and Verr., Class. Troch., 1865, p. 17.

TYPE: *T. pygmacus,* Spix.

Bill much longer than the head, slender, slightly curved, and accutely pointed; mandible flesh colour or red at base for half its length, remainder black. Wings short, reaching the end of second lateral rectrice. Outermost one the shortest, the others gradually lengthening, median rectrice not much longer than the last lateral. Nostrils exposed. Sexes similar.

Habitat.—Mexico, Central America, Colombia, Venezuela, Guiana, Brazil, Eucador, and Peru.

528. EREMITA PYGMAEA, Spix., Av. Bras., 1824, p. 78.

Phaethornis rufigaster, Less., Colibris. 1831, p. 43.

Trochilus davidianus, Less., Troch., 1832, p. 50.

Trochilus brasiliensis, d'Orb and Lafr., Syn. Av., 1828, t. ii., p. 32.

Phaethornis davidianus, Gray, Gen. Birds, 1848, vol. i., p. 108.

Phaethornis eremita, Bon., Consp., Gen. Av., 1850, vol. i., p. 68.

Pygmornis davidianus, Bon., Rev., and Mag. Zool., 1854, p. 250.

Pygmornis rufiventris, Bon., Rev. and Mag. Zool., 1854, p. 250.

Pygmy Hermit, Gould, Mon. Troch., vol. i., p. 41.

Le Pygmornis pygmée, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 106.

l'Hermite pygmée.

Habitat.—Brazil, Guiana?

Male.—Upperside bronzy-brown, darker on head. Lower parts of rump and uppertail-coverts deep bnff. Tail bronzy-brown tipped with buff. Chin white. Ear-coverts black. A buff stripe over and behind the eye. Rest of underside deep buff. In the middle of the lower part of breast a line, or a black spot. Wings purplish-brown. Maxilla black. Mandible flesh colour for half its length, rest black.

Total length, $3\frac{1}{2}$in. Wing, $1\frac{1}{4}$. Tail, $1\frac{3}{8}$. Culmen, $\frac{7}{8}$.

Female.—Slightly paler in colouration.

529. EREMITA NIGROCINCTA Lawr., Ann. Lyc. Nat. Hist., N.Y., 1858, vol. vi., p. 260.

Pygmornis nigrocincta, Cab. and Hein., Mus., Hein., 1860. t. iii., p. 7.

Belted Hermit, Gould, Mon. Troch., vol. i., p. 39.

l'Hermite à ceinture noire.

Habitat.—Pebas, Upper Amazons.

Probably the same as *Eremita pygmaea.* According to modern authors, Elliot, Salvin, Mulsant and others, the only difference is in the colour of the mandible which is flesh colour for nearly all its length with the tip black.

530. EREMITA EPISCOPUS, Gould, P.Z.S., 1857, p. 14.

Pygmornis episcopus, Gould, Int. Troch., p. 48.

Bishop's Hermit, Gould, Mon. Troch., vol. i., p. 40.

l'Hermite évêque.

Habitat.—Guiana.

Precisely like *E. pygmaea,* but the bill is slightly longer, and the tail feathers are reddish-bronze with brown edges and tips.

531. EREMITA WHITELYI, n. sp.

Whitely's Hermit.

l'Hermite de Whitely.

Habitat.—British Guiana.

Female.—Head brownish-black, margined with rufous. Upperside bronzy-green. Lower part of rump and uppertail-coverts deep buff. Median rectrices shining reddish-bronze at base, passing to purplish-black, then buff with pale yellowish white tips. Lateral and outermost ones reddish-bronze at base, passing to reddish-purple with broad buff tips. Line in the centre of chin and ear-coverts black. Spot over and behind the eye pale buff. Throat pale buff. Rest of underside buff, deeper on breast. Wings purple. Maxilla and apical half of mandible black, the rest flesh colour.

Total length, $3\frac{5}{8}$in. Wing, $1\frac{1}{2}$. Tail, $1\frac{5}{8}$. Culmen, $\frac{15}{16}$.

Type in my collection.

This new species was discovered by the late Mr. H. Whitely

in Canela Mountains, British Guiana, and I dedicate it to his memory.

532. EREMITA GRISEIGULARIS, Gould, P.Z.S., 1851, p. 115.

Pygmornis griseigularis, Bon., Rev. and Mag. Zool., 1854, p. 250.

Trochilus aspasiae, Bourc. and Muls., Ann. Soc. Lynn., Lyon, vol. iii., p. 188.

Phaethornis zonura, Gould, P.Z.S., 1860, p. 305.

Gray Throated Hermit, Gould, Mon. Troch., vol. i., p. 36.

Le Pygmornis à gorge grise, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 96.

l'Hermite à gorge grise.

Habitat.—Colombia.

Male.—The only differences between this species and *E. pygmaea* are: the grayish colour of the chin, and the colour of the median and lateral rectrices which are bronze at base, passing to brownish-black; the medians are tipped with white, the lateral and outermost ones with rufous. What Gould described as a black crescent across the breast must have been a place without feathers, showing the black base of the feathers. Many specimens from Bogota, in consequence of their bad skinning, show that black crescent.

533. EREMITA STRIIGULARIS, Gould, Mon. Troch., vol. i., p. 37.

Pygmornis amaura, Bourcier, Rev. Zool., 1856, p. 522.

Phaethornis atrimentalis, Lawr., Ann. Lyc. Nat. Hist., N.Y., vol. vi., p. 260.

Stripe-throated Hermit, Gould, Mon. Troch., vol. i., p. 37.

Le Pygmornis à gorge striée, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 97.

l'Hermite à gorge striée.

Habitat.—Colombia and Ecuador.

Male.—Upperside bronze, darker on head. Rump and uppertail-coverts rufous. Median rectrices shining greenish-bronze passing to gray near the tips which are white. Lateral and outermost ones greenish-bronze slightly margined with white on tips, the two outermost ones with tips slightly margined with pale buff. Above and behind the eye and a line

from maxilla passing under the ear-coverts pale buff. Ear-coverts black. Throat and breast gray, striated with brownish-black on chin and throat. Abdomen and flanks deep buff. Undertail-coverts pale buff, nearly white in some specimens. Wings purple. Maxilla black. Mandible flesh-colour at base, rest black.

Total length, $3\frac{5}{8}$in. Wing, $1\frac{1}{2}$. Tail, $1\frac{5}{8}$. Culmen, $\frac{7}{8}$.

Female.—Underside paler gray on breast, and paler buff on abdomen and flanks.

*534. EREMITA RIOJAE, Berlepsch, Ibis., 1889, p. 182.

Peruvian Hermit.

l'Hermite péruvien.

Habitat.—Rioja, Peru, septentr.

Male. — *P. striigulari* affinis, sed major; differt etiam corpore subtus rufescentiore, et gula superiore nigrescentiore; rectricum externarum apicibus subtilissime albo marginatis (nec late fulvo apicatis), tectricibus subcandalibus pure albis nec fulvescentibus; macula pectorali fere ut in *P pygmaeo* e plumis latis nigro-viridibus (in *P. striigulari* omnino absentibus.)

Long, tota, 110; al, $44\frac{1}{2}$; rectr intermed, $41\frac{1}{2}$, submed, $36\frac{1}{2}$, extern, $22\frac{1}{2}$, rost culm, $23\frac{1}{2}$ mm.

Type of species, Museum Berlepsch.

Discovered in May, 1887, by Mr. Gustav Garlepp. This is evidently a new species of Phaethornis, nearly allied to, but easily distinguishable from *P. striigularis* by its larger size, blacker throat, deeper fulvous abdomen, pure white (not fulvous) undertail-coverts, and narrow white borders instead of broad fulvous tips to the outer tail-feathers. The feathers in the middle of the breast are broad and greenish black, they form a tuft somewhat as in the male of *P. pygmaeus* and its allies, while such a tuft is altogether wanting in *P. striigularis.*

535. EREMITA ADOLPHI, Gould, Mon. Troch., vol. i., p. 35.

Pygmornis adolphi, Cab. and Hein., Mus. Hein., 1860, t. iii., p. 7.

Adolphe's Hermit, Gould, Mon. Troch., vol. i., p. 35.

Le Pygmornis d'Adolphe, Muls., Hist. Nat. Ois. Mou., 1874, vol. i., p. 102.

Habitat.—Mexico, Guatemala, and Costa Rica.

Male.—Upperside bronzy-green, darker on head, and with a rufous tinge all over. Uppertail-coverts bronze, broadly edged with rufous. Tail bronze, medians tipped with white, lateral and outermost ones narrowly tipped with buff. Line over and behind the eye, and one from maxilla passing under the eye pale buff. Auriculars black. Throat and breast grayish-buff, paler in the middle of breast, dark buff on abdomen and flanks. Undertail-coverts buff. Wings purplish-brown. Maxilla black. Mandible flesh-colour from base to half its length, rest black.

Total length, $3\frac{6}{8}$in. Wing, $1\frac{1}{2}$. Tail, $1\frac{5}{8}$. Culmen, $\frac{6}{8}$.

Female.—Slightly paler in colouration.

This species was discovered at Tospam, near Cordoba, by myself and Sallé during our joint voyage in Mexico, and was dedicated to me by Gould.

It is this species which is abundant in the forests near Tospam and elsewhere, and which perch on the low branches of bushes near the ground. In the breading season the male is perched near the nest of its mate and sings to her during the best part of the day.

GENUS CLVI. **Anisoterus,** Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 72.

TYPE : *T. pretrei,* Less. and Delattre, Rev. Zool., 1839, p. 20.

Bill much longer than the head, slightly curved, broad at base and rather stout, terminating in a sharp point. Wings moderately long reaching between the second and third lateral rectrices. Outermost rectrice very short, the next slightly longer, the third longer, the fourth six-eighths of an inch longer with elongated round tips, the medians also six-eighths of an inch longer than the fourth. The length of the third, fourth and median rectrices distinguishes this genus from the preceding ones. Nostrils exposed.

Habitat.—Brazil, Venezuela and Columbia.

536. ANISOTERUS GOUNELLII, Boucard, H. Bird, 1891, vol. i., p. 17.

Phaetornis gounellei, Boucard, H. Bird, 1891, vol. i., p. 17.

Gounelle's Hermit.

l'Hermite de Gounelle.

Habitat.—Brazil.

Male.—Head dark bronzy-green encircled by a rufous bar. Upperside bronze-green with the base of feathers buffy-gray. Uppertail-coverts bronzy-green margined with buff. Median rectrices bronze-green for nearly the whole of their length, with a narrow brownish-black subterminal bar and white tips, lateral and outermost ones green at base with a broad subterminal black bar and largely tipped with white. Line over and behind the eye pale buff, joining the rufous bar of neck. Ear-coverts black. From the maxilla a pale buff line passing into buff under the ear-coverts. A blackish line in the centre of throat. Rest of underside buff passing to buffy-white on flanks and abdomen. Undertail-coverts buff paler than that of the breast. Wings purple. Maxilla black. Mandible flesh-colour for a little over half its size, the rest black.

Total length, 4½in. Wing, 2. Tail, 2. Culmen, 1.

This species has nothing to do with *P. nattereri,* as suggested by Mr. Salvin in the Catalogue of Birds of the British Museum, vol. xvi. I sent the type to Count Berlepsch, who had the type of *P. nattereri* at the time, and, after comparison, he wrote saying that there was not the least resemblance between the two species.

537. ANISOTERUS PRETRII, Less. and Delattre, Rev. Zool., 1839, p. 20.

Trochilus superciliosus, Max. Beitr., vol. iv., p. 116.

Phaethornis pretrei, Gray, Gen. Birds, vol. i., p. 104.

Pretre's Hermit, Gould, Mon. Troch., vol. i, p. 28.

Le Phaethornis de Prêtre, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 73.

Habitat.—Brazil.

Male.—Upperside bronzy-green. Uppertail coverts buff. Median rectrices bronzy-green for two-thirds of their length, remainder white. Lateral and outermost ones shining bronzy-green at base, succeeded by a broad black bar and tipped with pure white. Throat light buff in the centre. Entire underside deep buff. Wings purple. Lines under and behind the eye buff. Maxilla black. Mandible flesh colour (coral in life) with black tip.

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GENERA OF HUMMING BIRDS, by A. BOUCARD, pages 1 to 56.

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Contents of Vol. III.

Panama—Grover Cleveland; the elected President of the United States—Dercriptions of several supposed New Species of Humming Birds, by A. Boucard—Visits to the Zoological Gardens of London, by W. Rosenberg—Paris International Exhibition of 1900—World's Columbian Exhibition—Chicago Exposition; World's Fair Notes—Relics at the Fair—Big Prizes for Live Stock—World's Fair Souvenirs—Travels of a Naturalist, by A. Boucard—Genera of Humming Birds, by A. Boucard—The Imperial Institute—Anver's International Exhibition—Royal Institution—Description of one supposed New Species of Cetonia, from Syria, by A. Boucard—How Animals are Protected Against Their Enemies, by W. Rosenberg—Abundance of Wasps—Notes on Wasps, by A. Boucard—The Ways of Wasps—Les Guêpes—Rectification of Name for Semioptera gouldi—Alligators—Destructive Insects of Victoria, by French—International Exhibitions—The late World's Fair—International Exhibition of Lyon (France)—International Exhibition of Paris, 1900—International Exhibition of Industry, Science and Art, in Hobart Town, (Tasmania)—International Exhibition in San Francisco (California).

