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I. *Dytiscidæ Darwinianæ*; or, *Descriptions of the Species of Dytiscidæ collected by CHARLES DARWIN, Esq., M.A. Sec. G. S. &c., in South America and Australia, during his Voyage in H.M.S. Beagle. By CHARLES C. BABINGTON, M.A., F. L. S., F. G. S., &c.* See also page

[Read 4th June, 1838.]

AT the request of my friend Mr. C. Darwin, I have examined the species of *Dytiscidæ* collected by him during his voyage with Captain Fitzroy in the *Beagle*, and have now the honour of submitting the following descriptions of them to the Entomological Society. The specimens described very closely resemble some of those which are natives of the British isles: but, after a minute examination, a marked difference is always found to exist between them and any European insects.

Before proceeding to the descriptions, I propose to make a few observations; and in the first place I would draw attention to the *Cybilster*, which I have named *2-angulatus*. It has been observed by Erichson, Curtis, Stephens, &c., that this genus has only one immoveable claw to the posterior tarsi. Here (Pl. I. fig. 1 a, 1 b) we find two clearly distinguishable claws both immoveable, and apparently joined together at their base; or rather perhaps we ought to consider it as one claw very deeply divided into two parts. This insect also differs from the usual structure of the

genus in the proportions of the joints of its palpi and antennæ, the structure of its mandibles, and the singularly pitted elytra of the female. In the first group of the genus *Colymbetes* (*Rastus*, Eschsch.), we have a series of species closely allied to our *C. notatus* and *agilis*, but most of them at once distinguished from all the English species by the form of the apex of their elytra. In our native insects of this group, that part is uniformly rounded and obtuse, but in the South American specimens contained in this collection each elytron is obliquely truncate in such a manner as to form a sharp point at the suture (Pl. 1, fig. 2*b*). The singular structure of the anterior claws of the males is worthy of notice, one of them being much longer than the other, broad, flattened, and fixed at a right angle with the last joint of the tarsi; the other slender and setaceous, and about a third part shorter (Pl. 1, fig. 3*a*). This structure occurs in the claws of *C. notatus*, but in no other English species which I have had an opportunity of examining. In *C. angusticollis* will be found a form of thorax which has never before fallen under my notice in this genus. The species of *Hydroporus* will be observed to resemble closely some of those contained in our English cabinets, but yet to be clearly distinguishable from them.

At the conclusion of the paper, I have characterised three new generic forms of great interest; and as the species upon which they are founded are amongst the more minute of those contained in this family, and are nearly the first small water insects which have been brought from the tropics, I cannot but consider them as a proof of the very rich harvest which awaits the active and industrious collector, who may be induced to turn his attention to the minuter insects of those countries. The first, which I have denominated *Hydroporomorpha*, has the general appearance of an *Hydroporus*, closely resembling *H. oblongus*, Power (Steph. Ill. (M.) 5, p. 437), but it has a conspicuous scutellum; the structure of its labial palpi is quite different, having the three first joints very short, and the first joint of its internal maxillary palpi is longer than the second, not very short as in *Hydroporus*. The second new generic form (*Anodochrilus*, Bab.) also closely resembles a minute *Hydroporus*, from which it differs by the three basal joints of its external maxillary and labial palpi being transverse, and the terminal one emarginate, the first joint of the internal maxillary long and slender, and the second subulate, and by the want of the least trace of a tooth in the centre of the mentum. The third new genus (*Desmopachia*, Bab.) has the outward appearance of a minute *Hygrota*, but is distinguished from that

genus by the great thickness and different form of the joints of its external maxillary and labial palpi, the slender short terminal joint of the internal maxillary, and its very short thick and curiously jointed antennæ.

In conclusion, I beg to express my great obligation to the Rev. F. W. Hope for the free use of his cabinet and library, and to J. O. Westwood, Esq., for his kind assistance in making the dissections and drawings for this paper.

## DYTISCIDÆ DARWINIANÆ.

CYNIPER, Curt.

1. *C. 2-angulatus*, Bab.

Olivaceo-niger, capite antice thoracis elytrorumque lateribus rufis; clytris postice latioribus impunctatis, sterni laciniis spathulatis; pedibus 4 anticis rufis, posticis bruneis, rufo-ciliatis, omnibus 2-dactylis. (Long. corp. 12-14; lat. 7-8½. lin.)

