



COMETES SPARGANURUS.

J. Gould, and H. C. Richter del. et lith.

Hullmandel & Walton, Imp.

COMETES SPARGANURUS.

The Sappho Comet.

- Trochilus sparganurus*, Shaw, Gen. Zool., vol. viii. p. 291. pl. 39.—Ib. Steph. Cont., vol. xiv. p. 238.—Jard. Nat. Lib. Humming-Birds, vol. ii. p. 112. pl. 23.
- Fire-tailed Humming-Bird*, Lath. Gen. Hist., vol. iv. p. 291.
- Trochilus chrysurus*, Cuv. Règn. Anim., tom. i. p. 236.
- *radiosus*, Temm. in Mus. Leyden.
- Ornismya Sappho*, Less. Hist. Nat. des Ois. Mou., p. 105. pl. 27 male, 28 female.—Ib. Less. Troch., p. 131. pl. 49, adult male.—Ib. Man. d'Orn., tom. ii. p. 83.
- Cometes Sappho*, Gould in Proc. of Zool. Soc., part xv. p. 31.
- *sparganurus*, Bonap. Consp. Gen. Av., p. 81, *Cometes*, sp. 1.
- Mellisuga sparganura*, Gray and Mitch. Gen. of Birds, vol. i. p. 113, *Mellisuga*, sp. 46.
- Orthorhynchus chrysurus*, D'Orb. et Lafr. Syn., p. 26.
- Trochilus chrysochloris*, Vieill. Ois. dor., tom. iii. ined. p. 8.

BOTH Wilson and Gosse have given to the world, fresh from nature, the most charming and poetic descriptions of the habits of the *Trochilus colubris* and *T. Polytmus*; and had either of these elegant writers had an opportunity of observing the present species in its native country, we should doubtless have been favoured with an account of its habits and economy in the same masterly language; in the absence of which, and of any opportunity of observing the bird in a state of nature, I cannot do more than furnish all the information I have been able to acquire respecting it. To be, however, the pioneer in directing the attention of those who may hereafter fill up the voids in the history of this lovely bird, will be something to revert to, at all times, with satisfaction. "No combination of gorgeous colouring," says Dr. Tschudi, "can exceed that which is presented in the plumage of the Golden-tailed Humming-Bird, which appears and disappears like a dazzling flash of coloured light, and which haunts the warm primæval forests, but is still more frequently found in the pure atmosphere of the ceja-girded Montañas."

We are continually receiving fresh evidence that the richest botanical and zoological districts of South America are those to the eastward of the Peruvian and Bolivian Andes; the great primæval forests of which are as yet a *terra incognita*, and their zoological products equally unknown. It is only the outskirts of this fine country that have yet been partially investigated.

I have ascertained from unquestionable evidence, that this fine species is very generally distributed over the great country of Bolivia, to the westward of the Cordillera, from La Paz to Chuquesaca, and that its range extends at some seasons as far to the southward as Mendoza. It is strictly migratory, and it is in the summer seasons alone that it is to be found in the countries above mentioned. The eastern parts of Peru are doubtless its head quarters in winter; and it is probable that at this season it may even range as far to the northward as the Caracas, as travellers who have visited that part of the country speak of a large Flame-tailed Humming-Bird as an occasional visitant, which must either be this bird, *Cometes Phaon*, or a new species. Mr. Bridges collected numerous examples of both sexes, during his visit to the valley of Cochabamba, where he found its favourite food was obtained from the flowers of the scarlet *Salvia*; "the males carrying on a continual war with each other, and each bird appearing to possess a separate territory."

One of the principal summer haunts, however, of this bird is Chuquesaca, in the interior of Bolivia, "where," says M. Bourcier, "it appears when the fruit trees of the country are in flower, and is met with in the greatest abundance among the flowers of the *Capuli*, a kind of cherry-tree: it also visits the orchards and the gardens of the city, during the blossoming of the apple-trees; it is by no means shy, and the males, which are constantly at war, chase each other with the utmost fury, uttering at the same time a sharp cry whenever one bird invades another's territory." I am indebted to Mr. Bonelli, who made a lengthened residence in that part of the country, for the following notes respecting it.