GENERA OF HUMMING BIRDS:—

		PAGE
Genus	Oxypogon, Gould	63
,,	Eupogonus, Muls. and Verr. ...	66
,,	Lampropogon, Bon.	67
,,	Chalcostigma, Reich.	68
,,	Metallura, Gould	70
,,	Avocettinus, Bon.	77
,,	Adelomyia, Bon.	78
,,	Urosticte, Gould	81
,,	Augastes, Gould	83
,,	Phlogophilus, Gould	84
,,	Ramphomicron, Bon.	85
	LESBIDAE.	
Genus	Zodalia, Muls	87
,,	Sappho, Reich.	89
,,	Lesbia, Lesson	91
,,	Cyanolesbia, Steg.	96
,,	Neolesbia, Salv.	99
	THALURANIDAE.	
Genus	Thalurania, Gould	100

NEW SPECIES OF BIRDS AND INSECTS—

DESCRIBED IN VOL. III. OF THE HUMMING BIRD:—

AVES.—TROCHILI.

			PAGE
Metallura peruviana	Boucard	...	6
Lesbia aequatorialis	,,	...	6
Oreotrochilus bolivianus	,,	...	7
Hylocharis brasiliensis	,,	...	7
Amazilia forreri	,,	...	7
Saucerottia wellsi	,,	..	8
Uranomitra whitelyi	,,	..	8
Agyrtria speciosa	,,	..	8
Chrysuronia buckleyi	,,	..	9
Phaethornis garleppi	,,	...	9
Hemistephania guianensis	,,	...	10
Patagona peruviana	,,	Gen. H. Bird	60
Patagona boliviana	,,	Gen. H. Bird	61
Cyanolesbia meridana	,,	..	97
Cyanolesbia columbiana	,,	...	98
Thalurania valenciana	,,	..	102

INSECTA.—COLEOPTERA, CETONIDÆ.

			PAGE
Cetonia delagrangei	Boucard	..	40
Cetonia syriaca?	,,	..	40

Contents of Vol. IV.

Wonderful Discovery in Colorado (Mexico)—Recent Scientific and other Publications, with Notes by the Editor—Annual Report of the Board of Regents of the Smithsonian Institution—The Hawks and Owls of the United States in their relation to Agriculture, by A. K. Fisher—Catalogue of Birds in the British Museum, Volume XXI., Columbae or Pigeons, by T. Salvadori—Catalogue of Birds in the British Museum, Volume XXII., The Game Birds, by Olgilvie Grant—The Proceedings of the Zoological Society of London, Part IV., 1892, and Parts I., II., and III., 1893—Zoological Record, Vol. XXIX., edited by Doctor Sharp—The Ibis, Sixth Series, Vol. V., edited by Philip Lutley Sclater—The Ibis, Vol. VI., No. 21, edited by Philip Lutley Sclatler—Bulletin of the British Ornithologist's Club, 1892-93—Mémoires de la Société Zoologique de France, Tome V., 5ème partie, et Tome VI., 1893—Congres International de Américanistes Compte Rendu de la Huilieme Session tenue à Paris en 1890—Sociedade de Geographia de Lisboa; Indices e Catalagos, A Bibliotheca, 1893—Revista Mensual de la Sociedad Gautemalteca de Ciencias, 1893—The Entomologists' Monthly Magazine, 1893—Ornithologische Monatsberichte, edited by Dr. Ant. Reichenow, Berlin, 1893—The Canadian Entomologist, edited by Rev. C. T. S. Bethune, Ontario, 1893—Twenty-third Annual Report of the Entomological Society of Ontario, 1893—Bulletin of the United States National Museum, Washington, 1892—North American Fauna, No. 7, Part II., Washington, 1893—Anales del Instituto fiscio-geografica del Museo de Costa Rica, Tome III., 1892—Die Vogel der Insel Curacao, by Hans von Berlepsch, 1892—The Flying Man, by the Editor—Visits to the Zoological Society Gardens, London, by W. H. Rosenberg—A Nursery of Insects—Description d'une nouvelle espece de Coquille du Japon du genre ARCA, par le Docteur Félix Joussaume—The Use of Salt for Agricultural Purposes, by the Editor—Are Ants of Aid to Fruit-Growers?—Banana Culture—Strange Phenomenon in California, Formation of an Inland Sea—Waste Products made Useful—How to Preserve Animals—The English Snake, by W. Rosenberg—The Great Lakes, by G. A.—Inhabited Worlds (*The World*)—El Coco—Many-Eyed Monster—The Telescope and the Microscope—Mistakes about Alcohol—Cotton Seed Oil—Genera Avium.

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DESCRIBED IN VOL. IV. OF THE HUMMING BIRD:—

AVES.—TROCHILI.

			PAGE
Thalurania boliviana,	Boucard,	Gen. H. Bird	107
Gmelinius, N.G.,	,,	,,	
Type, *Gmel. Bicolor*			108
Chlorostilbon wiedi,	,,	,,	120
Chlorostilbon panamensis,	,,	,,	124
Lawrencius, N.G.,	,,	,,	
Type, *L. cupreiceps* ..	...	...	173
	SHELLS,		
Arca boucardi, Joussaume,	H. Bird	..	41

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GENERA OF HUMMING BIRDS, by A. BOUCARD, pages 1 to 56.

Total length, 6in. Wing, $2\frac{2}{8}$. Tail, $3\frac{1}{8}$. Culmen, $1\frac{2}{8}$.

Female.—Upperside like the male. Underside paler buff, showing more the central line of throat. Lines behind and under the eye pale buff. Ear-coverts brownish-black. Both sexes have a white tuft on each side of anal region.

This species was dedicated by Messrs. Lesson and Delattre, to Prêtre, the artist, who did all the plates, for the TROCHILIDAE, of Lesson.

538. ANISOTERUS GARLEPPI, Boucard, Hum. Bird, vol. iii., p. 9.

Phaethornis garleppi, Boucard, Hum. Bird, vol. iii, p. 9.

Garlepp's Hermit.

l'Hermite de Garlepp.

Habitat.—Bolivia.

Male.—This species is closely allied to the preceding one, but is smaller. The colouration of the upperside is exactly the same, excepting the uppertail-coverts, which are shining bronze-green margined with buff. The entire underside is not so deep buff as *A. pretrii,* the undertail-coverts are pale bronze margined with white, the lateral rectrices are much wider, shorter, and nearly rounded, but the same characters of the genus exist in this species as in the preceding ones.

Total length, $5\frac{6}{8}$in. Wing, $2\frac{2}{8}$. Tail, $2\frac{7}{8}$. Culmen, $1\frac{1}{8}$.

It was discovered in 1890, at Bueyes (Bolivia), by Mr. Gustav Garlepp.

Type in Boucard's Museum.

539. ANISOTERUS AUGUSTII, Bourc., Ann, Sc. Phys., Lyon, 1847, vol. i., p. 623.

Phaethornis augusti. Bon, Consp. Gen. Av., vol. i., p, 68.

Sallé's Hermit, Gould, Mon. Troch., vol. i., p. 29.

Le Phaethornis d'Auguste, Muls., Hist. Nat. Ois. Mou., 1873, t. i., p. 75.

l'Hermite d'Auguste.

Habitat:—Venezuela, Colombia and Guiana.

Male.—Upperside grayish-bronze, brown on head. Uppertail-coverts shining green in the centre of the feathers and

broadly margined with fulvous, this being the predominant colour of this part of the body in the specimens from Colombia and Venezuela, but much less in those from Guiana. Line above and behind the eye, and one beneath, pure white. Ear coverts black. Median rectrices, bronzy at base, succeeded by a brownish-black bar, and tipped for one-third of their length with white. Lateral and outermost ones bronze at base, then black tipped with white. Underside ashy-gray with a central stripe on throat white, and brownish-black on each side. Wings purplish. Maxilla black. Mandible, red with black tip.

Total length, $6\frac{1}{2}$in. Wing, $2\frac{2}{8}$. Tail, $3\frac{1}{2}$. Culmen, $1\frac{2}{8}$.

Female.—Slightly paler on underside, especially near the gular stripe, which is of a slightly darker gray than the rest.

I have a fine series of this species from Caracas and Merida, Venezuela, from British Guiana, and from Colombia. There are small differences in the colouration according to localities, but not enough, I think, to separate them. I believe that the well-known Collector, Mr. Auguste Sallé, was the first who brought the species to Europe. If was dedicated to him, by Mr. Bourcier.

ADDENDA.

SINCE the publication of the GENERA OF HUMMING BIRDS, 1893-1895, the following species have been described. Others are described or recognised as good. Here they are :—

Cephalolepedidae.

ANTHOCEPHALA BERLEPSCHI, Salv., B.O.C. 3, p. 8. Ibis, 1894, p. 120.

Berlepsch's Blossom Crown.

l'Antocephale de Berlepsch.

Habitat.—Colombia.

A. floricipiti similis, sed apicibus rectricum lateralium late albis nec cervinis, abdomine et tectricibus subcaudalibus grisescentibus nec rufescentibus distinguenda.

Type in Museum Berlepsch.

Metalluridae.

METALLURA ATRIGULARIS, Salv., B.O.C. 1, p. 49, also Ibis, 1893, p. 449.

Black Throated Metallura.

la Métallure à gorge noire.

Habitat.—Ecuador.

Male.—Similis *M. primolinae,* sed gula media intense nigra, plumis ad basin castaneis et medialiter fascia transverso angusta amethystina notatis. Aliter ferè ut in sp, cit.

Female.—Gula inornata rectricibus lateralibus albido terminatis.

Long, alae 2.2 poll, candae 1.5, rostri a ricta 0.65.

The discoverer of this fine new species is Mr. O. T. Baron.

Types in British Museum

METALLURA BARONI, Salv., Ibis, 1893, p. 449.

Metallura baroni, Salv., B.O.C. 1, p. 49.

Baron's Metallura.

la Métallure de Baron.

Habitat.—Hills, near Cuenca, Ecuador.

Male.—Supra saturate cupreo-viridis, capite. obscuriore, subtus cum tectricibus subcaudalibus ejusdem coloris, gula tota saturate amethystina micante; canda saturate viridi infra nitentiore.

Long, alae 2.2 poll, candae 1.4, rostri a ricta 0.65.

Female.—Mari similis, sed subtus plumis omnibus ad basin cervinis, abdomine toto maculis discalibus obscure viridibus; gula maculis saturate amethystinis notata, rectricibus externis vix sordide albo terminata.

The discoverer of this species is Mr. O. T. Baron.

Types in British Museum.

Chlorolampidae.

CHLOROSTILBON PUMILUS, Gould, Ann. and Mag., N.H., 1872, p. 195.

Small Emerald.

le Chlorostilbon plus petit.

Habitat.—Colombia, Ecuador.

Male.—Closely allied to *C. angustipennis*, but smaller, throat not so golden and with a bluish tinge, bill shorter.

Total length, 3in. Wing, 1.7. Tail, 105. Bill, 0.65.

Female.—Upperside golden-green, passing to bluish-green on rump and uppertail-coverts. Underside whitish-gray washed with green on flanks. Rectrices steel-blue, tipped with gray. Maxilla and mandible black. Same size as the male.

I have only two specimens, male and female, of this rare species, from which the above descriptions are taken. They were collected at Medellin, Colombia, by Mr. Salmon.

Type of female in my collection.

Amaziliidae.

POLYERATA DECORA, Salv., Cat. of Birds, vol. xxi., p. 238.

Damophila amabilis, Salv., P.Z.S., 1870, p. 211.

Polyerata amabilis, Boucard, Gen. H.B., p. 142.

Veraguan Polyerata.

la Polyerate de Veragua.

Habitat.—Chiriqui, Veragua.

Male.—Very closely alike that of *P. amabilis*, but the bill much longer and the glittering feather of the crown extended to the nape.

After a careful study of my specimen, collected in Chiriqui by Mr. Arcé, I have come to the same conclusion as Mr. Salvin, that it is a valid species.

POLYERATA ROSENBERGI, n.sp.

Rosenberg's Polyerata.

la Polyérate de Rosenberg.

Habitat.—Rio Dagua, Colombia.

Male.—Upperparts dark bronze-green. Median rectrices bronze-green, laterals bronze-green at base, then bluish-black, outermost one bluish-black. Chin and throat metallic emerald-green. Breast metallic blue with a purplish tinge. Abdomen dark sooty gray with a bar of metallic green feathers, separating the blue of the breast from the gray of the abdomen. Undertail-coverts pure white. Maxilla black. Mandible flesh colour with black tip.

Total length, $3\frac{9}{16}$. Wing, $2\frac{1}{4}$. Tail, $1\frac{1}{4}$. Culmen, $\frac{6}{8}$.

Female.(?)—Upperside coloured as the male; but all the rectrices, excepting the middle ones, are tipped with white. Underside white, speckled with metallic green feathers on the breast and abdomen. Undertail-coverts white. Maxilla and mandible black. Same size as the male.

This fine new species, which cannot be confused with *P. ambilis* or *P. decora,* having no metallic forehead, and being much more brilliantly decorated on the underside than any of the other two species, was discovered this year in Colombia by Mr. H. W. Rosenberg, to whom I have the pleasure of dedicating it.

Types in my Collection, to be forwarded shortly to the Paris Museum, with all my other types of birds, and where they can be seen by applying to Mr. Oustalet, Assistant Curator of the Ornithological Department.

HYLOCHARIS ROSTRATA, Berlp. (litt.)

HYLOCHARIS CYANEA ROSTRATA, Berlp. (litt.)

Garlepp's Sapphire.

l'Hylochare de Garlepp.

Habitat.—Rioja, Peru.

Male.—This species is very closely allied to *H. cyanea,* but the bill is much larger. It was discovered in Peru by Mr. Garlepp.

HYLOCHARIS SPECIOSA, Boucard, H.B., 1893, vol. ii., p. 8.