Olive black, ovate. Head olivaceous, with its anterior margin rufous; two small black foveæ in front, and two slender black lines extending diagonally from the antennæ towards the crown; no frontal lunule; impunctate except when greatly magnified, but then it is found to be, together with the thorax and elytra, covered with extremely minute punctures; labrum rufous; palpi and antennæ ferruginous. Thorax with an interrupted row of impressed dots on its anterior margin, an oblique one on both sides, and an abbreviated longitudinal dorsal channel, the lateral margins broadly rufous. Scutellum olivaceous; elytra ovate, posteriorly dilated, the exterior margin rufous, three rows of distant punctures upon each, and an irregular row of more minute ones on the exterior margin. Under side black, with a bright yellow spot at the posterior angles of the hinder sutures. The four anterior legs rufous, very short; posterior short and thick, particularly the tibiæ, dark; all the tarsi with two claws, but both those of the hinder pair appear to be immoveable, fringed internally with long rufous hairs. (Plate I. fig. 1 a, last joint of hind tarsi seen above; 1 b, ditto seen beneath.)

Hab. Maldonado, on the north coast of the Rio del Plata.

A forma typicali (*C. Roesei*) hujusce generis insecta nostra differe videntur articuli basalis palporum maxillarum exteriorum antennarumque longitudine majori, clytris scrobiculatis femine, mandibulis brevibus truncatis et oblique emarginatis tarsisque posticis unguibus duobus instructis.

COLYMBETES (RANTUS). *Steph. Brit. Ent. (Mand.)* 5, 393.

RANTUS, *Eschsch.*

COLYMBETES. *Ericks. Dytisc.* 32.

A. Elytrorum apice oblique truncato, acuminato.

a. Thorace postice multo latiori.

1. (2.) *C. reticulatus*, Bab.

Oblongo-ovatus, supra flavicans, subtus niger, vertice et thorace antice posticeque nigris, elytris crebre nigro-reticulatis striisque disci punctatis; antennis pedibusque pallidis, tarsiis posticis nigris exceptis. (L. c. 5, lat.  $2\frac{1}{2}$  lin.)

Oblong-ovate, yellow above. Head with the vertex broadly black, antennæ yellow. Thorax short, transverse, broadly emarginate in front, with prominent acute angles, the sides oblique and but slightly rounded, the posterior margin somewhat sinuated, the angles obtuse and slightly rounded, smooth, with a series of impressed dots on the anterior margin; disk immaculate, the anterior margin blackish, the posterior with a broad transverse black spot attached to its centre. Scutellum triangular, black, with its apex yellow. Elytra oblong, slightly dilated in the middle, the apex obliquely truncate so as to form a sharp point at the suture, slightly convex, with three lines of minute impressed dots upon each, which are scarcely distinguishable in the female, yellow, with the suture, apex, and numerous longitudinal lines connected by reticulations, black, leaving the exterior margin and a slender nearly continuous line next the suture yellow, the whole surface minutely strigose in the female. Body beneath black, with the abdomen somewhat fuscous. Legs yellow, the posterior tarsi alone excepted, which are black.

Hab. Valparaiso, Chili.

In this species, and all the others included in my Section A., the claws of the anterior feet (Pl. 1, fig. 2 a) are very large and unequal in the males. One of them is broad and flat, and forming an angle with the tarsi; the other slender, setaceous, and about a third part shorter. In the British species this structure occurs in *C. notatus*, Fab. and Steph. alone; and even there it is not so remarkable as in the species described in this paper. In all the other British species of *Rantus*, these claws, although very long, somewhat unequal in length, and forming an angle with the tarsi, are yet of exactly the same thickness and form. The oblique truncation of each elytron (Pl. 1, fig. 2 b), thereby forming a point at the suture, is a remarkable difference between these insects, and the allied European species.

2. (3.) *C. nigro-remata*, Bab.

Oblongo-ovatus, supra flavicans, subtus niger, abdomine flavo, vertice nigro, elytris crebre nigro-reticulatis striisque disci punctatis; antennis pedibusque pallidis, tarsis posticis nigris exceptis. (L. c.  $4\frac{1}{2}$ ; lat.  $2\frac{1}{2}$  lin.)

Head, antennæ, and thorax as in the preceding insect; but the latter is wholly yellow, with the exception of two minute black spots on the hinder margin. Scutellum as in the last. Elytra the same, but the yellow outer margin is broader, and the reticulations are less regular. Breast black. Abdomen yellow, with the centres of the segments rather dusky. Legs pale, with the exception of the posterior tarsi, which are black.

There are two specimens of this insect in the collection; one from Port Famine, on the east coast of Patagonia, has smooth shining elytra, and all the appearance of a male insect, but it has not dilated tarsi; the other from Port Desire, on the same coast, has the strigose dull elytra, tarsi, &c. of a female. This species is closely allied to *C. reticulatus*, but may be distinguished by its pale thorax with two minute spots, and the pale abdomen. Can it be a variety of that insect?

3. (4.) *C. Chilensis*, Laporte?

