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A MONOGRAPH

OF

THE TROCHILIDÆ,

OR

FAMILY OF HUMMING-BIRDS.

BY

JOHN GOULD, F.R.S.

COMPLETED AFTER THE AUTHOR'S DEATH

BY

R. BOWDLER SHARPE, F.L.S. &c.,

ZOOLOGICAL DEPARTMENT, BRITISH MUSEUM.

SUPPLEMENT.

LONDON:

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PREFACE.

It fell to my lot, on Mr. Gould's death, to complete the present work together with the others left unfinished at the time of his decease. The Plates for this "Supplement" were nearly all drawn during the lifetime of Mr. Gould; to these I have added certain others as representing species well worthy of illustration, the specimens having been lent to me by Mr. Osbert Salvin. It will be noticed that a large number of species are included in the present "Supplement" without the accompanying plates. Whether it was the intention of Mr. Gould to have enumerated these in the work I know not; but as he originally meant to complete the "Supplement" in *four* parts, I fancy that he would only have figured the most striking of the species described since the completion of the 'Monograph.' I have, however, endeavoured to include in this supplementary volume descriptions of all the species of Trochilidæ discovered since 1861, when the 'Monograph' was finished; and this course will, I trust, commend itself to ornithologists. My thanks are due to Messrs. Sotheran for allowing me thus to render the work as complete as possible, notwithstanding the pecuniary loss involved by such a proceeding.

It is scarcely necessary for me to record here my obligations to Mr. Elliot's admirable 'Synopsis of the Humming-Birds,' as the pages of this book reveal how much I have been indebted to his volume; and to Mr. Salvin I owe the deepest acknowledgment, for his advice in planning the present work and for having supervised the proofs of each Part.

R. BOWDLER SHARPE.

British Museum (Natural History),
South Kensington,
March 1887.

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[SUPPLEMENT.]

Androdon æquatorialis.

Eupetomena hirundo.

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Chætocercus bombus.

Doricha bryantæ.

„ lyrura.

Lophornis adorabilis.

„ pavoninus.

Spathura solstitialis.

Zodalia ortoni.

Sparganura glyceria.

Cynanthus bolivianus.

Oxypogon cyanolæmus.

Oreonympha nobilis.

Rhamphomicron dorsale.

„ olivaceum.

Metallura heterocerca
(=M. primolina).

Adelomyia cervina.

Aglæactis caumatonota.

Eriocnemis sapphiropygia.

Uranomitra viridifrons.

Agyrtria bartletti.

„ fluviatilis.

„ taczanowskii.

Elvira cupreiceps.

Callipharus nigriventris.

Eupherusa poliocerca.

Amazilia cupreicauda.

Timolia lerchi.

Panychlora stenura.

„ russata.

EUTOXERES HETERURA, *Gould.*

Ecuadorean Sickle-bill.

Eutoxeres heterura, Gould, Ann. & Mag. Nat. Hist. (4) i. p. 455 (1868).—Elliot, Synopsis of the Humming-Birds, p. 3 (1878).—Eudes-Deslongchamps, Annuaire Mus. d'Hist. Nat. Caen, i. p. 73 (1881).

Grypus heterura, Gray, Hand-list of Birds, i. p. 123, no. 1548 (1869).

This species is not very different from the Colombian *Eutoxeres aquila*, which it replaces in Ecuador; but the stripes on the breast seem to be always of a bright fulvous colour, instead of whitish as in the above-mentioned bird.

The following remarks are quoted from my original paper on these birds:—"I have for some time past had reason to believe that the Humming-birds of this highly singular form comprised more species than the two already described (*Eutoxeres aquila* and *E. Condamini*); but it is only of late that I have acquired sufficient materials to justify my arriving at any satisfactory conclusion on the subject. At this moment I have before me three specimens of the true *E. aquila* from New Granada, seven skins of a bird from the neighbourhood of Quito, which I consider to be distinct from that species, and three from Veragua, which differ slightly from both.

"*E. aquila* is the largest species of the genus, and is distinguished by the snow-white shafts of its tail-feathers, which doubtless show very conspicuously when the bird is on the wing and the tail widely spread; this character is found in every specimen I have examined, and, I believe, will prove constant. The Quitan bird, like some of the *Phaethornithes*, is extremely variable in its markings; for instance, the tail, in some specimens, has the tips of the feathers white for nearly half an inch from the tip, in others for a quarter, in others, again, for an eighth; and I possess one in which the white tipping is absent, all the feathers being of a uniform olive-grey; but in no instance that I have seen does the white extend down the shaft as in *E. aquila*. On comparing the seven Quitan specimens with the Bogotan birds, I find that the striæ on the breast are black and white in the former, and black and buff in the latter. I shall designate the Quitan bird *E. heterura*, with the following description:—

"Upper mandible wholly black, under mandible yellow for two thirds of its length from the base, the remainder olive-brown; crown of the head nearly black, each feather glossed with green at the tip; upper surface dull grass-green; tail olive-grey, in some instances tipped with sullied white; wings deep purplish black; under surface, from the throat to the vent, striated with black and buff, the buff becoming lighter on the centre of the abdomen; under tail-coverts brown, varied with black. Total length 5 inches, bill 1, wing $2\frac{7}{8}$, tail $2\frac{1}{4}$, tarsi $\frac{1}{4}$."

EUTOXERES SALVINI, *Gould.*

Salvin's Sickle-bill.

Eutoxeres salvini, Gould, Ann. & Mag. Nat. Hist. (4) i. p. 455 (1868).—Eudes-Deslongchamps, Annuaire Mus. d'Hist. Nat. Caen, i. p. 72 (1881).
Grypus salvini, Gray, Hand-l. Birds, i. p. 123, no. 1547 (1869).
Eutoxeres aquila, pt., Elliot, Synopsis of Humming-Birds, p. 3 (1878).

The present bird I consider to constitute at least a distinct race of *Eutoxeres*, although Mr. Elliot, in his recent synopsis of the group, has not thought it necessary to separate it from *E. aquila*. I am content to notice the bird without figuring it, and must leave to future ornithologists the task of determining the value of *E. salvini* as a species.

The following is a transcript of the remarks which I published when originally writing on this bird:—"The Veraguan bird is much more nearly allied to the Ecuadorean than the New-Granadian species, but possesses characters differing from both, which, though slight, appear to be constant, none of the specimens I possess having the pure white shafts of the New-Granadian *E. aquila*, or the uniformly coloured tail of the Ecuadorian *E. heterura*, but having all the tail-feathers tipped with white; it moreover assimilates to this bird in size, as it also does in the buff colouring of the striæ of the throat and breast. For this Veraguan bird I propose the name of *Eutoxeres Salvini*, in compliment to a gentleman who assuredly deserves that a finer bird should bear his name; but as this species lives on that side of the Isthmus of Panama his labours whereon have been rewarded with such fruitful results, I embrace the first opportunity afforded me of testifying to the benefit he has conferred upon the branch of science to which we are both attached. It may be asked, and with some show of reason, if characterizing birds as distinct which present such trifling differences is not like splitting straws; to which I would answer, such differences not only exist, but are as constant as the seasons which run their courses without variation, and it is well known to all who have studied the natural productions of the two Americas that their faunas, with but few exceptions, differ *in toto*. How these differences have been brought about is beyond our comprehension; but when we do find them, they ought assuredly to be made known."

ANDRODON ÆQUATORIALIS, *Gould.*

J.Gould & W.Hart, del. et lith.

Walter Imp.

ANDRODON ÆQUATORIALIS, *Gould.*

Ecuadorian Tooth-bill.

Androdon æquatorialis, Gould, Ann. & Mag. Nat. Hist. 1863, vol. xii. p. 247.—Elliot's Syn. p. 5, 1879.
Gryphus æquatorialis, Muls. Hist. Nat. Ois.-Mouch. tom. i. p. 32, pl.

It was a source of great pleasure to me that such an interesting form of Humming-bird had been discovered since my great Monograph was published. Of this curious Humming-bird, according to my statement in the 'Annals,' I had but two specimens—one whose bill was armed with teeth, and a hook at the end of each mandible; the other was toothless in the same organ, and the upper bill did not end in a hook. Judging from this difference in the bills, the male only had teeth ending in a hook, the bill of the female is straighter and smooth at the edges, as will be seen by a glance at the drawing.

This singular form of *Androdon* has its alliances, although they are not very near; *Gryphus*, and *Eutoxeres* may be stated as two of them; these forms, I believe, run into *Glaucis* and *Phaethornis*. The form about which I am now writing has moderately large wings, while the tail-feathers are half covered; tarsi and feet very small.

As I have never seen a line written on the history of the Ecuadorian Tooth-bill, I fear some repetition of my original description must be added; for myself, I literally do not know any thing about its habits and economy.

The following appeared in the 'Annals':—

"I send for insertion in your next Number a description of a new and very singular Humming-bird which I have lately received from Ecuador. Not only does it differ specifically from every other with which I am acquainted, but it also differs in its structure from every form comprised in the great family of Trochilidæ.

"This new bird is so very singular that it is not easy to say to which section of the family it is most nearly related; but in some of its characters it assimilates with *Gryphus*, *Eutoxeres*, and *Doryfera*. In size it is about equal to *Lampornis mango*; the edges of its mandibles are thickly set with fine teeth, like those of *Gryphus*, but more strongly developed; the bill is very long for the size of the bird, and has rather an upward curvature; the wings are moderate in proportion to the body; and the tail is square or slightly rounded. The bird must be ranked among the dull-coloured species of its extensive family; at the same time it exhibits some approach to a metallic lustre in the blue or bronzy-red colouring of the hinder part of the crown. I say blue or bronzy-red, because the only specimens I have seen differ in this way, as they also do in the form of the bill,—the one with a blue crown having the toothing strongly developed, and the bill terminating in spiny hooks which cross each other when that organ is closed; whilst the other with a bronzy-red crown has a longer bill, the serrations are not developed, and the spiny hooks are wanting. The tarsi are partly bare of feathers; and the feet are small, pale in colour, and with very long black nails. The back in both is bronzy green; the rump apparently crossed with white feathers, while the upper tail-coverts are bluish; the tail-feathers are pale olive-grey at the base crossed with a band of blackish green near the tip, the three outer ones on each side being largely tipped with white; wings purplish brown, with epaulets of light grey, similar in form to those seen in *Helianthea eos*; all the under surface grey, with a conspicuous streak of blackish brown down the feathers of the throat, as in *Eutoxeres*.

"Total length $5\frac{3}{8}$ inches, bill $1\frac{7}{8}$, wing $1\frac{5}{8}$, tail $1\frac{3}{4}$.

"*Hab.* Ecuador."



EUPETOMENA HIRUNDO, *Gould.*

J.Gould & W.Hart del. et lith.

Walter. imp.

EUPETOMENA HIRUNDO, *Gould.*

Western Swallow-tail.

Eupetomena hirundo, Gould, Ann. & Mag. Nat. Hist. (4) xvi. p. 370 (1875).—Sclater & Salv. Proc. Zool. Soc. 1876, p. 18.—Elliot, Synopsis of the Humming-Birds, p. 22 (1878).—Eudes-Deslongchamps, Annuaire Mus. d'Hist. Nat. Caen, i. p. 143 (1881).

I was indebted to Mr. Henry Whitely for the opportunity of describing, through the 'Annals and Magazine of Natural History,' this fine species of Humming-bird, which is very similar to the *Eupetomena macroura*, and is the western representative of that bird on the great continent of South America.

The present bird differs from *E. macroura* by having a shorter tail, the feathers of which are broader and less rigid; the wing, on the other hand, is larger and longer. In colour, while *E. macroura* is always blue on the head and breast, the new species is distinguished by these parts being washed with green.

Mr. Whitely found numbers of this bird flying over the open plains in pursuit of insects. He says that they "rarely approach a flower, but appear to take their food hawking about in the air in the manner of Swallows—in fact, at first sight might be easily mistaken for those birds." He procured the species at Huiro, in the Valley of Santa Ana, Peru, at an elevation of 4800 feet.

Head and throat deep blue, with a wash of green on the crown; body both above and beneath green; wings, tail, and under-coverts steel-bluish black; bill jet-black.

The female is similarly coloured to the male; but the outer shaft of the wing is not enlarged as in the male, where the stem of this feather is dilated as in the genus *Campylopterus*. Total length $6\frac{1}{2}$ inches, bill $\frac{3}{4}$, wing $3\frac{1}{8}$, tail $3\frac{1}{2}$.

In the Plate I have given representations of a male in two different positions, drawn from the type specimen in my cabinet.

SPHENOPROCTUS CURVIPENNIS.

Mexican Sabre-wing.

Trochilus curvipennis, Licht. Preis Verz. Mex. Thier. p. 1 (1830).—Cab. J. f. O. 1863, p. 55.
Sphenoproctus pampa (pt.), Cab. & Heine, Mus. Hein. Th. iv. p. 11 (1860).
Campylopterus pampa (nec Less.), De Oca, Proc. Acad. Nat. Sci. Philad. 1860, p. 551.
Sphenoproctus curvipennis, Gould, Intr. Trochil. 8vo, p. 51 (1861).—Sclater & Salvin, Nomencl. Av. Neotr. p. 79 (1873).—Elliot, Synopsis of the Humming-Birds, p. 23 (1878).—Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. de Caen, i. p. 146 (1880).
Polytmus curvipennis, Gray, Hand-list of Birds, i. p. 125, no. 1569 (1869).

This is the Mexican representative of *S. pampa* of Guatemala, and differs from that species in having the head of a pale metallic blue.

The following account of the species is given by Mr. Rafael Montes De Oca (*l. c.*):—

"The people of Coalepec, nine miles from Jalapa, give to this species of Humming-bird the name Chupamirto fandanguero, or Fandango Myrtle-sucker, for the reason, apparently, that it has a somewhat musical voice. It is the only Humming-bird which, to my knowledge, has any notes which are sufficient to recognize it by in the woods, and these, though rather monotonous, are quite pleasing. In the neighbourhood of Jalapa this species is found occasionally, but in the above-mentioned place is more abundant, although very difficult to obtain. It inhabits the forest in the winter season, and generally feeds on the flowers of high bushes called Asasaretos, which at that season are in full bloom and densely covered with beautiful smooth emerald-green leaves, amongst which it is very difficult to see this bird, though it often betrays itself by its musical notes, especially in the morning. The males only, I think, sing, or at least much more than the females.

"Very few specimens of this kind are seen in summer time in this neighbourhood. It is found also near Cordova, and goes as far south as Guatemala, where perhaps it builds its nest, for I have never seen or heard of a nest being found here.

"The general appearance of this species is as follows:—The upper part of the head is beautiful metallic ultramarine colour. Wing-coverts and tail-coverts and upper part of the body bronze-green. Throat, under wing-coverts, breast, and belly iron-grey colour, and the under tail-coverts the same, but tinged with chestnut. Quills purplish black with the vanes black and resembling whalebone, the three principal ones rather wider than common. Tail-feathers yellowish bronze-green, all except the two central with the half towards the point bluish black, three on each side tipped with chestnut iron-grey. The feet are dark iron-grey, nails and upper mandible black, under mandible iron-grey. Its size from the point of the bill to the top of the tail is from $5\frac{1}{2}$ to $5\frac{3}{4}$ inches, wing $2\frac{3}{4}$, tail 2, bill $1\frac{1}{8}$ inches. The female is almost precisely like the male, with the difference of about $\frac{3}{8}$ of an inch in size, and either less blue or with it less brilliant on the top of the head."

[R. B. S.]



J. Gould & W. Hart del. et lith.

CAMPYLOPTERUS PHAINOPEPLUS.

Mintern Bros. imp.

CAMPYLOPTERUS PHAINOPEPLUS, *S. & G.*

Simons's Sabre-wing.

Campylopterus phainopeplus, Salvin & Godman, Ibis, 1879, p. 202.—Iid. Ibis, 1880, p. 171, pl. iv. fig. 1.

This beautiful Humming-bird was discovered by Mr. F. Simons, in the Sierra Nevada of Santa Marta, in 1879, and was met with by him at altitudes varying between 4000 and 15,000 feet above the sea-level. It has been described by Messrs. Salvin and Godman, who state that it is allied to *Campylopterus villavicencii*, but presenting many points of distinction—the colour of the head not being golden green, the body being much more shining green, the middle tail-feathers steel-blue instead of green, &c.

The following account of the first capture of the species was contributed by Mr. Simons:—

"During an eight months' sojourn in the Sierra Nevada de Santa Marta I had frequent opportunities of observing this interesting and brilliant Humming-bird, which I believe is migratory, spending the months of February, March, April, and May in the banana plantations of the Lower Nevada, from 4000 to 6000 feet above the sea-level. From June to October I found it in the more elevated regions up to nearly the snow-line, or 15,000 feet above the sea-level. While exploring a mountain-gorge near Atanques (4000 feet) I obtained my first specimen, in March. It was resting on a bent twig in the shade of a banana-leaf, and appeared very tame, allowing me to retire some distance before firing. The species was unknown to most of the inhabitants of Atanques, and excited much admiration from its beauty. A few days afterwards I had the pleasure of meeting with it again among the banana-groves of San José. These plantations of the Indians are very extensive along the banks of the Guatapuri, at an elevation of 6000 feet, and are the highest banana-cultivation in the Nevada. This Humming-bird is pretty common here, but solitary; and I seldom saw more than three or, at the most, four in an afternoon. It betrays its presence, not only by the well-known *bur-rr* of the wings, but also by a sharp double note uttered as it flits from flower to flower. Alighting suddenly on a branch in the shade, it will remain minute after minute without the slightest movement. On these occasions I used to watch them carefully, but never could see them fly away, they disappeared as they came, like phantoms.

"Visiting San Sebastian in June, I was surprised to find the same little beauty, identical in plumage, but with totally different habits. Instead of shunning the sun, as among the bananas, it establishes itself on the topmost twig of some dead branch or scantily clothed tree, and passes the day filling the air with its loud plaintive note in answer to its mate. Every now and then, as a sort of exercise, it would shoot up into the air like a rocket, sound a very pretty *twit-twit*, turn a few somersaults, and descend gracefully with tail-feathers spread out like a fan. These aerial movements are excessively beautiful, and always resorted to, even if the bird is disturbed. In this latter case it does not return to its accustomed perch, but seeks another tree close by, where it sings on merrily till all danger is past; it always, however, returns to its old haunt. I watched one for a fortnight, and it never forsook its adopted perch. Another I fired at four times successively without effect; in spite of this it always returned to the same tree. They are very wary and difficult to shoot; and I have spent days dodging them backwards and forwards without getting near enough for a shot. June and July are the flowering months in the elevated regions. This may attract them; for I have met with them in all parts of the Nevada, especially in a valley at an elevation of 11,000 feet, where they were abundant, but so shy that there was no approaching them within a hundred yards. On crossing to the northern flank, I found them as low down as San Miguel, 6000 feet. At San Antonio, 3450 feet, not ten miles distant, they were unknown.

"On previous visits to San Sebastian in February and March, this species was not there; but the Indians told me that after the first rains a very beautiful 'Chupa-flor' puts in an appearance, without, however, being very common. Passing a couple of days in San José in August, I found they had disappeared.

"Atanques, a small Indian village of 1000 inhabitants, the capital of the Territory of Nevada, lies in the mountains between the rivers Guatapuri and Badillo, about four miles (as the crow flies) N.E. of Valle Dupar.

"The first rains begin in April; May is very wet, June to September showery. The second rains begin in September; October is the worst month; and November is sometimes wet."

The Plate represents two males and a female of the natural size, the figures having been drawn from the typical specimens lent to us by Messrs. Salvin and Godman.

[R. B. S.]



APHANTOCHROA HYPOSTICTA, *Gould.*

J. Gould & W. Hart del. et lith.

Walter Imp.



APHANTOCHROA HYPOSTICTA, *Gould.*

Spotted-breasted Humming-bird.

Aphantochroa hypostícta, Gould, Proc. Zool. Soc. 1862, p. 124.—Sclater & Salv. Nomencl. Av. Neotr. p. 80 (1873).—Whitely, Proc. Zool. Soc. 1873, p. 189.—Taczanowski, Proc. Zool. Soc. 1874, p. 545.—Elliot, Synopsis of the Humming-Birds, p. 29 (1878).—Sclater & Salv. Proc. Zool. Soc. 1879, p. 627.—Eudes-Deslongchamps, Annuaire Mus. d'Hist. Nat. Caen i. p. 164 (1880).

Aphantochroa hypostictus, Mulsant, Hist. Nat. Oiseaux-Mouches, iv. p. 151 (1876).

Polytmus hypostictus, Gray, Hand-list of Birds, i. p. 125, no. 1571 (1879).

Some years ago I received specimens of the present bird from Quito, but I have recently considered that they were collected near the waters of the Upper Napo. The species differs from *A. cirrhochloris* in its spotted breast, in its shorter tail, and its rather more lengthened and curved bill.

It has also been obtained by Mr. Whitely at San Antonio in Eastern Peru, by Jelski at Soriano in Northern Peru, and by Buckley at Nairapi in Bolivia, showing that it has a wide range through the eastern slopes of the Andes.

I extract the following description from my original paper :—

"All the upper surface, wing- and tail-coverts deep green ; wings purplish brown ; tail dull purplish green, deepening into blackish brown at the tip, the two outer feathers on each side very slightly fringed with white at the tip ; feathers of the throat, breast, and centre of the abdomen dull white at the base, with a spot of dull green near the tip, giving those parts a spotted appearance ; remainder of the under surface dull green ; under tail-coverts dull green at the base, deepening into black near the end, and fringed with grey ; tarsi and thighs rather thickly clothed with white feathers ; bill black, except at the base of the under mandible, which appears to have been flesh-colour. Total length $4\frac{1}{2}$ inches, bill $1\frac{3}{16}$, wing $2\frac{3}{4}$, tail $1\frac{7}{8}$."

The figures in the Plate represent an adult bird in two positions.



J. Gould & W. Hart del et lith.

CŒLIGENA HEMILEUCA.

Mintern Bros. imp.



CŒLIGENA HEMILEUCA.

White-bellied Cacique.

Oreopyra hemileuca, Salvin, Proc. Zool. Soc. 1864, p. 584.
Cœligena hemileuca, Elliot, Synopsis of the Humming-Birds, p. 31 (1878).

This bird was originally described by Mr. Salvin as an *Oreopyra*, but he now considers that it might be more correctly placed in the genus *Delattria*.

This species has the under surface of the body white like *C. viridipallens*, but is easily distinguished from that bird by its amethyst-coloured throat. It has at present only been found in Costa Rica, where it replaces *C. viridipallens* of Guatemala.

The following is a translation of Mr. Salvin's description :—

"Back, sides, and lesser wing-coverts green ; crown, sides of head, and chin brilliant glittering green ; a long post-ocular streak of white extending as far as the nape, the latter blackish green ; throat amethyst, the breast and the abdomen entirely white, the vent rather more ashy ; wings dull purplish black ; tail ashy green, the two centre feathers green, the others with a subterminal band of bronzy green, the tips themselves whitish ; bill black ; feet dusky. Adult female with the head and the throat plain, the terminal spot of the outer tail-feathers larger in size.

"Total length 4 inches, wing 2·6, tail 1·45, long tail-feathers 1·55, bill from gape 0·95."

We have represented in the Plate two males and a female of the natural size.

[R. B. S.]



J. Gould & W. Hart del. et lith.

OREOPYRA CALOLÆMA, *Salv.*

Mintern Bros. imp.

OREOPYRA CALOLÆMA, *Salvin.*

Purple-throated Humming-bird.

Oreopyra calolæma, Salvin, Proc. Zool. Soc. 1864, p. 584.—Scl. & Salv. Nomencl. Av. Neotr. p. 80 (1872).—Elliot, Synopsis of the Humming-Birds, p. 33 (1878).—Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. Caen, i. p. 239 (1880).
Oreopyra venusta, Lawr. Ann. Lyc. N. Y. viii. p. 484.

This Humming-bird is easily recognizable from the other species of *Oreopyra* by its metallic purple throat, the other two species having white throats.

It was originally described by Mr. Salvin from specimens procured by Enrique Arcé on the Volcan de Cartago in Costa Rica, and it has since been obtained in the State of Panama.

The following is a translation of Mr. Salvin's original description :—

Back greenish ; head with the breast bluish green, very brilliant, the latter being more distinctly green ; entire throat and chin glittering violet-red ; ear-coverts and sides of nape black ; a long postocular streak of white, extending as far as the nape ; belly dull ashy, slightly washed with green ; vent uniform, the feathers margined with white ; wings purplish black, the wing-coverts green ; tail steel-blue. Total length 4 inches, wing 2·6, tail 1·4, longest tail-feathers 1·5, bill from gape 1.

Two males and a female, of the natural size, are depicted in the Plate, drawn from typical specimens lent to us by Messrs. Salvin and Godman.

[R. B. S.]



J. Gould & W. Hart del et lith.

OREOPYRA CINEREICAUDA, *Lawr.*

Mintern Bros. imp.

OREOPYRA CINEREICAUDA, *Lawrence.*

Grey-tailed Humming-bird.

Oreopyra cinereicauda, Lawrence, Ann. Lyc. New York, viii. p. 485 (1867), ix. p. 125 (1868).—Sclater & Salv. Nomencl. Av. Neotr. p. 80 (1873).—Elliot, Synopsis of the Humming-Birds, p. 34 (1878).—Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. Caen, i. p. 243 (1880).

Oreopyra castaneiventris, Lawrence, Ann. Lyc. New York, ix. p. 124 (1868, part.).

Mr. Elliot states that this species is closely allied to *O. leucaspis*, but is distinguished by its ashy white tail; the under tail-coverts are also paler and the bill is longer (culmen $\frac{7}{8}$ inch).

The female resembles that of *O. leucaspis*, but has the bill longer than in that species.

It appears to be confined to Costa Rica.

The figures in the Plate represent two males and a female of the size of life.

OREOPYRA LEUCASPIS, *Gould.*

White-throated Humming-bird.

Oreopyra leucaspis, Gould, Monogr. Trochil. iv. pl. 264.—Id. Intr. Trochil. 8vo, p. 141 (1861).—Salv. P. Z. S. 1870, p. 205.—Elliot, Synopsis of the Humming-Birds, p. 33 (1878).—Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. Caen, i. p. 243 (1880).

Metallura castaneiventris, Reichenb. Aufz. der Colibr. p. 8 (1853).—Id. Handb. Trochil. p. 5 (1855).

Anthrocephala castaneiventris, Gould, Monogr. Trochil. iii. pl. 203.—Id. Intr. Trochil. 8vo, p. 115 (1861).

This species has already been figured in the Monograph—the male as *O. leucaspis*, the female as *A. castaneiventris*. It has been thought better to take advantage of the opportunity of re-figuring it along with the other two species of the genus.

Like *O. cinereicauda*, it has a white throat, but may be easily distinguished from that species by its black tail.

At present it is only known from Panama, where it has been found on the Volcan de Chiriqui. In Costa Rica *O. cinereicauda* takes its place.

[R. B. S.]



PINAROLÆMA BUCKLEYI, *Gould.*

J. Gould & W. Hart, del. et lith.

Walter, Imp.



PINAROLÆMA BUCKLEYI, *Gould.*

Buckley's Mountain Humming-bird.

Pinarolæma Buckleyi, Gould, Ann. & Mag. of Nat. Hist. ser. 5, vol. v. p. 489 (June 1880).

A SINGLE specimen only of this species has as yet been obtained. This is in such ragged plumage that its markings can only be determined with difficulty. The specimen was moulting when it was shot; and much of the colour has faded from the old feathers. The tail and the throat, however, are pretty perfect; and these parts, together with a few new feathers, are tinted so as to indicate sufficiently clearly the colour of the plumage of the perfect bird. Any Trochilidist would be instantly convinced of the fact that this specimen belongs to a new species of Humming-bird in a bad state of plumage; and it rests with future travellers to discover others in perfect plumage where this individual was procured. Some Trochilidists believe the specimen to be a female, others a male; my own opinion is that it is the latter; but the bird is in moult, and probably very much altered. Mr. Buckley, whose name it bears, was the discoverer of this bird; he killed it at Misqui, in Bolivia, the height of the spot where it was found being 10,000 feet above the sea.

When the male of this bird is clean-mantled, I think, judging by the tail and throat and the spots of purple alternating with the old brown feathers in places throughout the upper surface, it will prove to be a finer bird than it now appears.

I regret I have no information to give respecting its actions, habits, and mode of feeding; but, from its long wings and little feet, I judge that the present bird is a good flyer, and perhaps depends for its food upon insects caught in the air rather than taken from flowers in the usual way.

I regret I have nothing more to add to the little already published, which runs as follows:—"The general appearance of this bird reminds me of *Lampornis*; but it has an extremely long wing. In the latter respect it resembles *Oreotrochilus*; but it differs from that genus in its strongly curved and lengthened bill and in its very broad tail-feathers, while its extremely small feet seem peculiar to the genus." So much refers to form; in what follows, colour and admeasurements are attended to.

"Brown, with a purplish gloss on the back; the upper tail-coverts and tail-feathers brown, glossed with purple, and having a subterminal band of steel-blue; under surface of body brown, slightly washed with metallic green; the throat lighter brown, the feathers edged with paler brown, giving a scaly appearance; vent and under tail coverts white, the latter washed with brown.

"Total length 4·6 inches, culmen 1·05, wing 2·95, tail 1·85, tarsus 0·15.

"*Habitat.* Misqui, Bolivia, 10,000 feet."



J. Gould & W. Hart del et lith.

LAMPORNIS CALOSOMA, *Elliot*.

Walter Imp.

LAMPORNIS CALOSOMA, *Elliot.*

Elliot's Topaz.

Chrysolampis chlorolæmus, Elliot, Ann. & Mag. Nat. Hist. (4) vi. p. 346 (1870).
Lampornis calosoma, Sclater & Salvin, Ibis, 1871, p. 429.—Elliot, Ibis, 1872, p. 351.—Mulsant, Hist. Nat. Ois.-Mouches, i. p. 177.—Elliot, Synops. Humming-birds, p. 41.

It is now ten years ago since this beautiful species was described by my friend Mr. Elliot; and the specimen still remains unique in the collection of the latter gentleman. As he observes, I gave him my opinion at the time that the species ought to be placed in the genus *Chrysolampis*; and although in deference to the judgment of Mr. Salvin and Mr. Elliot I go so far as to follow them in the present work and place it in the genus *Lampornis*, I believe in my innermost heart that they are mistaken, and that the bird is a true *Chrysolampis*—if, indeed, it should not be placed in a genus by itself. I would ask any body to compare the figures which I have drawn in order to show both the back and front views of the bird, and to say which form the present species most resembles, *Lampornis* or *Chrysolampis*. It has not the long bill nor the forked tail of the former genus, characters in my opinion quite sufficient to separate it from that; but, on the other hand, let it be compared with *Chrysolampis moschitus*, in how many characters they agree! First, there is the small bill, the metallic crown, the darker back, and the rounded tail, with the coppery-brown central tail-feathers, though it is true that in *L. calosoma* the remainder of the rectrices are purple; still the general character of the plumage is like that of *C. moschitus*; and, again, on the under surface the metallic throat, the dark belly, the chestnut under tail-coverts, and the under surface of the tail all remind us of the last-named species. If, therefore, as I anticipate, the bird should be one day replaced in the genus *Chrysolampis*, the specific name of *chlorolæmus* will have to be restored as well.

Mr. Elliot writes:—"The habitat of this species is unknown; but it is not unlikely that it may be a native of the West-Indian Islands, of whose ornithology we at present know nothing. If this supposition should prove to be correct, a fine field still remains unexplored for some enterprising naturalist; for among the members of the genus *Lampornis* the present species is one of the very handsomest, and doubtless many equally fine birds in this and other families are still unknown to science to reward the researches of the explorer."