Agyrtria speciosa, Boucard, Hum. Bird, 1893, vol, ii., p. 8.

Specious Sapphire.

l'Hylochare specieux.

Habitat.—Brasilia.

Male.—Upperparts dark bronzy-green, a very slight coppery tinge on the uppertail-coverts, but none at all on the crown which is of the same dark hue as the back. Throat and breast glittering blue with greenish reflections on sides of neck and breast. Flanks gray, washed with bluish-green. Middle of the abdomen, vent, and undertail coverts pure white. Median rectrices bronze ; lateral and outermost ones bluish-black with gray tips. Maxilla black. Mandible flesh colour with black tip.

Total length, $3\frac{1}{2}$in. Wing, $2\frac{3}{8}$. Tail, $1\frac{2}{8}$. Culmen, $\frac{11}{16}$.

It it possible that although there are great differences of colouration between my unique specimen of *H. lactea* and these, that it may turn out to be only the same species.

URANOMITRA SALVINI, Brewst., Auk. x., 1893, p.p. 214, 215.

Cyanomyia salvini, Brewster, Auk. x., 1893, p.p. 214, 215.

Salvin's Humming Bird.

la Leucolie de Salvin.

Habitat.—Sonora, Mexico.

Male.—Top and sides of head, with sides of neck, glittering blue; remainder of upperparts rather dull, dark, but shining green, somewhat obscured by drab on the rump and uppertail-coverts. Shoulders and wing-coverts green, like the back, but all the quills dark hair brown with a faint gloss of purplish. Tail dark glossy green; the outer pair of feathers broadly tipped with drab. Underparts soiled white, the middle of the throat tinged with clayey buff (a strain, probably), the feathers along its sides with large, crescent shaped, subterminal spots of blue. Sides of breast greenish-blue. Sides of body brilliant green. Bill (in the dried specimen) dull reddish-brown or brownish-orange, lightest at the base, deepening to horn colour at the tip.

Wing, 2·07in. Tail, 1·27. Length of culmen from base, 1·02; from feathers, 0·88. Width of bill at base, 0·13.

Similar to *C. cyaneicollis,* but smaller, with shorter wings, shorter and squarer tail, but longer and slender bill; iridescent colours on sides of neck bordering the throat, blue like the crown instead of greenish; very much more green on sides of breast and body, the white of the underparts, especially of the throat and jugulum, being confined to a narrow central space; upper mandible light reddish at the base instead of black as in *cyaneicollis.*

Type, male adult (Nos. 24, 125, Collection of William Brewster).

LEUCIPPUS VIRIDICAUDA, Berlp., Ibis, 1883, p. 493.

Leucippus chionogaster, Sclat. and Salv., P.Z.S., 1876.

Green tailed Leucippus.

Le Leucippe de Berlepsch.

Habitat.—Huiro, Peru.

Male?—Suprea aureo-viridis, subtus sericeo albus, gulae et colli lateribus maculis parvis, lateribus pectoris hypochondriisque aureo viridibus; sub candalibus albis, minoribus macula centrali viridi-aurea; rectricibus glauco viridibus unicoloribus. "Berlepsch in Orn. Per."

This rare species was discovered at Huiro, Peru, by Mr. Whitely.

AITHURUS TAYLORI, Rotsch., Ibis, 1894, p. 547-548.

Taylor's Black Capped Humming Bird.

l'Aithure de Taylor.

Male.—Exactly like *A. polytmus,* but with a large ruby coloured spot on the throat.

Habitat.—Jamaica.

Collector, Mr. C. B. Taylor.

Type in Rostchild's Museum.

It is quite extraordinary that among the many thousand skins of *Aithurus* sent from Jamaica to England in the last years, I never saw a specimen like this. I think it may be an accidental discolouring, as those mentioned in the GENERA OF HUMMING BIRDS, page 320, for *Petasophora corruscans* and *rubrigularis.*—(EDITOR).

Phaethorniidae.

GLAUCIS COLUMBIANA, n.sp.

Colombian Hermit.

le Glaucis de la Colombie.

Habitat.—Rio Dagua, Colombia.

Male.—Forehead blackish, rest of underparts rich golden-bronze. Central rectrices bronze-green, edged with black near the tips, which are white; lateral and outermost ones reddish-chestnut at base, then black with white tips. Underparts, including the tail-coverts, rich cinnamon. Wings purplish-brown. Maxilla black. Mandible flesh colour with black tip.

Total length, 4in. Wing, 2. Tail, $1\frac{3}{8}$. Culmen, $1\frac{1}{8}$.

Female.—Exactly like the male, excepting the mandible, which is all black.

Types in Boucard's Museum.

This new species, the smallest of all, was collected this year by Mr. H. W. Rosenberg.

END.

ERRATA.

In all places where it occurs read *colour* instead of *color*.

Page 2, line 7, read *buff* instead of *puff*.
,, 3 ,, 35, ,, *median* instead of *medium*.
,, 3 ,, 14, ,, ,, ,, ,,
,, 5 ,, 17, add *the* before *flanks*.
,, 9 ,, 3, read *ardent* instead of *ordent*.
,, 9 ,, 16, add *with* before *rufous*.
,, 17 ,, 23, ,, *to it* before *filiform*.
,, 19 ,, 30, read *rectrice* instead of *rectrix*.
,, 27 ,, 15, ,, *Paso* instead of *Pasos*.
,, 39 ,, 26, ,, *The young* instead of *young*.
,, 62 ,, *Oreonympha* ,, *Oreonlympha*.
,, 107 ,, 23, ,, *Hauxwell* ,, *Hanswell*.
,, 115 ,, 15, ,, *Chlorolampe* ,, *Chloralampe*.
,, 120 ,, 6, ,, *Emeraude* ,, *Emerande*.
,, 122 ,, 14, ,, *inexpectata* ,, *inespectata*.
,, 143 ,, 26, ,, *fulvifrons* ,, *fulrifrous*.
,, 167 ,, 7, ,, *Leucochloris* ,, *Lencochloris*.
,, 194 ,, 23, add *the* before *flanks*.
,, 207 ,, 29, read *aurescens* instead of *laurescens*.
,, 218 ,, 16, ,, *henrici* ,, *henrica*.
,, 223 ,, 12, add *Costa Rica* after *Veragua*.
,, 224 ,, 23, read *Parzudakia* instead of *Parzuduchia*.
,, 237 ,, 17, ,, *their length* ,, *its length*.
,, 319 ,, 22, ,, *Praxilla* ,, *Paxilla*.
,, 320 ,, 35, ,, *corruscans* ,, *corruscaus*.
,, 358 ,, 33, ,, *phainopeplus* ,, *plainopeplus*.
,, 372 ,, 9, ,, *Sigismond* ,, *Sigimond*.

ALPHABETICAL INDEX.

	PAGE
abeillei	55
ABEILLIA, Bon.	55
ACESTRURA, Gould	15
addae, Bourc.	247
adelae, d'Orb and Lafr. ..	348
ADELISCA, Cab. and Heine ..	78
ADELOMYIA, Bp.	78
adolphi, Gould	392
adorabilis, Salv.	34
aenea, Lawr.	365
aeneicauda, Gould	75
aeneicauda, Lawr., *Hypuroptila*	323
aenone, Less.	137
aequatorialis, Boucard, *Heliothrix*	314
aequatorialis, Boucard ..	95
aequatorialis, Gould (Clytolaema)	210
aequatorialis, Gould, *Androdon*	367
AGACLYTA, Cab. and Heine ..	91
AGLAEACTIS, Gould	235
aglaiae	
AGYRTRIA, Reich.	146
AITHURUS, Cab. and Heine ..	168
albicollis, Vieill.	167
albocoronata, Lawr. ..	51
albicrissa, Gould	302
albogularis, Boucard ..	257
albogularis, Gould, *Schistes* ..	311
ALCIDIUS, Boucard	345
alexandri, Bour. and Muls. ..	3
alexandri, Boucard, *Xanthogenyx*	290
aliciae, Bourc. and Muls. ..	129
alinae, Bourc.	243
alleni, Elliot	148
ALOSIA, Muls.	211
alticola, Gould	194
amabilis, Gould	142
AMALUSIA, Muls.	25
amaryllis	94
AMAZILIÏDAE, Boucard ..	132
AMAZILIA, Reich.	192
amazili, Less.	192
AMAZILIS, Less.	192
amethysticollis, d'Orb and Lafr.	233
amethystina, Gmel... ..	29
AMETRORNIS, Reich.	382
ANACTORIA, Reich.	229
anais, Less.	319
ANDRODON, Gould	367
angelae, Less.	299
angustipennis, Fraz. ..	123
ANISOTERUS, Muls.	393
annae, Berl. & Stolz., *Spathura*	248
annae, Less.	5
ANTHOCEPHALA, Cab.	50
anthophilus, Bourc... ..	380
ANTHRACOTHORAX, Boié. ..	326
antoniae, Bourc. and Muls. ..	372
APHANTOCHROA, Gould ..	352
apheles, Cab. and Heine ..	386
apicalis, Gould	150
aquila, Bourc.	368
ARCHILOCHUS, Reich.	2
ardens, Salv.	9
ARENIA, Muls.	136
ARINIA, Muls.	136
arsinoe, Less.	204
ASPATA, Heine	282
assimilis, Elliot, *Threptria* ..	250
assimilis, Lawr.	124
assimilis, Elliot (Bourcieria) ..	278
atacamensis, Leyb.	23
atala, Less.	124
ATTHIS, Reich.	12
atrigularis Salv.	397
AUGASTES. Gould	83
augusti, Bourc.	395
aurea, Meyer	254
aureliae, Bourc. and Muls. ..	250
aurescens, Gould	208
auriceps, Gould	113
auriculatus, Licht.	313
AURINIA, Muls.	31
auritus, Gmel.	312
aurora, Gould	264
aurulentus, Vieill.	318
AVOCETTINUS, Bp. ..	77-334
avocettula, Reich.	334
baroni, Ernst. and Hart ..	369
baroni, *Metallura*, Salv. ..	397
barrali, Muls. and Verr. ..	227
barroti, Bourc.	314
bartletti, Gould	145
BASILINNA, Cab. and Heine ..	49
BASILINNA, Boié.	177
BELLONA, Muls. and Ver. ..	52
benjamini, Bourc.	81
berlepschi, E. and Hart, *Phaethornis*	380

PAGE

berlepschi, Simon 18
berlepschi, Salv., *Anthocephala* 397
beryllina, Licht. 204
bicolor, Gmel. 108
BOISSONEAUA, Reich. 211
bolivianus, Boucard, *Alcidius* 346
boliviana, Gould (Lampropygia) 281
boliviana, Boucard (Thalurania) 107
boliviana, Gould, *Phaethornis* 379
boliviana, Boucard 61
boliviana, Boucard (Lesbia) .. 92
boliviana, Gould 98
bombus, Gould 19
bonapartii, Bois. 268
boucardi, Muls. 136
bougueri, Bourc. 277
bourcieri, Less. 382
BOURCIERIA, Bp. 277
branicki, Tacz. 288
brasiliensis, Boucard .. 144
brevirostris, Less. 154
bryanthae, Lawr. 27
buckleyi, Boucard 140
buckleyi, Gould, *Pinoralaema* 315
buffoni, Less. 322
burmeisteri, Selat. 19
burtoni, Boucard 58
cabanisi, Lawr. 318
caelestis, Gould 97
caerulea, Vieill. 182
caeruleigularis, Gould .. 134
caeruleiventris, Reich. .. 325
caeruleo-lavata, Gould .. 183
CALLIDICE, Muls. and Verr. .. 211
CALLIGENIA, Muls. 270
calliope, Gould 13
CALLIPERIDIA, Reich. 299
CALLIPHARUS, Elliot 171
CALLIPHLOX, Boié. 29
calolaema, Salv. 223
calosoma, Elliot 329
CALOTHORAX, Gray .. 14, 239
calypte, Gould 4

CAMPYLOPTERIDAE, Boucard 349

CAMPYLOPTERUS, Sw... .. 354
candida, Bourc. and Muls. .. 155
caniveti, Less. 114
caroli, Bourc. 88
castaneiventris, Gould .. 198
castelnaudi, Bourc. and Muls. 237
CATHARMA, Elliot 11
caumatonota, Gould .. 236

PAGE

CEPHALOLEPIDAE, Boucard 45
CEPHALOLEPIS, Lodd. .. 45
cervinicauda, Gould .. 370
cervinigularis, Salv. .. 211
cerviniventris, Gould .. 197
CHAETOCERCUS, Gray.. .. 17
CHALCOSTIGMA, Reich. .. 68
chalybea, Vieill. 37
CHALYBURA, Reich. 322
chapadensis, Allen 387
chimborazo, Del. and Bourc... 343
chionogaster, Tsch... .. 166
chionurus, Gould 172
CHLORESTES, Reich. 181
chlorocephala, Bourc. .. 182
chlorocercus, Gould.. .. 166
chlorolaemus, Gould .. 337