Oblongo-ovatus, supra flavicans, subtus niger, capite thorace antice postice maculâque oblongâ transversâ disci nigris, elytris creberrimè nigro-reticulatis, striisque disci punctatis, antennis flavis extrorsum fuscis, pedibus fuscis. (L. c.  $5\frac{1}{2}$ ; lat.  $2\frac{1}{2}$  lin.)

*C. Chilensis*, Lap. Etud. Ent. 100?

Head black, the anterior margin and labrum flavous. Antennæ flavous at the base, becoming gradually darker towards the apex. Structure of the thorax as in the preceding. The anterior and posterior margins black, and a large broad transverse rectangular black spot on the disk, between which and the base is a row of minute black dots. Scutellum totally black; elytra ovate, very slightly dilated, with the usual striae, formed of few distant punctures, flavescens, very thickly reticulated with black; the lateral margins, and a very narrow line down the suture, immaculate. Body beneath wholly black. Legs fuscous, the intermediate femora thickly and coarsely punctured.

Distinguished from the preceding species by its black head, the spot on the thorax, &c. Found at Valparaiso in Chili, one of the specimens at an elevation of 5000 feet above the sea.

4. (5.) *C. suturalis*, Bab.

Oblongo-ovatus, supra flavicans, subtus niger, vertice nigro, maculis 2 testaceis, elytris crebre nigro-irroratis striisque disci punctatis, antennis pedibusque flavis. (L. c. 5; lat.  $2\frac{1}{2}$  lin.)

Head yellow, with the vertex black, inclosing two transverse yellow spots. Antennæ yellow. Structure of the thorax, as in the preceding species, yellow, with a very narrow black line on the hinder margin, and a slight cloud on the disk. Scutellum black. Elytra similar in form to those of its allies, but thickly covered with minute black spots (not reticulated), less closely placed near the lateral margins, which, together with a strongly marked line down the suture, are immaculate, the usual striæ nearly obsolete. Body beneath black, with a pale spot at the anterior angle of each segment of the abdomen. Legs fuscous yellow, the hinder pair rather darker.

The irrorated elytra of this insect will distinguish it from all the preceding.

Hab. Valparaíso.

b. Thorace postice vix latiori, lateribus subparallelis.

† Elytrorum basi thorace latiori.

5. (6.) *C. angusticollis*, Curt.

Oblongus, thorace elytrorum basi multo angustiori, lateribus parallelis rectis, pallidè flavus, diaphanus, vertice oculis pectorisque nigris; elytris lineis longitudinalibus undulatis sub-interruptis nigris notatis, striisque disci punctatis obsoleteis, antennis pedibusque pallidè flavis. (L. c. 5; lat.  $2\frac{1}{2}$  lin.)

*C. angusticollis*, Curt. in Linn. Trans. xviii. 195. t. xv. f. E.

The whole upper surface pale yellow and diaphanous, except the vertex, which is, together with the eyes, black. Thorax short, transverse, narrow, broadly emarginate in front, slightly produced over the head in the middle, the angles prominent and acute, sides parallel and depressed, the hinder angles rectangular, posterior margin sinuated, and produced somewhat over the scutellum; the centre of the disk depressed; the usual row of minute impressed dots near the anterior margin nearly obsolete. Scutellum small, its apex rounded, and a black spot in its centre. Elytra obovate-oblong, scarcely dilated, very long. The base much broader than the thorax; with four principal dark wavy lines upon each, not reaching to the base or apex, the second

and fourth from the suture longest and most strongly marked; between each of these is another irregular wavy line, and about three externally between them and the margin, the whole anastomosing more or less, so as to present a very irregular and imperfect system of reticulations; there is an abbreviated black line upon the truncate apex next to the suture; the lateral margins are broadly immaculate, and the usual striae scarcely to be detected. Body beneath dark, the thorax and breast black, the abdomen fuscous. Legs pale yellow.

The singular thorax of this insect, distinguishes it from all the other species with which I am acquainted.

Since this paper was communicated to the Society, Mr. Curtis has published a description and figure of what appears to be the same insect as that now before us, in the Transactions of the Linnean Society. I have therefore adopted his name, and omitted that of *C. parallelus*, which I had conferred upon it.

Hab. Port St. Julians, S. A.

††. Elytrorum basi thoracem æquant.

6. (7.) *C. rotundicollis*, Bab.

Oblongus, thorace elytrorum basin æquant, lateribus rotundatis, fuscus, subtus niger; elytris crebre nigro-reticulatis striisque disci punctatis, antennis pedibusque fuscis. (L. c. 4; lat. 2 lin.)