The following description is given by Mr. Elliot in his 'Synopsis:'—

"*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, the feathers margined with blackish purple; throat brilliant emerald-green; underparts purplish black; spot of white on the flanks; under tail-coverts chestnut; bill black.

"Total length 4 inches, wing $2\frac{1}{2}$, tail $1\frac{5}{8}$, culmen $\frac{5}{8}$."

The Plate contains two figures of the unique type, and shows both back and front views of the bird, for reasons specified above. I am indebted to Mr. Elliot for the loan of the specimen from which the figures are drawn.

CHALYBURA ISAURÆ.

Madame de Lafresnaye's Plumeleteer.

Hypuroptila isauræ, Gould, Proc. Zool. Soc. 1861, p. 199.
Chalybura isauræ, Salvin, Proc. Zool. Soc. 1867, pp. 131, 152.—Gould, Intr. Trochil. 8vo, p. 72 (1861).—Scl. & Salv. Nomencl. Av. Neotr. p. 82 (1873).
Lampornis isauræ, Mulsant, Hist. Nat. Oiseaux-Mouches, i. p. 174 (1874).

This Humming-bird was described by Mr. Gould from Veraguan specimens. It is a very distinct species, and is distinguished from *C. urochrysea* of Panama by the bronze-coloured tail with a purplish lustre on the outer rectrices. *C. melanorrhoa*, which is also nearly allied to *C. isauræ*, may be recognized by its black crissum.

The following is the original description of the male :—

"Head, all the upper surface, wing-coverts, flanks, and abdomen coppery-bronze, inclining to purple on the lower part of the back and upper tail-coverts; wings purplish brown; tail very dark bronze, inclining to purple; throat and breast grass-green; under tail-coverts white; upper mandible black; under mandible fleshy, with a black tip; tarsi yellow or flesh-colour.

"Total length $4\frac{5}{8}$ inches, bill $1\frac{1}{10}$, wing $2\frac{5}{8}$, tail $1\frac{3}{4}$, tarsi $\frac{1}{4}$."

Mr. Salvin has described the female as follows :—

"Above greenish, with the head duller; the rump and the tail glossed with bronze; wings dusky; under surface of body dull ashy, the vent white; the two outer tail-feathers on each side tipped with white; upper mandible dusky, the lower one dusky yellow at the tip; feet yellow."

[R. B. S.]



HYPUROPTILA MELANORRHOA, *Salv.*

J.Gould & W.Hart, del. et lith.

Walter Imp.



HYPUROPTILA MELANORRHOA, *Gould*.

Black-vented Plumeleteer.

Chalybura melanorrhoa, Salvin, P. Z. S. 1864, p. 585.—Scl. & Salv. Nomencl. Av. Neotr. p. 82.—Elliot, Synopsis Trochil. p. 47.
Chalybura carmioli, Lawr. Proc. Acad. Nat. Sci. Philad. 1865, p. 39.
Lampornis melanorrhoa, Mulsant, Hist. Nat. Oiseaux-Mouches, vol. i. p. 174.
Polytmus melanorrhous, Gray, Hand-l. B. vol. i. p. 126.

The first discoverer of this species was the well-known collector Enrique Arcé, who procured it at Tucurrique in Costa Rica; and shortly after, Mr. Lawrence found specimens in the Smithsonian Institution, collected by Mr. Carmiol at Angostura, in Costa Rica, which he described as *Chalybura carmioli*.

Though nearly allied to *C. isauræ*, it is easily distinguished by the black vent, which is white in the first-named bird; and there can be no doubt that the two species are quite distinct. Mr. Salvin remarks that his *C. melanorrhoa*, with *C. isauræ*, forms a somewhat abnormal section of the genus; "but the differences, as seen from our present materials, are hardly of sufficient importance to warrant a generic separation. They may be briefly stated as follows:—The plumage in the *Chalybura* is generally more brilliant; the uropygium is nearly the same colour as the back; in the Costa-Rica bird it is clearly defined. The plumed feathers of the crissum, in the former, are much more developed."

This species, as at present known, is only found in Central America, where it occurs in Costa Rica and Veragua.

The diagnosis given by Mr. Elliot for this species is as follows:—

Male. Head and upper parts dark grass-green; rump purplish bronze; wings purplish brown; under-parts very dark shining grass-green; abdomen dark brown glossed with green; under tail-coverts black; tail dark bronzy purple; maxilla black; mandible flesh-colour. Total length $4\frac{3}{4}$ inches, wing $2\frac{7}{8}$, tail $1\frac{7}{8}$, culmen $\frac{7}{8}$."

The principal figures in the Plate represent two males, of the size of life.



W. Hart del et lith.

PETASOPHORA GERMANA, *Salv. & Godm.*

Mintern Bros. imp.

PETASOPHORA GERMANA, *Salvin & Godman.*

Guiana Violet-ear.

Trochilus anais, Cab. in Schomb. Reis. Guian. iii. p. 707 (1848).
Petasophora germana, Salvin & Godman, Ibis, 1884, p. 451.—Salvin, Ibis, 1885, p. 434.

Mr. Whitely has met with this species only on Roraima in British Guiana. It is described by Messrs. Salvin and Godman as being allied to *P. anais* and of the same size, but with the throat much more blue, the whole of the lower throat more blue, and the forehead suffused with blue. The authors observe respecting it:—"Mr. Whitely obtained a pair of this species in the neighbourhood of Roraima, the male at an elevation of 5000 feet, the female at 6000 feet. 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 Orinoco valley. It is, no doubt, this species which Schomburgk mentions in his list of Guiana birds ('Reise in Guiana,' iii. p. 707)."

The Plate represents an adult male in two positions.

[R. B. S.]



J. Gould & W. Hart del. et lith.

IONOLÆMA WHITELYANA, *Gould.*

Walter, imp.



IONOLÆMA WHITELYANA, *Gould.*

Whitely's Humming-bird.

Iolæma whiteleyana, Gould, Ann. & Mag. Nat. Hist. (4) x. p. 452 (1872).—Sclater & Salvin, Nomencl. Av. Neotrop. p. 82 (1872).—Whitely, Proc. Zool. Soc. 1873, p. 188.—Muls. Hist. Nat. Oiseaux-Mouches, ii. p. 141 (1876).

Ionolæma whitelyana, Elliot, Synopsis of the Humming-Birds, p. 59 (1878).

Ionolaima whitelyana, Eudes-Deslongchamps, Annuaire Mus. d'Hist. Nat. Caen, i. p. 276 (1880).

Four species of the genus *Ionolæma* are now known, two of them having a brilliant metallic spot on the forehead, viz. *I. frontalis* and *I. whitelyana*, and two which have no bright spot, *I. luminosa* and *I. schreibersi*. The present bird differs from *I. frontalis* in having the breast green instead of black: it was discovered by Mr. Henry Whitely at Cosnipata in the province of Cuzco, Peru, in August 1871, at an elevation of 2300 feet above the level of the sea.

Mr. Whitely states that he found the bird very rare, having only met with a male in August, and a female on the 21st of May, 1871. He states that it "frequents flowering plants at the tops of the loftiest trees in the depths of the forest, at nearly all times out of range of gun-shot. Very powerful in flight, and darts from flower to flower with extraordinary rapidity."

The following description was given by me in the volume of the 'Annals' mentioned above:—

"*Male*. Crown, all the upper surface and flanks deep grass-green; an obscure glittering mark on the forehead; chin, chest, and centre of the abdomen jet-black with a broad gorget of beautiful violet on the throat; the bill, which is stout and straight, is black, as are also the legs and toes; the tail and under tail-coverts steel-black; primaries and secondaries purplish brown, the external edge of the outer primary reddish brown. Total length $5\frac{1}{4}$ inches, bill $1\frac{1}{8}$, wing 3, tail $2\frac{1}{4}$."

Mr. Whitely gives the soft parts as follows: "Bill black; eye dark hazel; legs, toes, and claws black."

The specimens figured in the Plate are the original ones procured by Mr. Whitely, and now in my collection.



J. Gould & W. Hart. del. et lith.

EUGENES SPECTABILIS, *Lawr.*

Mintern Bros. imp.

EUGENES SPECTABILIS.

Costa Rica Humming-bird.

Heliomaster spectabilis, Lawrence, Ann. Lyc. New York, viii. p. 472 (1867).
Trochilus spectabilis, Gray, Hand-list of Birds, i. p. 137, no. 1750 (1869).
Eugenes spectabilis, Mulsant, Hist. Nat. Oiseaux-Mouches, ii. p. 215 (1876).—Boucard, Proc. Zool. Soc. 1878, p. 68.—Elliot, Synopsis of the Humming-Birds, p. 61 (1878).

Two species of the genus *Eugenes* are known—one, *E. fulgens*, being found in Texas and Mexico, and as far south as Guatemala, while the second species, *E. spectabilis*, replaces it in Costa Rica. The latter differs from *E. fulgens* in having the breast dark green instead of black, and the lateral tail-feathers bronzy brown instead of bronzy green.

The following full description is copied from Mr. Elliot's work :—

"*Male*. Forehead dull green. Top of head and occiput brilliant dark violet. Upper parts dark grass-green, the back appearing black in certain lights. Wings purple. Throat metallic dark green, bluish in some lights. Underparts dark grass-green, the breast never appearing black in any light. Under tail-coverts green, tipped with buff. Median rectrices dark bronze-green, the remainder bronze-green, graduating into blackish brown and edged with white on the tips. Bill black. Total length $5\frac{5}{8}$ inches, wing 3, tail $1\frac{7}{8}$, tarsus $1\frac{1}{2}$.

"*Young* (? *Female*). Crown dull brown. Entire underparts dull greyish brown, with an ochreous tinge. Flanks dull green, with white pleural spot. Lateral rectrices green at base, a subterminal black bar and the tips greyish white."

The figures in the Plate represent two males and a female, of the natural size.

[R. B. S.]



J. Gould & W. Hart del. et lith.

LAMPRASTER BRANICKII, *Tacz.*

Mintern Bros. imp.

LAMPRASTER BRANICKII, *Tacz.*

Count Branicki's Humming-bird.

Lampraster branickii, Tacz. Proc. Zool. Soc. 1874, p. 140, pl. xxi. fig. 1.—Mulsant, Hist. Nat. Oiseaux-Mouches, ii. p. 200 (1876).—Elliot, Synopsis of the Humming-Birds, p. 63 (1878).—Eudes-Deslongchamps, Ann. Mus. Caen, i. p. 290, pl. v. fig. 8 (1880).—Tacz. Orn. Pérou, i. p. 286 (1884).

The genus *Lampraster* has been placed by Mr. D. G. Elliot between *Eugenia* and *Heliodoxa*.

The single specimen of this fine species of Humming-bird was obtained by Mr. Jelski at Monterico in Peru, and the male bird described by Dr. Taczanowski still remains unique in the Warsaw Museum. The name of the late Count Branicki, attached to it by Dr. Taczanowski, will serve to commemorate the noble and generous patron of the Warsaw Museum, by whose liberality the important researches of Messrs. Jelski and Stolzmann were carried out in Peru and other countries of South America—researches so well executed that the Warsaw Museum contains a series of more than one thousand species of birds from Peru alone, a result due to the enterprise and energy of the two celebrated Polish travellers mentioned above.

We transcribe the description given by Dr. Taczanowski in his 'Ornithologie du Pérou':—

Adult male. Entirely green, the feathers of the crown appearing to be a little darker and bordered by a narrow border of black, separated by a longitudinal median band starting from the base of the bill and prolonged to the vertex, formed of scaly plumes of a very brilliant green changing into blue; the green of the wing-coverts is distinctly more golden than the back; the fore part of the throat divided by a sort of shield formed of scale-like feathers of a rosy-red colour, taking a slight tone of violet under certain lights, and passing into golden and then into green under other reflections of light; chin brilliant green; rest of the lower parts of the body of a shade analogous to that of the back, but becoming very brilliant under favourable rays of light; anal region downy and the under tail-coverts white, as well as the tarsal plumes and a spot behind the eye; wings violet-brown, with the secondaries of a cinnamon-rufous at the extremity, which is dark, the outer quills bordered with rufous; tail-feathers black, with a slight lustre of violet-blue, the two middle ones green; bill black, with the base of the lower mandible white for a large extent, straight for the entire length, half as long again as the head; feet brownish, the tarsus clothed with short plumes. Total length 3·9 inches, bill 1·0, wing 2·65, tail 1·5.

The figures in the Plate represent the adult male in two positions, of the size of life, and have been drawn from the unique type specimen lent us by Dr. Taczanowski.

[R. B. S.]

W. Hart del et lith.

HELIODOXA XANTHOGONYS, *Salv et Godm.*

Mintern Bros. imp.

HELIODOXA XANTHOGONYS, *Salvin & Godman.*

Guiana Brilliant.

Heliodoxa xanthogonys, Salvin & Godman, Ibis, 1882, p. 80.—Salvin, Ibis, 1885, p. 433.
Xanthogenyx salvini, De Hamonville, Bull. Soc. Zool. France, viii. p. 77 (1883).

The present species was also one of Mr. Whitely's discoveries in British Guiana. He met with it both on the Merumé Mountains and near Roraima at a height of 3500 feet. Messrs. Salvin and Godman state that it is "allied to *H. jamesoni* from Ecuador, but is smaller, with a less forked tail, and is also distinguished by its orange-coloured mandible." They observe (*l. c.*), "Mr. Whitely sends us a male and several females of this species, which is obviously allied to the Ecuadorian *H. jamesoni*, but at the same time quite specifically distinct. This is the first evidence we have received of the fact of a member of this Andean genus being found in Guiana."

Mr. Whitely has sent us the following account of his capture of the species on the Merumé Mountains:—

"This beautiful bird was obtained in the same locality as *Lophornis pavoninus*, but, unlike that species, it is of more retiring habits, frequenting the gloomy recesses of the forest, where it suddenly startles one by its rapid flights, and then coming to a stop, throwing the body up vertically within a few yards of one's face, making a very loud humming with its wings. It then darts off out of sight like a flash, rendering it a most difficult bird to shoot. Only one male was obtained here, and several females; but I was fortunate enough to get two males on my second expedition to Roraima, at an elevation of 5000 feet. Stomach contained remains of insects."

The Plate represents two males and a female, the figures being drawn from specimens lent to us by Messrs. Salvin and Godman.

[R. B. S.]



W. Hart del et lith.

DIPHLOGÆNA HESPERUS, *Gould.*

Mintern Bros. imp.

DIPHLOGÆNA HESPERUS, *Gould.*

Ecuadorean Rainbow.

Diphlogæna hesperus, Gould, Ann. & Mag. Nat. Hist. (3) xv. p. 129 (1865).—Scl. & Salv. Nomencl. Av. Neotr. p. 90 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, ii. p. 304, plate (1875).—Elliot, Synopsis of the Humming-Birds, p. 70 (1878).—Berlepsch & Tacz. Proc. Zool. Soc. 1884, p. 303.

This species represents in Ecuador the *Diphlogæna iris* of Bolivia. It is of the same size as that bird, but has the back and abdomen green instead of chestnut-red.

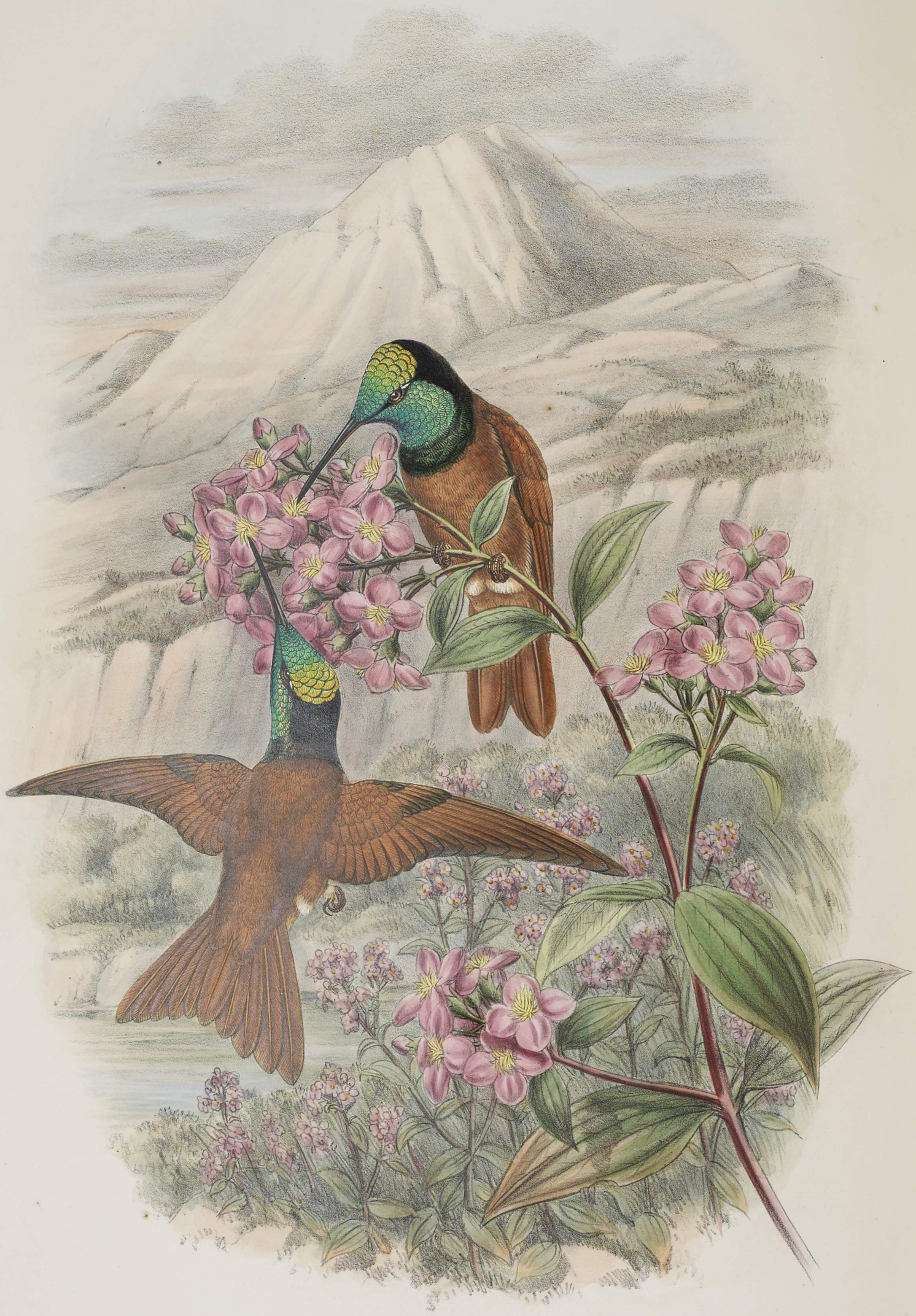
So far as is known, the present species is confined to the Andes of Ecuador. The original specimen came from the province of Cuenca; and Messrs. Von Berlepsch and Taczanowski have recorded a large series as having been procured by Messrs. Stolzmann and Siemiradski in Western Ecuador at Cechce and Alpachaca, at an altitude of 10,500 feet, in the months of April and May. They write as follows:—"The female differs from the male in a manner analogous to that of the allied species. The feathers of the crown are short, less glittering, and they form a scaly surface of a coloration similar to that of the male, but distinctly less brilliant and almost uniform from the forehead to the nape; that is to say, it is more rufous on the latter part than in the male. The median blue streak is clearer and not of a sapphire tint, being nearly as large as in the male and not passing beyond the posterior angle of the eye; it lacks therefore the broad portion on the neck which is peculiar to the other sex; under other lights the blue passes into violet. The green of the under surface of the body is distinctly clearer than in the male, but is quite as lustrous, and even more so on the abdomen; the bases of all the feathers are clearer in the male, and in consequence all the underparts appear to be more distinctly scaled; there is no trace of the spangle on the throat, and the bronze on the back is less uniform, passing into green on the sides: in other respects the female is like the male. The immature males are distinguished by the crown being entirely covered with as short feathers as those of the female, and of a dull coppery bronze with a feeble but not glittering metallic lustre, which is slightly developed in front of the eyes under occasional aspects of light; otherwise they are like the old males, some of them having the violet spangle as well developed as in the latter, while others do not show it at all. One male has the top of the head fully and brilliantly plumaged, but still lacks the jugular spangle, which is only represented by a single feather partly green and partly violet."

The following is the original description transcribed from the 'Annals' (*l. c.*):—

"*Male*. Crown of the head brilliant, changeable, metallic blue and fiery red, the latter colour occupying the sides of the forehead, and the former running up the centre from the base of the bill to the crown, where it dilates into a broad patch; hinder part of the head and the nape changeable brown and bronze; back (as far as the rump, shoulders, abdomen, and flanks) green; throat and chest rich metallic golden green, with a small spot of violet in the centre of the former; primaries and secondaries rust-brown, with darker tips; upper and under tail-coverts and the forked tail deep cinnamon-red, the feathers of the latter tipped and edged near the extremities with bronzy green; thighs buff; bill straight, long, tubular, and black; feet brown. Total length $5\frac{1}{4}$ inches, bill $1\frac{1}{2}$, wing $3\frac{1}{4}$, tail $2\frac{1}{2}$."

In the Plate are given representations of two adult males and a female, drawn from specimens lent to us by Messrs. Salvin and Godman.

[R. B. S.]



W. Hart del et lith.

DIPHLOGÆNA AURORA.

Mintern Bros. imp.

DIPHLOGÆNA AURORA.

Warszewicz's Rainbow.

Helianthea aurora, Gould, Proc. Zool. Soc. 1853, p. 61.—Bonap. Rev. et Mag. de Zool. 1854, p. 251.—Cab. & Heine, Mus. Hein. Th. iii. p. 80, note 6 (1860).

Hypochrysia aurora, Reichenb. Aufz. der Colibr. (J. f. O. 1853, Extra-H.), p. 9 (1853).—Id. Handb. Trochil. p. 6 (1855).

Leadbeatera warszewiczii, Reichenb. Aufz. der Colibr. p. 9 (1853).—Id. Handb. Trochil. p. 6, Taf. DCXC. fig. 4526 (1855).

Cœligena warszewiczii, Reichenb. Aufz. der Colibr. p. 23 (1853).

Diphlogæna aurora, Gould, Monogr. Trochil. iv. pl. 248.—Id. Intr. Trochil. 8vo, p. 134 (1861).—Scl. & Salv. Nomencl. Av. Neotr. p. 90 (1873).—Iid. Proc. Zool. Soc. 1879, p. 630.

Diphlogæna iris (pt.), Elliot, Synopsis of the Humming-Birds, p. 69 (1878).

Diphlogæna warszewiczi, Tacz. P. Z. S. 1880, p. 204.—Id. Orn. Pérou, p. 383 (1884).

The discovery of the male bird of this splendid species, for the loan of which we have been indebted to Messrs. Salvin and Godman, has afforded a good opportunity of figuring it. The female has already been figured in the fourth volume of the present work, while the male has remained unknown until quite recently.

The original specimens of this Humming-bird were obtained by the well-known traveller Warszewicz, in Bolivia, on the eastern slopes of the Andes, at Illimani and Sorata; but Mr. Buckley does not appear to have met with it during his expedition to Bolivia. We notice that Dr. Taczanowski has adopted the specific name of *warszewiczi* for this bird; but we believe that the title of *aurora* was really published first, as it certainly appeared in April of the year 1853, whereas Prof. Reichenbach did not publish his name until the end of the same year. The latter appeared in the 'Extra-Heft' of the 'Journal für Ornithologie,' which was in all probability not issued to the public before the year 1854.

M. Stolzmann met with the present species in Peru at Cutervo, at an altitude of 9600 to 9700 feet. An adult male procured by Jelski between Shanyn and Tambillo is in the collection of Dr. Raimondi. According to M. Stolzmann, it is a bird of very swift movements, only stopping for an instant in shady places.

The Plate represents a male bird of the size of life, the figures being drawn from a beautiful specimen lent to us by Messrs. Salvin and Godman.

[R. B. S.]



W. Hart del et lith.

HELIANTHEA OSCULANS, *Gould*.

Mintern Bros. imp.

HELIANTHEA OSCULANS, *Gould.*

Buff-tailed Star-frontlet.

Helianthea osculans, Gould, Proc. Zool. Soc. 1871, p. 503.—Sclater & Salvin, Nomencl. Av. Neotr. p. 89 (1873) —Whitely, Proc. Zool. Soc. 1873, p. 191, 1874, p. 677.—Elliot, Ibis, 1874, p. 334.—Id. Synopsis of the Humming-Birds, p. 73 (1878).—Tacz. Orn. du Pérou, i. p. 376 (1884).

Calligenia osculans, Mulsant, Hist. Nat. Oiseaux-Mouches, ii. p. 300 (1876).

Mr. Whitely collected this bird at Cachuapata and Huasampilla in Peru, and at present he appears to be the only naturalist who has met with the species.

It is of about the same size as *H. violifera*, but differs from that bird in having a stouter and longer bill, by the spot on the forehead being larger, and green instead of blue, by the tips of the tail-coverts and tail-feathers being tinged with olive-green, and by the breast being of a more brilliant green, and destitute of any crescentic greyish-white mark across the chest.

Male. Crown of the head, viewed anteriorly, black, with a spot of brilliant green on the forehead, as in *H. bonapartei*; back and upper tail-coverts bronzy green; shoulders golden brown; primaries purplish black, the exterior web of the first buff; throat and breast brilliant green, with a patch of an equally brilliant blue in the centre of the former; abdomen buff, tinged and mottled with green; thighs buffy white; under tail-coverts light buff; tail-feathers deep buff, tinged with green at the tip, especially the two centre ones; bill black. Total length $5\frac{1}{2}$ inches, bill $1\frac{5}{8}$, wing $3\frac{1}{8}$, tail $2\frac{1}{8}$, tarsi $\frac{1}{4}$.

Mr. Elliot says that the female differs in having no frontal or gular spot. The throat is buff, spotted with green; otherwise it resembles the male.

The Plate represents an adult male in two positions, drawn from the original specimen.

[R. B. S.]



HELIANTHEA DICHROURA, *Tacz.*

J.Gould & W.Hart, del. et lith.

Walter, Imp.

HELIANTHEA DICHROURA, *Tacz.*

Jelski's Star-frontlet.

Helianthea dichroura, Taczanowski, P. Z. S. 1874, p. 138 (ex Jelski, MSS.).—Elliot, Ibis, 1874, p. 334.—Idem, Synopsis Trochil. p. 74.
Calligenia dichroura, Mulsant, Hist. Nat. Oiseaux-Mouches, tom. ii. p. 309.

This fine Humming-bird was discovered by Mr. Jelski, who has recently distinguished himself by his zoological discoveries in Peru, near Maraynioc in that country; and he proposed the name of *dichroura* for it, which was adopted by Dr. Taczanowski in his original description of the bird.

Mr. Elliot, who examined the types sent over by Dr. Taczanowski when they were in England, has published the following note on the species:—"Its principal difference from *H. osculans* is in the tail, where the bronze tips of that species are extended in the present bird for one third the length of the tail-feathers, forming a very conspicuous apical band; otherwise the birds are very much alike. Whether this mark is sufficient to constitute a specific difference, with my present knowledge of the bird (having only seen the three specimens sent over), I am unable to determine; but many species of the Trochilidæ have been established on much slighter grounds. It looks as if it might prove to be a geographical variety of *H. osculans*."

The following is a translation of Dr. Taczanowski's original description of the species:—

"The adult male has the head, throat, and breast of a shining green; the back coppery, darker and more intense on the wing-coverts; the belly and under tail-coverts are of a nankeen-yellow without any metallic reflection; the sides only are slightly tinged with metallic green; the anal region is pure white. At the lower part of the throat is found a fine oval spot of blue changing into glittering violet; the forehead is occupied by a triangular emerald spot, much more brilliant than the surrounding parts. The quills are brown with a violet reflection, the outer one being bordered by a fine edging of rufous; the tail-feathers are of a nankeen-yellow for their basal half, and coppery green for the terminal half, excepting the two centre feathers, which are of the latter colour throughout their entire length. Under wing-coverts coppery, the edge of the wing reddish.

"The young bird differs from the adult in the complete absence of the brilliant spots on the throat and forehead; the coppery gloss on the back and wing-coverts is less strongly pronounced and less brilliant; the tips even of the lateral tail-feathers are of a greyish yellow.

"The birds in change, which have already the jugular spot in all its brilliancy, do not possess a trace of a frontal spot, but the latter part is of the same colour as the head."

The figures in the Plate represent two males and a female, and are drawn from specimens sent to England for description by Dr. Taczanowski to Dr. Sclater, who very kindly allowed me to figure them in the present work.



J. Gould & W. Hart del. et lith.

BOURCIERIA INSECTIVORA.

Mintern Bros. imp.

BOURCIERIA INSECTIVORA.

Tschudi's Inca.

Trochilus insectivorus, Tschudi, in Wiegm. Arch. 1844, p. 298.—Id. Faun. Peruan., Aves, p. 248, Taf. xxiii. fig. 1 (1844–46).—Gray, Hand-l. Birds, i. p. 139, no. 1784 (1869).

Bourcieria insectivora, Gould, Intr. Monogr. Trochil. p. 135 (1861).—Elliot, Ibis, 1876, p. 5.—Id. Synopsis of the Humming-Birds, p. 76 (1878).—Taczan. Proc. Zool. Soc. 1874, p. 543, 1882, p. 38.—Id. Orn. Pérou, p. 389 (1884).

Homophania insectivora, Mulsant, Hist. Nat. Ois.-Mouches, ii. p. 320 (1876).

This species was originally discovered by Dr. von Tschudi in Peru, between Huari and Chagacancha; but the original specimen having been a female, it was difficult to determine the exact position of the species, nor was it till the year 1876 that this question was solved by Mr. D. G. Elliot. In that year Mr. Elliot, who had received a specimen of an adult male from Dr. Taczanowski, sent to the Neuchâtel Museum for the type of Tschudi's species, which was courteously forwarded by Dr. Coulon, the Director of that Museum, and thus he was enabled to compare the two specimens, and to settle that the Humming-bird forwarded by Dr. Taczanowski was the hitherto unknown male of Tschudi's *Trochilus insectivorus*.

The nearest ally of the present species, according to Mr. Elliot, is *B. fulgidigula*, from which it differs in its metallic grass-green crown, this being bluish green in the last-named species.

The species was re-discovered in Peru by the well-known Polish travellers, Jelski and Stolzmann. The former met with it in Central Peru, in the valley of Vitoc, above Chilpes and at Puniamarca; the latter in Northern Peru at Huambo (3000 ft.), at Ray-Urmana (7500 ft.), and on the road from Omia to Sorritor.

Mr. Stolzmann writes:—"We met with this Humming-bird on the flowers of the *Justicia* and on those of a species of *Gerania*, which climbed the trees to a great height. It appeared to be rare everywhere. At Huambo I killed it on the flowers of the *Alicon*, and at Tamiapampa I met with it on one occasion on the flowers of the *Iochromia*."

The following description of the sexes is given by Mr. Elliot in 'The Ibis':—

"Head and back of neck jet-black; centre of the crown brilliant metallic golden green, very bright and conspicuous. Throat metallic green, this colour extending over the sides of the neck, but much less brilliant, being a kind of metallic gloss on the black of that part. Back and upper tail-coverts metallic grass-green. Wings like the back, primaries purplish brown. Upper part of breast, extending to the green of the throat, pure white; rest of underparts and under tail-coverts shining grass-green. Median tail-feathers shining grass-green; remainder pure white tipped with green, this last becoming more extensive as it proceeds towards the outermost rectrices, which are nearly one third green from the tip, and running much further towards the base on the outer web than on the inner. The bill is long, straight, and pointed, black throughout. The feet flesh-colour.