CHLOROLAMPIDAE, Boucard 112
CHLOROLAMPIS, Cab. and Heine 113
chloropogon, Cab. and Heine.. 72
chlorospila, Gould 80
CHLOROSTILBON, Gould .. 119
chlorura, Gould 94
CHLOTHO, Muls. 171
CHRYSOBRONCHUS, Bp. .. 174
chrysogaster, Bourc. .. 121
CHRYSOLAMPIS, Boié. 56
chrysorama, Elliot 255
chrysura, Less. 141
CHRYSURONIA, Bon. 137
CHRYSURISCA, Cab. and Heine .. 137
CHRYSURUS, Bp. 137
cinereicauda, Lawr... .. 222
cinereorufa, Boucard .. 240
cinnanmomea, Less. .. 196
CIRCE, Gould.. 110
cirrochloris, Vieill. 352
cissiura, Gould 249
clarissae, Long 229
clemenciae, Less. 217
CLYTOLAEMA, Gould 208
coelestis, Gould 97
COELIGENA, Less. 217
COELIGENIA, Bp. 280
coeligena, Cab. and Heine .. 280
COLIBRI, Spix. 316
COLUBRIS, Reich. 2
colubris, L. 2
columbiana, Boucard, *Glaucis* 402
columbiana, Boucard .. 98
columbiana, Boucard (Uranomitra) 160
columbiana, Elliot (Lamyropygia) 281
columbiana, Bourc. and Muls. 101

PAGE

COMETES, Gould 89
compsa, Heine 148
condaminii, Bourc. 369
conradi, Bourc. 275
consobrinus, Bourc... .. 378
constanti, Delattre 304
conversi, Bourc. and Muls. .. 42
CORA, Reich. 23
corae, Less. and Garn. .. 23
cornuta, Max. 24
corruscans, Gould 320
costae, Bourc. 4
cristata, L. 52
CULAMPIS, Less. 335
cupreicauda, Salv. and Godm. 203
cupreiceps, Lawr. 173
cupripennis, Bourc. and Muls. 236
cupreiventris, Fras. 256
curvipennis, Licht. 350
cuvieri, Del. and Bourc. .. 353
cyanea, Vieill. 144
cyanicollis, Gould 157
cyanifrons, Bourc. 190
cyanipectus, Gould 293
cyanocephala, Less. .. 163
cyanogenys, Wied. 181
cyanolaemus, Salv. and Godm. 65
CYANOLESBIA, Stej. 96
CYANOLESBIA, Berlp. 99
CYANOMYIA, Bon. 162
CYANOMYIA, Bp. 156
CYANOPHAIA, Reich. 134
CYANOPOGON, Reich. 14
cyanopogon, Less. 14
cyanotis, Bourc. 317
cyanura, Gould 206
CYNANTHUS, Bp. 91
CYNANTHUS, Less. 60
cynanthus, Sw. 96
DAMOPHILA, Reich. 133
daphne, Bon. 128
decora, Salv. 399
decorata, Gould 16
delalandii, Vieill. 46
DELATTRIA, Bp. 218
delattrii, Less. 39
delphinae, Less. 321
DELPHINELLA, Reich. 316
derbiana, Del. and Bourc. .. 242
derbyi, Gould 242
devilii, Bourc. 205
DIALIA, Muls. 31
dichroura, Tacz. 267
DIPHLOGAENA, Gould 263
DISCOSURA, Bp. 44
DISCURA, Reich. 44
DISTIMIA, Reich. 229

PAGE

DNOPHERA, Heine 372
DOCIMASTES, Gould 295
DOCIMASTER, Bp. 295
dohrni, Bourc. 362
DOLERISCA, Cab. and Heine .. 176
DOLEROMYIA, Muls. 109
DOLEROMYIA, Bon. 176
DOLICHA, Heine 25
dominicus, L. 328
dorbignyi, Bourc. 259
DORYCHA, Reich. 25
DORYFERA, Gould 306
dorsale, Salv. and Godm. .. 86
DORYPHORA, Cab. and Heine .. 306
doubledayi, Bourc. 111
dumerili, Less. 194
duponti, Less. 20
dybowskii, Tacz. 244
DYRINIA, Muls. 6
dyselius, Elliot 257
edwardsi, Del. 202
egregia, Sclat. and Salv. .. 170
egregius, Heine 120
elegans, Vieill. 117
eliciae, Bourc. and Muls. .. 140
ELISA, Reich. 25
elizae, Less. and Del. .. 26
ellioti, Ridgw. 12
ellioti Cory, *Lampornis* .. 329
ELVIRA, Muls. and Verr. .. 172
emigrans, Lawr. 54
EMILIA, Muls. 134
emiliae, Bourc. and Muls. .. 374
ENGYETE, Reich. 243
enicura, Vieill. 25
ensiferus, Boiss. 295
ensipennis, Sw. 336
ENTIMA, Cab. and Heine .. 239
eos, Gould.. 267
episcopus, Gould 390
ERANNA, Heine 192
ERASMIA, Heine 116
ERATOPIS, Heine 186
EREBENNA, Muls. and Verr. .. 242
EREMITA, Reich. 388
ERIOCNEMIS, Reich. 252
ERIONA, MULS. 252
eriphile, Less. 103
ERYTHRONOTA, Gould .. 186
erythronota, Less. 186
estellae, d'Orb and Lafr. .. 345
EUCEPHALA, Reich. 180
eucharis, Bourc. 92
euchloris, Reich. 130
EUCLOSIA, Muls. and Verr. .. 239
EUDOSIA, Muls. 271
EUDOXA, Heine 327

PAGE

EUGENES, Gould 296
EUGENIA, Gould 294
EULAMPIS, Boié. 335
EULIDIA, Muls. 21
EUPETOMENA, Gould 350
EUPHERUSA, Gould 169
euphrosinae, Muls. and Verr... 308
eupogon, Cab. 72
EUPOGONUS, Muls. and Verr. .. 66
eurynome, Less. 376
eurypterus, Lodd. 78
EUSTEPHANUS, Reich... .. 57
EUTOXERES, Reich. 368
evelinae, Ernst. and Hart. .. 256
evelynae, Bourc. 28
exilis, Gmel. 53
eximia, Del. 169
exortis, Fraser 225
fallax, Bourc. 177
fanniae, Bourc. and Del. .. 104
fannyi, Less. 21
feliciae, Less. 187
fernandensis, King 58
flammula, Salv. 10
flavescens, Lodd. 212
flavicaudata, Fras. 239
FLORESIA, Reich. 327
floresii, Gould 5
floriceps, Gould 51
floricola, Elliot 301

FLORICOLIDAE, Boucard .. 298
florisuga, Bp. 338
fluviatilis, Gould 152
forficata, Ridgw. 113
forreri, Boucard 193
franciae, Bourc. and Muls. .. 156
fraseri, Gould 372
frontalis, Lawr. 191
fulgens, Sw. 296
fulgidigula, Gould 273
furcata, Gmel. 105
furcifer, Shaw 299
fuscus, Vieill. 341
fuscicaudata, Fras. 198
GALENIA, Muls. and Verr. .. 211
galeritus, Mol. 57
garleppi, Boucard 395
gayi, Bourc. and Muls. .. 241
geoffroyi, Bourc. and Muls. .. 310
germana, Godm. and Salv. .. 321
gigas, Vieill. 60
glaucis, Boié 361
GLAUCOPIS, Burm. 100
glaucopis, Gmel. 100
glaucopoides, d'Orle and Lafr. 259
glyceria, Bon. 88

PAGE

GMELINIUS, Boucard 108
godini, Bourc. 255
gorgo, Reich. 96
goudoti, Bourc. 133
gouldi, Less. 32
gouldi, Lodd. (Lesbia) .. 93
GOULDIA, Bon. 40
GOULDOMYIA, Bp. 40
gounellii, Boucard 393
gracilis, Gould 94
gramineus, Gmel. 330
grata, Bp. 283
grayi, Del. and Bourc. .. 180
graysoni, Lawr. 195
griseigularis, Gould.. .. 391
griseocyanea, Boucard .. 75
griseiventris, Tacz. 99
GRYPUS, Spix. 365
guerini, Boiss. 63
guerrerensis, Salv. and Godm. 165
guianensis, Boucard, *Phaethornis* 378
guianensis, Boucard .. 144
guianensis, Boucard, *Hemistephania* 308
guianensis, Boucard, *Florisuga* 340
guimeti, Bourc. 49
GUIMETIA, Bp. 49
gularis, Gould 353
guyi, Less... 375
hauxwelli, Boucard 37
helenae, Lemb. 6
helenae, Del., *Lophornis* .. 34
HELIACTIN, Boié. 24

HELIANGELIDAE, Boucard.. 207
HELIANGELUS, Gould 229
helianthea, Less. 269
HELIANTHEA, Gould 265

HELIANTHEIDAE, Boucard 263
heliodori, Bourc. 16
HELIODOXA, Reich. 208
HELIODOXA, Gould 285

HELIODOXIDAE, Boucard .. 282
HELIOMASTER, Bp. 299
HELIOMASTER, Bp. 301
HELIOPEDICA, Gould 177
HELIOTHRIX, Boié. 311
HELIOTHRYS, Gray 311
HELIOTRYPHA, Gould 225
HELIOTRYPHON, Cab. and Heine 225
heloisae, Less. and Del. .. 12
HELYMUS, Muls. 225
hemileuca, Salv. 222
hemileucurus, Gould .. 84

PAGE

hemileucurus, Gould, *Campylopterus* 336
HEMISTEPHANIA, Reich. .. 305

HEMISTEPHANIDAE, Boucard 305
HEMISTILBON, Gould 192
HEMYTHILACA, Cab. and Heine 192
hendersoni, Cory 332
henrici, Less and Del. .. 218
henrici, Lawr., *Heliangelus* .. 230
henrici, Lawr. (Heliodoxa) .. 287
henshawi .. .. .. —
herrani, Bon. 66
hesperus, Gould 264
heteropogon, Boiss... .. 68
HIMELIA, Muls. 218
hirsuta, Gmel. 361
hirundo, Gould 351
hispidus, Gould 381
hoffmanni, Cab. and Heine .. 188
holoserieus, L. 337
HOMOPHANIA, Reich. 272
humboldti, Bourc. and Muls... 138
HYLOCHARIS, Bp. 134
HYLOCHARIS, Boié. 143
HYLOCHARIS, Gray 60
HYLONYMPHA, Gould 284
HYPERMETRA, Cab. and Heine .. 60
hyperythrus, Cab. 360
HYPOCHRYSIA, Reich. 268
hypochlora, Gould 104
hypocyanea, Gould 184
HYPOLIA, Muls. 282
HYPOPHANIA, Reich. 327
hyposticta, Gould 289
HYPUROPTILA, Gould 322
IACHE, Elliot 110
idaliae, Bourc. and Muls. .. 388
IDAS, Muls. 31
imperatrix, Gould 294
inca, Gould 275
incultus, Elliot 258
inexpectata, Berl. 122
inornata, Gould 80
insectivora, Tsch. 274
insignis, Cab. and Heine .. 235
intermedia, Tacz. 82
intermedia, E. and Hart, *Hypuroptila* 325
iodura, Saucerotte 201
IOLAEMA, Gould 290
iolaema, Reich. 126
IONOLAIMA, Reich. 290
iolata, Gould 319
iridescens, Gould 125
iris, Gould 263

PAGE

isaacsoni, Parz. 261
isaurae, Gould 324
jacula, Gould 285
jamesoni, Bourc. 286
jardinii, Bourc. 213
jelskyi, Cab. 71
johannae, Bourc. 307
josephinae, Bourc. and Muls. 139
jourdani, Bourc. 17
jugularis, L. 336
juliae, Bourc. 133
JULIAMYIA, Bp. 133
kingi, Less. 96
KLAIS, Reich. 49
lactea, Less. 146
LAFRESNAYA, Bp. 239

LAMPORNIDAE, Boucard .. 322
LAMPORNIS, Sw. 326
LAMPORNIS, Reich. 214
LAMPORNIS, Less. 338
LAMPRASTER, Tacz. 287
LAMPROLAEMA, Reich. .. 216
LAMPROPOGON, Bon. 67
LAMPROPYGIA, Reich. 277
LAMPROPYGIA, Cab. and Heine.. 280
LAMPRURUS, Reich. 83
lanceolata, Gould 363
langsdorffi, Bon. and Vieill. .. 40
largipennis, Bodd. 355
laticlavius, Salv. 231
latirostris, Sw. 110
LAVANIA, Muls. 70
lawrencii, Elliot (Amazilia) .. 199
lawrencii, Ridgw. 112
lawrencii, Boucard (Homophania) 276
LAWRENCIUS, Boucard .. 173
lazulus, Vieill 357
LEADBEATERA, Bp. .. 282, 285
leocardiae, Bp. 304
LEPIDOALRYNX, Reich. .. 300
LEPIDOPYGA, Reich. 134
LEPIDORIA, Muls. and Verr. .. 262
lerchi, Muls. and Verr. .. 179

LESBIDAE, Boucard .. 86
LESBIA, Less. 91
LESBIA, Cab. and Heine .. 96
letitiae, Bourc. 43
leucaspis, Gould 221
LEUCIPPUS, Bon. 165
LEUCOCHLORIS, Reich. .. 167
leucogaster, Gmel. 147
LEUCOLIA, Muls. .. 156, 162
leucophaea, Reich. 194

PAGE

leucopleurus, Gould .. 347
leucorrhous, Sclat. and Salv... 176
lencotis, Vieill. 177
leucurus, L. 370
leyboldi, Gould 60
lindeni, Parz. 65
linnaei, Gould 150
LISORIA, Muls. 186
loddigesi, Gould 46
LODDIGESIA, Gould 47
LODDIGIORNIS, Bp. 47
longicauda, Gmel. 44
longirostris, Berl. 138
longirostris, Vieill., *Floricola* .. 302
longirostris, Less. and Del. *Phaethornis* 377
longuemarei 386

