

XXVIII.—*Carabideous Insects collected by Mr. Darwin during the Voyage of Her Majesty's Ship Beagle*. By G. R. WATERHOUSE, Esq.

[Continued from vol. iv. p. 362 of the *Magazine of Natural History*\*.]

Genus *CASCELLIUS*.

Mr. Curtis finds this genus upon two species brought by Capt. P. P. King, one from Chile, and the other from Port St. Elena, and described in the Linnæan Transactions, vol. xviii. part 2.

Sp. 1. *Cascellius Kingii*, Curtis, Linn. Trans., vol. xviii. p. 183.

Mr. Darwin's collection contains four specimens of this species, three of which are from E. Chiloe, and the remaining one is from Yuche Island, Chonos Archipelago. They vary but slightly in colouring, being of a green hue, more or less brilliant, and faintly tinted with brass colour; the legs are sometimes of an uniform pitchy red tint, but more commonly, it would appear, the thighs are of a darker colour than the tibiæ; in three of Mr. Darwin's specimens they are pitchy black, obscurely tinted with reddish at the base. The antennæ being imperfect in Mr. Curtis's specimen, I may mention that they are short and rather thick; if bent backwards they would about reach to the base of the thorax; the basal joint is testaceous red, the three or four following joints are more or less suffused with brown, and the apical joints are pale testaceous in all the specimens.

Sp. 2. *Feronia (Creobius) Eydouzii*.—This insect, described by M. Guérin-Méneville in the '*Magazin de Zoologie*' for 1838, p. 4. of Class IX., no doubt belongs to the genus *Cascellius*, and is closely allied to the *C. Kingii*; but from the figure and description, it would appear that it may be distinguished by its larger size, and the uniform deep colouring of the legs and antennæ. It is found in Peru, near Lima.

M. Guérin-Méneville observes that his *Feronia Eydouzii* "a beaucoup d'affinités avec le *Carabus suturalis*," &c., "mais, suivant M. Chevrolat, qui a vu le *C. suturalis* de la collection de Banks citée par Fabricius, notre insect en est fort différent;" he might have

\* At the end of this paper I intend giving a list of the species mentioned, with references to the pages in which they are to be found, for the convenience of those who may wish to refer to them; I shall then also correct any mistakes I may fall into,—provided I discover them. In the mean time I may remark, that the generic name *Odontoscelis*, proposed by Mr. Curtis and used by me in the first portion of this paper, had been previously employed by Germar for a genus of Hemipterous insects; I hope, therefore, Mr. Curtis will suggest some other name. I am informed that Mr. Curtis's generic name *Cardiophthalmus* has also been previously used, but cannot ascertain where. I find I had accidentally overlooked a specimen of the *Cardiophthalmus Clivinoïdes*, Curtis, in Mr. Darwin's collection. This specimen was "found dead in the sea, 40 miles off the Straits of Magellan."—Mr. Darwin's Notes.

added, that the insect last mentioned is a true *Carabus*, closely allied to the *Carabus Chilensis* of Eschscholtz.

Sp. 3. *Cascellius Gravesii*, Curtis, Trans. Linn. Soc., vol. xviii. p. 183.

In Mr. Darwin's collection are two specimens of this species, both of which were found in Yuche Island, Chonos Archipelago; they are both of a brassy black colour, and have a slight coppery hue: the basal joint of the antennæ is red, and the remaining joints are pitchy; the thighs are also pitchy, but slightly tinted with red, especially at the base, and the tibiæ and tarsi are pitchy red. The larger of the two specimens measures  $5\frac{3}{4}$  lines in length.

Sp. 4. *Cascellius nitidus*.—New species.

*C. viridis*, nitore splendide æneo vel cupreo; corpore subtus, femoribusque piceis; antennis, palpis, tibiis tarsisque e piceo rubris; thorace longiore plusquam lato, subcylindrico, anticè latiore, posticè angustato, sulco dorsali mediocritè distincto, nec non, et ante et post foveam transversâ notato; elytris, ex elongato ovatis, posticè latioribus, ad apicem rotundatis, mediocritè convexis, substriatis, striis impunctatis.

Habitat apud Tierra del Fuego.

This species is rather smaller than the *C. Gravesii*; the thorax and elytra are rather less convex than in that insect; the antennæ are rather shorter and less stout, and the striæ of the elytra are more delicate.

The upper parts of the body are sometimes of a brilliant green colour, and sometimes brassy with cupreous reflections; the under parts are pitchy black; the mandibles and labrum are pitchy, and the palpi, as well as the legs, are either pitchy red or pitch-coloured; the tibiæ are usually rather paler than the thighs and tarsi. The head is rather narrower than the thorax, the eyes but moderately prominent: the thorax is rather longer than broad, moderately convex, broadest near the front and attenuated behind, and has the sides slightly rounded; the dorsal channel is moderately distinct, and does not extend either to the anterior or posterior margins; a transverse impression is observable near the anterior margin, and there is a faint trace of a similar impression on the hinder part of the thorax: there are no posterior foveæ, but the channels of the lateral margins become rather more deeply impressed in the posterior angles. The elytra are moderately convex, elongate-ovate (their length being about once and a half their breadth), and smooth; the striæ are rather indistinct, and do not extend to the apex of the elytra; those nearest the suture are the longest, and on the outer margins they are obliterated; they are impunctate and interrupted in parts: on the apical portion of each elytron are two or three large punctures. Length, from  $4\frac{3}{4}$  to 5 lines; width, not quite 2 lines.