"It arrives in the environs of Chuquesaca in the months of September and October, and takes up its residence in the shrubberies of the city and in the gardens of the Indian cottages; the hill sides of the neighbouring country, clothed with indigenous trees and shrubs, also afford it a fit place of abode; whence it descends several times a day to the cultivated plains below, particularly to the fields of maize, pulse and

other leguminous plants; the rich flowers of the larger Cacti are also frequently visited, as they afford it a constant and abundant supply of insect food.

“Soon after their arrival the task of incubation is commenced; and when the summer is over, both the old and young, actuated as it were by the same impulse, wend their way northward, to return again when the spring has once more gladdened the earth.

“The nest is a somewhat loose structure, outwardly composed of interlaced vegetable fibres, slight twigs, moss, &c., and frequently lined with soft hair like that of the Viscacha (*Lagostomus trichodactylus*), with the lower portion prolonged considerably below the bottom of the cup-shaped interior, which is about an inch and a half in diameter, and an inch in depth; the total length of the nest averaging from two and a half to three inches. The nest is placed in situations similar to those selected for the like purpose by the Spotted Flycatcher (*Muscicapa grisola*), namely, against the sides of the gully, supported or entirely sustained by any hanging root or twig that may be best adapted to afford it security; the part of the nest next the wall is much thicker, but of a looser texture than the circular portion of the true structure. The eggs are two in number, oblong in form, of a pure white, and about half an inch in length, by about five-sixteenths of an inch in breadth.

“The difficulty of shooting these birds is inconceivably great, from the extraordinary turns and evolutions they make when on the wing, at one instant darting headlong into a flower, at the next describing a circle in the air with such rapidity, that the eye, unable to follow the movement, loses sight of it until it again returns to the flowers which first attracted its attention.”

Considerable difficulty attends the collection of specimens, the rapidity with which decomposition takes place in so warm a climate frequently rendering the examples procured by the hunters utterly useless, by the time they return home: to obviate this difficulty, Mr. Bonelli, having observed that the bird frequently dashed far into the cups of the larger flowers, directed some of the Indian lads to touch the interiors of several of them with a viscid substance like bird-lime; this was accordingly done, with the contemplated result; and by this means he was enabled to obtain as many examples as he wished, and to skin them immediately after they were killed. As if these difficulties were not sufficient, that of their transmission was equally great.

“I particularly wish to impress upon your mind,” says Mr. Bonelli, “the difficulty, at present without remedy, of establishing a regular communication from this isolated capital of Bolivia, imbedded as it is in a sea of mountains, whence we are unable to forward any package, however small, for months together; and whence the post is conducted by a single Indian on foot.”

The sexes differ very considerably in colour, and a considerable variation in colour appears to exist in the young birds before they arrive at maturity: very young individuals of both sexes have their throats beautifully speckled with green on a buff ground, while in others the throat is of a uniform buffy hue, the green spots being entirely absent; at a more advanced age the females have the throat considerably ornamented with metallic green, but never to the same extent as in the male: the young males may be always distinguished from the females by their much larger size; but, like that sex, they have the external web and the tip of the outer tail-feathers buffy white.

The male has the head, neck, upper part of the back, wing-coverts, sides of the neck and under surface shining green, washed on the ear-coverts, sides of the neck and wing-coverts with bronze; throat metallic green; wings purple-brown; back reddish crimson; tail-feathers brown at the base, and rich glittering fiery orange-red for the remainder of their length, with the exception of their tips, which are deep velvety brownish black; under tail-coverts brown, with purplish red centres; bill and feet black.

The young males have the crown of the head greenish brown; the back mottled with green and reddish crimson; the tail about two-thirds the length of that of the adult, of a more crimson hue, the velvet-like tips indistinct, and the external feather white on its outer and brown on its inner web; the throat either speckled with green on a buff ground, or white spotted with green, and with a few brilliant feathers in the centre.

The female resembles the young male, but has the lower part of the back only of a crimson hue, and in some instances no trace of the luminous colouring on the throat.

The figures represent two males and a female of the natural size. The plant is the *Cantua buxifolia*.