"The female (Tschudi's type) differs in having the head, throat, and upper parts shining green, with none of the black observable in the male. Median rectrices green; rest white, tipped with black glossed with green. The white is much more extensive upon the tail-feathers than on those of the male; but this appears to be characteristic of the females of all the various species of the genus *Bourcieria*."

The Plate represents a male and a female of the natural size, the figures being drawn from specimens lent by Mr. Elliot.

[R. B. S.]



BOURCIERIA TRAVIESI.

J. Gould & W. Hart del. et lith.

Mintern Bros. imp.

BOURCIERIA TRAVIESI.

Travies's Inca.

Diphlogena (*Helianthea*) *traviesi*, Mulsant et Verreaux, Ann. Soc. Linn. Lyon, 2nd ser. xiv. vol. ii. p. 199 (1866).
Eudosia traviesi, Mulsant, Hist. Nat. Ois.-Mouches, iii. p. 2, pl. i. (1877).
Bourcieria traviesi, Elliot, Synopsis of the Humming-Birds, p. 77 (1878).

This species, the type of which is in the celebrated collection of the late Count Turati at Milan, is an inhabitant of Colombia, but nothing is known respecting its range or exact habitat. Mr. Elliot possesses a second specimen in his collection, also from Colombia, and a third is in Messrs. Salvin and Godman's Collection, said to have been shot near Hondo, in the valley of the Magdalena River, Colombia.

The following description of the species is borrowed from Mr. Elliot's well-known 'Synopsis of the *Trochilidæ*,' where he states that it may be told from its allies by its bronzy tail and by the metallic blue of the forehead and crown :—

"*Male*. Forehead and centre of crown blue, graduating into greenish blue near the occiput ; remainder of the upper part of the head very dark grass-green, black in some lights. Throat green, with a small metallic-violet spot in the centre. A broad white band across the throat. Abdomen, flanks, and under tail-coverts glittering grass-green. Upper tail-coverts metallic violet-red. Tail dark greenish bronze. Bill black. Total length 5 inches, wing $2\frac{11}{16}$, tail $2\frac{1}{8}$, culmen $1\frac{3}{8}$."

The female is unknown.

Mr. Elliot kindly lent the specimen from which the two figures in the Plate are drawn, an adult male being represented in two positions and of the size of life.

[R. B. S.]

BOURCIERIA ASSIMILIS, *Elliot.*

Elliot's Inca.

Lampropygia, sp., Elliot, Ibis, 1876, p. 58.
Bourcieria assimilis, Elliot, Synopsis of the Humming-Birds, p. 79 (1878).

In his paper on the genus *Lampropygia* (Ibis, *l. c.*) Mr. Elliot alluded to a specimen in his collection, allied to *L. prunelli*, but differing in certain particulars, and apparently previously unnoticed. Failing to obtain further specimens, he described the species as new in 1878, under the name of *Bourcieria assimilis*. He states that it came into his possession as from Ecuador, and that it is distinguished from *B. prunelli* by the colour of the throat, which is dark metallic purple.

The following is Mr. Elliot's detailed description:—"Top of head blackish brown; nape black with a bluish gloss; back black, but viewed from behind iridescent, being metallic red, graduating into golden on the rump; chin brownish black; throat metallic purple; on either side of the chest a large patch of white; upper tail-coverts dark purple; tail purplish black; bill black. Total length $4\frac{3}{4}$ inches, wing $2\frac{7}{8}$, tail 2, culmen $1\frac{1}{16}$."

[R. B. S.]

BOURCIERIA BOLIVIANA.

Bolivian Inca.

Lampropygia boliviana, Gould, Intr. Trochil. p. 137 (1861).—Scl. & Salv. Nomencl. Av. Neotr. p. 90 (1873).—Elliot, Ibis, 1876, p. 57.—Mulsant, Hist. Nat. Ois.-Mouches, iii. p. 13.

Trochilus bolivianus, Gray, Hand-l. Birds, i. p. 139, no. 1789 (1869).

Bourcieria boliviana, Elliot, Synopsis of the Humming-Birds, p. 79 (1878).

This bird, which comes from Bolivia, bears a general resemblance to *B. cæligena*, but differs in being of a much darker colour on the head and neck, and in having the tail dark olive-brown washed with bronze in lieu of light bronzy brown. The lower part of the back also is more richly coloured, the crescentic markings of green showing still greater lustre when viewed from behind.

Total length $5\frac{1}{2}$ inches, bill $1\frac{1}{2}$, wing $3\frac{1}{4}$, tail $2\frac{1}{8}$, tarsus $\frac{1}{4}$.

[R. B. S.]

BOURCIERIA COLOMBIANA, *Elliot.*

Colombian Inca.

Lampropygia columbiana, Elliot, Ibis, 1876, p. 57.

Bourcieria columbiana, Elliot, Synopsis of the Humming-Birds, p. 79 (1878).

The type of this species is in Mr. Elliot's collection from Colombia, and he states that it is the bird called by all ornithologists *B. cæligena*, from that province. It differs from *B. cæligena*, however, in having the upper parts dark olive instead of coppery red, and in the tail being bright olive instead of dark rufous olive.

The following description is given by Mr. Elliot:—

"*Adult.* Top and sides of head and nape olive-brown, with rufous reflexions; back same as head, slightly darker. Rump, viewed from behind, brilliant metallic green. Wings purple. Shoulder olive-brown. Throat white, centre of feathers blackish brown; upper part of breast smoky white, darker towards the abdomen, which, together with the flanks, is very dark rufous-brown. Under tail-coverts reddish brown; central portion of the feathers blackish brown. Tail olive-brown. Bill black. Feet black. Total length $5\frac{1}{2}$ inches, wing 3, tail 2, culmen $1\frac{1}{16}$."

[R. B. S.]

DORIFERA RECTIROSTRIS, *Gould.*

Ecuadorean Lance-bill.

Doryfera rectirostris, Gould, Intr. Monogr. Trochil. 8vo, p. 71 (1861).—Mulsant, Hist. Nat. Oiseaux-Mouches, i. p. 202 (1874).
Doryphora rectirostris, Sclater & Salv. Nomencl. Av. Neotr. p. 82 (1873).
Hemistephania rectirostris, Elliot, Synopsis of the Humming-Birds, p. 81 (1878).

I have retained for the sake of uniformity the name *Dorifera* for the birds of the present genus, as it was employed by me in the previous volumes of this Monograph; but I admit that the more correct form of writing it would be *Doryphora*, as adopted by Messrs. Sclater and Salvin in their 'Nomenclator Avium Neotropicalium.' In point of fact the name *Doryphora* will have to be suppressed among the Trochilidæ; for it has already been employed by Illiger in entomology, and therefore the proper generic name to be used is *Hemistephania* of Reichenbach, as employed by Mr. Elliot.

D. rectirostris comes from Ecuador, where it replaces the Colombian *D. ludoviciæ*, of which, in fact it is only a larger race with a somewhat longer bill.

The following is a copy of the original description published by me in the 'Introduction:'—

Bill and feet black; tarsi clothed with brown feathers; forehead brilliant glittering green; crown and back of the neck reddish bronze, passing into dull green on the back; upper tail-coverts washed with blue; tail black, tipped with greyish brown, largely on the external feathers, slightly on the middle ones; under surface olive; under tail-coverts grey; wings purplish brown.

I have not given a figure of this species, as there is not sufficient difference between it and *D. ludoviciæ* to be shown in a Plate

DORIFERA EUPHROSINÆ, *Muls. & Verr.*

Mulsant's Lance-bill.

Dorifera euphrosinæ, Mulsant & Verreaux, Ann. Soc. Linn. Lyon, xviii. p. 319 (1870–71).—Muls. Hist. Nat. Oiseaux-Mouches, i. p. 198 (1874).
Doryphora euphrosine, Sclater & Salv. Nomencl. Av. Neotr. p. 82 (1873).
Hemistephania euphrosinæ, Elliot, Synopsis of the Humming-Birds, p. 81 (1878).

I have never seen the male of this species, which, however, appears to be known to Mr. Elliot, who regards it as distinct from *D. ludoviciæ* on account of its small size and the peculiar bluish-green colour of the frontal spot. I have in my collection a female collected by Mr. Edward Bartlett in the Peruvian Amazons, which I believe to be referable to *D. euphrosinæ*, the habitat of which is supposed to be Ecuador.



DORIFERA VERAGUENSIS, *Salv.*

J. Gould & W. Hart del. et lith.

Walter, imp.

DORIFERA VERAGUENSIS, *Salvin*.

Veraguan Lance-bill.

Dorifera veraguensis, Salvin, Proc. Zool. Soc. 1867, p. 154.
Doryfera veraguensis, Mulsant, Hist. Nat. Oiseaux-Mouches, i. p. 199 (1874).
Hemistephania veraguensis, Elliot, Synopsis of the Humming-Birds, p. 82 (1878).

The very dark shade of the green under-surface, coupled with the metallic green forehead, which is darker than in *D. ludoviciæ*, serves to render this species recognizable from the last-named bird. It was described by Mr. Osbert Salvin from Veraguan skins collected by Enrique Arcé; and I have a skin in my collection said to be from Costa Rica; but there may be some doubt as to the correctness of this locality.

Mr. Salvin published the followwing remarks when first calling attention to the distinctness of the Veraguan bird:—"There seems to be considerable individual variation between members of this species; or I should be inclined to separate, as a distinct race, the bird found in Veragua, a single specimen only of which has as yet reached me. The shining forehead is considerably darker and of a bluer shade, the bill longer, and the under plumage blacker than in a New Granadian specimen of *D. ludoviciæ* before me; the wings, too, are shorter. Should the receipt of additional specimens confirm the constancy of these distinctions, I propose for this race the name of *Dorifera veraguensis*."

The Plate represents two males and a female bird, drawn from specimens lent to me by Messrs. Salvin and Godman.

HELIOMASTER ALBICRISSA, *Gould.*

White-vented Star-throat.

Heliomaster albicrissa, Gould, Proc. Zool. Soc. 1871, p. 504.—Sclater & Salvin, Nomencl. Av. Neotr. p. 90 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, ii. p. 274 (1876).

Floricola albicrissa, Elliot, Synopsis of the Humming-Birds, p. 83 (1878).

Mr. Elliot has placed the present species in the genus *Floricola*; but as the term *Heliomaster* has hitherto been used in this work as the generic name for these Humming-birds, we continue the practice.

The following is a copy of the original remarks and description :—

"In size it is about the same as *H. longirostris* and its near allies; but it differs from them all in having a still larger and longer bill and a much redder throat-mark, in the white spot on the external tail-feather being longer or larger, in the lower part of the abdomen being white, in the under tail-coverts being greyish white, instead of blackish green, with lighter edges, and in the glittering feathers of the crown being of as pale, or nearly as pale a green as in the *H. pallidiceps* of Mexico. As the peculiar markings of the tail and the under tail-coverts do not occur in *H. longirostris* of Trinidad and some parts of Venezuela, nor in the *H. sclateri* of Costa Rica, I am induced to regard the present bird as new.

"Throat fiery reddish purple; crown light glistening green; upper surface and two central tail-feathers bronzy green, with the usual white mark in the centre of the back; four outer feathers on each side bronzy green, becoming nearly black towards the end, and tipped with white, the external one more largely than the others; wings purplish brown; chest grey; flanks bronzy grey; centre of the abdomen white; bill black.

"Total length $4\frac{1}{2}$ inches, bill $1\frac{5}{8}$, wing $1\frac{3}{8}$, tail $1\frac{1}{2}$, tarsi $\frac{1}{4}$.

"*Hab.* Citado, Ecuador."

[R. B. S.]



HELIANGELUS MICRASTUR, *Gould.*

J.Gould & W.Hart del. et lith.

Walter Imp.

HELIANGELUS MICRASTUR, *Gould.*

Ecuadorian Star-frontlet.

Heliangelus micraster, Gould, Ann. & Mag. Nat. Hist. (4) ix. p. 195 (1872).—Scl. & Salv. Nomencl. Av. Neotr. p. 89 (1873).

Helymus micrastur, Mulsant, Hist. Nat. Oiseaux-Mouches, iii. p. 93 (1876).

Heliotrypha micrastur, Elliot, Synopsis of the Humming-Birds, p. 88 (1878).—Taczanowski, Proc. Zool. Soc. 1880, p. 205.

I am inclined to agree with Mr. Elliot that it is better to place the present species in the genus *Heliotrypha* than in *Heliangelus*, to which I have assigned it in the present work, its strongly forked tail, and the absence of any white band on the breast, allying it more to the members of the former genus. It has also been made the type of a distinct one, *Helymus*, by M. Mulsant; but, as Mr. Elliot well remarks, this was entirely unnecessary. I regret that my Plate was lettered before I could alter the generic name to *Heliotrypha*.

The genus *Heliotrypha*, therefore, as limited in Mr. Elliot's Synopsis, consists of four species:—*H. viola*, from Ecuador, with the throat metallic purplish violet; *H. exortis*, from Ecuador and Colombia, with the throat metallic pinkish lilac; *H. micrastur*, from Ecuador, with the throat metallic flame-colour; and *H. barrali*, from Colombia, with a pale metallic olive-green throat.

The following is a copy of my original note on this species:—"I have in my collection two specimens of this new bird, one of which is much brighter and finer than the other. They were collected in the locality above mentioned, by one of Mr. Clarence Buckley's hunters. In size this species is much smaller than any other member of this genus, even than *Heliangelus mavors*. My specimens differ also from all of them in the absence of a white or buff band across the chest, in which respect they assimilate to *H. Parzudaki* [= *exortis*], but not in the forked tail and other respects. I think it probable they are somewhat immature, and that, beautiful as they are, fully adult examples will be still finer."

Bill black; on the forehead a band of glittering green; crown of the head, all the upper surface of the body, and the shoulders bronzy green; chest and flanks of the same hue, but rather brighter; centre of the abdomen mottled brown and green; on the throat an exceedingly lustrous spot of orange-scarlet, exceeding in brilliancy the colouring of the same part of any other member of this beautiful genus yet discovered; wings purplish brown; four central tail-feathers bronzy green, the remainder black; thighs brown; under tail-coverts white; feet dark brown, nearly black. Total length $3\frac{3}{4}$ inches, bill $\frac{3}{4}$, wing $2\frac{1}{4}$, tail $2\frac{1}{8}$, tarsi $\frac{1}{4}$.

Since the discovery of this bird by Mr. Buckley, it has been met with in the winter months by Mr. Stolzmann in Northern Peru, near Cutervo, at an elevation of from 9600 to 9800 feet above the sea-level.

Habitat. San Lucas, near Loxa, in Ecuador.

On the Plate are represented an adult and a young male, both of which were kindly lent me by Messrs. Salvin and Godman.

HELIOTRYPHA BARRALI, *Muls. & Verr.*

Olive-throated Humming-bird.

Heliotrypha barrali, Mulsant et Verreaux, Ann. Soc. Linn. Lyon, xvii. p. 108 (1868).—Elliot, Synopsis of the Humming-Birds, p. 88 (1878).
Heliangelus squamigularis, Gould, Proc. Zool. Soc. 1871, p. 503.
Nodalia barrali, Mulsant, Hist. Nat. Oiseaux-Mouches, iii. p. 100 (1877).

The specimen which we described as *Heliangelus squamigularis* struck us at the time as being very peculiar, and we mentioned that it appeared to be allied to *Heliotrypha parzudakii* and *Heliangelus clarissæ*. Mr. D. G. Elliot, in his 'Synopsis,' places it at the end of the genus *Heliotrypha* and just before the genus *Heliangelus*, showing that our position for the species was not badly chosen, though Mr. Elliot places it in the genus *Heliotrypha*, and in this he is no doubt right.

The four species of *Heliotrypha* differ from each other in the colour of the throat, and this in the present bird is most peculiar, being well described by Mr. Elliot as of a "pale metallic olive-green" colour. Its habitat is the province of Antioquia, in the United States of Colombia.

The following is Mr. Elliot's description of the type, which is in his collection :—

"*Adult male.* Top of head very dark green, almost black in certain lights. Throat pale metallic olive-green, silvery in some lights, margined with a line of black. Rest of plumage of body shining grass-green, most brilliant on the breast. Wings purplish brown. Median rectrices bronzy green; lateral ones blue-black. Under tail-coverts green in the centre, the remaining parts greyish white. Bill black. Total length $4\frac{3}{8}$ inches, wing $2\frac{1}{2}$, tail $1\frac{3}{4}$, culmen $\frac{5}{8}$."

The Plate represents a male bird in two positions, and is drawn from the specimen in the Gould collection.

[R. B. S.]



UROSTICTE RUFICRISSA, *Lawr.*

J.Gould & W.Hart del. et lith.

Walter imp.

UROSTICTE RUFICRISSA, *Lawrence.*

Red-vented White-tip.

Urosticte ruficrissa, Lawrence, Annals of the Lyceum of Nat. Hist. New York, viii. p. 44 (1864).—Sclater & Salv. Nomencl. Av. Neotr. p. 87 (1873).—Muls. Hist. Nat. Oiseaux-Mouches, iii. p. 103 (1876).—Elliot, Synopsis of the Humming-Birds, p. 90 (1878).

The genus *Urosticte* was established by me in my introduction to the present Monograph for the reception of the single species at that time known, *U. benjamini*. The bill is much longer than the head, and straight, the tail being slightly forked, and the tarsi clothed. One special characteristic is the beautiful luminous throat; while the sexes are different in colour; the female being much less brightly plumaged. Its nearest ally would appear to be the genus *Heliangelus*, which it resembles in form of bill, this being straight as in the last-named genus, but more slender.

Since finishing my Monograph a second species of *Urosticte* has been described by my friend Mr. G. N. Lawrence, who has bestowed on it the appropriate name of *U. ruficrissa*. It is nearly allied to *U. benjamini*, and, like that species, has the central tail-feathers bronzy and tipped with white; it wants, however, the beautiful violet spot on the throat, which is so conspicuous in the above-named bird, having this part entirely green; and it is further distinguished by its rufous under tail-coverts.

The home of the present bird, like that of its congener, is Ecuador.

Mr. Elliot, in his excellent 'Synopsis,' has given a very good diagnosis for the species, which I here reproduce:—

"*Male*. General plumage dark shining green. Throat luminous grass-green. Wings purplish brown. Under tail-coverts rufous. Tail pale bronze-green, with the four median feathers tipped with white. Bill black, feet brown. Total length 4 inches, wing 2, tail $2\frac{1}{8}$, culmen $\frac{7}{8}$."

"*Female*. Exactly like the female of *U. benjamini*, but slightly larger and with a longer bill."

The Plate represents two males and a female, drawn from the typical specimens lent to me by Mr. Lawrence.

UROSTICTE INTERMEDIA, *Tacz.*

Peruvian White-tip.

Urosticte intermedia, Tacz. Proc. Zool. Soc. 1882, p. 36.—Id. Orn. du Pérou, i. p. 351 (1884).

This species was discovered by M. Stolzmann in Peru, at Chirimoto and Ray-urmana. Dr. Taczanowski records it as a form intermediate between the two species already known, and closely allied to *U. benjamini*, but larger, with the spot on the throat not so large, of another shade of colour and, at the same time, less metallic, with the under wing-coverts of another colour, the spot behind the eye much smaller and with scarcely any whitish space on the lower throat, the bill also being more slender and the centre tail-feathers shorter than in the allied species.

The following is a translation of Dr. Taczanowski's original description :—

Adult male. Brilliant golden green above, the feathers on the top of the head somewhat scaly; the throat and fore part of the neck covered with scaly plumes of glittering green under certain lights, followed by a triangular spot of dull and not very shining violet; breast and abdomen green, the feathers in the centre of these parts broadly edged with greyish white; under tail-coverts reddish with a green disk; anal region white; a very small white spot behind the eye. The wings reach to the end of the centre tail-feathers, with the upper and lower tail-coverts of the same colour as the body; quills brown, with a violet lustre, changing to olive under certain lights. Tail deeply forked, with the tail-feathers of moderate size, the middle ones the shortest, the outer one scarcely extending beyond the penultimate one, green at the base and of a dull reddish copper-colour on the terminal half; the middle and adjoining feathers broadly tipped with white, the former with a small brown spot at the extreme end; lower aspect of the tail less brilliant, of a bronzy olive colour, slightly glossed with reddish towards the extremity of the tail-feathers, the colour being distinctly more brilliant on the four feathers in the middle of the tail. Bill black; feet blackish brown; iris black.

The female and young birds are also described by Dr. Taczanowski, and they evidently differ from the male in the same manner as the other species of the genus.

[R. B. S.]



EUSTEPHANUS LEYBOLDI, *Gould.*

J. Gould & W. Hart, del. et lith.

Walter, Imp.

EUSTEPHANUS LEYBOLDI, *Gould.*

Leybold's Firecrown.

Eustephanus leyboldi, Gould, Ann. & Mag. Nat. Hist. 4th series, vol. vi. p. 406.—Sclater, Ibis, 1871, p. 181.—Reed, Ibis, 1874, p. 84.—Mulsant, Hist. Nat. Oiseaux-Mouches, p. 256.—Elliot, Synopsis Trochil. p. 94.

About ten years ago Dr. Leybold, of the Santiago Museum, Chili, was in London, and frequently visited my house, when we had several conversations respecting the Humming-birds of the Juan-Fernandez group, concerning which he had much to tell me. Amongst other things which interested me greatly was the information Dr. Leybold gave about the Firecrowns of Juan Fernandez. He promised me that on his return to Chili he would send a collector and get me specimens, if possible, from the group, which promise he faithfully fulfilled, with the result that a new species of Humming-bird was found to exist on the hitherto unexplored island of Mas-a-fuera.

I described the species in 1870 from specimens presented to me by Dr. Leybold; and in attaching that gentleman's name to it I was only adding one more acknowledgment of his zeal and devotion to the Museum under his charge, while at the same time it expressed my own personal obligations to him for his kindness in seeking out the specimens for me.

It is an interesting fact in connexion with the present species that it is only the female bird that gives characters for specific separation from *E. fernandensis*. It is an unusual thing for species to be founded on the female birds; but there are several parallel cases known to ornithologists where the males are nearly alike, while the females are quite different. The following description of the species is taken from my original account of *E. leyboldi*.

It has a glittering crown, and is in many respects very similar to the bird usually called *E. stokesi*, but differs in having a longer bill, and in the spots on the throat being bronzy and disposed in lines down that part of the under surface and the flanks, as in *E. galeritus*, instead of being generally dispersed over the throat and clustered on the face, as in *E. stokesi*; but the greatest difference between the two consists in the colouring of the tail-feathers, those of *E. stokesi* having their outer webs green, and their inner ones wholly white, while in the present bird the outer webs and the basal portion of the inner ones are green, and only the apical portion of the latter white.

Total length $4\frac{5}{8}$ inches, bill $\frac{15}{16}$, wing $2\frac{7}{8}$, tail 2, tarsus $\frac{3}{8}$.

The figures in the Plate are drawn from the typical specimens in my collection, and represent a pair of birds of the size of life.



EUSTEPHANUS FERNANDENSIS.

J. Gould & W. Hart, del. et lith.

Walter Imp.

EUSTEPHANUS FERNANDENSIS.

Cinnamon Firecrown.

Trochilus fernandensis, King, Proc. Zool. Soc. part 1. p. 30.—Gray, Handl. B. i. p. 147, no. 1899.

Trochilus stokesii, King, tom. cit. p. 30.—Lesson, Troch. p. 135. pl. 50—Jard. Naturalist's Library, Humming Birds, ii. p. 55, pl. 5.

Ornismya cinnamomea, Gerv. Mag. de Zool. v. Oiseaux, pl. 43.

Ornismya robinson, Lesson, Oiseaux-Mouches, Velins, pl. 7.—De Lattre & Less. Rev. Zool. 1839, p. 18.

Mellisuga stokesii, Gray, Gen. B. i. p. 113.

Mellisuga grayi, Gray, tom. cit. p. 113.

Sephanoides stokesii, Bonap. Consp. Av. i. p. 82.—Id. Rev. et Mag. de Zool. 1854, p. 256.

Sephanoides fernandensis, Bonap. Consp. Av. i. p. 82.—Id. Rev. et Mag. de Zool. 1854, p. 265.

Eustephanus stokesii, Gould, Monogr. Trochil. iv. pl. 266.

Eustephanus fernandensis, Gould, Monogr. Trochil. iv. pl. 267.—Cab. & Heine, Mus. Hein. iii. p. 76.—Scl. & Salv. Nomencl. Av. Neotr. p. 90.—Reed, Ibis, 1874, p. 82 — Muls. Oiseaux-Mouches, p. 76.—Elliot, Synopsis Trochil. p. 93.

Amongst the advantages which the issue of the present 'Supplement' bestows on me may be reckoned the opportunity which it gives of correcting certain mistakes in the 'Monograph,' which were due to the imperfect knowledge possessed by ornithologists at the period when the latter work was written. Such a case is the present, in which, from lack of the requisite knowledge, I figured the two sexes of the Cinnamon Firecrown as distinct species, under the names of *E. fernandensis* and *E. stokesii*; and now that I am giving for the first time a Plate of the more recently discovered *E. leyboldi*, I have seized the opportunity to refigure the two sexes of *E. fernandensis*.

The Juan-Fernandez group of islands was for a long time almost a *terra incognita* to the naturalist; and until Dr. Sclater published a list in 'The Ibis' of 1871 we were ignorant of the number of birds inhabiting them. The largest island of the group is Mas-a-tierra, or Juan Fernandez, which is situated about 380 miles from the coast of Chili; and the second is named Mas-a-fuera, which is about 450 miles from the Chilian coast. There are also a number of small islets belonging to the group.

On these two islands no less than three species of Humming-birds are known to exist, one of them, *E. galeritus*, a well-known Chilian species, being found on Mas-a-tierra. To this same island, however, is confined *Eustephanus fernandensis*, while *E. leyboldi* inhabits Mas-a-fuera. The group was first visited by a naturalist in 1825, when Captain King procured some Humming-birds on Mas-a-tierra, and named them as belonging to two distinct species, without apparently suspecting they were sexes of the same bird. Indeed so different in style of coloration are the male and female of *E. fernandensis*, that any one might be excused for considering them distinct. When Mr. Bridges visited the same island in 1854, he brought back a large number of specimens both of *E. fernandensis* and of the so-called *E. stokesii*, but without a single indication as to the sexes of the specimens, which were examined by me at the time. According to Dr. Sclater, however, Mr. Bridges was quite aware that *E. stokesii* was only the female bird; for he himself informed the late M. Jules Verreaux of the fact in a conversation he had with him in Paris after his return from South America (Ibis, 1871, p. 179, note). I can only say that not the slightest indication of this was noted on Mr. Bridges's specimens; nor was I informed of it by Mr. Cuming, who was his agent.

Mr. E. C. Reed, of the Santiago Museum, who visited Juan Fernandez in 1870 and again in 1872, says that he dissected all the specimens he shot, and found that in all cases the red birds were males, and the green females. "It is" he remarks, "a very strong bird. It hovers over flowers, then darts away like an arrow to a distance of several hundred yards; I have never seen any other small bird fly so rapidly. It feeds principally from the beautiful purple flowers of the *Citharexylon*. It has a loud shrill cry." Mr. Bridges found the bird so fearless of man that it could be killed with a stick, so close did it approach. On a closer acquaintance with man it would appear to have become more shy during the twenty years that have elapsed since that gentleman visited the island.

I will now give a short description of the old red male and the adult green female, with the addition of the full-grown young of both sexes, which differ from their parents by having no bright colouring on the crown. This anomaly will be seen in the illustration more clearly than in any description I could write.

Old male.—Forehead and crown metallic fiery red; the entire plumage of the body and colouring of the tail-feathers deep cinnamon-red; wing-coverts the same; primaries and secondaries purplish brown; vent buffy white; bill black.

Young male.—Like the old male, except the crown, which has not the slightest trace of metallic red; the spurious wing green; whitish green runs up the shoulder.

Old female.—Crown of the head metallic bluish green, with a bronzy lustre; wings purplish brown, the spurious wing glossed with green; the central tail-feathers and the outer webs of the four next on each side grass-green; the inner webs of these lateral feathers white, deepening into green at the tip of the outer webs, under surface white with a spangle of shining green at the end of each feather of chin, throat, and flanks, the spangles being (in consequence of the smaller size of the feathers) most numerous on the chin; under tail-coverts white with green centres.

The *young female* is like the old female; but she has no glittering feathers on the crown.



HYLONYMPHA MACROCERCA, *Gould.*

J. Gould & W. Hart del. et lith.

Walter Imp.

HYLONYMPHA MACROCERCA, *Gould.*

Great Forked-tailed Humming-bird.

Hylonympha macrocerca, Gould, Ann. & Mag. Nat. Hist. 1873, vol. xii. p. 429.—Elliot, Synopsis of the Trochilidæ, p. 79.—Mulsant, Hist. Nat. Ois.-Mouches, tom. iii. p. 57.

In looking over the above references it will be seen that seven years have passed since I first became acquainted with this fine bird. Mr. Whitely, of Woolwich, called on me one day unexpectedly, and said "I have a fine new Humming-bird to show you; and if you wish it, it may be placed in your cabinet; and afterwards this unique specimen may be figured in your Supplement." For this offer I tendered my thanks, saying that the public would be as much gratified as I was. I then urged him to do all he could to obtain the female, as well as more males. He answered :—"No perseverance shall be wanting on my part; but I shall not easily succeed. Few of the public know that a considerable trade is carried on between Brazil and London almost solely in birds' skins and feathers; these are only for decoration. Humming-birds of any kind are preferred for the skirts of ladies' dresses, the hair, and bonnets. Few of the birds are shot; the rich landlords employ their slaves, who set finely meshed nets in the glades of the forest to catch them."

Thousands of the beautiful ruby and topaz Humming-birds are sent to this metropolis every year. As these seldom undergo a critical examination, it has frequently struck me that my new bird was imported in this way. But after waiting seven years for the female without success, and no other male appearing, I had determined to give a representation of the unique male. Suddenly all these plans were frustrated by the arrival of seventy males and two females, to the astonishment of every person fond of Humming-birds. Every Trochilidist wondered how so large a bird could have escaped the notice of travellers, and particularly traders in such countries as Brazil, and with myself have eagerly desired to ascertain the particular district of that huge empire it inhabits. This is now, I think, positively known. Mr. Henry Whitely states, this bird lives in the "Matura district, Manawas, on the river Bia, North Brazil."

The great number of males which arrived the other day showed me that some variety exists in that sex; in some the longest tail-feathers are pointed, in others rounded, the latter being two inches shorter than the former.

Its nearest ally is *Heliodoxa leadbeateri*, and not *Thalurania* (as first suggested in the 'Annals').

Bill stout, somewhat curved, a little longer than the head; wings rather long and falciform; feet and toes small; tarsi clothed; tail ample, deeply forked, and larger in comparison with the size of the body than that of any other member of the family. Crown of the head glittering blue, with a reflection of green towards the edges; throat very fine green, passing into dull green on the flanks; abdomen black, glossed with green; feathers clothing the tarsi dark brown on the outer side, and white on the inner; under tail-coverts black; all the ten feathers of the tail, the outer ones of which are very broad, a uniform steel-black.

Total length $8\frac{1}{2}$ inches, bill 1, wing $2\frac{3}{4}$, tail 6, tarse $\frac{1}{4}$.