LOPHORNIDAE, Boucard .. 31
LOPHORNIS, Less. 31
LOPHORINUS, Bp. 31
LOXOPTERUS, Cab. and Hein. .. 354
luciae, Lawr. 153
luciani, Bourc. 260
lucida, Elliot 201
LUCIFER, Reich. 14
lucifer, Sw... 14
ludoviciae, Bourc. and Muls. .. 306
lugens, Gould 251
lumachellus, Less. 84
luminosa, Elliot 292
lutetiae, Del. and Bourc. .. 270
lyrura, Gould 28
macrocerca, Gould 284
macroura, Gmel. 351
maculicauda, Gould 151
magica, Muls. and Verr. .. 110
magnificus, Vieill. 33
malaris, Nord. 375
mango, L. 327
MANILLA, Muls. and Verr. .. 14
margaritae, Salv. and Godm. 219
MARGAROCHRYSIS, Reich. 207, 327
mariae, Bourc. 205
MARSYAS, Muls. 116
matthewsi, Bourc. 212
maugei, Vieill. 118
mavors, Gould 233
mazeppa, Less. 363
melananthera, Jard... .. 246
melanogaster, Gould .. 347
melanogenys, Fras. 79
melanorhynchus, Gould .. 123
melanorrhoa 324
melanosternum, Gould .. 41
melanotis, Sw. 177

PAGE

MELANOTROCHILUS, Desl. .. 341
melanura, Gould 363
MELLISUGA, Gray 295
MELLISUGA, Briss. 6
MELLISUGA, Boié. 100
mellivora, L. 339
meridana, Boucard 97
meritti, Lawr. 50
MERION, Muls. 119
mesoleucus, Tem. 300

METALLURIDAE, Boucard .. 62
METALLURA, Gould 70
METHON, Muls. 322
micans, Salv. 130
micrastur, Gould 226
MICROCHERA, Gould 51
microhryncha, Elliot .. 165
microhrynchum, Boiss. .. 85
micrura, Gould 17
milleri, Bourc. 161
MILORNIS, Muls. 383
minima, L... 6
mirabilis, Bourc. 48
mitchelli, Bourc. 30
mocoa, Del. and Bourc. .. 97
MOMUS, Muls. and Verr. .. 388
moschitus, L. 57
mosquerae, Bourc. and Del. .. 260
mulsanti, Bourc. 15
MULSANTIA, Reich. 47
MYIABEILLIA, Bp. 55
MYAETINA, Bp. 368
MYLETES, Muls. 192
MYRMIA, Muls. 15
MYRTIS, Reich. 21
MYRTIS, Cab. and Heine .. 25
MYTHINIA, Muls. 40
naevius, Dumont 366
NANIA, Muls. 252
napensis, Gould 128
nattereri, Berlp. 385
neera, Less. and Del. .. 139
neglecta, Elliot 158
nerkhorni, Berl. 99
NEOLESBIA, Salv. 99
nigra, Boucard 270
nigricauda, Elliot 151
nigrocincta, Lawr. 390
nigricollis, Vieill. 331
nigriventris, Lawr. 171
nigrivestis, Bourc. and Muls. 252
nigrofasciata, Gould .. 106
nitens, Lawr. 121
nitida, Salv. and Godm. .. 111
niticauda, Elliot 152
nitidifrons, Gould 149

PAGE

niveipectus, Cab. and Heine .. 162
niveiventris, Gould 202
nobilis, Gould 62
NODALIA, Muls. 225
norrisi, Bourc. 153
nuna, Less. 91
nunezi, Boucard 191
obscurus, Gould 355
ocai, Gould 204
OCHREATUS, Gould .. 44, 204
oenone, Less. 137
olivacea, Lawr. 69
opaca, Licht. 70
OPISTHOPRORA, Cab. and H. .. 77
OREONYMPHA, Gould 62
OREOPYRA, Gould 221

OREOTROCHILIDAE, Boucard 343
OREOTROCHILUS, Gould .. 343
ornatus, Bodd. 32
ORNISMYIA, Less. 108
ORTHORHYNCHUS, Burm. .. 45
ORTHORHYNCHUS, H. 338
orthura, Less. 11
ortoni, Lawr. 87
OSALIA, Muls. and Verr. .. 17
osberti, Gould 115
osculans, Gould 266
oseryi, Bourc. and Muls. .. 381
otero, Tsch. 283
OXYPOGON, Gould 63
pallidiceps, Gould 303
pamela, d'Orb and Lafr. .. 238
PAMPA, Reich. 349
pampa, Less. 349
panamensis, Boucard .. 124
panamensis, Berl. (Damophila) 134
panamensis, Boucard, *Phaethornis* 377
PANOPLITES, Gould 211
PANTERPE, Cab. and Heine .. 234
PANYCHLORA, Cab. and Heine... 129
PAPHIOSA, Muls. and Verr. .. 31
parvirostris, Lawr. 51
PARZUDAKIA, Reich. 225
parzudakii, Long 225
PATAGONA, Gray 60
pavoninus, Salv. and Godm. .. 35
pectoralis, Salv. 223
pella, L. 214
pelzeni, Tacz. 158
PERATUS, Muls. 229
personatus, Gould 311
peruana, Gould 248
peruviana, Boucard 61
peruvianus, Boucard, *Florisuga* 340

PAGE

peruvianus, Boucard, (Metallura) 73
peruviana, Boucard, *Pterophanes* 263
PETASOPHORA, Gray 316

PETASOPHORIDAE, Boucard 309
PHAEOCHROA, Gould 353
PHAEOLAEMA, Gould 209
PHAEOPTILA, Gould 109

PHAETHORNIIDAE, Boucard 361
PHAETHORNIS, Sw. 375
PHAETORNIS, Tsch. 23
PHAETHORNIS, Less. 168
phaeton, Bourc. 121
phainopeplus, Salv. and G. .. 358
PHAIOLAIMA, Reich. 208
phaon, Gould 90
PHEMONOE, Reich. 252
philippi, Bourc. 383
PHILODICE, Muls. and Verr. .. 29
PHLOGOPHILUS, Gould .. 84
pichincha, Bourc. and Muls. .. 344
PILONIA, Muls. 277
PINAROLAEMA, Gould 315
PLACOPHORUS, Muls. 352
PLATURUS, Less. 44
platycercus, Sw. 9
PLATYSTYLOPTERUS, Reich. .. 354
POLEMISTRIA, Cab. and Heine .. 31
poliocerca, Elliot 170
POLYAENA, Heine 272
POLYERATA, Heine 142
POLYMNIA, Muls. and Verr. .. 15
POLYTMUS, Brisson 174
POLYTMUS, Gray 354
polytmus, L. 168
POLYPLANETA, Heine 207
POLYXEMUS, Muls. 7
poortmani, Bourc. 130
popelairii, Dubus 41
POPELARIA, Reich. 40
porphyrurus, Shaw 327
prasina, Less. 127
PRASITIS, Cab. and Heine .. 127
PRAXILLA, Reich. 316
pretrii, Less. and Del. .. 394
prevosti, Less. 332
primolina, Bourc. 76
PROGNORNIS, Reich. 350
prunelli, Bourc. and Muls. .. 278
PRYMNACANTHA, Cab. and Heine 40
PSALIDOPRYMNA, Cab. and Heine 91
PTEROPHANES, Gould 262
PTOCHOPTERA, Elliot 126

	PAGE
PTYONORNIS, Reich.	375
pucherani, Bourc. and Muls. ..	119
pulchra, Gould	14
pumilus, Gould	398
purpurea, Gould	279
pygmaea, Spix.	389
PYGMORNIS, Bp.	388
PYGORNIS, Muls. and Verr. ..	388
pyra, Gould	215
pyropygia, Salv. and Golm. ..	184
PYRRHOPHAENA, Cab. and H. ..	192
quadricolor, Vieill.	163
quitensis, Gould	75
RAMPHODON, Less.	365
rectirostris, Gould	306
recurvirostris, Sw.	335
refulgens, Gould	106
regulus, Gould	39
rhami, Less.	216
RHAMPHOMICRON, Bon. ..	85
RHODOPIS, Reich.	22
ricordi, Gerv.	116
RICORDIA, Reich.	116
riefferi, Bourc.	198
riojae, Berlp.	392
rivolii, Less.	296
rojasi, Boucard	364
roraimae, Boucard	30
roraimae, Boucard, *Glaucis* ..	364
rosae, Bourc. and Muls. ..	18
rosenbergi, Boucard.. ..	399
rostrata, Berlp.	400
rotschildi, Boucard	234
ruber, L.	7
rubinea, Gmel.	209
rubinoides, Bourc. and Muls...	210
rubrigularis, Elliot	320
ruckeri, Bourc.	371
ruficeps, Gould	67
ruficollis, Vieill.	141
ruficrissa, Lawr.	82
rufus, Less., *Saepiopterus* ..	360
rufus, Sw.	7
rupuninii, Boucard	384
russata, Gould. *Threptria* ..	250
russata, Salv. and Godm. ..	131
sabinae, Bourc. and Muls. ..	79
SAEPIOPTERUS, Reich... ..	357
sallei, Boucard	341
salvini, Brewst., *Uranomitra* ..	—
salvini, Cab. and Heine ..	115
salvini, d'Ham, *Xauthogenyx*	288
salvini, Brewst., *Cyanomyia* ..	400
sapphirina, Gmel.	143
SAPPHIRONIA, Bp.	143
sapphiropygia, Tacz. ..	258
SAPPHO, Reich.	89
sappho, Less.	89
SATURIA, Muls.	268
SAUCEROTTIA, Bon.	186
saucerottii, Del.	190
scapulata, Gould	185
SCHISTES, Gould	309
schreibersi, Bourc.	291
scintilla, Gould	8
SELASPHORUS, Reich.	302
SELASPHORUS, Sw.	7
SEPHIANOIDES, Bp.	57
SERICOTES, Reich.	336
serrirostris, Vieill.	316
simoni, Boucard	228
simplex, Boucard, *Adelomyia*..	80
simplex, Gould, *Eriocnemis* ..	258
smaragdinicollis, Gray ..	73
smaragdites, Boié.	326
SMARAGDITES, Reich.	45
smaragdo-caerulea, Gould ..	183
SMARAGDOCHYSIS, Gould ..	125
solstitialis, Gould	247
sophiae, Bourc. and Muls. ..	189
sordida, Gould	109
SPARGANURA, Cab. and Heine ..	89
sparganura, Shaw	89
SPATHURA, Could	244
sp. (Loddigesia)	49
speciosa, Salv.	228
speciosa, Boucard	400
speciosus, Boucard	122
spectabilis, Lawr.	297
spencii, Bourc.	232
SPHENOPROCTUS, Cab. and Heine	349
splendidus, Vieill.	121
SPORADICUS, Cab. and Heine ..	106
SPORADINUS, Bon.	116
squalidus, Tem.	384
squamata, Gould	251
stanleyi, Bourc. and Muls. ..	69
STEGANURUS, Reich.	244
STELLULA, Gould	13
STELLURA, Muls. and Verr. ..	13
stenura, Cab. and Heine ..	131
STERNOCLYTA, Gould	293
stictolophus, Salv. and Elliot..	38
stokesi, King	58
STOKOSIELLA, Reich.	57
STREBLORAMPHUS, Cab. and H.	334
striigularis, Gould	391
strophianus, Gould	230
stuebeli, Meg.	64
stuebeli, Meg. (Prasitis) ..	128
subcaerulea, Elliot	185
sumichrasti, Salv.	205
superba, Boucard	53
superbus, Vieill.	83
superciliosus, L.	375
sybille, Salv. and Godm. ..	229

	PAGE
syrmatophorus, Gould	379
taczanowskii, Sclat.	159
taylori, Rotsch.	402
TELAMON, Muls. and Verr.	31
TELESIELLA, Reich.	316
temmincki, Boiss.	262
tephrocephala, Vieill.	149
terpna, Heine	150
thalassina, Sw.	318
THALURANIA, Gould	100
THALURANIDAE, Boucard	100
THAUMANTIAS, Bp.	146
thaumantias, L.	174
THAUMASTURA, Bon.	23
THAUMATIAS, Gould	147
THAUMATIAS, Bp.	174
THAUMANTOESSA, Heine	47
THRENETES, Gould	369
THREPTRIA, Reich.	249
TILMATURA, Reich.	20
TIMOLIA, Muls.	176
tobaci, Gmel.	150
TOPAZA, Gray	214
torquata, Boiss.	272
torridus, Salv.	10
townsendi, Ridgw.	102
TOXATEUCHES, Cab. and Heine	373
TOXOTEUCHES, Muls.	373
traviesi, Muls. and Verr.	271
TRICOLOPHA, Heine	40
tricolor, Less.	9
TROCHILIDAE, Vig.	2
TROCHILUS, L.	2
TROCHILUS, Tsch.	282
TRYPHAENA, Gould	20
typica, Bon.	55
typica, Bon. (Damophila)	133
tyrianthina, Lodd.	74
ULYSSES, Muls.	180
underwoodi, Less.	245
URALIA, Muls. and Verr.	244
URANOMITRA, Reich.	156
UROCHROA, Gould	277
urochrysea, Gould	325
UROLAMPRA, Cab. and H.	70
UROSTICTE, Gould	81
valenciana, Boucard	102
ventralis, Salv.	253
venusta, Gould	101
veraguensis, Salv.	307
veraguensis, Gould, *Lampornis*	333
verreauxi, Bourc.	36
versicolor, Nordm.	155
verticeps, Gould	104
vesper, Less.	22
vestita, Longuem.	253
victoriae, Bourc. and Muls.	94
vieilloti, Less.	37
villavicencio, Bourc.	359
viola, Gould	224
violajugulum, Jeff.	3
violicauda, Elliot	331
violiceps, Gould	164
violicollis, Salv.	231
violifera, Gould	265
violifrons, Gould	314
virescens, Dum.	174
virginalis, Gould	329
viridicauda, Berl.	147
viridicauda, Berlp., *Leucippus*	401
viridiceps, Gould	159
viridiceps, Boucard, *Eugenes*	296
viridifrons, Elliot	164
viridigaster, Bourc.	200
viridipallens, Bourc. and Muls.	219
viridis, Aud. and Vieill.	334
viridissimus, Vieill.	175
viridiventris, Berl.	145
vulcani, Gould	69
wagleri, Less.	108
WARSZEWICZIA, Boucard	224
warszewiezi, Cab. and Heine	189
watertoni, Bourc.	105
wellsi, Boucard	188
whitelyana, Gould	292
whitelyi, Boucard	161
whitelyi, Boucard, *Eremita*	390
wiedi, Boucard	120
williami, Bourc. and Del.	77
wilsoni, Del. and Bourc.	279
XANTHOGENYX, d'Ham	288
xanthusi, Lawr.	178
yarrelli, Bourc.	21
yaruqui, Bourc.	374
yucatanensis, Cab.	196
ZEPHYRITIS, Muls. and Verr.	21
ZODALIA, Muls.	87

GENERA

OF

HUMMING BIRDS.