Whole insect fuscous. Head nearly black on the crown, minutely punctured, with two deep foveæ between the antennæ. Thorax transverse, short, broadly emarginate in front, with the angles acute, the sides rounded, depressed, rugose, the hinder margin sinuated with a small longitudinal impression on each side, the hinder angles rounded; the anterior margin black, and several irregular dark clouds upon the disk. Scutellum dark fuscous, with its acute apex paler. Elytra oblong-ovate, so thickly covered with dark broad reticulations as to appear nearly black, the interior margins paler, the usual striae rather strongly marked. Body beneath black. Legs fuscous.

Hab. Alpine situations in Tierra del Fuego.

B. Elytrorum apice non truncato, sed rotundato.

α. unguiculis anticis magnis.

7. (8.) *C. signatus*, Bab.

Obovatus, supra fusco-flavicans, subtus niger, vertice nigro, maculis 2 flavicantibus, thorace maculâ disci transversâ

nigrâ, elytris creberrimè nigro-irroratis, strâis disci punctatis, antennis pedibusque fusco-flavescentibus. (L. c. 4½; lat. 2½ lin.)

Ovate, fuscous yellow above. Crown of the head black, inclosing two transverse fuscous yellow spots. Antennæ fuscous yellow. Thorax transverse, short, broadly emarginate in front, the angles prominent and acute, margins oblique, slightly rounded, much broader behind, slightly sinuated, the angles acute, disk smooth, with a large transverse dark spot, attenuated at both ends. Scutellum fuscous. Elytra obovate, dilated beyond the middle, fuscous yellow, very thickly irrorated with black, leaving the exterior margin and a narrow line down the suture immaculate, the usual punctate striae faint. Body beneath black. Legs fuscous yellow; the hinder pair rather darker; the anterior claws large, but yet rather smaller than in the preceding section.

Hab. Monte Video, and Tierra del Fuego.

Unfortunately the only specimens of this insect are females, and therefore it may be doubted whether it has the curious claws described above; it agrees, however, so nearly with our *C. notata*, that I am inclined to refer them to the same group. In the following species the claws are much smaller, and although unequal in length, are yet similar in form, neither do they differ much in the two sexes. Still a slight approach to the unequal form may sometimes be detected in the males.

*b. unguiculis anticis mediocribus.*

8. (9.) *C. Darwini*, Bab.

Ovatus, supra flavescens vel fusco-flavescens, subtus niger vel nigro-fuscus, vertice nigro, maculâ transversâ flavâ, thorace antice et postice maculâque disci nigris; elytris plus minusve crebre nigro-irroratis strâisque disci punctatis, antennis flavis, pedibus flavis vel fusciscentibus. (L. c. 5-6, lat. 2½-3 lin.)

Ovate, flavescens, fusco-flavescens, or fuscous. Crown of the head black, with a transverse flavescens spot, which is connected by its middle with the anterior concolorous part of the head, so as to form a T shaped mark. Antennæ yellow. Thorax of the same structure as the last, margined before and behind more or less broadly with black, and an ovate transverse spot of the same colour on the disk. Scutellum black. Elytra ovate, dilated slightly beyond the middle, flavescens or fuscous yellow, thickly irrorated with black, in some specimens so thickly as to make the



whole appear fuscous-black; the usual striæ rather strongly marked, and formed of irregular punctures. Body beneath black or fuscous-black. Legs dark yellow or fuscous.

Extremely variable in colour; some specimens being nearly black, and others quite pale.

Hab. Tierra del Fuego.

9. (10.) *C. calidus*, Fab.

Ovatus, capite thoraceque nigris, elytris crebre nigro-irroratis, maculâ magnâ triangulari dorsali prope basin nigrâ, lineâ interruptâ basali transversâ, marginibus externis elytrorum et lateribus thoracis rufis, striis disci punctatis, subtus niger, antennis pedibusque flavis, posticis fuscis. (L. c. 6; lat. 3 lin.)

*C. calidus*, Fab. Ent. Syst. 1, 193, 27; Syst. Eleut. 1, 265.

Oval; head black, smooth, with two minute foveæ between the eyes in front. Thorax of the same structure as in the preceding, black; the lateral margins broadly rufous. Scutellum black. Elytra slightly dilated beyond the middle, thickly irrorated with black; that colour becoming so much suffused upon the anterior part of the disk, as to form a large triangular black patch, nearly covering the whole width of the base, and extending half the length of the suture; the lateral margins, and a transverse patch at the base interrupted at the suture, rufous; there is a narrow yellow line upon each side of the suture, and three less distinct ones on the disk, terminated below by the black patch, and extending to the apex; the usual punctate striæ rather strongly marked. Body beneath black. The four anterior legs yellow, the posterior fuscous.

This beautiful insect approaches in its appearance to *Hydaticus*, but agrees with the present group in its structure. It may be distinguished by the curious dorsal patch, and the bright red transverse line at the base of the elytra. In one of our specimens this line is divided into four distinct spots. It is a native of Rio de Janeiro.