The female differs from the male in that it has a much shorter tail and is very much varied in colour. The bill is like that of the male; and of the form of the wing the same may be said. The colouring of the tail of the female is very variable; the outer feather is tipped with greyish white as in my illustration, while the long swinging tail of the male is black from end to end. The admeasurements of the female are—total length about $5\frac{7}{8}$ inches, wing $2\frac{1}{2}$, tarse $\frac{1}{4}$.

The Plate represents male and female, natural size.



THALURANIA HYPOCHLORA, *Gould.*

J.Gould & W.Hart del et lith.

Walter Imp.

THALURANIA HYPOCHLORA, *Gould.*

Citado Wood-Nymph.

Thalurania hypochlora, Gould, Proc. Zool. Soc., 1870, p. 804.—Salvin & Elliot, Ibis, 1873, p. 360.—Elliot, Synopsis of the Trochilidæ, no. 102.—Mulsant, Hist. Nat. Ois.-Mouches, tom. iii. p. 66.

The discovery of this fine Wood-Nymph is due to Mr. Buckley, who procured both sexes at Citado, in Ecuador. Soon afterwards these specimens came into my possession, and, I am happy to say, are in fine condition. If we examine the adult male it will be found that the crown of the head is a beautiful green like the under surface, the uniform green colour of which forms one of this bird's chief characteristics. The Brazilian bird, *Thalurania glaucopis*, somewhat resembles it; but that bird has the crown blue and not green like *T. hypochlora* or many other Wood-Nymphs. It also has been compared to *T. verticeps*, and others have been considered somewhat like it. It is in the green colour of the crown being the same as that of the under surface that *T. hypochlora* differs from any other Wood-Nymph. As might be expected in a bird so recently discovered, nothing has been recorded of its habits, which must be like those of its near allies.

The colouring of the male may be thus described:—Three parts of the crown and entire underparts of the body a beautiful green; upper surface (that is, from the occiput to the tail-coverts) deep grass-green, with a beautiful patch of blue on the shoulder extending for a short distance onto each side of the breast; under tail-coverts blackish blue, edged with white; bill black; feet brownish black.

Female. All the upper surface grass-green; throat, abdomen, and under tail-coverts grey, darker and inclining to green on the flanks; tail purplish black, slightly tipped with white, the white tipping being of lesser extent than on the outer feathers. Size rather less than that of male.

Total length of male 4 inches, bill $\frac{7}{8}$, wing $2\frac{1}{2}$, tail $1\frac{3}{4}$.

Habitat. Citado, in Ecuador.

The Plate represents two males and a female, of the natural size.



THALURANIA JELSKII, *Tacz.*

J. Gould & W. Hart del et lith.

Mintern Bros. imp.

THALURANIA JELSKII.

Jelski's Wood-Nymph.

Thalurania jelskii, Tacz. Proc. Zool. Soc. 1874, p. 138.—Mulsant, Hist. Nat. Oiseaux-Mouches, iii. p. 70 (1877).—Elliot, Synopsis of the Humming-Birds, p. 101 (1878).—Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. de Caen, i. p. 320 (1880).—Tacz. Orn. du Pérou, i. p. 295 (1884).

Jelski's Wood-Nymph was discovered by the well-known Polish traveller after whom the species is named, at Soriano in Peru. Mr. Elliot writes concerning the present bird:—"This is a diminutive of *T. nigrofasciata*; and there is absolutely no difference between the two except in size. The rectrices of *T. jelskii* are narrow, but not more so than accords with its dimensions. I compared the type with specimens of *T. nigrofasciata*, and could distinguish no difference, save that *T. jelskii* was a little smaller."

The Plate represents the adult male in three positions, and is drawn from a specimen lent to us by Dr. Taczanowski.

[R. B. S.]

THALURANIA FURCATOIDES, *Gould.*

Para Wood-Nymph.

Thalurania furcatoides, Gould, Monogr. Trochil. ii. text to *Th. furcata*.—Id. Intr. Trochil. 8vo, p. 77 (1861).—Sclater & Salvin, Proc. Zool. Soc. 1867, p. 584.—Salvin & Elliot, Ibis, 1873, p. 357.—Sclater & Salvin, Nomencl. Av. Neotr. p. 83 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, iii. p. 73 (1877).—Elliot, Synopsis of the Humming-Birds, p. 100 (1878).—Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. de Caen, i. p. 317 (1880).

Thalurania forficata, Cab. & Heine, Mus. Hein. Th. iii. p. 24 (1860).—Gould, Intr. Trochil. p. 77 (1861).

Polytmus furcatoides, Gray, Hand-list of Birds, i. p. 130, no. 1655 (1869).

The species of *Thalurania* from the Lower Amazons seems to differ constantly from *T. furcata* of Cayenne in being smaller, in having the tail less forked, and the breast ultramarine blue instead of purplish blue. We have seen some specimens from Para which bore out these differences; but whether it is true *T. furcata* or *T. furcatoides* which was procured by Natterer at Barro do Rio Nigro, only an examination of specimens can decide (*cf.* Pelzeln, Orn. Bras. p. 30).

The type of *Th. forficata* of Cabanis and Heine was sent from Berlin and examined by the late Mr. Gould, but he did not identify it for certain with his *T. furcatoides*. Messrs. Salvin and Elliot (*l. c.*) have, however, no doubt as to its being synonymous.

[R. B. S.]



MICROCHERA PARVIROSTRIS, *Lawr.*

J. Gould & W. Hart, del. et lith.

Walter Imp.

MICROCHERA PARVIROSTRIS.

Purple Snowcap.

Panychlora parvirostris, Lawr. Proc. Acad. Phil. 1865, p. 39.
Microchera parvirostris, Salvin, Proc. Zool. Soc. 1867, p. 154.—Lawr. Ann. of the Lyceum of Nat. Hist. of New York, 1870, p. 122.—Elliot, Synopsis, 1879, p. 104.—Muls. Hist. Nat. Oiseaux-Mouches, vol. iii. p. 137.

In this new Snowcap the silky white covering of the crown is wider, longer, and seems to stand out further over the crown, overshadowing the eyes; all the upper surface, from the occiput to the upper tail-coverts, is reddish purple; this colour extends over the shoulders and the chest down to the lower part of the belly; but here the purple is not quite so brilliant. There are light-grey hairy feathers under the tail of my birds, which appear to drop on the slightest touch; the bill is straight and elegantly formed; wings very long and curved, primaries purplish brown. The throat- and ear-coverts consist of small scaled feathers of a greenish colour, which stand out conspicuously from the rest.

The following description is from the pen of Mr. Lawrence; and it gives me great pleasure to repeat it in my letterpress. Mr. Lawrence states:—"My name for this species was proposed for the female; the male (since received) is very beautiful, of which I add the following description:—Front and crown pure white; lores black; the rest of the plumage above and below is of an exceedingly rich purplish crimson; upper tail-coverts coppery red; the four central tail-feathers are coppery bronze; the others are of a whitish grey for about half their length, gradually becoming purplish black, the extreme ends white; wings brownish purple; bill and feet black.

"Total length of male 3 inches, wing $1\frac{5}{8}$, tail $\frac{7}{8}$, bill $\frac{7}{16}$.

"*Remarks.*—Although resembling *M. albocoronata* in its white crown, this species is quite different in colouring. In *M. albocoronata* the plumage is black, washed with carmine, in some lights appearing to be entirely black. In *M. parvirostris* the plumage is clear and uniform in colour, not appearing black in any position. The tail is rounded; and the black colouring at the end is quite different from that of *M. albocoronata*, in which the tail is even, and it has a strongly defined subterminal black band."

In the Plate there are three males and one female; the latter I will now attempt to describe. The bill is rather curved and longer than the head; crown, underpart of the neck, shoulders, back, and upper tail-coverts bronzy green; the tail-feathers are short, the middle ones uniform and bronzy in colour, the three outer bluish grey; the same colour runs on the triangular tips of each of the lateral feathers; the throat and all the under surface is light grey; feet small, with greyish feathers about halfway down the tarsus.

Female. Total length $2\frac{3}{4}$, wing $1\frac{1}{2}$, tail $\frac{3}{4}$, bill $\frac{5}{8}$.

SELASPHORUS TORRIDUS, *Salvin.*

Torrid Flame-bearer.

Selasphorus torridus, Salvin, Proc. Zool. Soc. 1870, p. 208.—Sclater & Salvin, Nomencl. Av. Neotr. p. 84 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, iv. p. 101 (1877).—Elliot, Synopsis of the Humming-Birds, p. 112 (1878).

Mr. Salvin gives the characters of this Humming-bird as follows:—"The coloration of the throat of this species is peculiar, having a somewhat faded appearance. The tint is not brilliant red as in *S. scintilla*, nor does it resemble the gorget of *S. platycercus*, but is altogether of a more lilac hue. However, six males, sent by Arcé, are all so exactly alike, that I cannot but suppose that the normal colour of the throat is shown. The lateral plumes of the throat, too, are elongate, reminding one of *Atthis heloisæ*, and thus render the species distinct from all *Selasphori* except *S. scintilla*, from which it differs widely in other respects. The most nearly allied species appears to be *S. flammula*, Salv. (P. Z. S. 1864, p. 586), which, however, has a differently coloured throat, as well as distinctive characters in the tail."

The present bird has, as yet, only been met with on the volcano of Chiriqui, in Veragua.

As with the other two species of *Selasphorus*, I append the diagnosis of *S. torridus*, as given by Mr. Elliot:—

"*Male*. Upper parts dark shining grass-green. Throat shining lilac-red, silvery in certain lights. Feathers on the side of the neck elongated, same colour as the throat. Breast and middle of abdomen white. Flanks green. Under tail-coverts buffy white. Median rectrices bronze-green; lateral ones purplish black, all except the two outer ones margined with rufous. Wings purplish brown. Maxilla black; mandible flesh-colour, tip black. Total length $2\frac{5}{8}$ inches, wing $1\frac{5}{8}$, tail $1\frac{1}{4}$, culmen $\frac{3}{8}$.

"*Female*. Head brownish; upper parts green. Underparts whitish; feathers of throat spotted with brown. Flanks rufous. Tail black; base of three outer feathers rufous, and tips white; next two margined with rufous; middle feathers green."

SELASPHORUS HENSHAWI, *Elliot.*

Henshaw's Flame-bearer.

Trochilus rufus, Henshaw, Bull. Nuttall Orn. Club, ii. p. 54 (1877, nec Gm.).
Selasphorus henshawi, Elliot, Bull. Nuttall Orn. Club, ii. p. 102 (1877).—Id. Synopsis of the Humming-Birds, p. 111 (1878).

This is a species which I failed to distinguish from the true *S. rufus* (Gm.) in my previous works, as also have many other writers on Humming-birds. Mr. H. W. Henshaw, in a paper published in the 'Bulletin' of the Nuttall Ornithological Club of July 1877, pointed out that under the name of *Selasphorus rufus* a distinct bird, differing in having the tail-feathers next to the centre ones pointed and notched, occurred in California; and he proposed to call this new form *S. alleni*, after Mr. C. A. Allen, of Nicasio in California. A good account of the habits and distribution is given in Mr. Henshaw's paper; but in the same volume of the 'Bulletin' Mr. D. G. Elliot has shown that it is the bird with the pointed tail-feathers which is the true *S. rufus* of Gmelin, and consequently the species with the notch in the tail-feathers which requires a new title; and this Mr. Elliot conferred on the species by naming it *Selasphorus henshawi*. I refer my

readers for a full account of the species to the article above referred to, and I give a copy of Mr. Elliot's description of *S. henshawi*.

"*Male*. Top of head metallic green; upper parts cinnamon; but some specimens have green feathers intermixed with the rufous ones on the back. Throat metallic-orange, not brilliant as in the other species. Breast and centre of abdomen white; flanks and under tail-coverts rufous. Tail rufous, tipped with dark brown; feathers pointed at tip, median pair broad; lateral ones growing narrower to the outermost, which is the most attenuated. On the inner web, near the tip of the rectrices next the median pair, is a well-developed notch. Bill black. Total length $3\frac{1}{4}$ inches, wing $1\frac{1}{2}$, tail $1\frac{3}{8}$, culmen $\frac{5}{8}$.

"*Female*. Entire upper parts shining grass-green, dullest on the crown. Throat white, spotted with brown. Underparts white, washed with rufous on the breast and flanks. Under tail-coverts buff. Median rectrices green; lateral ones rufous at base, then a band of metallic green, succeeded by a subterminal broad black bar, and tips white. Bill black. Total length $3\frac{1}{2}$ inches, wing $1\frac{7}{8}$, tail $1\frac{1}{2}$, culmen $\frac{5}{8}$. Young males are similar to the females, with a few metallie spots on the throat."

The home of this species is stated to be from Mexico northwards along the Pacific coast to Sitka.



SELASPHORUS FLAMMULA, *Salvin.*
SELASPHORUS ARDENS, *Salvin.*

Wolf & W Hart, del et lith.

Walter Imp.

SELASPHORUS ARDENS, *Salvin.*

Salvin's Flame-bearer.

Selasphorus ardens, Salvin, Proc. Zool. Soc. 1870, p. 209.—Scl. & Salv. Nomencl. Av. Neotr. p. 84 (1873).—Muls. Hist. Nat. Oiseaux-Mouches, iv. p. 103 (1877).—Elliot, Synopsis of the Humming-Birds, p. 110 (1878).

The species of the genus *Selasphorus*, as pointed out by Mr. Elliot, are distinguished by the colour of their throats; and in the present species and *S. platycercus* the throat has been characterized by him as "dark amethystine-red." *S. ardens* differs from *S. platycercus* in being smaller, and in having the flanks and abdomen dark green instead of grey. Mr. Salvin has given the following notes on the species —

"This species has the throat coloured just as in *S. platycercus*, which is in other respects a very different species. Its nearest allies, however, are *S. flammula* and *S. torridus*; but it differs from both in the coloration of the throat, and also in having the central tail-feathers black, edged with rufous instead of green: this latter distinction is more conspicuous when the tail is compared with that of *S. flammula*. The wholly black bill and the absence of the elongated gular feathers distinguish it from *S. torridus*. The male sent by Arcé is not in quite perfect plumage, but is so far satisfactory as to show a few faded feathers on the throat. These are bronzy, and quite different in colour from the gorget-feathers of either *S. flammula* or *S. torridus*."

The following complete description of the sexes has been borrowed from Mr. Elliot's work above alluded to :—

"*Male*. Upper parts dark bronzy green, lores and ear-coverts rufous, the latter mixed with black. Throat metallic amethystine-red. Breast, middle of abdomen, and under tail-coverts white, flanks dark green, which colour almost meets on the upper part of breast. Tail purplish-black, both webs of middle feathers and inner webs of lateral ones margined with rufous. Wings purplish brown. Bill black. Total length $2\frac{3}{4}$ inches, wing $1\frac{1}{2}$, tail $1\frac{1}{4}$, culmen $\frac{3}{8}$.

"*Female*. Upper parts bronzy green, margined with rufous on the sides of lower part of back and rump. Throat buffy white, spotted with brown. Breast white. Underparts buff. Middle tail-feathers bronzy green, lateral ones buff with a black bar across their central part. Bill black."

I am indebted to Messrs. Salvin and Godman for the loan of the pair of birds from which the figures in the Plate are taken.

SELASPHORUS FLAMMULA, *Salvin.*

Rosy-throated Flame-bearer.

Selasphorus flammula, Salvin, Proc. Zool. Soc. 1864, p. 586.—Scl. & Salv. Nomencl. Av. Neotr. p. 84 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, iv. p. 99 (1877).—Elliot, Synopsis of the Humming-Birds, p. 110 (1878).

The throat in this species is of a metallic rosy-red colour, which renders it a conspicuous bird. Its habitat appears to be confined to Costa Rica and Veragua; and nothing seems to be known of its habits, which, however, are doubtless similar to those of the other *Selasphori*.

The descriptions of both sexes are here copied from Mr. Elliot's work above quoted :—

"*Male*. Upper parts shining grass-green. Throat metallic rose-red. Breast and middle of abdomen white.

Flanks buff mixed with green. Wings purplish brown. Under tail-coverts white. Tail purplish black, margined with rufous, the centre pair slightly washed with green on outer webs. Maxilla black, mandible flesh-colour, tip black. Total length $2\frac{7}{8}$ inches, wing $1\frac{5}{8}$, tail $1\frac{1}{4}$, culmen $\frac{3}{8}$.

"*Female*. Upper parts bronzy green, brownish upon the head. Flanks buff. Throat, breast and abdomen white; the throat spotted with dark brown. Under tail-coverts buff edged with white. Wings purplish-brown. Four central rectrices grass-green, edged on outer web with rufous; remainder black tipped with buffy white. Bill and feet black. In size same as the male."

An adult male, lent to me by Messrs. Salvin and Godman, is figured in the Plate along with a pair of *S. ardens*.

CATHARMA ORTHURA.

Lesson's Flame-bearer.

Ornismyia orthura, Lesson, Hist. Nat. Trochilid. pp. 86, 88, pls. 28, 29 (1831).
Trochilus orthurus, Reichenb. Aufz. der Colibri, p. 12 (1853).—Trochil. Enum. p. 10 (1855).
Tryphæna orthura, Bp. Rev. et Mag. de Zool. 1854, p. 257.
Catharma orthura, Elliot, Ibis, 1876, p. 400.—Mulsant, Hist. Nat. Oiseaux-Mouches, iv. p. 66 (1877).—Elliot, Synopsis of the Humming-Birds, p. 112 (1878).

This species remained in obscurity till the year 1876, when Mr. Elliot, having acquired the types for his collection, identified it as a perfectly distinct form of Humming-bird, and made it the type of a new genus, having the form of an *Atthis* but the plumage of a *Calliphlox*. His remarks on the species in 'The Ibis' must be consulted by any one wishing to understand the history of the species.

The following is Mr. Elliot's account of the typical specimens in his collection :—

"*Adult male*. Entire upper parts dark shining grass-green. Behind the eye a small white spot. Throat metallic amethystine red, rather dull, beneath which is a band of greyish white extending up the sides of the neck; rest of underparts grey, tinged with green, lightest in the centre of the abdomen. Median rectrices bronze-green, lateral ones green at base, rest black, with a faint indication of white at the tip. Wings purplish brown. Bill black. Total length $2\frac{5}{8}$ inches, wing $1\frac{3}{8}$, tail $\frac{7}{8}$, culmen $\frac{5}{8}$.

"*Young male*. Above golden green. Throat white, spotted with metallic red, and bounded beneath with a band of green, followed by another of white. Underparts deep buff, washed with green in lower part of breast. Middle rectrices bronze-green, lateral ones green at base, rest black, tipped with white.

"*Adult female*. Above dark green. Ear-coverts, cheeks, and a line around lower part of the throat blackish brown. Throat white, spotted with brown. A band of white across the breast, beneath which is another of dark brown. Rest of underparts rufous. Central rectrices bronze-green, lateral ones bronze-green, with an apical black band. Under tail-coverts pale bronze-green, margined with grey. Wings purple. Bill and feet black. Dimensions as in the male."

[R. B. S.]

ATTHIS ELLIOTI, *Ridgway*.

Elliot's Flame-bearer.

Selasphorus heloisæ, Scl. & Salv. (nec Less. & Delattre), Ibis, 1859, p. 129.—Salvin, Ibis, 1860, pp. 196, 266.

Atthis heloisa (pt.), Baird, Brewer and Ridgway, Hist. North-Amer. Birds, ii. p. 465 (1874, spec. ex Guatemala).

Atthis ellioti, Ridgway, Proc. U.S. Nat. Mus. 1878, p. 9.—Elliot, Synopsis of the Humming-Birds, p. 114 (1878).

This species of *Atthis* represents in Guatemala the well-known *Atthis heloisæ* of Southern Mexico.

As Mr. Ridgway remarks in his original description, it may be immediately distinguished by the very different form of the outer primary, the redder and more uniform colour of the throat-gorget, and the shorter bill. The outer primary in *A. ellioti* is broad, with the end not attenuated; and the gorget is uniform purplish red without varying olivaceous tints, with the culmen 0·38–0·40; whereas in *A. heloisæ* the culmen measures 0·48–0·50, and the outer primary is very narrow, with the end abruptly attenuated, while the gorget is reddish violet, showing decided violet tints in certain lights.

These differences do not strike one as being very strongly pronounced; but as they appear to be constant, the Guatemalan species will henceforth be known as *A. ellioti*.

The specific characters of the adult male are thus given by Mr. Ridgway:—

"Outer primary broad, the end not attenuated. Gorget uniform reddish purple (much as in *Calypte annæ*), without varying tints of violet as in *A. heloisæ*; jugulum wholly white; middle of the abdomen white; sides light rufous, slightly glossed with golden green; crissum white, tinged with light rufous. Upper parts metallic green, decidedly less golden than in *A. heloisæ*. Tail with the basal half (approximately) bright cinnamon-rufous, the subterminal portion black; three outer feathers on each side tipped with rusty white; the middle pair with the black portion above glossed with metallic green anteriorly. Wings uniform dusky, the smaller coverts metallic green. Wing 1·35 inch, tail 1·0–1·05."

I have not given a figure of this species, the differences detailed above being sufficient to distinguish it from *A. heloisæ*.



CHÆTOCERCUS BOMBUS, *Gould.*

J. Gould & W. Hart del. et lith.

Walter Imp.

CHÆTOCERCUS BOMBUS, *Gould.*

Little Wood-Star.

Chætocercus bombus, Gould, Proc. Zool. Soc. 1870, p. 804.—Elliot, Synopsis, 1879, p. 121.
Polyxemus bombus, Muls. Hist. Nat. Oiseaux-Mouches, tom. iv. p. 123 (1879).

The beautiful little Wood-Star of which I am now attempting a description is the smallest Humming-bird known. I have seen enough of it to see that it is a charming little gem that will please every one. A few years ago I received four specimens—three dried males, and one female. I soon made my drawing and commenced the description, both generic and specific. The former was easy; but a specific appellation was not so readily determined upon. At last I hit upon the specific name of *bombus*.

This little Wood-Star has a beautiful puce-coloured throat. The wings are very diminutive, and must be moved with the greatest rapidity to carry even this little bird through the air. The outer tail-feathers are a sort of hair-like spines, such as are seldom seen in a bird. I may state that this Humming-bird looking like a great humble-bee suggested to me the specific name of *bombus*.

The following description was given by me at the meeting of the Zoological Society, December 6th, 1870:—

"This species must be classed with the most diminutive of the Trochilidæ. In its general appearance and in its coloration it strongly reminds one of *Chætocercus rosæ*, while in some parts of its structure, particularly in the form of its two hair-like outer tail-feathers, it resembles *Acestura mulsanti*; its wing is even smaller and shorter than that of the little *A. heliodori*. It must, however, be placed, as I believe it is correctly, in the genus *Chætocercus*.

"The following is a more minute description and admeasurement of this little bird.

"*Male*.—Crown of the head, upper surface, and abdomen bronzy green; throat brilliant crimson-red, nearly surrounded by a mark of buff, forming a conspicuous band across the chest (a feature distinguishing it from *Chætocercus rosæ*, in which the band occupying the same space is white); wings purplish black; the tail-feathers the same, with the exception of the third or longest on each side, on which there is a very narrow edging of buff near the base of the inner margin; the two outer tail-feathers very fine and hair-like, the four central ones extremely small, so much so as to be hidden beneath the tail-coverts; bill and legs black.

"Total length $2\frac{1}{2}$ inches, bill $\frac{9}{16}$, wing $\frac{15}{16}$, longest tail-feathers $\frac{3}{4}$, tarsi $\frac{1}{8}$.

"*Female*.—Larger than the male. Crown and upper surface green; throat and under surface chestnut-brown; tail, which is extremely short and even, deep chestnut-brown, banded with black across the centre of each feather.

"Total length $2\frac{1}{2}$ inches, bill $\frac{5}{8}$, wing $1\frac{1}{8}$, tail $\frac{1}{2}$, tarsi $\frac{1}{8}$.

"*Hab.* Citado in Ecuador."



DORICHA BRYANTÆ, *Lawr.*

J.Gould & W.Hart del. et lith.

Walter, Imp.

DORICHA BRYANTÆ, *Lawr.*

Bryant's Wood-Star.

Doricha bryantæ, Lawr. Ann. Lyc. Nat. Hist. N. Y. 1867, vol. viii. p. 48.—Muls. Hist. Nat. Ois.-Mouch. tom. iv. p. 42 (1877).—Boucard, P. Z. S. 1878, p. 70.—Elliot, Synopsis, 1879, p. 125.

A little group of Humming-birds is now restricted to three species, under the generic name of *Doricha*; one of these has been described for 30 years, and was made known to the public by the drawing published in the 'Monograph' in the year 1860. I trust that my new Plates will be as acceptable to the many lovers of these flying gems who have sprung up since that time, and seem to show quite as much zeal for the first sight of these novelties which are yearly brought before us. As I know but little about the habits and economy of these new discoveries, I am not likely to interest my readers if I appeal to them through the letterpress only; but I have always been more successful in conveying the form by a good drawing. How difficult would it be to describe the shape of this bird's tail, which a faithful drawing can produce in a moment!

The most ornamental of this little group is the *D. lyrura*; and this species I had the pleasure of describing. The other, *D. bryantæ*, was described by Mr. Lawrence, of New York, who called it *bryantæ* after the wife of Dr. Bryant, who, I regret, is no more. Mr. Lawrence states that the present bird is a native of Costa Rica, and it was met with in that country by Mr. Boucard—at San José in March, and on the volcano of Irazu in April. Every group has some peculiarity to separate it; and in the case of the three *Dorichæ* we ought, I think, to regard the differences as only specific. *D. lyrura* has a most singular tail, which is a source of great beauty to the bird; if the tail be closed, the outer feathers being the longest, a lyre-like form is produced—whilst in the tail of the present bird the second feather is lengthened, the first and third being of the same length and straight. The colouring of the crown is very plain; and the luminous colour of the throat is flat and seems to want variety. A glance at the drawing will show these points more satisfactorily.

"Of this beautiful genus," says Mr. Lawrence, "three other species only were previously known, found severally in the Bahamas, Eastern Mexico, and Guatemala. The one now described is most like *D. evelynæ* from the Bahamas in the form of its bill and tail-feathers; but the former is rather longer and the latter much narrower in the new species; it differs in the duller and darker green of the upper plumage, in the throat being uniform in colour, not changeable, and with no approach to violet or purple; there is less rufous below; and the margins of the tail-feathers are pale and occupy half the web, while in *evelynæ* the entire inner webs of the tail-feathers are bright cinnamon.

"I have named this fine species in compliment to Mrs. Bryant, the widow of my friend, the late Dr. Henry Bryant, of Boston. In the Proceedings of the Soc. of Nat. Hist. for 1857, Dr. Bryant gave an interesting account of *D. evelynæ*, a beautiful ally of the above species, several specimens of which he obtained at the Bahamas in that year; Mr. Gould states that these were the first procured since the discovery of the type thirty years previously. Mr. Boucard states that *D. bryantæ* is very rare in Costa Rica. It appears so soon as it is daylight, and is very quick. It never rests long in one place; when on the wing it makes a great noise, similar to that of a large Coleopteron (Scarabeidæ) when flying."

Description. Male—entire upper plumage of a rather dull grass-green; tail brownish black, tinged with purple, the feathers (except the central ones) having their inner webs broadly margined with dull pale rufous; chin and throat bright crimson, below which is a broad belt of greyish white; breast and sides dull green, intermixed with ashy; lower part of abdomen bright rufous, thighs brown, crissum light rufous, the feathers with dull green centres; wings dark brownish purple; bill black; "iris dark brown;" feet dark brown.

The colouring of the female is given by Mr. Elliot:—"Above dull dark green, sides of the neck and upper parts of flanks dark green, throat and breast pale buff, abdomen and crissum rufous; middle tail-feathers dark green, next rufous at base with the terminal pale purplish black band across the central portion."

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



DORICHA LYRURA, *Gould.*

J. Gould & W. Hart, del. et lith.

Walter Imp.

DORICHA LYRURA, *Gould.*

Lyre-shaped Wood-Star.

Doricha lyrura, Ann. & Mag. Nat. Hist. 1869, 4th series, vol. iv. pp. 111, 112.—Elliot, Ibis, 1872, p. 354.—Muls. Hist. Nat. Ois.-Mouches, 1877, vol. iv. p. 41.—Elliot, Synopsis, 1879, p. 126.—Cory, Birds of the Bahama Islands, p. 110.

This is one of the most beautiful little gems that inhabit the Bahamas. The whole form and the very graceful lyre-shaped tail, I believe, are not seen in any other Humming-bird; hence its specific name is very appropriate.

I make the following quotation from my paper in the 'Annals of Natural History' (vol. iv., fourth series, 1869). "Having lately received, through the kindness of his Excellency Sir James Walker, Governor of the Bahama Islands, four specimens of a Humming-bird, of which for the last twenty years I have been anxious to procure examples, I feel convinced that, as I had for some time supposed from a conversation I had with the late Dr. Bryant, two species of this lovely family of birds inhabit those islands; and this conviction is strengthened by the circumstance that when in England, just prior to his lamented death, he informed me that the Humming-bird of the southern islands was supposed to be distinct from that killed in the neighbourhood of Nassau. He at the same time promised that I should have any examples that he could spare from his collection—a promise which has been partly performed by either Mrs. Bryant or her late husband's executors sending me, through Mr. G. N. Lawrence of New York, a male, which I find is different from those sent me by Sir James Walker. As the birds killed round Nassau are identical with the type of the genus *Doricha* (*D. evelynæ*), which is still in the Loddigesian collection, the southern bird requires a specific appellation; and it would have given me great pleasure to name it after its discoverer, had not another species of the same section of the Trochilidæ been named *bryantæ* by Mr. Lawrence.

"In size the new species, which I propose to call *Doricha lyrura*, is about the same as *D. evelynæ*; but the tail is distinctly forked, and its outer feathers are much longer, narrower, and outcurved at the apex, while the remainder regularly graduate towards the two central ones, which are very short. When the tail is raised and the feathers partially spread, they assume a lyre-like appearance; hence the specific appellation. Not wishing to depend upon my own judgment alone, I submitted this bird to the inspection of Mr. Salvin, who, after a careful examination, came to the same conclusion as myself, that the bird is distinct, and that the form of the feathers just described is the natural one. All my Nassau specimens, as well as others I have seen from that district, have the beautiful luminous lilaceous feathers confined to the throat, while in the specimen sent to me through Mr. Lawrence the whole face is luminous, the metallic lilaceous colour extending across the forehead."

Mr. Charles B. Cory, an American gentleman, has recently explored the Bahama Islands, and writes concerning the present species:—"Like many others of its family, the Lyre-tailed Humming-bird is restricted to a single island. It inhabits Inagua, and, although not rare, cannot be considered an abundant species. All the specimens which I procured were killed near Matherstome; and none were taken on any other part of the island. Its habits, as far as I was able to observe, were the same as those of *Doricha evelynæ*, from which it is impossible to distinguish it while darting from one flower to another. A negro brought me a fine male alive, which he had caught in a small net as it hovered over a flower. When living, the plumage shows somewhat brighter than in a dead specimen."

I find I have drawn three birds of this species, viz. two males and one female. Consequently a long description of the species is not required. I append, however, a brief diagnosis:—

The *male* has the forehead, throat, and breast beautiful shining lilac bordered with blue, the two colours blending at their juncture; immediately below the gorget is a band of greyish white, remainder of the abdomen bronzy brown; axillæ rusty red; wings purplish brown; upper surface golden green; the narrow outer tail-feather on each side black; the next two black on the outer web, chestnut-red on the inner one, the next blackish brown with green reflections; the two middle ones green. Total length $3\frac{5}{8}$ inches, bill $\frac{7}{16}$, wing $1\frac{1}{2}$, tail $1\frac{7}{8}$.