Four specimens of this species were brought from Tierra del Fuego by Mr. Darwin.

Sp. 5. *Cascellius æneo-niger*.—New species.

*C. niger*, suprâ indistinctè æneo splendens; thorace perlongo (elytrorum dimidiam longitudine æquante) suprâ paululum convexo, anticè latiore, posticè angustato; sulco dorsali mediocriter impresso; elytris elongato-ovatis, distinctè striatis; tibiis femoribusque piceo-nigris; tarsis palpisque e piceo rubris; antennis, articulo basali e piceo rubro, articulis duobus vel tribus proximis, piceo lavatis, reliquis fusco-testaceis.

Hab. apud Valdivia.

This species is about the same size as the last, but has the thorax more elongated, the elytra more distinctly striated, and the striæ, although deeper in some parts than others, are not interrupted: in *C. nitidus* but five striæ are visible, whereas in the present insect there are six or seven distinct striæ, and these extend almost to the apex of the elytra: on the sides of the elytra the striæ are not completely obliterated: the colouring, moreover, is different, being almost destitute of any metallic hue.

The head is elongated and narrower than the thorax, distinctly constricted, and has a puncture in the centre, a little behind the eyes; between the eyes are two shallow foveæ; the labrum and mandibles are black; the palpi are pitchy red; the basal joint of the antennæ is red, the two or three following joints somewhat pitchy, and the remaining joints brownish testaceous; the thorax is decidedly longer than broad; broadest in front, attenuated and cylindrical behind; its upper surface is moderately convex; the dorsal channel is tolerably distinct, and extends very nearly to the anterior and posterior margins (in one specimen the dorsal channel is interrupted on the fore part of the thorax and forms a series of punctures); the anterior and posterior transverse impressions can scarcely be traced, and the outer margins beneath are somewhat pitchy. The elytra are of an elongate-ovate form, distinctly striated, and the striæ, in parts, exhibit indistinct punctures; those nearest the suture extend almost to the apex of the elytra; near the outer margins of the elytra the striæ are indistinct: the interspaces of the other striæ are slightly convex; the apical portions of the elytra are pitchy at the margin, and have each three, more or less distinct punctures, two of which are placed near each other, and the third, which is most remote from the tip of the elytron, is widely separated from the other two. The legs are black or pitchy black, and the tarsi are pitchy red; the body beneath is black; the upper surface of the insect is black, but has an indistinct æneous gloss. Length, 5 lines; width,  $1\frac{3}{4}$  line.

The two specimens from which the foregoing description is drawn up, are one from Valdivia, and the other from Cape Tres Montes. Two other specimens in the collection from Hardy Peninsula, Tierra del Fuego, differ in having the antennæ, palpi, and tarsi darker.

GENUS *BARIPUS*, Dejean.

*Baripus speciosus* (Klug), Dejean. Spécies général des Coléoptères, vol. v. p. 703.

Two specimens of this beautiful insect were brought from Monte Video by Mr. Darwin.

*Baripus rivalis* (*Molops rivalis*, Germar), Dejean. Species Gen. des Col., vol. iii. p. 25.

Two specimens of this species from Monte Video, and one specimen from Maldonado La Plata, occur in the collection.

XXIX.—*Excerpta Botanica, or abridged Extracts translated from the Foreign Journals, illustrative of, or connected with, the Botany of Great Britain.* By W. A. LEIGHTON, Esq., B.A., F.B.S.E., &c.

No. 3. *On the Structure of the Hairs on the Pericarp of certain Plants.* By M. DECAISNE. (Ann. des Sc. Nat. n. s. xii. p. 251.)

ONE of the characters of the genus *Ruckeria* is, that of having the pericarp covered with papillæ. These papillæ, when attentively examined in a dry state, are found to be of a club-shaped form, of a pearly appearance, and with a longitudinal line dividing them into two equal portions. Their base is dilated or curved, in the different species, so as to rest upon one of the cellules of the epidermis, in the organisation of which there is nothing unusual. On placing some of these papillæ or hairs in a drop of water, we immediately see them separate at the apex into two lips, and thence emit two tubes (*boyaux*) of a mucilaginous substance, which issues forth like wires spirally unrolling themselves, twisting about on themselves many times, and finally greatly exceeding in length the hairs into which they were apparently thrust.

These tubes are apparently formed by a very considerable number of filaments, united and placed one upon the other, in the manner of a skein of thread, of which the pieces adhered together by means of some gummy substance. When these hairs are moistened, we distinguish through their parietes in each of the two lateral moieties, two bodies more opaque, attenuated at both ends, and exhibiting striæ arranged in a regular series, but changing their direction at certain intervals.

If the hair, instead of adhering to the pericarp, as in the preceding example, is broken off at the base, the emission of the tubes takes place at that extremity, and the two are then seen to descend slowly, and to proceed parallel to each other for a short time in unrolling themselves, but afterwards to curve and twist one around the other in an irregular manner.

Sometimes when the hair is not broken off, the tube issues forth from the side, and almost constantly about the middle,