COLYMBETES (ILYBIUS), Steph. Ill. (M) 5, 394.

ILYBIUS, Erichs. Dytis. 34.

10. (11.) *C. Sauleyi*, Dufour MSS. in Collect. Dom. Hope.

Ovatus, niger, levis, depressus, maculis 2 frontalibus rufis, thoracis angulis anticis elytrisque lineâ apicali maculâ laterali

et puncto apicis castaneis, subtus niger, antennis pedibusque fuscis. (L. c. 3½; lat. 2 lin.)

Ovate, black, shining, smooth, depressed. Head with two transverse red spots on the crown. Antennæ fuscous. Thorax transverse, very short, broadly emarginate in front; the angles prominent and acute; hinder margin nearly straight, the angles slightly prominent and acute; the anterior angles broadly castaneous. Scutellum black. Elytra ovate, black; a little beyond the middle, near the outer margin, there is a triangular castaneous spot, and within the apex another small round one, connected with the former by a slender castaneous line, which is continued beyond the apical spot, but interrupted by the suture; the usual punctate lines on the disk but faintly marked. Under side black, with a small red spot on each side of the segments of the abdomen. Legs fuscous, the hinder ones darker.

Hab. Callao.

The appearance of this insect is very similar to *C. vitreus*, but it differs in shape, colour, and in the marks at the end of the elytra. It has the structure of Erichson's genus *Hylis* (as indeed has *C. Gropii* referred by Mr. Stephens to *Agabus*), namely, the unequal posterior claws by which it is at once separated from *C. vitreus*. I cannot let this opportunity pass without remarking the utter uselessness of these generic divisions, since, as sections, they separate insects so closely allied as *C. vitreus* and *Saulcyi*.

#### 11. (12.) *C. punctum*, Bab.

Ovatus, niger, lævis, depressus, thoracis angulis anticis, ore, antennis lunulis 2 frontalibus pedibusque anticis rufescentibus, elytris maculâ parvâ laterali oblongâ fenestratâ, subtus niger, pedibus posticis fuscis. (L. c. 4; lat. 2½ lin.)

Ovate black, very minutely reticulate-strigose. Head with two transverse usually confluent lunules on the crown, and the mouth and antennæ rufescent. Structure of the thorax as in the last, the anterior angles rufescent, and the posterior not prominent, and slightly rounded. Scutellum black. Elytra ovate, black; a little beyond the middle, near the outer margin, is a minute oblong fenestrated spot; the usual striae are formed of numerous punctures, and are strongly marked. Body beneath black. Legs rufescent, the posterior pair fuscous.

Hab. Valparaiso.

#### 12. (13.) *C. magellanicus*, Bab.

Ovatus, niger, subdepressus, elytris subcostatis maculâ parvâ

lateralī oblongā fenestratā, subtus niger, antennīs pedibusque fuscis. (L. c. 3; lat.  $1\frac{1}{2}$  lin.)

A third part smaller than the preceding, ovate, black, very minutely reticulate-strigose. Head immaculate. Antennæ fuscous. Thorax much broader behind than in front, the hinder angles slightly acute. Scutellum black. Elytra oval, obscurely ribbed longitudinally, and having at a little beyond the middle, and near to the outer margin, a minute oblong fenestrated spot; the usual striae scarcely distinguishable, and very irregular. Body beneath black. Legs fuscous.

Hab. Tierra del Fuego.

### COLYMBETES (COPELATUS.)

COPELATUS, *Erichs. Dytis.* 38.

13. (14.) *C. elegans*, Bab.

Orato-oblongus, rufo-fuscus, impunctatus, thorace longitudinaliter strigoso, elytris striis 10 ornatis, alternis abbreviatis, apicem acutum non attingentibus, corpore subtus antennīs pedibusque rufo-fuscis. (L. c. 3; lat.  $1\frac{1}{2}$  lin.)

Ovate-oblong, fuscous red, not punctured. Head short, transverse, with two minute foveæ between the eyes. Thorax short, transverse, broadly emarginate in front; the angles acute and prominent; margins slightly rounded, broader behind; the margin nearly straight; the angles rectangular; the disk darker than the sides and head, covered with minute longitudinal striae, a row of which occupy the place of the usual series of punctures near to the anterior margin. Scutellum minute. Elytra oblong, acute, rufo-fuscous, the base paler, each with ten strong longitudinal striae, which do not extend to the apex, the second about half as long, and the other alternate ones not exceeding three-fourths of the length of the elytra. Body beneath and legs fuscous red.

Hab. Rio de Janeiro.

### HYDATICUS, *Leach.* \*

1. (15.) *H. Havanicusis*, Laporte.