Female. Bill black, a little curved; crown, back of the neck, and all the upper part green; ear, outer part of the throat, sides of the neck, centre of the belly, all white tinged with buffy white; under tail-coverts buff; four central tail-feathers, three outer on each side with a square band of black; a patch of buffy white on lower part of the back. Total length $3\frac{1}{2}$ inches, bill 7, wing $1\frac{1}{2}$, tail $1\frac{7}{8}$.

PTOCHOPTERA IOLÆMA.

Natterer's Wood-Nymph.

Riccordia iolæma, Reichenb. Aufz. der Colibr. p. 8 (1853).—Id. Troch. enum. p. 4, pl. 705, figs. 4588–89 (1855).

Polytmus iolæmus, Gray, Hand-list of Birds, i. p. 131, no. 1667 (1869).

Thalurania iolæma, Pelz. Orn. Bras. p. 57 (1871).—Salvin & Elliot, Ibis, 1873, p. 361.

Ptochoptera iolæma, Elliot, Ibis, 1874, p. 261.—Mulsant, Hist. Nat Oiseaux-Mouches, ii. p. 89 (1876).—Elliot, Synopsis of the Humming-Birds, p. 130 (1878).—Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. de Caen, i. p. 509 (1880).

Only a single specimen of this species has as yet been discovered, which is now in the Vienna Museum. It was found by the celebrated traveller Natterer, at Maribatanas, on the banks of the Rio Negro.

Mr. Elliot, who has seen the type, describes it as a small bird of rather plain plumage, but with a brilliant throat, and he has placed it in the vicinity of the genus *Smaragdochrysis* in his 'Synopsis.'

The following is the description of the male given by Mr. Elliot in the above-mentioned work:—"Top of head and nape dull dark green; entire upper parts grass-green, only slightly metallic. The tail-coverts are of a lighter green than the back, and reach to the fork of the tail. Throat pale metallic grass-green. Rest of underparts pale smoky brown, with some of the flank-feathers tipped with grass-green. Under tail-coverts long, of the same colour as the abdomen, with a slight metallic greenish lustre on the centre of the feathers. Tail long, deeply forked, dark purplish brown, the feathers very narrow. Wings purplish brown. Bill and feet black. Total length $4\frac{3}{8}$ inches, wing $1\frac{5}{8}$, tail **2**, bill along gape $\frac{3}{4}$."

[R. B. S.]



LOPHORNIS ADORABILIS, *Salv.*

J. Gould & W. Hart, del. et lith. *Walter Imp.*

LOPHORNIS ADORABILIS, *Salvin.*

Salvin's Coquette.

Lophornis adorabilis, Salvin, Proc. Zool. Soc. 1870, p. 207.—Elliot, Syn. p. 135.
Dialia adorabilis, Muls. Hist. Nat. Oiseaux-Mouches, vol. iii. p. 208, pl., 1876.

Mr. Salvin must have been pleased when the male of this Humming-bird came under his notice, and when he saw how different it was from all its immediate allies. The extreme beauty of the little fairy demanded some pretty euphonious name; and he applied to it that of *adorabilis*, one which, I doubt not, will last to the end of time. The well-read Trochilidist will not require to be told that there are now ten species of this ornamental group, nine of which have been figured in vol. iii. of the 'Monograph,' published twenty years ago.

The tenth, which I now figure, will, I trust, with many others equally rare, add materially to the usefulness and interest of this 'Supplement.'

In my former work I placed all the species enumerated below in the single genus *Lophornis*; but since that date they have been separated into no less than five genera, none of which was proposed by myself, though I think that they are very fairly recognizable:—

Lophornis ornatus. Trinidad.
——— *gouldiæ*. North Brazil.
——— *magnificus*. South Brazil.
Telamon regulus. Bolivia.
——— *delattrii*. Colombia.
Telamon reginæ. Colombia.
Dialia adorabilis. Veragua.
Paphosia helenæ. Guatemala.
Bellatrix chalybeus. Bolivia.
——— *verreauxi*. Peru, Colombia.

The following is Mr. Osbert Salvin's account of this novelty:—"This beautiful species is singularly distinct from any of its congeners, but perhaps belongs rather to the *L. magnifica* group than to that containing *L. helenæ*. In the whole genus, however, no other member has the erectile feathers on the forehead, the thread-like white plumes of the crest, or the long pointed feathers of the throat, all of which render this bird most distinct when compared with its allies.

"The first specimen obtained by Arcé was a female, which, though evidently belonging to a distinct species, I hesitated to describe. The specimen was shot at Bugaba. The last collection includes the male, which Arcé tells me his brother David obtained high up on the volcano of Chiriqui. That so fine a bird should have remained so long undiscovered seems singular; but the fact, I think, shows that the range of the species is extremely limited.

"No less than two other species of *Lophornis* are found in this portion of Central America, viz.:—*L. helenæ*, the Mexican and Guatemalan bird, which is also to be met with in Costa Rica; and the southern *L. delattrii*, which seems to be abundant about Calobre and on the Isthmus of Panama."

Mr. Elliot states that the male has the forehead ruby-red; crown pure white, narrowing to a point on the occiput, from each side of which springs a few narrow, lengthened, dark green feathers; sides of the head, bordering the white, dark brown; back and wing-coverts bronzy green; rump dark purple, crossed by a narrow white band; throat metallic dark green; upper part of the breast white; flanks bronzy green; abdomen and under tail-coverts dark rufous; tail deep rufous, with the tips of the median feathers and edges of the others greenish brown; wings purple.

Female. Head and ears black; throat white, sparingly spotted with golden green; tail banded with a broad bar near the extremity; median rectrices tinged in the middle with a greenish tint.

Total length $2\frac{7}{8}$ inches, wing $1\frac{5}{8}$, tail $1\frac{3}{16}$, culmen $\frac{3}{8}$.



W. Hart del et lith.

LOPHORNIS PAVONINUS, *Salv. & Godm.*

Mintern Bros. imp.

LOPHORNIS PAVONINUS, *Salvin & Godman.*

Roraima Coquette.

Lophornis pavoninus, Salvin & Godman, Ibis, 1882, p. 81.
Polemistria pavonina, Salvin & Godman, Ibis, 1885, p. 433.

The present species was discovered by Mr. Henry Whitely during his well-known exploration of British Guiana, where he met with it on the Merumé Mountains and on Roraima at a height of from 3000 to 3500 feet. Messrs. Salvin and Godman state that it is allied to *L. verreauxi*, but differs in many particulars; the head, instead of having the forehead green and the occiput black, has a black central streak running from the base of the bill to the nape, on each side of which is a broad green streak. The elongated green feathers on each side of the neck are broad, and have a conspicuous black spot near the apex of each feather, this spot in the largest feathers being quite large. The feathers of the front extend much further along the culmen of the bill than in *L. verreauxi*, and in this respect recall this peculiarity in the genus *Orthorhynchus*.

Mr. Whitely's first collection contained only a single example of this Humming-bird, which he obtained at a height of 2000 feet. He has kindly sent us the following account of its capture :—

"After ascending the Merumé Mountains from the Merumé river-side, I met with a terrible gunpowder accident which deprived me of the use of my hands for over a month, and the Indians brought me to a hut amongst the hills, travelling about 17 miles in a northerly direction from the top of the Chichi falls on the Upper Mazarune. The hut was situated on the open savannah, with a large forest at the back, and here on my restoration to health my first collection from the mountainous country of British Guiana was made. At this season of the year (June and July 1881) there were many large trees in the forest bearing large bunches of white flowers, and these were frequented by numerous species of Humming-birds; but from the great height of the trees I was forced to get my Indians to climb halfway up, and then stand on some of the overhanging branches to shoot them, so that it was not possible to observe much of their habits.

"This interesting bird was the only one obtained, and though we were constantly on the watch for more, we never got a second example, and I should fancy that it was a bird that had strayed out of its usual haunts, attracted by the flowers. The stomach contained remains of very minute insects."

Two males and a female are figured on the Plate, drawn from a pair of specimens lent to us by Messrs. Salvin and Godman.

[R. B. S.]

GOULDIA ÆQUATORIALIS, *Berlepsch & Tacz.*

Ecuador Thorn-tail.

Gouldia conversi æquatorialis, Berlepsch & Tacz. Proc. Zool. Soc. 1883, p. 567.

Count von Berlepsch and Dr. Taczanowski state that the specimens of *Gouldia conversi* from Chimbo in Ecuador differed from those from Bogota in having the elongated plumelets in the centre of the breast of a fine blue colour, more or less intense, whereas the Colombian birds have these plumelets of a bluish or golden green. The wings are also shorter and the smaller upper tail-coverts have more of a coppery violet tint; otherwise the two forms do not differ.

[R. B. S.]



SPATHURA SOLSTITIALIS, *Gould.*

J. Gould & W. Hart, del. et lith.

Walter, Imp.

SPATHURA SOLSTITIALIS, *Gould.*

Ecuador Racket-tail.

Spathura (or *Steganurus*) *solstitialis*, Gould, Ann. & Mag. Nat. Hist. 4th series, vol. viii. p. 62 (1871).

Steganura solstitialis, Muls. Hist. Nat. Oiseaux-Mouches, iii. p. 260 (1876).—Elliot, Synopsis of the Trochilidæ, p. 142 (1879).

The genus *Spathura* (or, as Mr. Elliot calls it, *Steganura*) consists at present of six species, whose range extends through Venezuela and Colombia, and thence through Ecuador and Peru into Bolivia; but they are, as far as we know, entirely absent from the Brazilian and Amazonian districts of South America. These six species form a natural genus, being, as Mr. Elliot well remarks, strongly characterized birds, with luminous throats and breasts, tarsi completely hidden in downy puffs, and elongated external rectrices bare of webs near the tip and ending in a spatula. There are two well-marked divisions of the genus, viz. those species which have their tarsal tufts white, and those which have them rufous. *Spathura solstitialis* belongs to the latter section, and is further distinguished by having very long outer rectrices and oval spatulas.

I quote a few remarks on the genus published by me in 1871, when I first described the present species :—

"These Racket-tails, as they have been familiarly termed, are denizens of the Andes and the Cordilleras from New Granada to Bolivia, including the great spur which juts off into the Caraccas. I find that the two white-booted species, *Spathura underwoodi* and *S. melananthera*, frequent the regions north of the Equator, that those with red boots, *S. peruana*, *S. rufocaligata*, and the new one about to be described, are as exclusively found to the south of it, and that the white-booted *S. melananthera* and this new red-booted species inosculate in Ecuador. The latter, for which I propose the name *solstitialis*, differs from *S. peruana* in having, like the white-booted *S. underwoodi*, the outer margin of the spatulate-tipped tail-feathers grey—a character which is not found in either of the other red-booted species."

"The following is a copy of my original description :—

"*Male*. Bill black; crown of the head and all the upper surface, flanks, and under tail-coverts dull green; wings and outer tail-feathers purplish brown, the outer margins of lateral or spatulate feathers grey; the remaining tail-feathers rich bronzy green above; throat and chest fine glittering green; tarsi thickly clothed with reddish buff feathers.

"Total length 5 inches, bill $\frac{3}{4}$, wing $1\frac{3}{4}$, tail $3\frac{1}{8}$.

"*Female*. Destitute of the tail-spatules and of the thick clothing of the tarsi, which are only thinly covered with buff feathers; buff is also the colour of the crissum; upper surface grass-green : tail bronzy green, the outer feather on each side tipped with white; under surface beautifully spotted with green on a white ground. In size of body she is about the same as the male."

The habitat of the present species is Ecuador, whence Mr. Buckley brought me several specimens, from some of which the Plate has been drawn. It represents two males and a female, all of the natural size.

LESBIA CHLORURA, *Gould.*

Green-tailed Train-bearer.

Lesbia chlorura, Gould, Proc. Zool. Soc. 1871, p. 504.
Lesbia gouldi (pt.), Elliot, Synopsis of the Trochilidæ, p. 146 (1878).

Mr. Elliot does not consider that the present bird will prove really distinct from *L. gouldi*; but I think that the characters which I have given will ultimately be found to be correct, though they may not be very strongly pronounced.

The following is my original account of the species, published in 1871:—"This species has all the characteristics of elegance; indeed a more graceful little creature can scarcely be conceived. It is very nearly allied to *L. gouldi* and *L. gracilis*, but differs from both in having a more lengthened, straighter, and greener tail, and is more especially distinguished by having a much longer and stouter bill than either of them. Its native country is supposed to be Peru. The specimen described has been in my possession for a length of time; but I have delayed characterizing it in the hope that other examples might be received."

"Crown of the head and all the upper surface golden green; gorget glittering green, round and well defined as in *L. gouldi*; abdomen mottled green and buff, its lower portion and the under tail-coverts pure buff; wings purplish brown; the eight central-feathers entirely light green, the external one on each side olive, finely powdered and tipped with green, and having the outer web buff for more than half its length from the base. Total length $6\frac{1}{2}$ inches, bill $\frac{9}{16}$, wing 2, tail $5\frac{3}{8}$."



J.Gould & W.Hart, del. et lith.

ZODALIA ORTONI.

Walter, Imp.

ZODALIA ORTONI.

Quito Purpleback.

Lesbia ortoni, Lawr. Ann. Lyc. Nat. Hist. New York, 1869, vol. ix. p. 269.
Zodalia ortoni, Muls. Hist. Nat. Oiseaux-Mouches, tom. iii. p. 282.—Elliot, Syn. p. 149.

Since the closing of my 'Monograph of the Humming-birds,' twenty years ago, many fine Humming-birds have been discovered. The *Zodalia ortoni* is one of the gayest. The first and only known male was taken in the Quito valley, Ecuador, about 1869, and now graces the Museum of Vassar College, New York. It is a little surprising that the late Dr. Jameson never found this fine Humming-bird at Quito, although he lived at that place nearly all his life.

I consider that M. Mulsant is right in separating this species generically, and have often regretted that my friend Lawrence did not apply a new generic name to this very singular bird, particularly as he himself hinted at the end of his description, "perhaps the two species should be placed in a new genus."

The female of this species is the property of Mr. O. Salvin, and was, I believe, obtained from a collector who stated he brought it from Quito, close to the place where the male was procured. This female, unlike other Sylphs, has a short forked tail with the outer feathers rather pointed.

The narrow-tailed bird from Quito, *Zodalia ortoni*, and the broad-tailed from Popayan, *Cometes glyceria*, are said to be of the same form. This opinion I cannot agree with. The light luminous throat-mark of the birds which we now call *sparganura* runs down to a point; the tail-feather is very broad; the throat-mark of *ortoni* is of a richer green, and similar in shape to that of *Lesbia Gouldii*.

I will now give a part of Mr. Lawrence's description of this fine bird:—"In both *glyceria* and *ortoni* the tail is shorter than in members of *Cometes* or *Lesbia*. The bill is like that of *Lesbia*. Perhaps the two species should be placed in a new genus. The upper colouring of *ortoni* is somewhat like that of *Ramphomicron microrhynchus*, but is of a lighter shade and less shining. In the under plumage it resembles *L. amaryllis*; but the breast is of a darker green, more uniform in colour, as the buff bases and edges of the feathers are less apparent. The gorgets of *amaryllis* and *ortoni* are much alike in colour and extent.

"*Male*. Entire upper plumage and wing-coverts of a rich glossy purple, the concealed bases of the feathers are green; upper tail-coverts similar in colour to the back, but marked centrally between the purple and green with crimson; the tail-feathers are brownish black, except the two central, which are green; the ends of the eight middle feathers are largely marked with a deep vinous bronzy crimson, most in extent on the short central feathers; the outer feather on each side ends with obscure bronzy green; the outer edge of the lateral feather is buff for three quarters of its length from the base, this colour occupying only about one third the width of the web; the under surface of the tail is steel-blue, bronzy at the ends of the feathers; the shafts of the two long lateral feathers are whitish at base for about half their length; wings brownish purple; the throat-gorget is of a brilliant metallic pale green; the sides of the neck, breast, upper part of abdomen, and sides are of a shining green; lower part of abdomen ashy buff; bill and feet black."

Mr. Salvin's female, which he has lent to me, has the crown, nape, shoulders, and all the feathers of the rump green; the centre of the throat and middle of the underside are most minutely speckled, almost solid on the flanks; under tail-coverts buff, a very little greenish white on the underside of the tarsus. The tail is very attractively coloured for a female bird; three or four of the blue feathers are tipped with green. For myself I am thankful for the loan of both sexes, neither of which I possess.

Male. Total length $5\frac{3}{4}$ inches, wing $2\frac{1}{2}$, tail $3\frac{7}{16}$.
Female. Total length $4\frac{1}{2}$ inches, wing $2\frac{1}{2}$, tail $2\frac{1}{4}$, bill $\frac{3}{5}$.
The accompanying Plate represents two males in different positions and a female, all of the natural size.



SPARGANURA GLYCERIA.

J.Gould & W.Hart del. et lith.

Walter Imp.

SPARGANURA GLYCERIA.

Purple-tailed Comet.

Cometes mossai, Gould, Athen. 1853.
Cometes? glyceria, Gould, Mon. Troch. vol. iii. p. 104, 1861.
Lesbia glyceria, Bon. Rev. et Mag. de Zool. 1854, p. 252.
Zodalia glyceria, Muls. vol. iii. p. 250.—Elliot, Synopsis of the Trochilidæ, p. 150.
Sparganura mossai, Cab. & Heine, Mus. Hein. 1860, Th. iii. p. 52, note.
Sparganura glyceria, Sclat. & Salv. Nomencl. p. 80, 1873.

Being in possession of a female specimen of *Sparganura glyceria*, I think it advisable, both in the interests of the Trochilidist and of those who study the subject less scientifically, to figure it in this Supplement, and at the same time to associate with the drawing one of the male, back and front, which has already been depicted in the third volume of the 'Humming-birds.' Had it been possible, this female would have been figured thirty years ago.

Both Mr. Elliot, of North America, and M. Mulsant, of France, a short time ago completed Monographs of the Humming-birds. When giving the description of this bird, they both say, in their letterpress, that there was no female known. This they would not have said had they ever seen my beautiful specimen, which I now figure, and which has been lying beside the male for the last five or six years.

In comparing *Sparganura* (Humming-birds with broad tail-feathers and pointed throat-marks) with *Zodalia*, the differences between the two genera are apparent. The throat-mark in the latter is rounded, and the tail-feathers narrow; the rich purple colour of the back distinguishes the latter bird from all the species of this great family. A glance at the plates of *S. glyceria* and *Z. ortoni* will, I think, convince any one that the two species belong to distinct genera.

Before leaving the subject, I may state that I think it would be well for collectors to go to Popayan, or within a hundred miles of it, if they would supply those at home with the bird they so much admire.

The colouring of the male:—Head, back of the neck, wing-coverts, back, and tail-coverts deep shining green; wings purplish brown; chin and throat metallic light olive-green; sides of the neck and under surface buff, with a spot of deep shining green at the tip of each feather; tail dark reddish purple, passing into deep bluish green at the tip, except on the outer feathers, where the hue is so faint as to be scarcely perceptible; the outer feathers also have the basal three fourths of the shafts and the outer webs buffy white, the base of the shaft paler than the web; basal three fourths of the shaft of the next feathers also buffy white; under tail-coverts buff, with a brown mark in the centre near the tip.

Female. All the crown, back of the neck, and back green; throat, centre of the belly, and under tail-coverts buff; these minutely spotted with green; on the throat more numerous, and larger spottings on the sides, and no such green spots on the buff which covers the under tail-coverts (at least the green is scarcely perceptible); wings above purplish brown; tail coloured with the brightest purple on the upper part, some of the feathers, particularly the short middle ones, tipped with green; the undersides of the plumage precisely like those of the male; bill brown.

Male. Total length 6 inches, tail $3\frac{1}{2}$, wing $2\frac{1}{2}$, bill $\frac{1}{2}$, tarsi $\frac{3}{4}$; toes and nails longer than the tarsus.

Female. Total length $4\frac{1}{8}$ inches, tail $2\frac{1}{8}$, wing $2\frac{3}{8}$, bill $\frac{1}{2}$.

The Plate represents the male in two positions, and a female, of the natural size.

Habitat. Popayan.

CYNANTHUS GRISEIVENTRIS, *Tacz.*

Grey-bellied Train-bearer.

Cynanthus griseiventris, Tacz. Proc. Zool. Soc. 1883, p. 72.

Dr. Taczanowski has received this species from Paucal in Peru, where it was collected by Mr. Jelski. The original specimen was not quite adult, and had the tail somewhat damaged.

The following is a translation of Dr. Taczanowski's description :—

Above green, with the forehead scaly for a long distance and very brilliant; underneath entirely pale ashy grey; the throat bright blue; the feathers white at the base; vent white; wing-coverts uniform with the back, the edge of the wing white; first primary externally margined with white; tail deeply forked, brilliant green, the centre tail-feathers having a very broad apical lustre of reddish copper; outer tail-feathers blue-black, ending in green; tail bluish green below. Bill black; feet blackish.

[R. B. S.]

CYNANTHUS CŒLESTIS, *Gould.*

Ecuador Train-bearer.

Cynanthus cœlestis, Gould, Intr. Trochil. p. 102 (1861).
Trochilus cœlestis, Gray, Hand-list of Birds, i. p. 143, no. 1849 (1869).
Cynanthus cyanurus cœlestis, Berlepsch & Tacz. Proc. Zool. Soc. 1883, p. 567.

This Ecuador Train-bearer is "considerably larger than the *C. cyanurus*; it also presents a marked difference in the colouring of the under surface, which is uniform coppery brown instead of green; in other respects the colouring is very similar to the specimens from Bogota, with green and blue tails. In no instance have I seen a specimen from Ecuador with an entirely blue tail, whereas they frequently occur among those sent from Bogota." (Gould, *l. c.*)

Mr. D. G. Elliot, in his 'Synopsis' (p. 152), does not admit the distinctness of the present bird from Colombian examples, and considers that Mr. Gould's species was established on too slight grounds to be maintained. Count Von Berlepsch and Dr. Taczanowski, however, admit a certain amount of difference in the Ecuador bird.

[R. B. S.]



CYNANTHUS BOLIVIANUS, *Gould.*

J.Gould & W.Hart, del. et lith.

Walter, Imp.

CYNANTHUS BOLIVIANUS, *Gould.*

Bolivian Sylph.

Cynanthus bolivianus, Gould, Annals of Nat. Hist., vol. v., June 1880.

All the species of this genus inhabit the high lands of tropical districts, such as the temperate regions of Columbia, Ecuador, Peru, and Bolivia. These flying gems neither ascend to the summit of the mountains nor descend to the hot plains below, but keep to the hills and secluded valleys. In such situations vegetation reigns supreme, and insect life, both in genera and species, is lavishly bestowed.

The present species, according to Mr. Buckley, goes further south than any other of the Sylphs. It is a bird (delicate as it may appear) which braves the cold of the mountains—so severe, in fact, that it was with difficulty he succeeded in procuring specimens. He obtained, however, examples of both sexes in fine condition, these birds having just completed their moult. Mr. Buckley, about five years ago, offered me the green-tailed Sylphs which he had collected in Bolivia, and I was pleased to find in them a species I had not met with before.

I described the bird, therefore, in the 'Annals of Natural History' for June 1880, and I have no doubt that the species will be found to be a perfectly distinct one. The following is the description which I contributed to the 'Annals':—

"Mr. Clarence Buckley, who has distinguished himself by his zoological researches in South America, passed, as is well known, some considerable time in Bolivia some few years ago. On his return to this country I became the fortunate possessor of many of his specimens of Humming-birds; but, owing to the illness which has afflicted me for a considerable time, I have not been able, till lately, to incorporate Mr. Buckley's specimens in my collection of Trochilidæ. Having now been able to examine my series more closely, I have come to the conclusion that two species, at least, are new to science.

"*Cynanthus bolivianus*, sp. n.—Similar to *C. mocoa* from Ecuador, but much smaller and of a brighter metallic green, and with the tail more of a brilliant steel-blue than a vivid green. Total length 6·3 inches, culmen 0·7, wing 2·6, tail 4·1, tarsus 0·2.

"I possess several males of this new species, as well as of the allied *C. mocoa*; so that it is not without ample material before me that I describe the Bolivian bird as new to science."

The Plate represents two males and one female.



OXYPOGON CYANOLÆMUS, *Salv. & Godm.*

J.Gould & W.Hart del. et lith. *Walter. imp.*

OXYPOGON CYANOLÆMUS, *Salv. & Godm.*

Blue-throated Helmet-crest.

Oxypogon cyanolæmus, O. Salvin & F. D. Godman, Ibis, 1880, p. 172, pl. iv. fig. 2.

This may be considered one of the finest of the Humming-birds described since the conclusion of my 'Monograph,' and it forms an interesting addition to the genus *Oxypogon*. It was found by Mr. Simons on the 18th and 19th of July 1879, on the Sierra Nevada of Santa Marta, in Colombia, at an altitude of from 10,000 to 14,000 feet above the sea.

Messrs. Salvin and Godman remark that the present bird is like *Oxypogon guerini*, but may be distinguished at a glance by the long plumes of the throat being blue instead of green, and by its having the inner web of the lateral tail-feathers entirely creamy-white except at the tips. They write:—"The species is perfectly distinct from *O. guerini* of the high mountain-ranges of Colombia, and also from *O. lindeni* from the high lands of Merida. Besides other differences, the colouring of the middle of the throat at once distinguishes these beautiful birds, that of *O. lindeni* being white, of *O. guerini* green, and of our new species blue. In having a large amount of white in the tail, *O. cyanolæmus* approaches more nearly *O. guerini*."

The following is a translation of the original description given by Messrs. Salvin and Godman:—"Above dull green, the sides of the neck and the nape white, the whole of the head black, washed with green; an elongated black crest, with a central streak of white, divided into two towards the nostrils; underneath whitish, the middle of the throat ornamented with elongated blue plumes, the sides of the body spotted with dull green; tail bronzy-green, the three outer tail-feathers on each side creamy white excepting the tips and the outer web (the outermost excepted).

"The female is similar to the male, but the head uniform with the back, the elongated crest and blue throat being absent; bill and feet black. Total length 4·5 inches, wing 2·7, outer tail-feather 3·2, centre tail-feather 2·9, bill from gape 0·6."

The figures in the Plate are drawn from the typical specimens lent to me by Messrs. Salvin and Godman, and represent two adult males and a female.

OXYPOGON STUEBELI, *Meyer*.

Stübel's Helmet-crest.

Oxypogon stubelii, Meyer, in Madarász, Zeitschr. ges. Orn. i. p. 204 (1884).

This species has been described by Dr. A. B. Meyer, who has kindly sent us a translation of his original article:—

"A female specimen obtained at the 'Mina de Azufre,' on the volcano of Tolima, in Northern Colombia, at a height of 4000 metres. The type is in bad condition, nevertheless it can be certified that it belongs to an unknown species. Of the genus *Oxypogon*, *O. lindeni* (Parz.) is known from Venezuela, and *O. guerini* (Boiss.) from Colombia; but in both these species the tail is quite differently marked and coloured.

"Upper surface, as far as it can be recognized, bronzy brown; neck, sides of neck, entire under surface, and under tail-coverts brownish cream-colour; wings, especially towards their distal end, with a vivid purple tinge; the two middle tail-feathers, as well as the upper tail-coverts, bronzy green, the latter rather darker; the three next tail-feathers more or less coppery red, each one with a broad cream-coloured shaft-stripe, which does not reach to the distal end, the latter being lighter. The outermost tail-feather cream-coloured, except a coppery patch along the inner web, leaving a terminal spot free. This marking of the tail is the best specific character. No doubt the male will also differ essentially from the males of the other known species.

"Bill black, very slender and hardly larger than that of *Rhamphomicron microrhynchus* (Boiss.), which is known to possess the smallest bill of all Humming-birds. It is 0·3 inch long; wing 2·15, the middle tail-feathers 1·65, the penultimate and longest feather 1·9.

"I have named this species in honour of Dr. Alphons Stübel, of Dresden, the first collector in this part of the globe."

[R. B. S.]

OREONYMPHA NOBILIS, *Gould.*

J. Gould & W. Hart del. et lith.

Walter Imp.

OREONYMPHA NOBILIS, *Gould.*

Bearded Mountaineer.

Oreonympha nobilis, Gould, Proc. Zool. Soc. 1869, p. 295.—Sclater & Salvin, *tom. cit.* p. 600.—Whitely, Proc. Zool. Soc. 1874, p. 676.—Mulsant & Verr. Hist. Nat. Ois.-Mouches, iii. p. 139.—Elliot, Synopsis of the Trochilidæ, p. 157.

Nobody who has examined a specimen of this Humming-bird has hesitated to designate it as one of the most striking of the whole family; and as for myself, I look upon it as one of the finest species of Humming-bird that I ever described. Its large size and the great development of the feathers of its crown and beard render it a remarkable bird to look at; and the admirable way in which the original skins were prepared justify the large price of twenty pounds which I had to pay for my first specimen.

After recording the capture of the species, I at once requested Mr. Whitely to write to his son in Peru urging him to endeavour to procure the female, and also to send some notes on the species itself. The result was that the hen bird was soon afterwards forwarded by Mr. Henry Whitely, together with a note on the habits of the Bearded Mountaineer. "The first specimen," he says, "I obtained of this bird was at Tinta; but I have since found it in the province of Cuzco, and also on the highroad between Tinta and Cuzco. How strange it seems, after so many years have passed since the discovery of Peru, and so many distinguished people have travelled over the same road, that they have never made mention nor obtained a specimen of this beautiful bird!

"Its flight is very peculiar. It takes a flight from one flower in the direction of another, perhaps some two or three hundred yards off, and all of a sudden comes to a dead stop, throws the body up vertically, the tail being spread out, and the beautiful crown and beard glittering in the sunshine. This action is frequently repeated in the passage from one flowering shrub to another, evidently for the purpose of taking insects in the air.

"This is one of the few Humming-birds where colour is seen to great advantage. In most of the species it is never seen till the bird is shot; this is especially observable in *Aglæactis castelnaudi*, where male and female are adorned with a tuft of white feathers on the breast, and it is impossible to distinguish male from female in the living state."

The following is the original description which I gave of this beautiful bird:—

"Bill and legs black; crown blue, with a streak of black down the centre; on the throat a lengthened streak of brilliant feathers, of which those nearest the bill are green, those which succeed are reddish purple, the whole being bordered on each side with black; sides of the neck and chest greyish white; abdomen, flanks, and under tail-coverts mottled white, grey, and light brown; back of the neck and upper surface bronzy brown; wings purplish brown; outer tail-feather on each side white, with a longitudinal streak of bronzy brown at the tip of the inner web; the next on each side the same, but the bronzy mark of greater extent; the centre feathers entirely bronze as in *Oxypogon*. Total length 6 inches, bill $1\frac{1}{8}$, wing $3\frac{1}{4}$, tail 3, tarse $\frac{1}{4}$."

The Plate represents two old males and a female, drawn from specimens in my own possession. These were procured by Mr. Henry Whitely at a height of 11,500 feet above the level of the sea.

Notwithstanding the long and stout bill, I consider this form to be allied to *Oxypogon* and *Rhamphomicron*; all three forms have the gular ornament, as well as a laxity of plumage and very flexible tail-feathers.

I consider my Plate is improved by the introduction of one of the shrubs of the Andes (*Chuquiraga insignis*), sent home by my departed friend Jameson. This sprig was hung up in the shade and not put under pressure.