DEDICATED TO THE MEMORY OF

LINNÉ;

THE FATHER OF SYSTEMATICAL CLASSIFICATION, AND

BINOMINAL NOMENCLATURE.

LONDON, 1894-1895.

Bournemouth:
Pardy & Son, General Printers.

GENERA

OF

HUMMING BIRDS.

BEING ALSO

A Complete Monograph of these Birds.

BY

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Corresponding Member of the French Scientific Commission to Mexico and Central America, of the Paris and Madrid Museums, of the Zoological Society of London, of the Royal Geographical Society of Lisboa, Member of the Société Zoologique de France, Author of Catalogus Avium, and Travels of a Naturalist, Editor and Proprietor of "The Humming Bird," &c., &c., &c.

London, 1893-1895.

PREFACE.

IN preparing this volume I have done my best; but I do not presume that it is without fault or errors, and it is probable that in the next twenty years or so, many new forms will be discovered, and will enable other authors to make a better classification of these Birds: but nevertheless, I think that this work, like those of my predecessors, from LINNÉ, VIEILLOT, GMELIN, LESSON, JARDINE, &c., to GOULD, MULSANT, BOURCIER, ELLIOT, SALVIN, BERLEPSCH, LAWRENCE, RIDGWAY, REICHENBACH, HEINE, and others, will help greatly to attain that end. Each author must be satisfied in adding a stone to the edifice until its perfect completion.

I am more convinced than ever that these beautiful birds stand quite alone by themselves. They can be considered as the handsomest and most perfect, and are fully entitled to be classified separately under the name of TROCHILI, as I have proposed for them in my CATALOGUS AVIUM, London, 1876.

In this volume, I have distributed all the species known into eighteen families, believing that in doing so, it will facilitate their study.

The author begs to acknowledge the assistance he has received in the preparation of this volume, from the British Museum, the United States National Museum, the London Zoological Society, Graf von Berlepsch, Robert Ridgway, Osbert Salvin, Auguste Sallé, Eugène Simon, Chas. Cory, Salles, Lawrence, and many others, to all of whom he offers his best thanks. He has been also very much helped in his task by perusing the excellent works on Trochilidae, of Vieillot, Lesson, Jardine, Gould, Gray, Sclater, Salvin, Mulsant, Elliot, Berlepsch, Lawrence, Ridgway, Sharpe, Taczanowski, Cabanis, Reichenbach, Heine, and others.

In the future, the author hopes to be able to issue a certain number of plates figuring the heads of all the genera recognised in this volume. The drawings are ready, but he has not been able yet to find a suitable engraver.

A. B.

Spring Vale,
Isle of Wight,
December, 1895.

SYSTEMATIC INDEX.

ORDER TROCHILI.

1. FAM. TROCHILIDAE.

PAGE

1. TROCHILUS, Linné 2
   1. colubris, Linné 2
   2. alexandri, Bourc. and Muls. 3
   3. violajugulum, Jeff. .. 3
2. CALYPYTE, Gould 4
   1. costae, Bourc. 4
   2. floresi, Gould 5
   3. annae, Less. 5
   4. helenae, Lemb. 6
3. MELLISUGA, Briss. 6
   1. minima, Lin. 6
4. SELASPHORUS, Sw. .. 7
   1. rufus, Sw. 7
   2. scintilla, Gould 8
   3. ardens, Salv. 9
   4. platycercus, Sw. 9
   5. flammula, Salv. 10
   6. torridus, Salv. 10
5. CATHARMA, Elliot 11
   1. ortura, Less. 11
6. ATTHIS, Reich. 12
   1. heloisae, Less. and Del. .. 12
   2. ellioti, Ridgw. 12
7. STELLULA, Gould 13
   1. calliope, Gould 13
8. CALOTHORAX, Gray.. .. 14
   1. lucifer, Sw. 14
   2. pulchra, Gould 14
9. ACESTRURA, Gould.. .. 15
   1. mulsanti, Bourc. 15
   2. heliodori, Bourc. 16
   3. decorata, Gould 16
   4. micrura, Gould 17
10. CHAETOCERCUS, Gray .. 17
   1. jourdani, Bourc. 17
   2. rosae, Bourc. and Muls. .. 18
   3. berlepschi, Simon .. 18
   4. bombus, Gould 19
   5. burmeisteri, Sclat. .. 19
11. TILMATURA, Reich. .. 20
   1. duponti, Less. 20
12. MYRTIS, Reich. 21
   1. fannyi, Less. 21
   2. yarelli, Bourc. 21
13. RHODOPIS, Reich. 22
   1. vesper, Less. 22
   2. atacamensis, Leyb. .. 23
14. THAUMASTURA, Bon. .. 23
   1. corae, Less. and Garn. .. 23
15. HELIACTIN, Boié. 24
   1. cornuta, Max. 24
16. DORYCHA, Reich. .. 25
   1. enicura, Vieill. 25
   2. elizae, Less. and Del. .. 26
   3. bryanthae, Lawr... .. 27
   4. evelynae, Bourc. 28
   5. lyrura, Gould 28
17. CALLIPHLOX, Boié. .. 29
   1. amethystina, Gmel. .. 29
   2. roraimae, Boucard .. 30
   3. mitchelli, Bourc... .. 30

2. LOPHORNIDAE 31

18. LOPHORNIS, Less... .. 31
   1. ornatus, Bodd. 32
   2. gouldi, Less. 32
   3. magnificus, Vieill. .. 33
   4. helenae, Del. 34
   5. adorabilis, Salv. 34
   6. pavoninus, Salv. and Godm. 35
   7. verreauxi, Bourc... .. 36
   8. hauxwelli, Boucard .. 37
   9. chalybea, Vieill. 37
   10. stictolophus, Salv. and Elliot 38
   11. delattrei, Less. 39
   12. regulus, Gould 39
19. GOULDIA, Bon. 40
   1. langsdorffi, Bon. and Vieill. 40
   2. melanosternum, Gould .. 41
   3. popelairei, Dubus .. 41
   4. conversi, Bourc. and Muls. 42
   5. loetitiae, Bourc. 43
20. DISCURA, Reich. 44
   1. longicauda, Gmel. .. 44

PAGE

3. CEPHALOLEPIDAE .. 45

21. CEPHALOLEPIS, Lodd. .. 45
1. delalandei, Vieill. .. 46
2. loddigesi, Gould 46
22. LODDIGESIA, Gould .. 47
1. mirabilis, Bourc. 48
2. sp. Boucard 49
23. KLAIS, Reich. 49
1. guimeti, Bourc. 49
2. merriti, Lawr. 50
24. ANTHOCEPHALA, Cab. .. 50
1. floriceps, Gould 51
2. berlepschi, Salv. 397
25. MICROCHERA, Gould .. 51
1. albocoronata, Gould .. 51
2. parvirostris, Lawr. .. 51
26. BELLONA, Muls. and Verr. .. 52
1. cristata, L. 52
2. superba, Boucard .. 53
3. exilis, Gmel. 53
4. emigrans, Lawr. 54
27. ABEILLIA, Bon. 55
1. typica, Bon. 55
28. CHRYSOLAMPIS, Boié. .. 56
1. moschitus, L. 56
29. EUSTEPHANUS, Reich. .. 57
1. galeritus, Mol. 57
2. burtoni, Boucard.. .. 58
3. fernandensis, King .. 58
4. leyboldi, Gould 60
30. PATAGONA, Gray 60
1. gigas, Vieill. 60
2. peruviana, Boucard .. 61
3. boliviana, Boucard .. 61

4. METALLURIDAE.

31. OREONYMPHA, Gould .. 62
1. nobilis, Gould 62
32. OXYPOGON, Gould.. .. 63
1. guerini, Boiss. 63
2. stuebeli, Meg. 64
3. cyanolaemus, Salv. and Godm. 65
4. lindeni, Parz. 65
33. EUPOGONUS, Muls. and Verr. 66
1. herrani, Bon. 66
34. LAMPROPOGON, Bon. .. 67
1. ruficeps, Gould 67
35. CHALCOSTIGMA, Reich. .. 68
1. heteropogon, Boiss. .. 68
2. olivacea, Lawr. 69
3. stanleyi, Bourc. and Muls... 69

PAGE

36. METALLURA, Gould .. 70
1. opaca, Licht. 70
2. jelskyi, Cab. 71
3. chloropogon, Cab. and Heine 72
4. eupogon, Cab. 72
5. smaragdinicollis, Gray .. 73
6. peruviana, Boucard .. 73
7. tyrianthina, Lodd .. 74
8. griseocyanea, Boucard .. 75
9. quitensis, Gould .. 75
10. aeneicauda, Gould .. 75
11. baroni, Salv. 397
12. atrigularis, Salv. 397
13. primolina, Bourc. .. 76
14. williami, Bourc. and Del. .. 77
37. AVOCETTINUS, Bon. .. 77
1. eurypterus, Lodd. .. 78
38. ADELOMYIA, Bp. 78
1. melanogenys, Fras. .. 79
2. simplex, Boucard .. 80
3. inornata, Gould 80
4. chlorospila, Gould .. 80
39. UROSTICTE, Gould .. 81
1. benjamini, Bourcier .. 81
2. intermedia, Tacz. .. 82
3. ruficrissa, Lawr. 82
40. AUGASTES, Gould .. 83
1. superbus, Vieill. 83
2. lumachellus, Less. .. 84
41. PHLOGOPHILUS, Gould .. 84
1. hemileucurus, Gould .. 84
42. RAMPHOMICRON, Bon. .. 85
1. microrhynchum, Boiss. .. 85
2. dorsale, Salv. and Godm. .. 86

5. LESBIDAE 86

43. ZODALIA, Muls. 87
1. ortoni, Lawr. 87
2. glyceria, Bon. 88
3. caroli, Bourc. 88
44. SAPPHO, Reich. 89
1. sparganura, Shaw .. 89
2. phaon, Gould 90
45. LESBIA, Lesson 91
1. nuna, Less. 91
2. eucharis, Bourc. 92
3. boliviana, Boucard .. 92
4. gouldi, Lodd. 93
5. gracilis, Gould 94
6. chlorura, Gould 94
7. victoriae, Bourc. and Muls. 94
8. aequatorialis, Boucard .. 95

PAGE

46. CYANOLESBIA, Stej. .. 96
1. gorgo, Reich. 96
2. meridana, Boucard .. 97
3. coelestis, Gould 97
4. mocoa, Del. and Bourc. .. 97
5. columbiana, Boucard .. 98
6. boliviana, Gould 98
7. griseiventris, Tacz .. 99
47. NEOLESBIA, Salv... .. 99
1. nerkhorni, Berl. 99

6. THALURANIDAE .. 100

48. THALURANIA, Gould .. 100
1. glaucopis, Gmel... .. 100
2. columbica, Bourc. and Muls. 101
3. valenciana, Boucard .. 102
4. townsendi, Ridgw. .. 102
5. eryphile, Less. 103
6. fanniae, Bourc. and Del. .. 104
7. hypochlora, Gould .. 104
8. watertoni, Bourc... .. 105
9. furcata, Gmel. 105
10. refulgens, Gould 106
11. nigrofasciata, Gould .. 106
12. boliviana, Boucard .. 107
49. GMELINIUS, Boucard .. 108
1. bicolor, Gmel. 108
50. PHAEOPTILA, Gould .. 109
1. sordida, Gould 109
51. IACHE, Elliot 110
1. latirostris, Sw. 110
2. magica, Muls. and Verr. .. 110
3. doubledayi, Bourcier .. 111
4. nitida, Salv. and Godm. .. 111
5. lawrencei, Ridgw. .. 112

7. CHLOROLAMPIDAE .. 112

52. CHLOROLAMPIS, Cab. and Heine 113
1. auriceps, Gould 113
2. forficata, Ridgw. 113
3. caniveti, Less. 114
4. osberti, Gould 115
5. salvini, Cab. and Heine .. 115
53. SPORADINUS, Bon... .. 116
1. ricordi, Gerv. 116
2. elegans, Vieill. 117
3. maugei, Vieill. 118
54. CHLOROSTILBON, Gould .. 119
1. pucherani, Bourc. and Muls. 119
2. wiedi, Boucard 120
3. egregius, Heine. 120