Obovatus, testaceus, thorace antice posticeque nigro, elytris nigro-irroratis maculâ dorsaliâ transversâ nigrâ lateribus testaceis, subtus niger, antennīs pedibusque 4 anticis testaceis, femoribus posticis testaceis maculâ internâ basali nigrâ; tibiis nigro-fuscis, tarsis fuscis. (L. c. 5-5½; lat.  $2\frac{1}{2}$ -3½ lin.)

*H. Havanicusis*, Laporte, *Etud. Ent.* 96.

Obovate, testaceous above, impunctate. Crown of the head inclosing, by a wavy line, a bilobed testaceous spot. Antennæ testaceous. Thorax transverse, short, the anterior angles prominent, acute, testaceous; on the anterior margin a uniformly broad black fascia, and on the posterior another, which is broader, emarginate in the middle, and narrowing off into a slender line as it approaches the testaceous lateral margins. Scutellum black. Elytra ovate, thickly covered with rather large black dots, which become confluent at about the middle, and form a broad irregular transverse fascia, which is succeeded by a pale spot, variegated with black clouds and dots, and extending to the apex; on the disk are three rows of deep punctures. In the female the thorax and elytra are minutely strigose punctate. Body beneath black, several segments of the abdomen having a pale spot on each side. The four anterior legs testaceous, the posterior variegated, the femora testaceous, with a large black patch on the inner side, extending from the base to three-fourths of their length; tibiæ black or dark fuscous, tarsi fuscous.

This beautiful insect is a native of Rio de Janeiro, and Laporte has described it from specimens obtained in the island of Cuba.

### HYMENOPTERA, III. *Steph.*

#### 1. (16.) *H. maculatus*, Bab.

Ovatus, brevis, gibbus, fuscus, capite, thoracis lateribus elytrorumque maculis testaceis, subtus fuscus, antennis testaceis, pedibus fuscis. (L. c. 2; lat. 1½ lin.)

Short, ovate, gibbous, the whole upper surface coarsely punctate. Head testaceous; in one specimen fuscous. Antennæ testaceous. Thorax transverse, similar to *H. ovatus*, fuscous. Elytra ovate, much dilated near the middle, the apex rounded, fuscous, except a bilobed spot at the base; the humeral angle, the anterior half of the lateral margin, a longitudinal abbreviated line near the centre of the suture, one on the middle of the disk connected with a triangular transverse spot on the margin, and two small triangular spots connected with this last, and with each other within the apex, which are testaceous. Body beneath fuscous, coarsely punctured, very gibbous. Legs fuscous.

This pretty little insect was obtained at St. Jago.

Erichson and Brullé concur in describing the posterior tarsi of this genus as possessed of two claws, which are said to be unequal, the upper one fixed, and the lower shorter and moveable.

After a careful examination of several species, I must agree with Stephens in considering that there is only one claw, and that moveable, the apparent upper claw being only a long seta.

*HYDRODORUS, Claire.*

*A. Thoracis lateribus rotundatis, clytrorum apice dentato.*

1. (17.) *H. Darwinii*, Bab.

Oblongo-ovatus, subdepressus, punctatus, ferrugineus, vertice nigro, thorace maculis 2 fuscis lineisque 2 abbreviatis impressis, clytris nigris margine externo maculis 2 lateralibus lineisque interruptis flavis, corpore subtus pedibusque ferrugineis. (L. c. 2; lat. 1 lin.)

Oblong-ovate, depressed, thickly punctured throughout. Head rounded, pale testaceous, narrowly black behind. Antennæ testaceous, with the terminal joints ringed with black. Thorax pale testaceous, short, transverse, broadly and deeply emarginate in front, the angles acute, the sides straight and parallel, except near to the anterior angles, where they are strongly rounded, posterior margin nearly straight, produced in the middle, narrowly margined with fuscous, and two small spots of that colour connected with it towards its middle; also an abbreviated longitudinal impressed line on each side. Elytra broader than the thorax, ovate, the apex acute, with a minute tooth upon each side, black; the anterior margin, two angular marginal spots, a line interrupted in the middle next the suture, and about four very slender and much interrupted lines upon each, testaceous. Body beneath testaceous, the abdomen rather darker. Legs testaceous, the posterior pair darker.

Hab. King George's Sound, Australia.

2. (18.) *H. undecimlineatus*, Bab.

Oblongo-ovatus, subdepressus, punctatus, flavus, clytris suturâ lineis 5 maculisque 2 lateralibus nigris, corpore subtus antennis pedibusque flavis. (L. c. 2; lat. 1 lin.)