Sizes of female and young male, with their colours, are now given:—

Female. Crown of head brown, covered with very fine feathers, speckled with dull green; throat brown,

descending to a point, forming a kind of triangle; the sides of the neck, chest, and belly greyish white; under tail-coverts brown; wings brown; back olive-brown; tail slightly forked, the short centre feathers and some of the next beautiful bronze; the single outer feathers on each side, which are the longest, are quite white. Bill long and narrow; feet moderate; the tarsi covered with brown feathers. The young male a fifth larger than the female, with the crown more slightly sprinkled with spots.

Total length of female 5 inches, bill 1, wing $2\frac{3}{4}$, tail $2\frac{3}{4}$.



RHAMPHOMICRON DORSALE, *Salv & Godm.*

J. Gould & W. Hart, del. et lith. *Walter, imp.*

RHAMPHOMICRON DORSALE, *Salv. & Godm.*

Simons's Thorn-bill.

Rhamphomicron dorsale, O. Salvin & F. D. Godman, Ibis, 1880, p. 172, pl. v. figs. 1, 2.

This beautiful species was discovered by Mr. Simons during his exploration in the Sierra Nevada of Santa Marta, Colombia, and was described by Messrs. Salvin and Godman, to whom I am much indebted for the loan of the typical specimens.

The female was first procured by Mr. Simons, who found it flitting about a small stream in a wood at an altitude of 9200 feet, on the 17th of July 1879; and on the 23rd of the same month he fell in with the male, which was shot on the grassy slope of a hill at a height of 2000 feet above the sea, far from bushes and trees.

The present species cannot well be mistaken, the colour of its back at once distinguishing it from *Rhamphomicron microrhynchum*. Messrs. Salvin and Godman have given an excellent description of both sexes, accompanied by an admirable plate of the species, drawn by Mr. Keulemans: I translate their account of the bird as follows :—

"*Adult male.* Above black, slightly shaded with greenish, the rump narrowly bronzy purplish; wings dusky; the tail, which is deeply forked, purplish black; sides of the head and neck deep black; throat very brilliant greenish golden; abdomen pale dusky brown, washed with greenish golden, especially on the flanks; vent dull whitish, each feather marked down the middle with a greenish spot; bill short, a little curved, black; feet black. Total length 4·2 inches, wing 2·3, tail 0·5, outer tail-feather 2·0, central one 1·15, bill from gape 0·5." The iris is given by Mr. Simons as "dark brown."

"The female is green above, with the upper tail-coverts bronzy purplish, the tail purplish black, the outer feathers tipped with white; underneath whitish, the throat and flanks spotted with greenish gold; the middle of the throat marked with a few greenish-gold feathers; outer tail-feather 1·6 inch, centre tail-feather 1·1."

The figures in the Plate are those of two adult males and female, of the natural size, and they are drawn from the type specimens lent to me by Messrs. Salvin and Godman.



RHAMPHOMICRON OLIVACEUM, *Lawr.*

J. Gould & W. Hart del. et lith. *Walter, imp.*

RHAMPHOMICRON OLIVACEUM, *Lawrence.*

Olivaceous Thornbill.

Rhamphomicron olivaceum, Lawrence, Ann. Lyceum New York, viii. p. 45 (1864).—Gray, Hand-l. Birds, i. p. 141, no. 1816 (1869).—Sclater & Salv. Nomencl. Av. Neotr. p. 87 (1873).—Taczan. Proc. Zool. Soc. 1874, p. 544.—Mulsant, Hist. Nat. Oiseaux-Mouches, iii. p. 170 (1876).—Elliot, Synopsis of the Humming-Birds, p. 158 (1878).—Sclater & Salvin, Proc. Zool. Soc. 1879, p. 628.

This species first occurred in a collection of birds from Bolivia, received by the Smithsonian Institution, and submitted to Mr. G. N. Lawrence, who forthwith described it. It has not since been met with in that country, as far as we know; and it certainly was not obtained by Mr. Buckley. Several specimens, however, were procured by Mr. Jelski in Western Peru, at Junin and Maraynioc.

I regret that nothing else has been published concerning this interesting species, which is easily recognizable by its olivaceous-brown coloration.

I append the description originally given by Mr. Lawrence:—"*Male.* Entire upper plumage, including the tail, dull bronzy olive-green; wings light bronzy purplish brown; the gorget, of brilliant scale-like feathers, is emerald-green on the chin, ending in more elongated feathers of fiery crimson, which terminate with violet purple; under plumage dull brownish olive; vent light fulvous grey; under tail-coverts dull bronzy olive-green, each feather margined narrowly with greyish fulvous; bill and feet black. Length $5\frac{1}{4}$ inches; wing $3\frac{3}{4}$; tail $2\frac{7}{8}$; bill $\frac{9}{16}$."

The figures in the Plate were drawn from the type specimen, lent to me by Mr. Lawrence.



METALLURA HETEROCERCA, *Salvin.*

W. Hart del et lith.

Mintern Bros. imp.

METALLURA JELSKII, *Cab.*

Jelski's Copper-tail.

Metallura jelskii, Cab. Journ. für Orn. 1874, p. 99.—Mulsant, Hist. Nat. Oiseaux-Mouches, iii. p. 109 cum fig. (1877).—Elliot, Synopsis of the Humming-Birds, p. 164 (1878).—Tacz. Orn. du Pérou, i. p. 354 (1884).
Metallura cupreicauda, Tacz. Proc. Zool. Soc. 1874, p. 544 (nec Gould).

This species was discovered in Peru by the celebrated Polish traveller whose name it bears, and by whom it was met with in the high mountains near Lake Junin, between Cucas and Palcamayo.

Mr. Elliot places the species in the section of the genus *Metallura* with bluish-green throats and blackish-purple general coloration. It is allied to *M. opaca* and *M. chloropogon*, but is distinguished by the colour of the tail, which, according to Mr. Elliot, is luminous vinous purple. Nothing has been recorded of its habits.

The following description is translated from Dr. Taczanowski's work on the Birds of Peru:—

Adult male. The entire plumage is black of a dull silky texture, presenting under certain lights, especially when seen frontways from behind, a slight lustre of bluish or reddish violet, according to the direction of the light; tail-coverts brownish black, glossed with bronzy or reddish copper; fore part of the throat ornamented with scaly plumes of a dark and brilliant emerald-green; anal region downy and white; under tail-coverts bronzy, with a violet reflection and bordered with pale reddish; wing-coverts dull coppery bronze, taking under certain lights a lustre of reddish violet similar to that of the general plumage; quills brown, glossed with bronzy olive and violet in their terminal parts; tail slightly emarginate, the tail-feathers broad, the middle ones slightly rounded, the others rather pointed at the extremity, of a dark coppery bronze, taking a lustre of more reddish or violet colour according to the direction of the light, and changing to a fine greenish-blue but very brilliant lustre when looked at from behind forwards; lower part of the tail coppery red or violet, more brilliant than the upper surface. Bill straight, black, much longer than the head, a little less than half the body; feet black, with the tarsus almost entirely bare.

Adult female. Dusky black above, brownish below, with the same violet lustre as the male; forehead pale brownish grey, gradually passing into a darker shade on the hind neck; feathers of the breast and abdomen narrowly fringed with buff, more distinctly in the middle of the belly; tail-coverts dull bronze; fore neck ornamented with scaly feathers, of a blue colour broadly edged with violet, the lustre less strongly developed than in the male; tail not so long, somewhat truncated, similar in colour to the male, but in general less red and more coppery, with the greenish blue not so brilliant.

[R. B. S.]

METALLURA PRIMOLINA.

Guiana Copper-tail.

Specimens of this bird were sent by Mr. Whitely from British Guiana, and we were induced to figure it under the idea that it was new to science. Mr. Salvin, however, considers that it is the adult male of *M. primolina*, and the name of *M. heterocerca* will have to be suppressed.

[R. B. S.]

METALLURA CHLOROPOGON.

White-vented Copper-tail.

Urolampra chloropogon, Cab. & Heine, Mus. Hein. iii. p. 68 (1860).
Trochilus chloropogon, Gray, Hand-list of Birds, i. p. 142, no. 1839 (1869).
Metallura chloropogon, Elliot, Synopsis of the Humming-Birds, p. 164 (1878).

This species was described by Cabanis and Heine from two specimens in the Heine collection, but without any indication of exact locality. These two specimens still remain the only ones known, so far as we are aware, and Mr. Elliot has also not seen the species. The latter gentleman places it in the vicinity of *M. opaca* and *M. jelskii*, from which it differs apparently in its tail being "luminous purple," and by its white crissum.

The following is a translation of the original description:—

Adult male. Purplish dusky with a certain amount of greenish lustre, the crown, shoulders, and rump more brilliant green, but especially a gular spot, which is of a most beautiful green; wing purplish dusky; the tail very broad and glossed with more beautiful purple; vent white; the under tail-coverts shining green with a yellowish margin.

Adult female (*or young male*). Underneath brownish ochre; the throat and sides of the body spotted with small dusky and greenish markings; the tail-feathers brilliant purple, the three outer ones paler purplish at the tip. Total length 3 inches 6 lines, wing 2 inches, tail 1 inch 6 lines, culmen 5 lines.

[R. B. S.]

METALLURA EUPOGON.

Red-throated Copper-tail.

Urolampra eupogon, Cab. Journ. für Orn. 1874, p. 97.
Metallura hedvigæ, Tacz. Proc. Zool. Soc. 1874, pp. 139, 544, pl. xxi. fig. 2.—Mulsant, Hist. Nat. Oiseaux-Mouches, iii. p. 107 (1877).
Metallura eupogon, Elliot, Synopsis of the Humming-Birds, p. 164 (1878).—Tacz. Orn. du Pérou, i. p. 352 (1883).

This species of Copper-tail was discovered by Mr. Jelski, at Maraynioc, in Peru. It is a very distinct species, having the centre of the throat metallic red instead of bluish or metallic green. Nothing has been recorded of its habits, and the female is at present unknown.

The following description is translated from Dr. Taczanowski's work on the Birds of Peru:—

Adult male. Head above bronzy green, slightly scaly in appearance, with a somewhat more dusky disk; upper surface of body with the upper tail-coverts bronzy green; under surface of body uniform with the upper surface; an oblong patch on the throat, scaly in appearance and of a brilliant fiery reddish copper-colour; feathers of the centre of the breast dusky grey at the base, the abdominal plumes marked with a pale band before the bronzy tip; vent white; under tail-coverts bronzy, broadly margined with rufous; tail slightly truncated, the tail-feathers bronzy, with a brilliant blue lustre, the lower surface coppery bronze.

[R. B. S.]



W. Hart del et lith.

ADELOMYIA CERVINA, *Gould.*

Mintern Bros. imp.

ADELOMYIA CERVINA, *Gould.*

Buff-breasted Humming-bird.

Adelomyia cervina, Gould, Ann. & Mag. Nat. Hist. (4) x. p. 453 (1872).—Scl. & Salv. Nomencl. Av. Neotr. p. 87 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, iii. p. 130 (1877).—Elliot, Synopsis of the Humming-Birds, p. 181 (1878).

This species of *Adelomyia* is easily recognized by the colour of the under surface of its body, which is buff with the flanks rufous; a further character is the brown-spotted throat. It was discovered near Medellin, in the province of Antioquia in the United States of Colombia, by the late Mr. T. K. Salmon, and the following is a copy of the original description:—

"Crown and all the upper surface bronzy green; over and behind the eye and curving down the sides of the neck a conspicuous mark of buffy white; ear-coverts blackish brown; throat, sides of the neck, and centre of the abdomen delicate fawn-colour, with very minute speckles of brown on the former; flanks bronzy russet, with reflections of golden yellow-brown; under tail-coverts hoary buff; wings purplish brown; tail very dark olive, glossed with green; all the feathers tipped with buff, but less so on the two centre ones; bill black on the upper mandible, the lower one lighter and inclined to flesh-colour at the base.

"Total length 4 inches, bill $\frac{5}{8}$, wing $2\frac{3}{8}$, tail $1\frac{3}{4}$."

The Plate represents an adult male in two positions, the figures being drawn from a specimen obtained by Mr. T. K. Salmon in Antioquia, and lent to us by Messrs. Salvin and Godman.

[R. B. S.]

ADELOMYIA CHLOROSPILA, *Gould.*

Green-spangled Humming-bird.

Adelomyia chlorospila, Gould, Ann. & Mag. Nat. Hist. (4) x. p. 452 (1872).—Whitely, P. Z. S. 1873, p. 189.—Sclater & Salvin, Nomencl. Av. Neotr. p. 87 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, iii. p. 128 (1877).—Elliot, Synopsis of the Humming-Birds, p. 182 (1878).—Tacz. Orn. Pérou, p. 360 (1884).

Mr. Henry Whitely discovered the adult male of this Humming-bird in Peru, though we believe that a female bird was procured by Warszewicz during his travels in the Andes. Its nearest ally is *A. inornata*, but it has a longer bill than that bird, and moreover has the throat spotted with green instead of being of a bright blue. Mr. Elliot considers that it can only be distinguished from that species by "the green spots on the throat, which, however, are very small and indistinct."

Dr. Taczanowski states that Warszewicz obtained this species in Peru at an altitude of 9000 feet. Count von Berlepsch's collection, according to the same author, contains a specimen from Huasampilla, in Southern Peru, procured at a similar elevation; and Mr. Whitely has published the following note:—

"San Antonio, July 5th, 1871.—Shot in the open glade where the preceding specimens were obtained. I took them at first for females, but could not quite understand that females would fight with such fury as I saw these doing; so that, to satisfy my curiosity, I shot two of them, and, upon opening the bodies for the purpose of seeing contents of stomach, found to my surprise that both were males. Plumage on back green; throat and breast light brown, with green spots on throat; tail-feathers tipped with light brown; bill black; legs, toes, claws, and eye black."

The following is the original description published in the 'Annals' (*l. c.*):—

"Crown and upper surface bronzy green, the feathers of the crown and upper tail-coverts greener than those of the back; over and behind the eye and curving downwards on the sides of the neck a somewhat conspicuous streak of buffy white; ear-coverts blackish brown; throat, chest, and centre of the abdomen buffy white, the feathers of the throat punctated with glittering green; flanks bronzy buff; under tail-coverts the same, but lighter; tail bronzy brown, all the feathers conspicuously tipped with fawn-colour; bill blackish brown, inclining to yellow beneath; legs and toes brown, the soles of the latter inclining to yellow; wings purplish brown.

"Total length $3\frac{1}{2}$ inches, bill $\frac{11}{16}$, wing $2\frac{1}{16}$, tail $1\frac{5}{8}$."

[R. B. S.]



AGLÆACTIS CAUMATONOTA, *Gould,*

J.Gould & W.Hart, del. et lith.

Walter Imp.

AGLÆACTIS CAUMATONOTA, *Gould.*

Black-throated Sunbeam.

Aglæactis caumatonotus, Gould, Proc. Zool. Soc. 1848, p. 12.—Bon. Consp. Gen. Av. vol. i. p. 73 (1850).
Helianthea caumatonota, Reich. Troch. Enum. p. 5 (1855).
Aglaïactis caumatonota, Reich. & Heine, Mus. Hein. vol. iii. p. 70, note 4 (1860).
Aglæactis caumatonota, Gould, Int. Troch. p. 106 (1861).—Elliot, Syn. p. 186.—Whitely, Proc. Zool. Soc. 1873, p. 190.
Aglæactis olivaceocauda, Lawr. Ann. N.Y. Lyc. Nat. Hist. 1867, p. 470.—Mulsant, Hist. Nat. Oiseaux-Mouches, tom. iii. p. 26 (1875).

The specimen from which my description was taken is still in my cabinet, with the word "type" written on its label.

The country of this bird is Peru, and the name of the district Ecachipata, which is over 11,000 feet above the sea. As regards its habits, Mr. H. Whitely says that its flight is slow and peculiar, and should be watched by every one who has an opportunity of visiting that part of the country.

The *Aglæactis caumatonota* is the smallest species of the genus, and more nearly allied to *A. cupreipennis* than any other; but any novice would distinguish the differences between the two at a glance. In the present bird a triangular patch of brown covers the throat, which is superseded by a band of yellowish brown; below this springs the usual tuft of lengthened feathers which hangs from the centre of the chest. The luminous colouring of the middle of the back is a deep rosy red with a band of puce colour above.

The tuft of lengthened lance-shaped feathers which hangs so gracefully from the chest is found in both sexes, although it is much smaller in the female than in the male; the same difference also occurs on the back, where the colours are reversed. If you look up the feathers, the bird is seen in all its glory, particularly when it is dipping the bill in the flower on the level of the eye; but give the bird a fright, he turns upon you in the twinkling of an eye, frequently darting off in a straight line like a flash of lightning.

Of this peculiar form there are four species: three of them are figured in my 'Monograph;' the other is the present bird, which would have accompanied them if the unique specimen had been better in colour.

In the 'Proceedings of the Zoological Society' for 1873, p. 187, is a paper on the Humming-birds of High Peru, received from Mr. H. Whitely December 17th, 1872, in which he says concerning the present species, "They are among the most fearless of the Humming-birds, as I have sat down near one which was perched on a dry twig, and watched it for a long time, without its taking the least notice of me."

Mr. O. Salvin tells me that the Humming-birds with short bills frequently get their food from the funnel-shaped flowers, as represented in the opposite drawing. These little birds do not ascend the interior of the flower, but hang on the upper part of the funnel, putting their small bills through the sides, when their lengthened tongues act as feelers. After all the insects are gathered, they dart away to other parts, each returning again at a given time to the same flower and performing the same actions.

The following is from my description in the 'Proceedings of the Zoological Society,' 1848, page 12:—

In an immature state, "Crown of the head brown; lores, chest, and under surface cinnamon-brown; throat crossed by a bar of blackish brown; flanks clouded with the same; from the lower part of the chest springs a tuft of lengthened feathers, which are dark brown at the base and buff at the tip; wings bronzy olive; tail cinnamon-brown, except in the upper or exposed portion, which is rich bronzy olive; back and upper tail-coverts shining purplish lilac, which colour is only seen when the feathers are looked at in the reverse direction.

"Total length $4\frac{1}{2}$ inches, bill $\frac{7}{8}$, wing $3\frac{1}{4}$, tail $1\frac{3}{4}$, tarsi $\frac{3}{8}$.

"*Habitat*. Peru."

The Plate represents a male and a female, of the natural size.

ERIOCNEMIS DYBOWSKII, *Tacz.*

Dybowski's Puff-leg.

Eriocnemis dybowskii, Tacz. Proc. Zool. Soc. 1882, p. 39.

This species we have not seen, but the types are in the Warsaw Museum, to which institution they were sent in 1882 by M. Stolzmann, who procured two males and a female at Ray-urmana in Peru, at a height of from 7000 to 8000 feet. M. Stolzmann states that it was rather scarce, and was met with on the red flowers of a species of *Malastoma*.

The following is a translation of Dr. Taczanowski's description :—

Adult male. Above golden green; below glittering green, the abdomen especially brilliant; centre of the breast white, spotted with green; under tail-coverts brilliant green; feet clothed with white plumes; quills blackish with a violet gloss; tail golden green and deeply forked; bill straight, subcylindrical, longer than half the body, black; feet blackish.

[R. B. S.]

ERIOCNEMIS DYSELIUS, *Elliot*.

Black-vented Puff-leg.

Eriocnemis dyselius, Elliot, Ibis, 1872, p. 294.—Sclater & Salv. Nomencl. Av. Neotr. p. 91 (1873).—Mulsant, Nat. Hist. Oiseaux-Mouches, iii. p. 50 (1876).—Elliot, Synopsis of the Humming-Birds, p. 194 (1878).

This species is unknown to me; but the type is in Mr. Elliot's collection. It is supposed to have come from Ecuador; but Mr. Elliot does not state from whom he received the specimen. It belongs to the section of the genus in which the downy puffs on the tarsi are white, and it differs from all the allied species in having the under tail-coverts purplish black instead of grey, green, or shining blue.

Mr. Elliot writes:—"Among the many groups that comprise the great family of the Trochilidæ, there are few more strongly characterized than that of *Eriocnemis*, from the fact that all its members are possessed of very conspicuous tufts of various colours, viz. white, black, brown, or brown and white, which cover the tarsi, and from which the species have obtained the trivial name of 'Puff-leg.'

"Four specimens, precisely alike, were, as I was informed, contained in the small collection of birds from which my example was taken; and although no locality was given, it is supposed that Ecuador is the habitat of the species. I propose to call it, from its sombre plumage, *Eriocnemis dyselius*."

The following is a copy of Mr. Elliot's original description:—

"Head, and entire upper parts, black with a purplish gloss; upper tail-coverts having a very dark greenish gloss; throat and underparts black, but not of so deep a shade as the upper parts, purplish on the abdomen; wings purplish black; tarsi thickly covered with pure white downy feathers; under tail-coverts purplish black; tail rather deeply forked, steel-blue, with purple reflections; the bill is perfectly straight and rather slender. Total length 4 inches, wing $2\frac{1}{4}$, tail $1\frac{1}{2}$, bill $\frac{3}{4}$."

ERIOCNEMIS CHRYSORAMA, *Elliot*.

Blue-vented Puff-leg.

Eriocnemis chrysorama, Elliot, Ann. & Mag. Nat. Hist. (4) xiii. p. 375 (1874).—Mulsant, Hist. Nat. Oiseaux-Mouches, iii. p. 44 (1876).—Elliot, Synopsis of the Humming-Birds, p. 193 (1878).

The present species is from Ecuador, and is, as far as I know, only represented in collections by the single typical specimen in the possession of Mr. Elliot. It belongs to the section of the genus *Eriocnemis* with white puffs on the legs, and is distinguished further by its metallic yellowish-green throat, its general copper-coloured plumage, steel-blue tail, and shining blue under tail-coverts.

The following description is taken from Mr. Elliot's 'Synopsis:'—

"Upper and lower surfaces metallic fiery copper-colour; chin and throat metallic yellowish-green, golden yellow in some lights; upper tail-coverts luminous yellowish green; under tail-coverts white on their basal half, rest blue; wings purplish brown; tail much forked, steel-black; tarsal tufts pure white; bill black. Total length $4\frac{1}{4}$ inches, wing $2\frac{1}{4}$, tail $1\frac{3}{4}$, bill $\frac{7}{8}$."

ERIOCNEMIS ASSIMILIS, *Elliot*.

Brown-booted Puff-leg.

Eriocnemis assimilis, Elliot, Bull. Soc. Zool. France, i. p. 227 (1876); id. Synopsis of the Humming-Birds, p. 189 (1878).

This appears be a very good and distinct species, according to the indications of Mr. Elliot, who described it from specimens collected by Mr. Clarence Buckley at Tilotilo and Apollo in Bolivia. It is distinguished by its uniform pale brown puffs on the tarsi. Mr. Elliot observes:—"It is very close to *E. aureliæ* of Bourcier and Mulsant, but has the downy tufts on the tarsi uniform yellowish brown, whereas in *E. aureliæ* they are white, with some of them reddish or rosy at the base. There is between these two species just the same difference as exists between *E. lugens* and *E. squamata* of Gould; and these latter are generally accepted by naturalists as good species. The throat is lighter than the breast; but *E. aureliæ* has the throat blackish, very different in colour to that of *E. assimilis*. The size of the two birds is almost the same; if one can find any difference, the present species is perhaps a little smaller. I have two specimens exactly similar to each other in my collection."

The following full description is further given by Mr. Elliot in his 'Synopsis:'—

"*Adult*. Head, neck, and upper tail-coverts coppery red; back and wing-coverts shining green; wings purple-brown; underparts shining green with a coppery lustre, lightest on the throat; abdomen buff; under tail-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 $3\frac{3}{4}$ inches, wing $2\frac{1}{4}$, tail $1\frac{5}{8}$, culmen $\frac{3}{4}$."

ERIOCNEMIS SMARAGDINIPECTUS, *Gould*.

Green-breasted Puff-leg.

Eriocnemis smaragdinipectus, Gould, Ann. & Mag. Nat. Hist. (4) i. p. 322 (1868).—Elliot, Ibis, 1872, p. 295.—Mulsant, Hist. Nat. Oiseaux-Mouches, iii. p. 35 (1876).—Elliot, Synopsis of the Humming-Birds, p. 194 (1878).

The present species is one of the white-booted Puff-legs, and belongs to the blue-throated section. It is further distinguished, as Mr. Elliot points out, by its golden-green under surface.

The following is my original account of the species:—

"This species, which is from the neighbourhood of Quito, is very closely allied to *Eriocnemis vestita*, but differs from that bird in the green of the breast commencing immediately below the blue throat-spot, whereas in five old males of *E. vestita*, when viewed in bright sunlight, a black band is seen separating the two colours. It is true that this band is green in certain lights; but the feathers are of a different structure to those of the Quitan species. Taking the average of seven specimens of both kinds, I find that *E. smaragdinipectus* has a rather longer bill and somewhat shorter wing than *E. vestita*; in all other respects their dimensions are very similar. The green of the abdomen of the former is more pure, or not so yellow as the same part of the latter; in the gorgeous colouring of the rump perhaps the Quitan bird is somewhat less resplendent than the Bogotan *E. vestita*. I have ample materials at my disposal for determining the distinctness of the two birds; and, however similar they may be, there are sufficient tangible characters by which each may be recognized, and to show that they are really different."

Head and upper surface dullish grass-green; rump and upper tail-coverts resplendently luminous yellowish green; on the throat a patch of violet-blue; thence to the vent glittering grass-green; under tail-coverts bright blue; thighs thickly clothed with white downy feathers; bill, primaries, and tail-feathers black. Total length 4 inches, bill $\frac{15}{16}$, wing $2\frac{5}{16}$, tail $1\frac{5}{8}$.



ERIOCNEMIS SAPPHIROPYGIA, *Tacz.*

J.Gould & W.Hart del. et lith. *Walter, imp.*

ERIOCNEMIS SAPPHIROPYGIA, *Taczan.*

Sapphire-vented Puff-leg.

Eriocnemis sapphiropygia, Taczan. Proc. Zool. Soc. 1874, pp. 139, 545.—Muls. Hist. Nat. Oiseaux-Mouches, iii. p. 37 (1875).—Elliot, Synopsis of the Humming-Birds, p. 193 (1878).

The present bird is also one of the white-booted species of *Eriocnemis*, and has the under tail-coverts blue; it is distinguished further by its dark blue tail, and the coppery reflections on the upper surface.

It was discovered by Mr. Jelski in Central Peru, at Maraynioc, in June and August 1871, and was described by Dr. Taczanowski, who says that it is nearly allied to my *E. cupreiventris*, but, besides other differences of coloration, it has a longer and stouter bill, a shorter and less forked tail, and considerably longer tail-feathers.

I copy the following description from Mr. Elliot's 'Synopsis of the Humming-Birds:'—

Adult. Upper parts bronzy green, passing into pure green on the rump and upper tail-coverts; wings purplish black; under surface glittering green; under tail-coverts shining sapphire-blue; tarsal tufts white; tail dark blue; bill black. Total length $4\frac{1}{4}$ inches, wing $2\frac{5}{8}$, tail 2, bill along the gape $1\frac{1}{8}$.

The Plate represents male and female birds kindly lent to me by Dr. Taczanowski of Warsaw.



URANOMITRA VIRIDIFRONS.

J. Gould & W. Hart del et lith.

Mintern Bros. imp.

URANOMITRA VIRIDIFRONS.

Green-fronted Azure-crown.

Cyanomyia viridifrons, Elliot, Ann. & Mag. Nat. Hist. (4) viii. p. 267 (1871).—Scl. & Salv. Nomencl. Av. Neotr. p. 91 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, i. p. 224 (1874).

Uranomitra viridifrons, Elliot, Synopsis of the Humming-Birds, p. 197 (1878).

In his arrangement of the genus *Uranomitra*, Mr. Elliot places this species in his first section of the genus along with *U. quadricolor* and *U. violiceps*, all three species having the underparts white. The first-named has the tail olive-green, the second has it bronzy red, whereas in *U. viridifrons* the tail is described as metallic golden with the tip bronzy red; and the species further differs in the green colour of the head.

The type specimen is in Mr. Elliot's collection and came from Putla in Mexico. He describes it as follows:—

"Forehead dark green, metallic in some lights, centre of crown dark grey; upper part of body brilliant light green; lower part of back bronzy brown; wings purple; upper tail-coverts and tail rich coppery bronze; flanks grass-green; entire underparts pure white; bill reddish, black at tips. Total length $3\frac{3}{4}$ inches, wing $2\frac{1}{8}$, tail $1\frac{3}{8}$, culmen $\frac{5}{8}$."

The Plate represents the male in two positions, and was drawn from the type specimen, which Mr. Elliot kindly lent us when he was in England.

[R. B. S.]

URANOMITRA MICRORHYNCHA.

Small-billed Azure-crown.

Cyanomyia microrhyncha, Elliot, Ibis, 1876, p. 316.

Uranomitra microrhyncha, Elliot, Synopsis of the Humming-Birds, p. 197 (1878).

The typical specimen, the only one at present known, is in Mr. Elliot's private collection, and is believed to have come from Honduras. It belongs to the section of the genus with the breast and abdomen white, but with the flanks metallic green or bronze; and it is further distinguished by its bronzy-red under tail-coverts.

Mr. Elliot gives the following description of the species:—

"Top of head and occiput dark metallic blue, hind neck and mantle shining metallic green; rest of upper parts bronzy red; throat, upper part of breast, and centre of abdomen white, with a few metallic green feathers scattered among the white ones. Flanks and under tail-coverts metallic bronzy red; wings deep brown, slightly streaked with purple; tail brilliant metallic bronze. Total length $3\frac{1}{2}$ inches, wing $2\frac{1}{4}$, tail $1\frac{1}{8}$, culmen $\frac{1}{2}$."

[R. B. S.]

LEUCIPPUS CHLOROCERCUS, *Gould.*

Spotted Whitethroat.

Leucippus chlorocercus, Gould, Proc. Zool. Soc. 1866, p. 194.—Sclater & Salvin, Nomencl. Av. Neotr. p. 91 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, i. p. 257 (1874).—Elliot, Synopsis of the Humming-Birds, p. 199 (1878).—Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. de Caen, i. p. 352 (1880).—Tacz. Orn. du Pérou, i. p. 399 (1884).

Polytmus chlorocercus, Gray, Hand-list of Birds, i. p. 129, no. 1644 (1869).

The present species was described by Mr. Gould in the list given by Messrs. Sclater and Salvin of Mr. E. Bartlett's collections from the River Ucayali. It is closely allied to *L. chionogaster* of Peru and Bolivia, but, according to Mr. Elliot, it differs in having the throat spotted with brown, and the tail pale green tipped with greyish white.

The following is a copy of the original description:—

"Crown of the head, nape, shoulders, back, and upper tail-coverts green; tail-feathers bluish green, with a faint zone of darker green near the end; the extreme tip of all but the two central ones grey, which gradually increases in extent as the feathers recede from the middle, and becomes most conspicuous on the outer ones, where it pervades the whole of the outer web; wings purplish brown; breast greyish white, with an obscure spot of dull green in the centre of each feather, particularly those of the throat; flanks dull green; lower part of the abdomen and under tail-coverts greyish white; bill black; feet dark brown. Total length $3\frac{3}{4}$ inches, bill $\frac{7}{8}$, wing $2\frac{1}{4}$, tail $1\frac{1}{2}$, tarsus $\frac{1}{4}$."

[R. B. S.]

LEUCIPPUS VIRIDICAUDA, *Berlepsch.*

Berlepsch's Whitethroat.

Leucippus viridicauda, Berlepsch, Ibis, 1883, p. 493.—Tacz. Orn. du Pérou, i. p. 399 (1884).