PAGE

4. splendidus, Vieill. .. 121
5. chrysogaster, Bourc. .. 121
6. inexpectata, Berlp. .. 122
7. speciosus, Boucard .. 122
8. angustipennis, Fras. .. 123
9. pumilus, Gould 398
10. melanorhynchus, Gould .. 123
11. assimilis, Lawr. 124
12. panamensis, Boucard .. 124
13. atala, Less. 124
55. SMARAGDOCHRYSIS, Gould .. 125
1. iridescens, Gould.. .. 125
56. PTOCHOPTERA, Elliot .. 126
1. iolaema, Reich. 126
57. PRASITIS, Cab. and Heine .. 127
1. prasina, Less. 127
2. stuebeli, Meg. 128
3. daphne, Bon. 128
58. PANYCHLORA, Cab. and Heine 129
1. aliciae, Bourc. and Muls. .. 129
2. micans, Salv. 130
3. euchloris, Reich. 130
4. poortmani, Bourc. .. 130
5. russata, Salv. and Godm. .. 131
6. stenura, Cab. and Heine .. 131

8. AMAZILIIDAE 132

59. DAMOPHILA, Reich. .. 133
1. typica, Bon. 133
2. panamensis, Berl. .. 134
60. CYANOPHAIA, Reich. .. 134
1. caeruleigularis, Gould .. 134
2. goudoti, Bourc. 135
61. ARINIA, Muls. .. . 136
1. boucardi, Muls. 136
62. CHRYSURONIA, Bon. .. 137
1. aenone, Less. 137
2. longirostris, Berl... .. 138
3. humboldti, Bourc. and Muls. 138
4. neera, Less. and Del. .. 139
5. buckleyi, Boucard .. 140
6. eliciae, Bourc. and Muls. .. 140
7. chrysura, Less. 141
8. ruficollis, Vieill. 141
63. POLYERATA, Heine .. 142
1. amabilis, Gould 142
2. decora, Salv. 399
3. rosenbergi, Boucard .. 399
64. HYLOCHARIS, Boié. .. 143
1. sapphirina, Gmel. .. 143
2. guianensis, Boucard .. 144
3. brasiliensis, Boucard .. 144
4. cyanea, Vieill. 144
5. rostrata, Berlp. 400

	PAGE
6. viridiventris, Berl.	145
7. bartletti, Gould	145
8. lactea, Less.	146
9. speciosa, Boucard	400
65. AGYRTRIA, Reich.	146
1. leucogaster, Gmel.	147
2. viridicauda, Berl.	147
3. alleni, Elliot	148
4. compsa, Heine	148
5. nitidifrons, Gould	149
6. tephrocephala, Vieill.	149
7. tobaci, Gmel.	150
8. apicalis, Gould	150
9. maculicauda, Gould	151
10. nigricauda, Elliot	151
11. niticauda, Elliot	152
12. fluviatilis, Gould	152
13. luciae, Lawr.	153
14. norrisi, Bourc.	153
15. brevirostris, Less.	154
16. versicolor, Nordm.	155
17. candida, Bourc. and Muls.	155
66. URANOMITRA, Reich.	156
1. franciae, Bourc. and Muls.	156
2. cyanicollis, Gould	157
3. salvini, Brewster	400
4. pelzeni, Tacz.	158
5. neglecta, Elliot	158
6. viridiceps, Gould	159
7. taczanowskii, Sclat.	159
8. columbiana, Boucard	160
9. milleri, Bourc.	161
10. whitelyi, Boucard	161
11. niveipectus, Cab. and Heine.	162
67. CYANOMYIA, Bon.	162
1. cyanocephala, Less.	163
2. quadricolor, Vieill.	163
3. violiceps, Gould	164
4. viridifrons, Elliot	164
5. salvini, Brewster	—
6. guerrerensis, Salv. and Godm.	165
7. microrhyncha, Elliot.	165
68. LEUCIPPUS, Bon.	165
1. chionogaster, Tsch.	166
2. chlorocercus, Gould	166
3. viridicauda, Berlp.	401
69. LEUCOCHLORIS, Reich.	167
1. albicollis, Vieill.	167
70. AITHURUS, Cab. and Heine.	168
1. polytmus, L.	168
2. taylori, Rotsch.	402
71. EUPHERUSA, Gould	169
1. eximia, Del.	169
2. poliocerca, Elliot	170
3. egregia, Sclat. and Salv.	170
72. CALLIPHARUS, Elliot	171
1. nigriventris, Lawr.	171
73. ELVIRA, Muls. and Verr.	172
1. chionura, Gould	172
74. LAWRENCIUS, Boucard	173
1. cupreiceps, Lawr.	173
75. POLYTMUS, Brisson	174
1. thaumantias, L.	174
2. viridissimus, Vieill.	175
3. leucorhous, Sclat. and Salv.	176
76. DOLEROMYIA, Bon.	176
1. fallax, Bourc.	177
77. BASILINNA, Boié	177
1. leucotis, Vieill.	177
2. xanthusi, Lawr.	178
78. TIMOLIA, Muls.	179
1. lerchi, Muls. and Verr.	179
79. EUCEPHALA, Reich.	180
1. grayi, Del. and Bourc.	180
80. CHLORESTES, Reich.	181
1. cyanogenys, Wied.	181
2. caerulea, Vieill.	182
3. chlorocephala, Bourc.	182
4. smaragdo-caerulca, Gould	183
5. caeruleo-lavata, Gould	183
6. hypocyanea, Gould	184
7. pyropygia, Salv. and Godm.	184
8. subcaerulea, Elliot	185
9. scapulata, Gould	185
81. SAUCEROTTIA, Bon.	186
1. erythronota, Less.	186
2. feliciae, Less.	187
3. wellsi, Boucard	188
4. hoffmanni, Cab. and Heine	188
5. sophiae, Bourc. and Muls.	189
6. saucerottei, Del.	190
7. cyanifrons, Bourc.	190
8. nunezi, Boucard	191
82. AMAZILIA, Reich.	192
1. amazili, Less.	192
2. forreri, Boucard	193
3. leucophaea, Reich.	194
4. alticola, Gould	194
5. dumerili, Less.	194
6. graysoni, Lawr.	195
7. cinnamomea, Less.	196
8. yucatanensis, Cab.	196
9. cerviniventris, Gould	197
10. castaneiventris, Gould	198
11. fuscicaudata, Fras.	198
12. lawrencii, Elliot	199
13. viridigaster, Bourc.	200
14. iodura, Saucerotte	201
15. lucida, Elliot	201
16. edwardi, Del.	202
17. niveiventris, Gould	202
18. cupreicauda, Salv. and Godm.	203
19. beryllina, Licht.	204
20. ocai, Gould	204

PAGE

21. sumichrasti, Salv. .. 205
22. mariae, Bourc. 205
23. cyanura, Gould 206

9. HELIANGELIDAE .. 207

83. MARGAROCHRYSIS, Reich. .. 207
1. aurescens, Gray 208
84. CLYTOLAEMA, Gould .. 208
1. rubinea, Gmel. 209
2. rubinoides, Bourc. and Muls. 210
3. aequatorialis, Gould .. 210
4. cervinigularis, Salv. .. 211
85. PANOPLITES, Gould .. 211
1. flavescens, Lodd... .. 212
2. matthewsi, Bourc. .. 212
3. jardinei, Bourc. 213
86. TOPAZA, Gray 214
1. pella, L... 214
2. pyra, Gould 215
87. LAMPROLAEMA, Reich. .. 216
1. rhami, Less. 216
88. COELIGENA, Less... .. 217
1. clemenciae, Less. .. 217
89. DELATTRIA, Bp. 218
1. henrici, Less. and Del. .. 218
2. margaritae, Salv. and Godm. 219
3. viridipallens, Bourc. and Muls. 219
4. sybille, Salv. and Godm. .. 220
90. OREOPYRA, Gould .. 221
1. leucaspis, Gould 221
2. cinereicauda, Lawr. .. 222
3. hemileuca, Salv. 222
4. calolaema, Salv. 223
5. pectoralis. Salv. 223
91. WARSZEWICZIA, Boucard .. 224
1. viola, Gould 224
92. HELIOTRYPHA, Gould .. 225
1. exortis, Fraser 225
2. micrastur, Gould.. .. 226
3. barrali, Muls. and Verr. .. 227
4. speciosa, Salv. 228
5. simoni, Boucard 228
93. HELIANGELUS, Gould .. 229
1. clarissae, Long 229
2. henrici, Boucard 230
3. strophianus, Gould .. 230
4. violicollis, Salv. 231
5. laticlavius, Salv. 231
6. spencei, Bourc. 232
7. amethysticollis, d'Orb and Lafr. 233
8. mavors, Gould 233
9. rotschildi, Boucard .. 234
94. PANTERPE, Cab. 234
1. insignis, Cab. and Heine .. 235

PAGE

95. AGLAEACTIS, Gould .. 235
1. cupripennis, Bourc. and Muls. 236
2. caumatonota, Gould .. 236
3. castelnaudi, Bourc. and Muls. 237
4. pamela, d'Orb and Lafr. .. 238
96. LAFRESNAYA, Bp... .. 239
1. flavicaudata, Fraser .. 239
2. cinereorufa, Boucard .. 240
3. gayi, Bourc. and Muls. .. 241
97. EREBENNA, Muls. and Verr. 242
1. derbiana, Del. and Bourc... 242
98. ENGYETE, Reich. 243
1. alinae, Bourc. 243
2. dyboskii, Tacz. 244
99. SPATHURA, Gould.. .. 244
1. underwoodi, Less. .. 245
2. melananthera, Jard. .. 246
3. solstitialis, Gould .. 247
4. addae, Bourc. 247
5. annae, Berl. and Stolz. .. 248
6. peruana, Gould 248
7. cissiura, Gould 249
100. THREPTRIA, Reich. .. 249
1. aureliae, Bourc. and Muls. 250
2. russata, Gould 250
3. assimilis, Elliot 250
4. lugens, Gould 251
5. squamata, Gould.. .. 251
101. ERIOCNEMIS, Reich. .. 252
1. nigrivestis, Bourc. and Muls. 252
2. ventralis, Salv. 253
3. vestita, Longuem. .. 253
4. aurea, Meyer 254
5. chrysorama, Elliot .. 255
6. godini, Bourc. 255
7. evelinae, Ernst. and Hart. 256
8. cupreiventris, Fras. .. 256
9. albogularis, Boucard .. 257
10. dyselius, Elliot. 257
11. incultus, Elliot 258
12. simplex, Gould 258
13. sapphiropygia, Tacz. .. 258
14. glaucopoides, d'Orb and Lufr. 259
15. luciani, Bourc. 260
16. mosquerae, Gray.. .. 260
17. isaacsoni, Parz. 261
102. PTEROPHANES, Gould .. 262
1. temmincki, Boiss. .. 262
2. peruvianus, Boucard .. 263

10. HELIANTHEIDAE .. 263

103. DIPHLOGAENA, Gould .. 263
1. iris, Gould 263
2. hesperus, Gould 264

	PAGE
104. HELIANTHEA, Gould	.. 265
1. violifera, Gould	.. 265
2. osculans, Gould	.. 266
3. dichroura, Tacz.	.. 267
4. eos, Gould	.. 267
105. HYPOCHRYSIA, Reich.	.. 268
1. bonapartii, Boiss.	.. 268
2. helianthea, Less.	.. 269
3. nigra, Boucard	.. 270
106. CALLIGENIA, Muls.	.. 270
1. lutetiae, Del. and Bourc.	.. 270
107. EUDOSIA, Muls.	.. 271
1. traviesi, Muls. and Verr.	.. 271
108. HOMOPHANIA, Reich.	.. 272
1. torquata, Boiss.	.. 272
2. fulgidigula, Gould	.. 273
3. insectivora, Tsch.	.. 274
4. conradi, Bourc.	.. 275
5. inca, Gould	.. 275
6. lawrencii, Boucard	.. 276
109. UROCHROA, Gould	.. 277
1. bougueri, Bourc.	.. 277
110. BOURCIERIA, Bp.	.. 277
1. prunellii, Bourc. and Muls.	278
2. assimilis, Elliot	.. 278
3. purpurea, Gould	.. 279
4. wilsoni, Del. and Bourc.	.. 279
111. LAMPROPYGIA, Cab. and H.	280
1. coeligena, Cab.	.. 280
2. columbiana, Elliot	.. 281
3. boliviana, Gould	.. 281

11. HELIODOXIDAE	.. 282
112. LEADBEATERA, Bp.	.. 282
1. grata, Bp.	.. 283
113. HYLONYMPHA, Gould	.. 284
1. macrocerca, Gould	.. 284
114. HELIODOXA, Gould	.. 285
1. jacula, Gould	.. 285
2. jamesoni, Bourc.	.. 286
3. henrici, Lawr.	.. 287
115. LAMPRASTER, Tacz.	.. 287
1. branicki, Tacz.	.. 288
116. XANTHOGENYX, d'Ham	.. 288
1. salvini, d'Ham	.. 288
2. hyposticta, Gould	.. 289
3. alexandri, Boucard	.. 290
117. IOLAEMA, Gould	.. 290
1. schreibersi, Bourc.	.. 291
2. whitelyana, Gould	.. 292
3. luminosa, Elliot	.. 292
118. STERNOCLYTA, Gould	.. 293
1. cyanipectus, Gould	.. 293