Oblong-ovate, depressed, thickly punctured throughout. Head and thorax as in the last, except that the latter has two faint dark clouds upon its hinder margin alone, and the sides are uniformly rounded. Elytra broader than the thorax, ovate, the apex acute, with a minute tooth upon each side, yellow; with the suture, five regular lines upon each, two oblong spots between the first and second, and two spots (one angular, and at about the middle, the

other oblong, and near the apex,) between the fifth and the lateral margin, black; the space next to the suture and the second and fourth interstices the most regular, and of a brighter colour. Body beneath and legs yellow.

Hab. Tierra del Fuego.

*B. Thoracis elytrorumque lateribus continuis, elytrorum apice non truncato.*

3. (19.) *H. obscurus*, Bab.

Oblongo-ovatus, opacus, minutissimè punctatus, supra et subtus fuscus, thorace, antennis pedibusque flavis. (L. c.  $\frac{2}{3}$ ; lat.  $\frac{1}{3}$  lin.)

Minute, oblong-ovate, opaque, fuscous both above and below. Head large. Antennæ yellow. Thorax yellow, transverse, short, broadly emarginate in front, sides rounded, posterior margins wavy, the disk slightly elevated transversely, and a deep abbreviated impressed line on each side behind. Elytra ovate, fuscous, the base and suture darkest, the margins and apex reddish, very minutely punctured, and slightly downy, an impressed line on each side at the base in continuity with that on the thorax. Body beneath slightly downy, fuscous, with the abdomen rather paler. Legs yellow.

Hab. Rio de Janeiro.

4. (20.) *H. nitidus*, Bab.

Oblongo-ovatus, nitidus, grosse punctatus, supra et subtus fuscus; capite, thorace (medio excepto), antennis, pedibusque flavis. (L. c.  $\frac{2}{3}$ ; lat.  $\frac{1}{3}$  lin.)

Minute, oblong-ovate, shining, coarsely punctured, fuscous both above and below. Head and thorax similar to the last, yellow, the latter with a fuscous spot in the centre, and the lateral impressed lines sinuated, and nearly reaching to the anterior margin. Elytra ovate, fuscous, coarsely punctured, with a paler patch upon each, caused by their transparency, and an impressed line upon each side at the base in continuity with that on the thorax. Body beneath fuscous. Legs and antennæ yellow.

Hab. Rio de Janeiro.

HYDROPHOROMORPHA, *Bab.\**

Corpus elongatum, depressum. Caput oculis non prominalis, fronte lævi. Antennæ 11-articulatæ, infra oculos insertæ, articulo primo elongato, 2do quam tertium paulo longiore,

\* Derivatio nominis, *Hydrophorus* and *pupa*, *forma*.

reliquis inter se aequalibus tertio brevioribus obconicis, ultimo fusiformi acuminato. *Labrum* paulo emarginatum. *Palpi* maxillares externi articulis 1, 2 et 3 obconicis, subaqualibus, tertio paulo longiori; 4to maximo, elongato, fusiformi, truncato; *p. m. interni* 2-articulati, articulis elongatis attenuatis, 1mo subclavato, 2do cylindrico. *Mentus* lobo intermedio dentiformi obtuso. *Palpi labiales* articulis 1mo et 2do transversis, 3tio quam precedentes longiori, obconico; 4to elongato, ventricosissimo, truncato. *Scutellum* breve, latum, triangulare. *Pedes* 4 anteriores tarsi 4-articulatis,\* postici tarsi 5-articulatis unguiculisque 2 aequalibus mobilibus.

[Pl. 1, fig. 3 a, labrum; 3 b, mandible; 3 c, maxilla; 3 d, labium; 3 e, fore leg; 3 f, middle leg.]

Differs from *Hydroporus* by the structure of the internal maxillary and labial palpi, and by the presence of a scutellum.

1. (21.) *H. parallela*, Bab. (Pl. 1, fig. 3.)

Oblonga, antice obtusa, postice acuminata, lateribus parallelis, supra rufa, thorace antice et postice elytrisque (apice marginibusque exceptis) fuscis; corpore subtus, antennis, pedibusque fusco-rufis. (L. c. 2; lat.  $\frac{3}{4}$  lin.)

Head short, transverse, rounded in front, with two longitudinal slightly impressed foveae between the eyes. Thorax transverse, short, broadly emarginate in front; the angles acute; lateral margins rounded; posterior margin straight, very slightly produced in the middle over the scutellum; disk smooth, with a transverse row of punctures in front, and a similar one behind, the latter broadly interrupted in the middle; rufous, with the anterior and posterior margins fuscous. Scutellum small, triangular, transverse, fuscous. Elytra of the same width as the thorax, oblong, the sides parallel for three-fourths of their length, then strongly rounded to the apex, which is acute and prominent; disk coarsely punctured, with one central row of more regular punctures upon each; fuscous, with the exception of the apex and external margins, which are rufous. Body beneath, legs and antennae, dull rufous.