Count von Berlepsch has described this species as being different from the Peruvian *L. leucogaster* by reason of its uniform tail-feathers, these never being margined with white, as well as by its shorter bill. The typical specimen was obtained by Mr. Henry Whitely at Huiro, in Southern Peru, and Count von Berlepsch remarks concerning it:—"I have sometimes looked upon this as being the young of *L. leucogaster* (Tschudi); but Dr. Taczanowski assures me that he has had many specimens of *L. leucogaster* under his eyes, and amongst them young birds which already showed the white marks on the inner webs of the outer rectrices, of which *L. viridicauda* has not the slightest trace."

Dr. Taczanowski thinks the Huiro bird quite distinct; and we do not dissent from the opinion of our best authority on the birds of Peru.

[R. B. S.]



W. Hart del et lith.

AGYRTRIA BARTLETTI.

Mintern Bros imp.

AGYRTRIA BARTLETTI.

Bartlett's Emerald.

Thaumatias bartletti, Gould, Proc. Zool. Soc. 1866, p. 194.—Scl. & Salv. Nomencl. Av. Neotr. p. 92 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, i. p. 255 (1874).—Elliot, Ibis, 1878, p. 53.

Agyrtria bartletti, Elliot, Synopsis of the Humming-Birds, p. 205 (1878).—Tacz. Orn. Pérou, p. 403 (1884).

This species was discovered by Mr. Edward Bartlett on the Lower Ucayali River in Eastern Peru. It belongs to the same section of the genus *Agyrtria* as *A. neglecta*, having, like that species, the throat and upper part of the breast blue, but it differs from it in having a blue-black tail.

The following is the original description:—

"Crown of the head, nape, and back deep grass-green, changing to bronzy green on the upper tail-coverts; throat and chest rich blue; flanks green; centre of the abdomen greyish white; under tail-coverts bronzy brown, margined with grey; tail bluish black, the upper surface of the two central rectrices washed with green, and the four outer feathers on each side obscurely tipped with grey in those specimens which, according to Mr. Bartlett, are females; wings deep purplish brown; upper mandible brownish black; under mandible flesh-colour; feet dark brown.

"Total length $3\frac{7}{8}$ inches, bill 1, wing $2\frac{1}{4}$, tail $1\frac{1}{4}$, tarsi $\frac{1}{4}$."

We are indebted to Messrs. Salvin and Godman for the loan of a male specimen, from which the three figures in the Plate have been drawn.

[R. B. S.]

AGYRTRIA COMPSA, *Heine.*

Heine's Emerald.

Agyrtria compsa, Heine, Journ. für Orn. 1863, p. 185.—Mulsant, Hist. Nat. Ois.-Mouches, i. p. 256 (1874).—Elliot, Synopsis of the Humming-Birds, p. 204 (1878).
Agyrtria mellisuga, Cab. & Hein. Mus. Hein. Th. iii. p. 34 (1860).
Thaumatias compsa, Elliot, Ibis, 1878, p. 45.

This species is placed by Mr. Elliot in the white-breasted section of the genus *Agyrtria*, close to *A. neglecta*, from which it differs in its blue-black tail.

The habitat is said to be Guiana, and the typical specimen is in the Museum Heineanum. As we have never seen an example, we are obliged to translate Heine's original description:—

"Similar to *A. brevirostris*, but rather smaller and with the bill longer; above glittering golden green; underneath white, varied with glittering spots of golden green; the sides of the breast and belly uniform emerald-green; the middle of the abdomen uniform white; the under tail-coverts glittering emerald-green; quills dusky; tail-feathers blue-black; upper mandible dusky, the lower one brownish horn; feet dusky."

[R. B. S.]

AGYRTRIA NEGLECTA.

Bar-tailed Emerald.

Ornismya bicolor, D'Orb. & Lafr. Syn. Av. ii. p. 30 (1838, nec Less. 1829).
Thaumatias neglectus, Elliot, Ibis, 1877, p. 140, 1878, p. 53.
Agyrtria neglecta, Elliot, Synopsis of the Humming-Birds, p. 205 (1878).

Very little is known of this Humming-bird, which is represented by two types in the Paris Museum, procured by D'Orbigny at Yungas and Moxos in Bolivia. Mr. Elliot states that the types are in bad condition, but he believes that when perfect specimens are procured the species will be found to be the most beautiful of the whole genus. He further remarks that the species cannot be confounded with any of its allies; it belongs to the section with the throat and upper part of the breast blue, but has the "tail greenish bronze with a subterminal blackish bar."

The following descriptions are given by Mr. Elliot (*l. c.*):—

"*Male*. Top of head, nape, and mantle metallic green; throat and upper part of breast brilliant metallic blue, the white base of the feathers showing amid the blue. Back, rump, and upper tail-coverts light greenish bronze. Wings purplish. Flanks and lower part of breast shining green. Abdomen whitish. Under tail-coverts pale brown, margined with white. Tail pale greenish bronze, with a subterminal black bar on the lateral feathers. Maxilla black, the mandible flesh-colour. Feet black. Total length $3\frac{1}{4}$ inches, wing 2, tail $1\frac{1}{2}$, bill $\frac{3}{4}$.

"*Female*. Upper parts, sides of throat, and flanks shining green. Centre of throat and underparts whitish, spotted with light metallic green. Tail as in the male, the tips of the lateral feathers whitish; under tail-coverts white. Wings purple. Bill as in the male. Feet black. Total length $3\frac{3}{4}$ inches, wing 2, tail $1\frac{1}{4}$, bill $\frac{3}{4}$."

[R. B. S.]



W. Hart del et lith.

AGYRTRIA FLUVIATILIS.

Mintern Bros. imp.

AGYRTRIA CÆRULEICEPS.

Blue-headed Emerald.

Thaumatias cæruleiceps, Gould, Proc. Zool. Soc. 1860, p. 307.—Id. Intr. Trochil. 8vo, p. 152 (1861).—Mulsant, Hist. Nat. Ois.-Mouches, i. p. 240 (1874).—Elliot, Ibis, 1878, p. 52.

Agyrtria cæruleiceps, Elliot, Synopsis of the Humming-Birds, p. 206 (1878).

The present species belongs to the section of the genus *Agyrtria* in which the throat and breast are metallic green. It is allied to *A. nitidifrons*, but differs in having the crown of the head and back of the neck shining greenish blue. It comes from Colombia, and the types are in the Gould Collection.

The following is the original description of the species:—

"Crown of the head and back of the neck deep shining greenish blue; back and shoulders green, passing into bronzy green on the rump and upper tail-coverts; tail nearly uniform bronze, with a very faint indication of a zone of brown across the outer feathers near the tip; wings purplish brown; sides of the neck glittering bluish green, the blue tint predominating on the ear and immediately under the eye; centre of the throat and chest broken glittering green and white; flanks bronzy green; under tail-coverts grey, with brown centres; upper mandible dark brown; under mandible yellow, except the tip, which is dark brown. Total length $3\frac{1}{2}$ inches, bill $\frac{15}{16}$, wing $2\frac{1}{8}$, tail $\frac{1}{2}$."

[R. B. S.]

AGYRTRIA FLUVIATILIS.

Riverine Emerald.

Thaumatias fluviatilis, Gould, Intr. Trochil. 8vo, p. 154 (1861).—Scl. & Salv. Proc. Zool. Soc. 1866, p. 194.—Iid. Nomencl. Av. Neotr. p. 92 (1873).—Elliot, Ibis, 1878, p. 51.—Mulsant, Hist. Nat. Ois.-Mouches, i. p. 253 (1874).

Agyrtria fluviatilis, Heine, Journ. für Orn. 1863, p. 184.—Elliot, Synopsis of the Humming-Birds, p. 207 (1878).—Tacz. Orn. Pérou, i. p. 404 (1884).

The present species is placed, according to the arrangement set forth by Mr. Elliot, in the section of the genus in which the crown of the head is dull green, and the under tail-coverts white with a central streak of brown or green. It differs from all its near allies in having a black tail, and the throat and breast grass-green with a slight bluish tinge.

The original specimens are in the Gould Collection, and were received from the Rio Napo. It was afterwards met with by Mr. Edward Bartlett on the Lower Ucayali at Yurimaguas, and Mr. Hauxwell has sent specimens from Pebas. Mr. Stolzmann has likewise met with the species at Yurimaguas.

The figures in the Plate have been drawn from a male bird procured in the latter locality, and lent to us by Messrs. Salvin and Godman.

[R. B. S.]

AGYRTRIA APICALIS.

Black-tipped Emerald.

Thaumatias apicalis, Gould, Intr. Trochil. 8vo, p. 154 (1861).—Mulsant, Hist. Nat. Ois.-Mouches, i. p. 252 (1874).—Elliot, Ibis, 1878, p. 51.

Agyrtria apicalis, Heine, Journ. für Orn. 1863, p. 184.—Elliot, Synopsis of the Humming-Birds, p. 207 (1878).

Agyrtria terpna, Heine, Journ. für Orn. 1863, p. 184.

Mr. Elliot places this bird in close proximity to *A. fluviatilis*, from which it differs in the colour of the tail and throat. The latter is golden green as well as the breast, and the centre tail-feathers are green broadly tipped with blue-black, the remainder being black tipped with white. The same gentleman has added *A. terpna* of Heine as a synonym of *A. apicalis*, as he could not find any real points of specific distinction in the description of the latter species.

Mr. Gould describes the species as follows:—"Of about the same size as *A. fluviatilis*, with an equally lengthened bill; the upper surface golden green; the centre of the abdomen and under tail-coverts pure white; the four outer tail-feathers steel-black, margined with pure white at the tips. Total length 3½ inches, bill 1, wing 2⅛, tail 1¼."

[R. B. S.]

AGYRTRIA MACULICAUDA.

Guiana Emerald.

Thaumatias maculicaudus, Gould, Intr. Trochil. 8vo, p. 154 (1861).—Scl. & Salv. Nomencl. Av. Neotr. p. 92 (1873).—Mulsant, Hist. Nat. Ois.-Mouches, i. p. 250 (1874).—Elliot, Ibis, 1878, p. 51.

Agyrtria maculicauda, Heine, Journ. für Orn. 1863, p. 184.

According to Mr. Elliot this species is closely allied to *A. fluviatilis* and *A. apicalis*, but has the centre tail-feathers green, tipped with black, the next ones on each side being bronzy green for two thirds of their length, the rest black; the remainder are green at the base, then black, with a metallic green spot on the tip, which graduates into white on its upper edge.

Its habitat is Guiana, and the following is a copy of the original description given by Mr. Gould:—

"*Adult*. This is a very little species with a long thin bill; its breast is green as in the others. Centre of the abdomen white; under tail-coverts white, except in the centre, where they are dark brown; the two centre tail-feathers bronzy green, except at the extreme tip, which is greenish black, the next on each side bronze for half their length, then black; the three outer ones on each side bronzy green at base, then broadly zoned with black, next to which they are green, and lastly white. Total length 3½ inches, bill ⅞, wing 2, tail 1⅛."

[R. B. S.]

AGYRTRIA LUCIÆ.

Lucy's Emerald.

Thaumatias luciæ, Lawrence, Proc. Acad. Nat. Sci. Philad. 1867, p. 233.—Mulsant, Hist. Nat. Ois.-Mouches, i. p. 241 (1874).—Elliot, Ibis, 1878, p. 52.
Agyrtria luciæ, Elliot, Synopsis of the Humming-Birds, p. 280 (1878).

This species, of which we have never seen specimens, is placed by Mr. Elliot in close proximity to the foregoing, but is distinguished by its throat, which is glittering bluish green, and by the colour of the tail, which is bronzy green, the lateral feathers with a subterminal bar of purplish bronze, the tips being ashy grey.

It is an inhabitant of Honduras, and the following is Mr. Lawrence's description:—

"Upper plumage dull bronzy dark green, the crown duller; upper tail-coverts a lighter bronzy green, somewhat golden; tail-feathers dull bronzy green, all except the two central ones broadly marked near their ends with dark purplish bronze, the tips being ashy grey; the throat and breast are glittering bluish green, the middle of the abdomen white; wings brownish purple. Upper mandible black, the under one yellow with the tip blackish; feet black. Length $3\frac{3}{4}$ inches, wing $2\frac{1}{8}$, tail $1\frac{3}{8}$, bill $\frac{13}{16}$."

[R. B. S.]



AGYRTRIA TACZANOWSKII.

J. Gould & W. Hart del et lith.

Mintern Bros. imp.

AGYRTRIA TACZANOWSKII.

Taczanowski's Emerald.

Thaumasius taczanowskii, Sclater, Proc. Zool. Soc. 1879, p. 146.—Tacz. tom. cit. p. 239.—Id. Proc. Zool. Soc. 1880, p. 208.
Leucolia taczanowskii, Eudes-Deslongchamps, Cat. Descr. Trochil. i. p. 301.
Thaumatias taczanowskii, Tacz. Orn. Pérou, i. p. 405 (1884).

This species was described by Dr. Sclater from a specimen procured by Stolzmann at Guajango, in Peru. It is allied to *Agyrtria viridiceps* of Gould, but has a much stronger bill and an even tail, and the spots on the throat are much smaller. Mr. Stolzmann met with the species both at Guajango and Calacate. At the latter place, he writes, "it is common, visiting the male flowers of the banana trees. It affects the same places as *Cyanomyia cyanicollis*. When perching on the dry leaves of the bananas it utters its song, composed of couplets in four tones, three or four times repeated in succession. Often when I have been working in front of my door, one of these Humming-birds has come to catch the mosquitoes, which are very abundant in that locality. As I stood still, the bird came so close to me that I could feel the wind on my face, produced by the vibration of its wing. I thus had the opportunity of observing the manner in which it seized the mosquitoes, and I am astonished to see that Burmeister denies this habit in the Humming-birds.

"At Guajango, in the valley of the Marañon, this species is rare, but I have seen it several times about the flowers of the *Agave*."

Dr. Taczanowski further adds that a specimen is in Dr. Raimondi's collection from Paucal. Count von Berlepsch believes that the species ought to be separated generically, as its form differs widely from that of the members of the genus *Agyrtria*.

The following is a translation of Dr. Sclater's original description:—

"More metallic green, with a coppery gloss on the head; the feathers ashy underneath; wings dusky, the coverts like the back; the tail equal, uniform with the back, with a coppery tinge towards the tip, underneath dusky, coppery green towards the tip; the under surface of the body white, washed with pale ashy on the sides, and especially on the vent; the whole of the throat covered with tiny heart-shaped spots of shining green; the bill strong and slightly curved."

[R. B. S.]

AGYRTRIA NIGRICAUDA.

Black-tailed Emerald.

Thaumatias nigricauda, Elliot, Ibis, 1878, p. 47.
Agyrtria nigricauda, Elliot, Synopsis of the Humming-Birds, p. 208 (1878).

Mr. Elliot, who originally placed this species in the genus *Thaumatias*, has, in his larger work, referred it to *Agyrtria*. It differs from all the foregoing members of the genus in having the under tail-coverts pure white. The tail is steel-black, with a tinge of green on the centre tail-feathers under certain lights.

The home of this species, according to Mr. Elliot, is Guiana, Trinidad, and North-eastern Brazil.

The following is the description given by the above-named gentleman:—

"Upper parts bronzy green, darkest on the head, and shading into purple on the upper tail-coverts. Throat and breast shining metallic grass-green. Flanks dark green, with scarcely any lustre. Middle of abdomen, vent, and under tail-coverts pure white. Tail steel-black, the two outermost feathers greenish grey at their tips, the next merely edged with white at the tip. Maxilla brownish black; mandible flesh-colour, the tip black. Feet black. Total length $3\frac{1}{2}$ inches, wing $2\frac{1}{8}$, tail $1\frac{1}{2}$, bill along culmen $\frac{5}{8}$."

[R. B. S.]

AGYRTRIA NITIDICAUDA.

Bright-tailed Emerald.

Thaumatias nitidicauda, Elliot, Ibis, 1878, p. 48.
Agyrtria nitidicauda, Elliot, Synopsis of the Humming-Birds, p. 208 (1878).

This species, which comes from Guiana, is said by Mr. Elliot to resemble *A. nigricauda*, but to differ in the colour of the tail. The median pair of rectrices are golden green; the remaining ones with the inner webs black, except the tip, the outer webs metallic golden green; all the lateral tail-feathers are tipped with bright metallic golden green.

He further describes the species from the type in his collection:—

"*Adult.* Upper parts bright bronzy green, with a slight coppery tinge on the head. Chin white. Throat, breast, and sides of the neck bright metallic grass-green. Flanks and abdomen dull green. Middle of abdomen, vent, and under tail-coverts pure white. Wings purplish brown. Bill flesh-colour (perhaps red in life), with a dark tip. Total length $3\frac{1}{2}$ inches, wing $2\frac{1}{8}$, tail $1\frac{1}{2}$, bill along culmen $\frac{3}{4}$."

[R. B. S.]

ARINIA BOUCARDI, *Mulsant.*

Boucard's Emerald.

Arinia boucardi, Mulsant, Ann. Soc. Linn. Lyon, 1877.—Elliot, Synopsis of the Humming-Birds, p. 209 (1878).
Arena boucardi, Mulsant, Hist. Nat. Oiseaux-Mouches, iv. p. 194 (1878).
Sapphironia boucardi, Boucard, Proc. Zool. Soc. 1878, p. 71.

This Humming-bird was discovered by M. Boucard at Puntarenas, in Costa Rica, in May 1877, and specimens of both sexes procured. It was described by the late M. Mulsant in the same year, and of it Mr. Elliot gives the following account and description :—

"But one species is known, brought from Costa Rica by M. Boucard. It is very close to the genus *Agyrtria*, and were the male alone known, the propriety of separating it from that genus might possibly be questioned; but as the female is quite different in the colouring of her plumage from the male, while the sexes of *Agyrtria* do not differ in their dress, it would seem to be best to allow the present species a distinct generic rank. This genus connects *Agyrtria* with *Elvira*.

"*Male.* Upper surface and flanks bronze-green, darkest on the head. Throat and breast shining bluish green. Abdomen and under tail-coverts pure white. Median pair of rectrices dark bronze-green, next bronze-green with black tip, remaining lateral feather bronze-green at base, rest black, the bronze-green decreasing in extent as it goes towards the external feather. All the lateral feathers edged with white at their tips. Maxilla black; mandible flesh-colour; tip black. Feet black. Total length $3\frac{14}{16}$ inches, wing 2, tail $1\frac{7}{16}$, culmen $\frac{11}{16}$.

"*Female.* Differs in having the middle of the throat, breast, and underparts pure white. Median rectrices bronzy green; lateral feathers green at base, then black and tipped with grey. Rest like the male."

[R. B. S.]



ELVIRA CUPREICEPS.

J.Gould & W.Hart, del et lith.

Walter, Imp.

ELVIRA CUPREICEPS.

Coppercrown.

Eupherusa cupreiceps, Lawr. Ann. Lyc. Nat. Hist. New York, viii. p. 348 (1867).
Thaumatias cupreiceps, Sclater & Salvin, Nomencl. Av. Neotr. p. 92.
Elvira cupreiceps, Mulsant, Hist. Nat. Oiseaux-Mouches, i. p. 268.—Elliot, Synops. Humming-birds, p. 210.

This pretty little Humming-bird is a native of Costa Rica, where it would appear to have a restricted range, as only a limited number of specimens have reached us from that country. When I finished my 'Monograph,' in 1860, only one species of the genus was known, the *Elvira chionura* of Veragua and Costa Rica, which I at that time placed in the genus *Thaumatias*; and to the latter genus the present bird has been referred by Messrs. Sclater and Salvin. The genus *Elvira* was instituted by MM. Mulsant and Verreaux for the reception of *E. chionura*; and the latter bird and *E. cupreiceps* are at present its sole tenants. As pointed out by Mr. Elliot, the last-named species has the middle tail-feathers coppery bronze instead of bronzy green; and the lateral ones are white tipped with bronze, instead of being white with the apical portions black.

Altogether this species is a very interesting one, as showing a representative of an otherwise unique form; and I have great pleasure in figuring it in my 'Supplement.' I have never wavered in my affection for the Humming-birds; and now that the number of novelties has reached a respectable total, I find myself in a position to issue a sister volume to the 'Monograph,' which I hope may not be unworthy of its predecessors. In such a case as the present it is eminently useful to have good figures, in order to assist in the identification of the species, although the birds may not be so striking as some which it has fallen to the lot of recent writers to describe.

As I have perfect specimens of this bird, I will give a description of the colouring of both sexes, which their fine condition enables me to do.

Male.—Bill rather curved and quite as long as the head; crown coppery, with greenish reflections; the hinder part of the head, the neck, shoulders, and the whole of the back are of a dull yellowish green, while all the underparts, from the neck to the vent, are light shining green, which looks soft and not glittering; the upper tail-coverts are golden bronze; the four middle tail-feathers are bronzy; the three outer on each side are white, except the extreme tips, which are stained with greyish brown; the wings are brown, tinged with red.

The *female* is a much plainer bird than the male; the bill is somewhat curved and even more lengthened; the crown, in colour, is of a redder cast than the back, which is dull golden green. The upper tail-coverts are very like those of the male, and the middle long tail-feathers nearly of the same colour, while the three outer feathers are white with a triangular mark of brown near the end; the throat and under surface are white, except the flanks, which are greenish.

Total length of the male $3\frac{1}{2}$ inches, wing $1\frac{3}{4}$, tail $1\frac{3}{4}$, bill $\frac{5}{8}$.

Total length of female 3 inches, wing $1\frac{3}{4}$, tail $1\frac{3}{4}$, bill $\frac{5}{8}$.

The Plate contains two males and a female, of the natural size.



CALLIPHARUS NIGRIVENTRIS.

J. Gould & W. Hart del et lith.

Mintern Bros. imp.

CALLIPHARUS NIGRIVENTRIS.

Black-bellied Humming-bird.

Eupherusa nigriventris, Lawrence, Proc. Philad. Acad. 1867, p. 232.—Salvin, Proc. Zool. Soc. 1870, p. 210.—Mulsant, Hist. Nat. Oiseaux-Mouches, i. p. 270 (1874).
Polytmus nigriventris, Gray, Hand-list of Birds, i. p. 133, no. 1702 (1869).
Eupherusa (*Clotho*) *nigriventris*, Mulsant, Cat. Oiseaux-Mouches, p. 9 (1875).
Thaumatias nigriventris, Sclater & Salvin, Nomenclator Av. Neotr. p. 92 (1873).
Callipharus nigriventris, Elliot, Synopsis of the Humming-Birds, p. 211 (1878).—Eudes-Deslongchamps, Ann. Mus. Caen, i. p. 330 (1880).

The subject of the present article is an inhabitant of Central America, where it is found from Costa Rica to Veragua in the State of Panama. It was discovered in the former country by Mr. Endrés, who procured the male; but Mr. Arcé subsequently found the species on the Cordillera del Chucu in Veragua, and obtained both sexes, the female being described by Mr. Osbert Salvin for the first time in 1870.

The following description of the two sexes is copied from Mr. Elliot's 'Synopsis':—

"*Male.* Forehead and entire under surface jet-black, occiput and upper surface bronzy green. Four central rectrices purplish black, three lateral ones pure white tipped with brownish black. Wing-coverts bronzy green; secondaries chestnut at their bases, the tips purple. Vent and under tail-coverts white, bill and feet black. Total length $3\frac{6}{4}$ inches, wing 2, tail $1\frac{1}{4}$, culmen $\frac{5}{8}$.

"*Female.* Upper surface bronzy green; under surface greyish white, washed on the flanks with green. Four median rectrices dark grass-green, the remainder white. Maxilla and apical half of mandible black, basal half of latter flesh-colour. Total length $3\frac{1}{2}$ inches, wing $1\frac{7}{8}$, tail $1\frac{1}{4}$, culmen $\frac{1}{2}$."

The figures in the Plate, which represent two males and a female of the natural size, have been drawn from specimens lent to us by Messrs. Salvin and Godman.

[R. B. S.]





EUPHERUSA POLIOCERCA, *Elliot.*

J. Gould & W. Hart, del. et lith.

Walter, Imp.

EUPHERUSA POLIOCERCA, *Elliot.*

Grey Stripetail.

Eupherusa poliocerca, Elliot, Ann. & Mag. of Nat. Hist. 4th series, vol. viii. p. 266.—Mulsant, Hist. Nat. Ois.-Mouches, i. p. 271.—Sclater & Salv. Nomencl. Av. Neotr. p. 92 (1873).—Elliot, Synopsis of Trochilidæ, p. 212 (1879).

The present species was described by Mr. D. G. Elliot from a specimen procured by M. Eugène Rébouch, a young collector for the well-known naturalist Mr. A. Boucard. The type specimen, which still remains unique in Mr. Elliot's collection, was obtained at Putla, in Western Mexico, on the Pacific slope.

There are three closely allied species in the genus *Eupherusa*, the differences between which are set forth by Mr. Elliot in his 'Synopsis.' In *E. poliocerca* the two central tail-feathers are light bronze-green, the lateral ones white margined with purplish grey. In the second species, *E. eximia*, the tail is dark greenish bronze, the two outermost feathers with the basal two thirds of the inner webs white; while the third, *E. egregia*, has the four central rectrices dark greenish bronze, the remainder white margined with black.

"This species," says Mr. Elliot, "is most nearly allied to *Eupherusa egregia*, but can at once be distinguished from it, as well as all the other members of the genus, by its tail. In *E. egregia* the four centre tail-feathers are black, and the remainder are black at the tips; in the present species only the two median feathers are bronzy, all the remainder being as described above. This bird was obtained in a small collection of birds procured at Putla, in the western part of Mexico. This is the third species now known of the genus *Eupherusa*, which was for a long time only represented by *E. eximia*. The species are as follows:—*E. eximia* from Guatemala, *E. egregia* from Veragua, *E. poliocerca* from Putla, in Western Mexico. Two species named respectively *E. cupreiceps* and *E. nigriventris* have been allotted to this genus; but I think that they will hereafter be assigned to another genus, *Thaumatias*, to which they seem more naturally to belong."

"*Adult male.*—Top of head and upper surface bronzy green; entire underparts brilliant grass-green. Wings purple; secondaries chestnut-red. Under tail-coverts pure white. Two central tail-feathers light bronze-green, purplish at the tips, remaining ones white, purplish grey on the edges of the outer webs and on the tips. Bill black; feet flesh-colour. Total length $3\frac{3}{4}$ inches, wing $2\frac{1}{2}$, tail $1\frac{5}{8}$, culmen $\frac{3}{4}$ inch."

The female is at present unknown.

I have in the present case quoted largely from my friend Mr. Elliot's work; but it was unavoidable, as there is absolutely nothing known of the species beyond the account which he has given of it.

The figures in the Plate represent males, of the natural size, drawn from the typical specimens lent to me by Mr. Elliot.

EUPHERUSA EGREGIA, *Scl. & Salv.*

Panama Stripe-tail.

Eupherusa egregia, Sclater & Salvin, Proc. Zool. Soc. 1868, p. 389.—Lawrence, Ann. Lyc. New York, 1869, p. 146.—Salvin, Proc. Zool. Soc. 1870, p. 210.—Sclater & Salvin, Nomencl. Av. Neotr. p. 92 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, i. p. 274 (1874).—Elliot, Synopsis of the Humming-Birds, p. 213 (1878).

Polytmus egregius, Gray, Hand-list of Birds, i. p. 133, no. 1701 (1869).

Of the three known species of *Eupherusa*, *E. poliocerca* inhabits Mexico, *E. eximia* Guatemala, and *E. egregia* Costa Rica and Panama. The latter is distinguished from *E. eximia* in the tail-markings, the four central feathers being dark greenish bronze, and the remaining feathers white margined with black.

E. egregia was discovered by the well-known collector Arcé at Castello and Calovevora, in the province of Veragua, in the State of Panama. Messrs. Sclater and Salvin give the following account of it:—"Arcé has sent two specimens of this apparently distinct species of *Eupherusa* in one of his collections from Western Veragua. The male is not quite adult, and would probably eventually lose all traces of the irregular dark margins of the outer tail-feathers, as in the female no traces of these spots appear. In *E. eximia* the whole outer web of the two external rectrices is black, which renders the two allies readily distinguishable."

The following is a translation of the original description:—

"Above bright green, the primaries dusky tinged with purple, the secondaries chestnut at base, with the tip purple; underneath shining green, with the belly whitish; two outer tail-feathers on each side white, externally irregularly margined and tipped with black; the six middle ones black, tinged on the upper surface of the outer web with bronze; bill black; feet yellow. Total length 4 inches, wing 2·3, tail 1·4, bill from gape 0·85.

"*Female.* With the under surface white, some of the lateral feathers margined with shining green; two lateral tail-feathers entirely white."

[R. B. S.]

POLYTMUS LEUCORRHOUS, *Sclater & Salvin.*

White-vented Golden-throat.

Polytmus leucorrhous, Sclater & Salvin, Proc. Zool. Soc. 1867, p. 584 (ex Gould, MSS.).—Iid. tom. cit. p. 752.—Gould, Proc. Zool. Soc. 1871, p. 505.—Sclater & Salv. op. cit. 1873, p. 288.—Elliot, Synopsis of the Humming-Birds, p. 215 (1878).—Tacz. Orn. du Pérou, i p. 373 (1884).

Polytmus leucoproctus, Gray, Hand-list of Birds, i. p. 128, no. 1626 (1869).

Chrysobronchus leucorrhous, Sclater & Salvin, Nomencl. Av. Neotr. p. 89 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, i. p. 281 (1875).—Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. de Caen, i. p. 446 (1880).

For our knowledge of the existence of this species we are indebted to the researches of Mr. A. R. Wallace and Mr. Edward Bartlett, the former having obtained examples at Babati, on the Rio Negro, and the latter on the river Huallaga in Eastern Peru. It is most nearly allied to the *Polytmus viridissimus* of this Monograph (see vol. i. Introduction, pl. lxxxv., and vol. iv. p. 231, and 8vo edition of Introduction, p. 127), but differs from that well-known bird in its under tail-coverts being pure white.

The specific appellation assigned to it first appeared in Messrs. Sclater and Salvin's "List of the Birds collected by Mr. Wallace on the Lower Amazon and Rio Negro," and subsequently in the same gentlemen's "Catalogue of Birds collected by Mr. E. Bartlett on the river Huallaga, Eastern Peru."

Male. Entire upper and under surface pale flowery green, with the exception of the head, which is brown, and the crissum, which is white; wing-coverts golden green; wing purplish brown; tail bright green; bill light fleshy brown. Total length $3\frac{5}{8}$ inches, bill $\frac{3}{4}$, wing $2\frac{1}{4}$, tail $\frac{1}{2}$, tarsus $\frac{3}{16}$.

Female. Much smaller than the male, but similarly coloured, except that the three outer tail-feathers on each side are tipped with white, like those of the female of *Polytmus viridissimus*.

[R. B. S.]

AMAZILIA GRAYSONI, *Lawrence.*

Grayson's Amazili.

Amazilia (*Pyrrhophæna*) *graysoni*, Lawrence, Ann. Lyc. Nat. Hist. New York, viii. p. 404 (1867).

Polytmus graysoni, Gray, Hand-list of Birds, i. p. 132, no. 1689 (1869).

Amazilia graysoni, Sclater & Salvin, Nomencl. Av. Neotr. p. 92 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, i. p. 286 (1874).—Elliot, Synopsis of the Humming-Birds, p. 219 (1878).

Pyrrhophæna graysoni, Lawrence, Proc. Bost. Soc. xiv. p. 283.—Id. Mem. Boston Soc. Nat. Hist. ii. p. 292 (1874).

Amazilia graysoni, Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. de Caen, i. p. 402 (1880).

This is a large race of *A. cinnamomea*, but is certainly distinguishable. It appears to be confined to the Tres Marias Islands, where it was discovered by the late Colonel Grayson, and it has since then been found in the same locality by Mr. Forrer.