	PAGE
119. EUGENIA, Gould	.. 294
1. imperatrix, Gould	.. 294
120. DOCIMASTES, Gould	.. 295
1. ensiferus, Boiss.	.. 295
121. EUGENES, Gould	.. 296
1. fulgens, Sw.	.. 296
2. spectabilis, Lawr.	.. 297
12. FLORICOLIDAE	.. 298
122. HELIOMASTER, Bp.	.. 299
1. furcifer, Shaw	.. 299
123. LEPIDOLARYNX, Reich.	.. 300
1. mesoleucus, Tem.	.. 300
124. FLORICOLA, Elliot	.. 301
1. longirostris, Vieill.	.. 302
2. pallidiceps, Gould	.. 303
3. constanti, Del.	.. 304
13. HEMISTEPHANIDAE	.. 305
125. HEMISTEPHANIA, Reich.	.. 305
1. ludoviciae, Bourc. and Muls.	306
2. veraguensis, Salv.	.. 307
3. johannae, Bourc.	.. 307
4. gnianensis, Boucard	.. 308
14. PETASOPHORIDAE	.. 309
126. SCHISTES, Gould	.. 309
1. geoffroyi, Bourc. and Muls.	310
2. albogularis, Gould	.. 311
127. HELIOTHRIX, Boié	.. 311
1. auritus, Gmel.	.. 312
2. auriculatus, Licht.	.. 313
3. barroti, Bourc.	.. 314
4. violifrons, Gould	.. 314
128. PINAROLAEMA, Gould	.. 315
1. buckleyi, Gould	.. 315
129. PETASOPHORA, Gray	.. 316
1. serrirostris, Vieill.	.. 316
2. cyanotis, Bourc.	.. 317
3. cabanisi, Lawr.	.. 318
4. thalassina, Sw.	.. 318
5. anais, Less	.. 319
6. corruscans, Gould	.. 320
7. rubrigularis, Elliot	.. 320
8. germana, Godm. and Salv.	321
9. delphinae, Less.	.. 321

PAGE

15. LAMPORNIDAE .. 322

130. HYPUROPTILA, Gould .. 322
1. buffoni, Less. 322
2. aeneicauda, Lawr. .. 323
3. melanorrhoa, Salv. .. 324
4. isaurae, Gould 324
5. urochrysea, Gould .. 325
6. intermedia, Ernst. and Hart. 325
7. caeruleiventris, Reich. .. 325
131. LAMPORNIS, Sw. 326
1. mango, L. 327
2. dominicus, L. 328
3. ellioti, Cory 329
4. virginalis, Gould 329
5. calosoma, Elliot 329
6. gramineus, Gmel. .. 330
7. nigricollis, Vieill. .. 331
8. prevosti, Less. 332
9. veraguensis, Gould .. 333
10. viridis, Aud. and Vieill. .. 334
132. AVOCETTULA, Reich. .. 334
1. recurvirostris, Sw. .. 335
133. EULAMPIS, Boié 335
1. jugularis, L. 336
134. SERICOTES, Reich. .. 336
1. holosericeus, L. 337
2. chlorolaemus, Gould .. 337
135. FLORISUGA, Bp. 338
1. mellivora, L. 339
2. sallei, Boucard 341
136. MELANOTROCHILUS, Desl... 341
1. fuscus, Vieill. 341

16. OREOTROCHILIDAE .. 343

137. OREOTROCHILUS, Gould .. 343
1. chimborazo, Del. and Bourc. 343
2. pichinchae, Bourc. and Muls. 344
138. ALCIDIUS, Boucard .. 345
1. estellae, d'Orb. and Laf. .. 345
2. bolivianus, Boucard .. 346
3. leucopleurus, Gould .. 347
4. melanogaster, Gould .. 347
5. adelae, d'Orb. and Laf. .. 348

17. CAMPYLOPTERIDAE .. 349

139. SPHENOPROCTUS, Cab. and Heine 349
1. pampa, Less. 349
2. curvipennis, Licht. .. 350
140. EUPETOMENA, Gould .. 350
1. macroura, Gmel... .. 351
2. hirundo, Gould 351

PAGE

141. APHANTOCHROA, Gould .. 352
1. cirrochloris, Vieill. .. 352
2. gularis, Gould 353
142. PHAEOCHROA, Gould .. 353
1. cuvieri, Del. and Bourc. .. 353
143. CAMPYLOPTERUS, Sw. .. 354
1. largipennis, Bodd. .. 355
2. obscurus, Gould 355
3. hemileucurus, Licht. .. 356
4. ensipennis, Sw. 356
144. SAEPIOPTERUS, Reich. .. 357
1. lazulus, Vieill. 357
2. phainopeplus, Salv. and G. 358
3. villavicencio, Bourc. .. 359
4. rufus, Less. 360
5. hyperythrus, Cab. .. 360

18. PHAETHORNIIDAE .. 361

145. GLAUCIS, Boié 361
1. hirsuta, Gmel. 361
2. dohrni, Bourc. 362
3. mazeppa, Less. 363
4. lanceolata, Gould .. 363
5. melanura, Gould .. 363
6. rojasi, Boucard 364
7. roraimae, Boucard .. 364
8. aenea, Lawr. 365
9. columbiana, Boucard .. 402
146. RAMPHODON, Less. .. 365
1. naevius, Dum. 366
147. ANDRODON, Gould .. 367
1. aequatorialis, Gould .. 367
148. EUTOXERES, Reich. .. 368
1. aquila, Bourc. 368
2. baroni, Ernst. and Hart. .. 369
3. condaminii, Bourc. .. 369
149. THRENETES, Gould .. 369
1. leucurus, L. 370
2. cervinicauda, Gould .. 370
3. ruckeri, Bourc. 371
4. fraseri, Gould 372
150. DNOPHERA, Heine .. 372
1. antoniae, Bourc. and Muls. 372
151. TOXATEUCHES, Cab. and H. 373
1. emiliae, Bourc. and Muls... 374
2. guyi, Less. 375
152. PHAETHORNIS, Sw. .. 375
1. superciliosus, L. 375
2. eurynome, Less. 376
3. longirostris, Less. and Del. 377
4. panamensis, Boucard .. 377
5. consobrinus, Bourc. .. 378
6. guianensis, Boucard .. 378
7. boliviana, Gould.. .. 379

	PAGE
8. syrmatophorus, Gould ..	379
9. berlepschi, Ernst. and H. ..	380
10. anthophilus, Bourc. ..	380
11. hispidus, Gould	381
153. AMETRORNIS, Reich. ..	382
1. bourcieri, Less.	382
2. philippii, Bourc.	383
154. MILORNIS, Muls. ..	383
1. squalidus, Tem... ..	384
2. rupuninii, Boucard ..	384
3. nattereri, Berlp.	385
4. apheles, Cab and Heine. ..	386
5. longuemarii, Less. ..	386
6. chapadensis, Allen ..	387
7. idaliae, Bourc. and Muls. ..	388
155. EREMITA, Reich. ..	388
1. pygmaea, Spix... ..	389
2. nigrocincta, Lawr. ..	390
3. episcopus, Gould.. ..	390
4. whitelyi, Boucard ..	390
5. griseigularis, Gould ..	391
6. striigularis, Gould ..	391
7. riojae, Berlp.	392
8. adolphi, Gould	392
156. ANISOTERUS, Muls. ..	393
1. gounellii, Boucard ..	393
2. pretrii, Less. and Del. ..	394
3. garleppi, Boucard ..	395
4. augustii, Bourc.	395

THE HUMMING BIRD. A Quarterly Scientific, Artistic, and Industrial Review. Vol. III. London, 1894 ... ... 10/-

Contents of Vol. III.

Panama—Grover Cleveland; the elected President of the United States—Dercriptions of several supposed New Species of Humming Birds, by A. Boucard—Visits to the Zoological Gardens of London, by W. Rosenberg—Paris International Exhibition of 1900—World's Columbian Exhibition—Chicago Exposition; World's Fair Notes—Relics at the Fair—Big Prizes for Live Stock—World's Fair Souvenirs—Travels of a Naturalist, by A. Boucard—Genera of Humming Birds, by A. Boucard—The Imperial Institute—Anver's International Exhibition—Royal Institution—Description of one supposed New Species of Cetonia, from Syria, by A. Boucard—How Animals are Protected Against Their Enemies, by W. Rosenberg—Abundance of Wasps—Notes on Wasps, by A. Boucard—The Ways of Wasps—Les Guêpes—Rectification of Name for Semioptera gouldi—Alligators—Destructive Insects of Victoria, by French—International Exhibitions—The late World's Fair—International Exhibition of Lyon (France)—International Exhibition of Paris, 1900—International Exhibition of Industry, Science and Art, in Hobart Town, (Tasmania)—International Exhibition in San Francisco (California).

GENERA OF HUMMING BIRDS:—

	PAGE
Genus Oxypogon, Gould	63
,, Eupogonus, Muls. and Verr. ...	66
,, Lampropogon, Bon.	67
,, Chalcostigma, Reich.	68
,, Metallura, Gould	70
,, Avocettinus, Bon.	77
,, Adelomyia, Bon.	78
,, Urosticte, Gould	81
,, Augastes, Gould	83
,, Phlogophilus, Gould	84
,, Ramphomicron, Bon.	85
LESBIDAE.	
Genus Zodalia, Muls	87
,, Sappho, Reich.	89
,, Lesbia, Lesson	91
,, Cyanolesbia, Steg.	96
,, Neolesbia, Salv.	99
THALURANIDAE.	
Genus Thalurania, Gould	100

NEW SPECIES OF BIRDS AND INSECTS—

DESCRIBED IN VOL. III. OF THE HUMMING BIRD:—

AVES.—TROCHILI.

			PAGE
Metallura peruviana	Boucard	...	6
Lesbia aequatorialis	,,	...	6
Oreotrochilus bolivianus	,,	...	7
Hylocharis brasiliensis	,,	...	7
Amazilia forreri	,,	...	7
Saucerottia wellsi	,,	...	8
Uranomitra whitelyi	,,	...	8
Agyrtria speciosa	,,	...	8
Chrysuronia buckleyi	,,	...	9
Phaethornis garleppi	,,	...	9
Hemistephania guianensis	,,	...	10
Patagona peruviana	,,	Gen. H. Bird	60
Patagona boliviana	,,	Gen. H. Bird	61
Cyanolesbia meridana	,,	...	97
Cyanolesbia columbiana	,,	...	98
Thalurania valenciana	,,	...	102

INSECTA.—COLEOPTERA, CETONIDÆ.

		PAGE
Cetonia delagrangei	Boucard	40
Cetonia syriaca?	,,	40

Contents of Vol. IV.

Wonderful Discovery in Colorado (Mexico)—Recent Scientific and other Publications, with Notes by the Editor—Annual Report of the Board of Regents of the Smithsonian Institution—The Hawks and Owls of the United States in their relation to Agriculture, by A. K. Fisher—Catalogue of Birds in the British Museum, Volume XXI., Columbae or Pigeons, by T, Salvadori—Catalogue of Birds in the British Museum, Volume XXII., The Game Birds, by Olgilvie Grant—The Proceedings of the Zoological Society of London, Part IV., 1892, and Parts I., II., and III., 1893—Zoological Record, Vol. XXIX., edited by Doctor Sharp—The Ibis, Sixth Series, Vol.V., edited by Philip Lutley Sclater—The Ibis, Vol. VI., No. 21, edited by Philip Lutley Sclatler—Bulletin of the British Ornithologist's Club, 1892-93—Mémoires de la Société Zoologique de France, Tome V., 5èm partie, et Tome VI., 1893—Congres International de Américanistes Compte Rendu de la Huilieme Session tenue à Paris en 1890—Sociedade de Geographia de Lisboa; Indices e Catalagos, A Bibliotheca, 1893—Revista Mensual de la Sociedad Gautemalteca de Ciencias, 1893—The Entomologists' Monthly Magazine, 1893—Ornithologische Monatsberichte, edited by Dr. Ant. Reichenow, Berlin, 1893—The Canadian Entomologist, edited by Rev. C. T. S. Bethune, Ontario, 1893—Twenty-third Annual Report of the Entomological Society of Ontario, 1893—Bulletin of the United States National Museum, Washington, 1892—North American Fauna, No. 7, Part II., Washington, 1893—Anales del Instituto fiscio-geografica del Museo de Costa Rica, Tome III., 1892—Die Vogel der Insel Curacao, by Hans von Berlepsch, 1892—The Flying Man, by the Editor—Visits to the Zoological Society Gardens, London, by W. H. Rosenberg—A Nursery of Insects—Description d'une nouvelle espece de Coquille du Japon du genre ARCA, par le Docteur Félix Joussaume—The Use of Salt for Agricultural Purposes, by the Editor—Are Ants of Aid to Fruit-Growers?—Banana Culture—Strange Phenomenon in California, Formation of an Inland Sea—Waste Products made Useful—How to Preserve Animals—The English Snake, by W. Rosenberg—The Great Lakes, by G. A.—Inhabited Worlds (*The World*)—El Coco—Many-Eyed Monster—The Telescope and the Microscope—Mistakes about Alcohol—Cotton Seed Oil—Genera Avium.

NEW GENERA AND SPECIES OF BIRDS AND SHELL

DESCRIBED IN VOL. IV. OF THE HUMMING BIRD:—

AVES.—TROCHILI.

			PAGE
Thalurania boliviana,	Boucard, Gen. H. Bird		107
Gmelinius, N.G.,	,,	,,	
Type, *Gmel. Bicolor*			108
Chlorostilbon wiedi,	,,	,,	120
Chlorostilbon panamensis,	,,	,,	124
Lawrencius, N.G.,	,,	,,	
Type, *L. cupreiceps* ...	...	...	173
SHELLS,			
Arca boucardi, Joussaume, H. Bird ...			41

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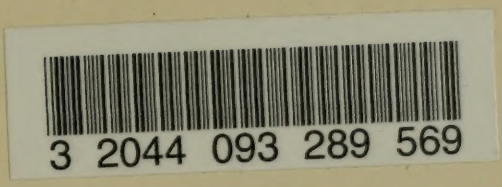
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