Hab. Rio de Janeiro.

*ANODOCHEILUS*, Bab.†

*Corpus* ovatum, depressionem. *Caput* fronte antice carinâ trans-

\* [It appears to me that the tarsi of this genus are 5-jointed, a minute nodose joint being placed at the base of the long terminal joint.—J. O. W.]

† *Derivatio nominis, a nos, id est deus, χηλος marginis.*

versali semicirculari terminatâ, oculis parum prominulis. *Antennæ* breves, 11-articulatæ, infra oculos insertæ; articulis 2 primis crassioribus, elongatis; 3tio elongato, attenuato, obconico; 4to brevi, transverso; 5to—10mo crassiusculis, moniliformibus, terminali longissimo, acuminato. *Palpi maxillares externi* articulis 2 primis brevibus transversis; 3tio longiori, obconico, ultimo maximo, elongato, fusiformi, oblique truncato; *p. m. interni* 2-articulati, articulis elongatis attenuatis, 1mo cylindrico, 2do subulato. *Mentum* lobo intermedio nullo, lobis lateralibus rotundatis. *Palpi labiales* articulis 1, 2 et 3 brevibus transversis, 4to maximo, ventricosissimo, oblique truncato vel emarginato. *Scutellum* inconspicuum. *Tarsi* omnes 5-articulati, unguiculis 2 æqualibus.

[Pl. I, fig. 4 a, mandible; 4 b, maxilla; 4 c, labium.]

Differs from *Hydroporus* by the structure of its maxillary and labial palpi, and by the want of a tooth in the centre of its mentum.

1. (22.) *A. maculatus*, Bab. (Pl. I, fig. 4.)

Late ovatus, flavus, elytris fuscis, maculis 2 transversis apiceque flavis, grosse punctato-striatis, costatis; subtus fuscus, grosse punctatus, antennis pedibusque flavis. (L. c.  $\frac{2}{3}$ ; lat.  $\frac{1}{2}$  lin.)

Broadly ovate, yellow, flat above. Head smooth, broad, rounded in front. Thorax smooth, broadly emarginate in front; the angles acute; sides rounded, particularly towards the front, sinuated behind with a transverse impression; disk transversely elevated, and a large tubercular elevation on each side behind. Scutellum wanting. Elytra broad, flat, with numerous lines of very coarse punctures; the suture slightly elevated, and an elevated costa on the disk, in continuity with the tubercle on the thorax; fuscous, with the external margin, two transverse patches, and the apex, yellow. Body beneath fuscous, very coarsely punctured, gibbous. Legs and antennæ yellow.

Hab. Rio de Janeiro.

#### DESMOPACHIA, Bab.\*

Corpus subglobosum. Caput fronte antice carinâ semicirculari terminatâ, oculis parum prominulis. *Antennæ* breves, 11-articulatæ, infra oculos insertæ, articulis 3 basalibus elongatis, 1mo obconico, 2do elliptico crassissimo, 3tio attenuato clavato, 4to minimo transverso, 5to paululum quarto majori

\* Derivatio nominis, *hæpæ*; *catena*, *maxillæ crassæ*, *apex apæ*.



transverso, 6to—10mo transversis quinto majoribus, ultimo subulato 2 præcedentium longitudinem subæquante. *Palpi maxillares externi* articulis 1, 2 et 3 breviusculis, transversis, obconicis; 4to maximo, elongato, ventricoso, apice attenuato; *p. w. interni* subulati attenuati, articulo primo elongato subcylindrico, 2do dimidio breviori. *Mentum* lobo intermedio dentiformi minuto acuto, lobis lateralibus subacutis. *Palpi labiales* articulis 1, 2 et 3, brevibus transversis, 4to maximo ovato obtuso. *Scutellum* inconspicuum. *Pedes* abbreviati, tarsi postici 4-articulatis.

[Pl. 1, fig. a, mandible; 5b, maxilla; 5c, labium; 5d, antenna; 5e, fore leg; 5f, hind leg.]

Closely allied in appearance to *Hygrotus*, Steph., but distinguished by the structure of its antennæ and palpi.

1. (23.) *D. nitida*, Bab. (Pl. 1, fig. 5.)

Rotundato-ovata, fusco-flava, elytris obscurioribus, antennis pedibusque flavis. (L. c.  $\frac{1}{2}$ ; lat.  $\frac{1}{3}$  lin.)

Between orbicular and ovate, dusky yellow, convex above, smooth and shining. Head smooth. Thorax transverse, short, broadly emarginate in front; sides rounded, hinder margin sinuated, disk punctured. Scutellum wanting. Elytra cordate, pointed, rather deeply punctured. Body beneath dusky yellow, the breast darker. Legs and antennæ yellow.

Hab. Rio de Janeiro.