Colonel Grayson has given the following notes on the species as observed by him:—"In my visit to the Tres Marias it has been my good fortune to discover this new addition to the large group to which it belongs.

"This rather large Humming-bird is very abundant on the islands, where they seem to be continually at war with each other; in fact they attack every bird, and even the butterflies, should they approach some chosen flowering plant which they guard unremittingly as their own treasure. As they dart like a golden sunbeam through the woods, they often utter their shrill note of *t'weet*, *t'weet*, *t'weet*.

"Sometimes combats between them become of a desperate nature. One day while watching a number of them in active motion around some tobacco flowers (of which they seem to be very fond) two fine males after darting at each other for some time, at length came to a deathly struggle, high above my head; they finally clinched each other, each having one the other in his mouth, at the same time scratching with their claws, and using their wings with the greatest force, and in this situation, whirling round and round, they fell to the ground near my feet. During this terrible conflict, in which desperation and passion were exhibited, I observed them for a few seconds and then gently placed my hat over both; even after they were thus captured, and I held one in each hand, they evinced a desire to continue the war.

"I have seen this species frequently darting from its perch upon passing diminutive flies, like a real fly-catcher. I found the gizzard, when examined, always well filled with them and other minute insects.

"Neither of these species have I seen on the mainland; it would seem, therefore, that they belong entirely to this locality, where perhaps other species may yet be found.

"Here amid such luxuriance of flowers and leaves, and wild entanglement of climbing plants and vegetable glory, it would be surprising if no others should be discovered in this favored spot, where the flowers seem to vie with the brilliant tints of the 'brave little humming-birds.'

"The bill of this species is long, but slightly arched, depressed at base, where it is orange-yellow above and below, the rest black; the wing a little recurved, and of a purplish-brown; tail with broad feathers and slightly forked, is of a deep cinnamon-red, tipped with black and green reflections, the balance of the upper parts golden-green with metallic reflections, slightly tinged with rufous on the forehead. Entire underparts light cinnamon-red or rufous. Iris brown; feet dark brown. Total length 4·75 inches, alar. ext. 6·5, bill 1·02, tail 1·75."

[R. B. S.]



AMAZILIA CUPREICAUDA, *Salv. & Godm.*

W. Hart del et lith.

Mintern Bros. imp.

AMAZILIA CUPREICAUDA, *Salvin & Godman.*

Copper-tailed Amazili.

Amazilia cupreicauda, Salvin & Godman, Ibis, 1884, p. 452.—Salvin, Ibis, 1885, p. 435.

Mr. H. Whitely discovered the present species in British Guiana, having met with it on Roraima and on the Merumé Mountains. It is stated by Messrs. Salvin and Godman to be allied to *A. viridiventris*, but to differ in its less forked tail, cinnamon vent, and in the coppery cinnamon, instead of violet, colour of the tail; they found these characters quite constant in a considerable series of skins sent by Mr. Whitely.

The following is a translation of the original description :—

Top of the head and entire body below brilliant green, the back tinged with copper-colour; upper tail-coverts and tail dark cinnamon, washed with copper-colour; a patch on the flanks and the thighs snowy white; vent pure cinnamon without spots; upper mandible dusky, the base of the mandible pale for two thirds of its length. Total length 3·5 inches, wing 2·0, tail 1·15, bill from gape 0·8.

The figures in the Plate represent the adult male in three positions, and have been drawn from one of the typical specimens lent to us by Messrs. Salvin and Godman.

[R. B. S.]

AMAZILIA IODURA.

White-vented Amazili.

Trochilus iodurus, Saucerotte, MSS. in Mus. Hein.
Saucerottia iodura, Reichenb. Aufz. der Colibri, p. 8 (1853).—Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. de Caen, i. p. 418 (1880).
Chlorestes iodurus, Reichenb. Handb. Trochil. p. 4, Taf. 698. figs. 4560–61 (1855).
Hemithylaca iodura, Cab. & Heine, Mus. Hein. Th. iii. p. 39 (1860).
Pyrrhophæna iodura, Gould, Intr. Trochil. p. 159 (1861).—Mulsant, Hist. Nat. Oiseaux-Mouches, i. p. 299 (1875).
Eratina iodura, Heine, Journ. für Orn. 1863, p. 190.
Polytmus iodurus, Gray, Hand-list of Birds, p. 132 (1869).
Amazilia iodura, Elliot, Synopsis of the Humming-Birds, p. 223 (1878).

We have not seen an example of this Humming-bird, nor has Mr. Elliot, who refers it to the neighbourhood of *A. mariæ* and *A. cyanura*, but considers that the purplish-violet colour of the tail and the white under tail-coverts will serve to distinguish it.

The habitat is stated to be Colombia, and the following is a translation of the original description :—

Head, neck, breast, upper back, and wing-coverts brilliant green, the throat a little mixed with white; wings bluish green, very broadly edged with pale fulvous; tail bright purplish violet; abdomen fulvescent; vent white. Total length 3 inches 3 lines, wing 2 inches, tail 1 inch 2 lines, culmen 9 lines.

[R. B. S.]

AMAZILIA LUCIDA, *Elliot.*

Elliot's Amazili.

Amazilia lucidâ, Elliot, Ann. & Mag. Nat. Hist. (4) xx. p. 404 (1877).—Id. Synopsis of the Humming-Birds, p. 223 (1878).
Amazilis lucidus, Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. de Caen, i. p. 408 (1880).

Mr. Elliot described the type of the species, which was said to be from Colombia, in the following words:—

"This seems to be a very distinct species, belonging to that section of the *Amaziliæ* to which Cabanis gave the generic term of *Pyrrophæna*, and apparently comes nearest to the species generally known as *P. devillei*, Bourc., but differs from it, and, indeed, from every other member of the genus *Amazilia*, by the coloration of the tail and its coverts. The crown resembles somewhat that of the bird called by Mr. Gould *Erythronota feliciæ*; but there is no further resemblance between them save that, as with several others of these closely allied birds, the underparts are shining green.

"*Adult*. Crown of head dark metallic grass-green; upper surface shining grass-green, lighter than the head. Upper tail-coverts golden bronze. Throat, breast, abdomen, and flanks metallic grass-green; a light mouse-coloured spot on the lower part of the abdomen. Thighs white, feathers fluffy. Under tail-coverts dark bronzy brown, edged with white. Wings dark purple. Tail reddish bronze, darkest on the centre portion of the feathers along the shafts, with the tips of the lateral rectrices bluish black, their edges reddish bronze. This bluish-black colour almost resolves itself into a subterminal bar, and is especially conspicuous on the underside of the tail. Bill apparently brownish red, perhaps flesh-colour in life, with a dark tip. Total length $3\frac{1}{2}$ inches, wing $2\frac{1}{8}$, tail $1\frac{1}{4}$, culmen $\frac{3}{4}$."

[R. B. S.]

AMAZILIA WARSZEWICZI.

Warszewicz's Amazili.

Hemithylaca warszewiczi, Cab. & Heine, Mus. Hein. Th. iii. p. 38 (1860).
Saucerottia warszewiczi, Gould, Intr. Trochil. 8vo, p. 163 (1861).—Sclater & Salvin, Nomencl. Av. Neotr. p. 92 (1873).—Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. de Caen, i. p. 423 (1880).
Polytmus warszewiczi, Gray, Hand-list of Birds, i. p. 131, no. 1671 (1869).
Ariana warszewiczi, Mulsant, Hist. Nat. Oiseaux-Mouches, i. p. 327 (1874).
Amazilia warszewiczi, Elliot, Synopsis of the Humming-Birds, p. 225 (1878).

As *Amazilia sophiæ* differs from *A. saucerottii* in the richer blue colouring of its upper and under tail-coverts and tail, so does this species differ from *A. sophiæ* in having the tail and its coverts both above and beneath of a still richer violet-blue. It is also of a smaller size; and the green of its under surface is different from that of both, being purer and deeper. The examples in the Gould collection were obtained by M. Warszewicz on the banks of the Magdalena.

Mr. Elliot places the species in close proximity to *A. sophiæ*, from which it is said to differ in having the rump "green like the back," instead of "bronzy purple."

[R. B. S.]

AMAZILIA ELEGANS.

Elegant Amazili.

Erythronota? elegans, Gould, Proc. Zool. Soc. 1860, p. 307.—Id. Intr. Trochil. 8vo, p. 162 (1861).
Eratina elegans, Heine, J. f. O. 1863, p. 191.
Polytmus elegans, Gray, Hand-list of Birds, i. p. 133, no. 1699 (1869).
Sporadinus incertus, Mulsant, Hist. Nat. Oiseaux-Mouches, ii. p. 76 (1876).
Amazilia elegans, Elliot, Synopsis of the Humming-Birds, p. 226 (1878).

Mr. Gould had considerable doubts as to the position of this bird, the exact habitat of which still remains unknown. Mr. Elliot has placed it in the genus *Amazilia*, but at the end of the genus, as if he too considered it a little aberrant.

The following was the original description of the species, as published in 1860:—

"It is a very elegant species, and quite distinct from every other known Humming-bird; in its glittering light-green crown, throat, and chest it looks like a *Chlorostilbon*, but the form of its tail and some other characters ally it to the *Erythronotæ*, with which I have provisionally placed it.

"*Adult*. Crown and all the under surface of the body glittering light-green; back of the neck and back golden- or orange-green; upper tail-coverts purplish-red or puce-colour; tail long, forked, and of a purplish-violet hue with green reflexions on the tips of the two centre feathers; wings purplish-brown; tarsi white; under tail-coverts grey with bronzy-purple centres; upper mandible flesh-colour at the base, and black for the remainder of its length; under mandible flesh-colour, except at the tip, which is black."

[R. B. S.]

EUCEPHALA SCAPULATA, *Gould.*

Black-bellied Sapphire.

Eucephala scapulata, Gould, Intr. Trochil. 8vo, p. 166 (1861).—Sclater & Salv. Nomencl. Av. Neotr. p. 93 (1875).—Muls. Hist. Nat. Oiseaux-Mouches, ii. p. 34 (1875). —Elliot, Ibis, 1874, p. 88; id. Synopsis of the Humming-Birds, p. 229 (1878). —Eudes-Deslongchamps, Annuaire Mus. d'Hist. Nat. Caen, i. p. 456 (1881).
Hylocharis scapulata, Gray, Hand-list of Birds, i. p. 148, no. 1914 (1869).

The type of the present species still remains in my collection, and is apparently the only one yet known. It belongs to the green-headed section of the genus *Eucephala*, has the throat and chest blue, and is further distinguished by having the under tail-coverts brown with blue centres, and the abdomen brownish black.

The locality of *Eucephala scapulata* is supposed to be Cayenne; but I have no certain information on this point.

The following is a copy of my original description:—

"Crown of the head, back of the neck, and lower part of the back very deep dull green; throat and chest glittering greenish blue, imperceptibly passing into the dull brownish black of the abdomen; under tail-coverts brown, with a wash of dull blue in the centre of each feather, a mark of blue on each side at the insertion of the wing, forming an indistinct band across the back; upper tail-coverts bronzy green; tail steely black, rather short for the size of the bird, and slightly forked; wings deep purplish brown; tarsi clothed with intermingled greyish-white and brown feathers; upper mandible black; basal half of the under mandible fleshy, the apical half black." Total length $3\frac{3}{4}$ inches, bill $\frac{7}{8}$, wing $2\frac{1}{16}$, tail $1\frac{3}{8}$.

EUCEPHALA PYROPYGIA, *Salvin & Godman.*

Fire-rumped Sapphire.

Eucephala pyropygia, Salvin & Godman, Ibis, 1881, p. 596.

This is the latest-described of all the species of Sapphires, and seems to be a very distinct one. It is allied to *E. hypocyanea*, but is distinguished by its glittering head; and its habitat is supposed to be Ecuador; but this is not yet satisfactorily ascertained. Messrs. Salvin and Godman write further:—"Its position in this genus seems to be certainly next to *E. hypocyanea*, near to which *E. subcærulea*, Elliot, must also stand; but from both these species it differs in having a shining green crown, slightly washed with blue.

The following is a translation of the original description given by Messrs. Salvin and Godman:—

Green, with the top of the head and the under surface of the body shining bluish green, the whole of the middle of the throat washed with brighter blue; lower back russet, with the upper tail-coverts coppery reddish; wings dusky; tail only slightly rounded, steel-black. Total length 3·4 inches, wing 1·9, centre tail-feathers 1·1, outer ones 1·0, bill from gape 0·9.

EUCEPHALA SUBCÆRULEA, *Elliot.*

Blue-breasted Sapphire.

Eucephala subcærulea, Elliot, Ibis, 1874, p. 87.—Muls. Hist. Nat. Oiseaux-Mouches, ii. p. 35 (1875).—Elliot, Synopsis of the Humming-Birds, p. 230 (1878).—Eudes-Deslongchamps, Annuaire Mus. d'Hist. Nat. Caen, i. 457 (1881).

This species was described by Mr. Elliot, and I have never seen a specimen myself. It is shown by him to belong to the green-headed section of the genus, and differs from its allies in having the throat, breast, and abdomen cærulean blue, with the upper and under tail-coverts dark green.

Mr. Elliot gives the following account of the bird, which is supposed to have come from Brazil:—

"This species appears to be intermediate between *E. cærulea* and *E. hypocyanea*, as represented by the type in Mr. Gould's collection. From the first of these it can be readily distinguished by the rich blue of the underparts, which are metallic green in *E. cærulea*, the blue being confined in that species to a spot on the chin. To the second of the above-named species it bears a closer affinity, but differs in the dull green upper tail-coverts, the metallic green under tail-coverts, and buffy white thighs, these parts in *E. hypocyanea* being respectively reddish bronze, brownish black with bronzy tips, and brown. Besides these differences, the blue of the under surface is not of the same colour, and also differently dispersed over the plumage."

"Upper part of head and back dark dull green, rest of back and upper tail-coverts dark green, with a rufous tinge dispersed all over these parts; throat, breast, and abdomen beautiful metallic cærulean blue; flanks shining grass-green. Lower part of abdomen covered by fluffy white feathers. Under tail-coverts metallic green. Wings purple. Tail bluish black. Maxilla black; mandible yellow (in life possibly red) for its entire length, save the tip, which is black. Feet brownish black. Thighs buffy white. Length $3\frac{1}{8}$ inches, bill $\frac{5}{8}$, wing $2\frac{1}{8}$, tail $1\frac{1}{8}$."

EUCEPHALA CYANOGENYS.

Blue-faced Sapphire.

Ornismya wiedi, Less. Suppl. Oiseaux-Mouches, p. 150, pl. 26 (1829).

Trochilus cyanogenys, Wied, Beitr. Naturg. Brasil. iv. p. 70 (1832).—Jard. Humming-Birds, ii. p. 89.—Burm. Thiere Bras. ii. p. 350 (1854).

Hylocharis cyanogenys, Gray, Gen. B. i. p. 115 (1848); id. Hand-l. of Birds, i. p. 148, no. 1911 (1869).

Saucerottia cyanogenys, Bonap. Consp. Gen. Av. i. p. 77 (1850).

Chlorestes cyanogenys, Reichenb. Aufz. der Colibr. p. 7 (1853); id. Handb. Trochil. p. 4, pl. dcxcii. figs. 4536–37 (1855); Cab. & Hein. Mus. Hein. Th. iii. p. 46 (1860).

Hylocharis Wiedi, Bonap. Rev. et Mag. de Zool. 1854, p. 255.

Eucephala cyanogenys, Gould, Intr. Monogr. Trochil. p. 167 (1861).—Elliot, Ibis, 1874, p. 89; id. Syn. Humming-Birds, p. 231 (1878).—Eudes-Deslongchamps, Annuaire Mus. d'Hist. Nat. Caen, i. p. 455 (1881).

This species, which was described by the Prince of Wied as long ago as 1832, still remains to be rediscovered; for I have never seen a specimen, nor does Mr. Elliot appear to have been more fortunate, as he says the type specimen, which ought to have been in the collection of the American Museum of Natural History in New York, appears to have been lost.

It is the more curious that specimens do not turn up, because Prince Wied speaks of it as by no means rare in all the parts of Brazil he visited; but Natterer does not record it, and it is just possible that it may have been extinguished as a species since Wied's time by the insensate mania for adorning ladies' hats and bonnets with the skins of Humming-Birds, which during the last twenty years has wrought indescribable havoc amongst the commoner species.



TIMOLIA LERCHII, *Muls & Verr.*

W. Hart del et lith. *Mintern Bros. imp.*

TIMOLIA LERCHI, *Muls. & Verr.*

Lerch's Sapphire.

Thalurania lerchi, Muls. & Verr. Ann. Soc. Linn. Lyon, 1868.—Salvin & Elliot, Ibis, 1873, p. 360.—Elliot, Ibis, 1874, p. 264.
Timolia lerchi, Mulsant, Cat. Oiseaux-Mouches, p. 23 (1875).—Elliot, Synopsis of the Humming-Birds, p. 232 (1878).
Eucephala lerchi, Mulsant, Hist. Nat. Oiseaux-Mouches, iv. p. 191 (1877).

Mr. Elliot, in his 'Synopsis,' places the genus *Timolia* between the genera *Eucephala* and *Juliamyia*. He states that it is nearly allied to the former of these genera and gives the following characters :—"Bill longer than the head, curved; feathers of forehead projecting on to the culmen; nostrils hidden. Tail forked. Tarsi clothed." At the time he wrote, the type specimen was unique in his own collection; but we have been enabled, through the kindness of Messrs. Salvin and Godman, to examine a second example of this rare Humming-bird, which is now in their possession. This specimen agrees with Mr. Elliot's description, which is as follows :—

"Fore part of head and a spot on the chin shining deep blue. Upper parts dark grass-green, passing into reddish bronze on the upper tail-coverts. Entire underparts grass-green. Under tail-coverts olive-green. Wings purplish brown. Tail steel-black. Maxilla black, mandible flesh-colour, tip black. Total length $4\frac{1}{8}$ inches, wing $2\frac{3}{4}$, tail $1\frac{5}{8}$, culmen $\frac{13}{16}$."

The typical specimen is said by Mr. Elliot to have come from Colombia; that in the Salvin and Godman collection is supposed to be from Brazil.

The Plate represents a male bird in two positions, of the size of life. These figures have been drawn from the specimen in the collection of Messrs. Salvin and Godman, the female being as yet unknown.

[R. B. S.]

JULIAMYIA FELICIANA.

Felicia's Humming-bird.

Ornismya feliciana, Less. Rev. Zool. 1844, p. 433.

Hylocharis feliciana, Gray, Gen. Birds, i. p. 114 (1848).—Id. Hand-list of Birds, i. p. 151, no. 1948 (1869).

Juliamyia typica (nec Bp.), Sclater, Proc. Zool. Soc. 1860, pp. 283, 296.

Juliamyia feliciana, Gould, Intr. Monogr. Trochil. 8vo, p. 168 (1861).—Sclater & Salvin, Nomencl. Av. Neotr. p. 93 (1873).—Elliot, Synopsis of the Humming-Birds, p. 233 (1878).—Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. de Caen, i. p. 466 (1880).—Berlepsch & Tacz. Proc. Zool. Soc. 1883, p. 568.

Damophila feliciana, Mulsant, Hist. Nat. Oiseaux-Mouches, ii. p. 60 (1876).

This species, which represents *Juliamyia typica* in Ecuador, is, according to Mr. Elliot, precisely like that species, "except that the crown of the head is metallic glittering green like the throat; in all other respects it is a facsimile of the above-named species. The female is like that of *I. typica*."

Mr. Fraser met with the present bird at Babahoyo, where, however, he states that "it was not very common and only found in the deep bush, where it feeds on the tops of good-sized trees," and again at Esmeraldas it was "taken catching flies among the cacao plantations. In October it was common everywhere, in December rare." Mr. Stolzmann has also procured the species at Chimbo in Ecuador.

[R. B. S.]

IACHE MAGICA.

Mazatlan Humming-bird.

Hylocharis magica, Mulsant et J. Verr. Ann. Soc. Linn. Lyon, xviii. p. 110 (1872).
Circe magica, Sclater & Salvin, Nomencl. Av. Neotr. p. 93 (1873).—Mulsant, Hist. Nat. Oiseaux-Mouches, ii. p. 49, cum tab. (1876).—Eudes-Deslongchamps, Ann. Mus. d'Hist. Nat. de Caen, i. p. 489 (1880).
Iache magica, Elliot, Synopsis of the Humming-Birds, p. 235 (1878).

This species, which we have never ourselves seen, comes from Mazatlan in Lower California, and is described by Mr. Elliot as being closely allied to *I. latirostris*, but differing from that species in the colour of the throat, which is said to be "metallic bluish green" instead of being "sapphire-blue."

The following description is given by Mr. Elliot from the typical specimen, which is in his collection :—

"*Adult male*. Upper parts reddish bronze. Throat and upper parts of breast metallic bluish green; under parts bronzy green with a coppery lustre. Under tail-coverts white; wings pale brown. Tail brownish black, lateral feathers slightly tipped with grey. Bill red, tip black. Total length $3\frac{1}{4}$ inches, wing $1\frac{7}{8}$, tail $1\frac{1}{8}$, culmen $1\frac{3}{4}$."

[R. B. S.]

SAPPHIRONIA LUMINOSA, *Lawrence.*

Lawrence's Sapphironia.

Sapphironia luminosa, Lawr. Ann. New York Lyceum Nat. Hist. vii. p. 485 (1862).
Lepidopyga luminosa, Heine, Journ. für Orn. 1863, p. 194.—Mulsant, Hist. Nat. Oiseaux-Mouches, ii. p. 67 (1875).
Polytmus laminosus (lapsu), Gray, Hand-list of Birds, i. p. 131, no. 1675 (1869).
Cyanophaia luminosa, Elliot, Synopsis of the Humming-Birds, p. 239 (1878).

Although agreeing with Mr. Elliot as to the generic title, *Cyanophaia*, which he employs for this species, we have retained that of *Sapphironia* for it, as this generic name has been employed in the body of the work.

The habitat is given as Colombia; but we have not seen a specimen of the bird, nor apparently has Mr. Elliot, who reproduces Mr. Lawrence's description, as given below. The species differs from *C. cæruleigularis* and *C. goudoti* in having "the underparts deep bluish green, and the under tail-coverts dark green edged with grey" (*cf.* Elliot, *l. c.* p. 238).

"Upper plumage glittering grass-green, inclining to golden on the rump, the crown not so bright and of a very deep green; entire under surface of a very brilliant bluish green, the sides of the neck golden orange; tail forked and of a rich steel-blue, the two middle feathers green like the rump, the next feather bronzed on the outer web at the end; wings dull purple; under tail-coverts deep green, very narrowly edged with bluish white; thighs clothed with greyish-white feathers; upper mandible black, the under one yellowish, with the end black; feet and claws black. Length $3\frac{3}{4}$ inches, wing $1\frac{7}{8}$, bill $\frac{11}{16}$, tail $\frac{1}{4}$." (*Lawrence.*)

[R. B. S.]

CHLOROSTILBON HÆBERLINI.

Ruddy-breasted Emerald.

Chlorestes hæberlini, Reichenb. Aufz. der Colibr. p. 7 (1853).—Id. Trochil. Enum. p. 4, Taf. 703. figs. 4578–80 (1855).
Chlorostilbon hæberlini, Cab. & Heine, Mus. Hein. Th. iii. p. 48, note 6 (1860).—Gould, Intr. Trochil. 8vo, p. 175 (1861).—Wyatt, Ibis, 1871, pp. 119, 378.—Elliot, Ibis, 1875, p. 160.—Mulsant, Hist. Nat. Oiseaux-Mouches, ii. p. 100 (1876).—Elliot, Synopsis of the Humming-Birds, p. 245 (1878).
Chlorolampis hæberlini, Cab. & Heine, Mus. Hein. Th. iii. p. 48, note 6 (1860).
Chlorostilbon nitens, Lawr. Ann. Lyc. Nat. Hist. New York, vii. p. 305 (1861).—Gould, Intr. Trochil. 8vo, p. 179 (1861).

This species, which is easily recognized by its black bill, with the basal half of the lower mandible flesh-coloured, is an inhabitant of Venezuela and Colombia. Considerable variation in colour is to be noticed in a series, and we cannot do better than quote Mr. Elliot's remarks on this subject:—"Specimens vary, like those of other species of *Chorostilbon*, in the shades of green possessed in their plumages; and some have brilliant crowns. It is to these individuals that Mr. Lawrence has given the name of *nitens*, as above cited. His specimen came from Venezuela, but as I have a specimen from the same country with a green crown, like the majority of those from Colombia, I do not deem this of sufficient importance to constitute a species, especially as in other respects the examples are alike. I have therefore placed Mr. Lawrence's name as a synonym of *C. hæberlini*. Specimens from Venezuela and Colombia are not to be distinguished from each other, with which also those brought by Mr. Wyatt from near Cartagena (the locality of the type of *C. hæberlini*) fully agree."

Mr. Wyatt, writing of this species at Ocaña in the Magdalena valley, says:—"We had an opportunity while here of seeing the Humming-bird feeding its young, which is performed in the same way as it is by a Pigeon. A young *Chlorostilbon hæberlini* was sitting on a coffee-shrub, which grew under a large tree, around the blossoms of which the Humming-birds congregated. The old bird came, and, having first swallowed the food herself, ejected it into the mouth of the young one. We afterwards caught the young one in a butterfly-net."

[R. B. S.]

CHLOROSTILBON STUEBELI, *Meyer*.

Stübel's Emerald.

Chlorostilbon stubelii, Meyer, in Madarász, Zeitschr. ges. Orn. i. p. 206 (1884).

This species, which we have not seen, was discovered by Dr. Stübel in the province of Yungas, in Bolivia. It is described by Dr. Meyer, as follows:—"Upper surface bronzy green; head coppery; below golden green, the breast bluish; wings purplish brown; tail black, tinged with violet-purple; bill black. Total length 3·1 inches, wing 1·9, tail 1·0, bill 0·7."

Dr. Meyer has sent us the following translation of his original article:—

"Dr. Stübel procured the specimen described, on the 15th of December, 1876, when descending from the village Yumata (2200 metres) to the Rio Tanampaya (1200 metres).

"Besides the type specimen, Dr. Stübel got from the same spot another specimen, which appears to be rather young, the bronze glow being less conspicuous. I have named the species in honour of its discoverer.

"Besides these two examples, the Dresden Museum possesses a similar specimen without any exact habitat; but the colour of the tail is rather faint and deeper black, and some grey terminal spots appear to prove a still younger stage of plumage.

"These birds belong to the section of the genus *Chlorostilbon*, which Elliot separated as a group, with black bills (see Syn. Troch. p. 243). This author enumerates three species, *C. angustipennis*, *C. atala*, and *C. prasinus*; but *C. stuebelii* cannot be referred to any one of these, on account of the form of its tail, not to mention the colour; it cannot be referred to *C. angustipennis*, as the tail of this species is forked and much longer; nor to *C. atala*, the tail of which is emarginated and bluish black; nor to *C. prasinus*, the tail of which is short, straight, and bluish black. The form of the tail of *C. stuebelii* is slightly emarginated, the rectrices being rather broad. In consideration of the high and isolated habitat, I do not doubt that *C. stuebelii* is a good species, the more so as *C. atala*, which it resembles in certain characters, only occurs on Trinidad.

"I remarked, *en passant*, that some specimens of *C. angustipennis* (Fras.), in the Dresden Museum, have not a totally black bill, as this is lighter at the base of the mandibles. Elliot (*l. c.* p. 246) says that the black bill is the single character to be relied on for distinguishing *C. angustipennis*, together with the forked tail; but, according to what I have here stated, this character is not to be fully relied on."

[R. B. S.]



PANYCHLORA STENURA, *Cab.*
PANYCHLORA RUSSATA, *Salv. & Godm.*

J. Gould & W. Hart, del. et lith.

Walter Imp.

PANYCHLORA STENURA, *Cab. & Heine.*

Venezuelan Emerald.

Panychlora stenura, Cab. & Heine, Mus. Hein. Th. iii. p. 50, note 7 (1860).—Gould, Introd. Monogr. Trochilidæ, 8vo, p. 180 (1861).—Sclater & Salvin, Proc. Zool. Soc. 1870, p. 782; iid. Nomencl. Avium Neotrop. p. 94 (1873).—Elliot, Ibis 1875, p. 171.—Muls. Hist. Nat. Oiseaux-Mouches, ii. p. 117 (1875).—Elliot, Synopsis of the Humming-birds, p. 248 (1878).—Eudes-Deslongchamps, Annuaire Mus. d'Hist. Nat. Caen, i. p. 533 (1880).

Chlorostilbon acuticaudus, Gould, Proc. Zool. Soc. 1860, p. 308.

Hylocharis stenura, Gray, Hand-list of Birds, i. p. 149, no. 1920 (1869).

Panychlora aliciæ, Wyatt, Ibis, 1871, p. 379 (nec Bourc. & Muls.).

This species was named by me *Chlorostilbon acuticaudus* in 1860; but it had been called by Drs. Cabanis and Heine *Panychlora stenura* in the same year; and their name apparently having been published before mine, I have adopted it in the present work.

P. stenura is very nearly allied to *P. poortmani* and *P. aliciæ*, but may be distinguished by its extremely narrow and pointed outer tail-feathers, and by the colour of the throat, which is bright green instead of very dark green, as in *P. aliciæ*, or shining grass-green, as in *P. poortmani*. These differences are well shown by Mr. Elliot in his key to the species of *Panychlora*.

The habitat of this species appears to be Venezuela and Colombia—Mr. Goering having met with it in the highlands of Merida in the former country, while Mr. Wyatt procured it at Ocaña in the latter.

The following diagnosis of the species is extracted from Mr. Elliot's Synopsis:—

"*Male*. Crown glittering green; upper surface and tail golden green. Under surface shining grass-green. Wings purplish brown. Bill black. Total length 3 inches, wing $1\frac{5}{8}$, tail 1, bill $\frac{3}{4}$.

"*Female* or *young male* has the rectrices golden green, the lateral one with ashy tips. Underparts grey. Upper parts golden green."

An adult male and female are represented in the Plate. The specimens were kindly lent to me by Messrs. Salvin and Godman.

PANYCHLORA RUSSATA, *Salv. & Godm.*

Coppery Emerald.

Panychlora, sp., Salvin & Godman, Ibis, 1879, p. 205 ; iid. Ibis, 1880, p. 174.
Panychlora russata, Salvin & Godman, Ibis, 1881, p. 597.

This interesting species was discovered by Mr. F. Simons in Northern Colombia, where he met with it at Manaure, San Sebastian, and San José, in the Sierra Nevada of Santa Marta. It is described by Messrs. Salvin and Godman as being very closely allied to *Panychlora stenura*, but distinguished by the coppery tint on the tail and wing-coverts. They further remark :—"The tail-feathers are wide and rounded at their ends, and rather longer than usual in members of this genus ; but their peculiar metallic colour at once indicates the position of the species."

The following is a translation of the original description :—"Golden green ; the fore part of the head and the whole under surface of the body very brilliant, the wing-coverts tinged with copper ; the tail elongated and having a coppery-green shine ; bill deep black. Total length 3 inches, bill 1·7, tail 1·3, bill from gape 0·75.

"The female is greyish white below, with the ear-coverts black ; tail shiny green, towards the base with a subterminal band of steel-black ; all the tail-feathers except the two middle ones tipped with white."

I am indebted to Messrs. Salvin and Godman for the loan of the typical specimens which are figured in the accompanying Plate, on which are represented an adult male and female.

MONOGRAPH
OF THE
TROCHILIDÆ

GOULD.

SUPPLEMENT.

LOND. 1887.

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