

If the canary-coloured specimens be but varieties of the black ones, then is the name of *nigricans* improper, nor can the very great difference in colour between the varieties be explained by reference to age or locality.

*Goniodoris barvicensis*, at Sea Point in great numbers just below low-water mark.

*Tritonia Hombergii*, in deep water; a single specimen.

*Eolidia rufibranchialis*, not uncommon.

*Bulla haliotidoides*, a single living specimen at Williamstown.

*Lottia testudinalis*, abundant on stones above low-water mark at Williamstown.

#### CRUSTACEA.

*Corystes Cassivelaunus*, common.\*

*Atelecyclus Heterodon*, Portmarnock Strand, after storms.

*Portunus variegatus*, not uncommon.

*Carcinus Mænas*, common.

*Portunus puber*, common.

*Cancer Pagurus*, common.

*Pilumnus hirtellus*, not common.

*Pinnotheres Pisum*, not common.

*Hyas Araneus*, not common.

*H. coarctatus*, common.

*Inachus Dorynchus*, Portmarnock, not common.

*Macropodia Phalangium*, common.

*Pagurus Streblonyx*, common.

*Galathea squamifera*.

*Porcellana longicornis*.

*P. platycheles*.

For the names of some of the species in the above list I am indebted to Mr. Thompson of Belfast, whose kindness in this particular I had to acknowledge on a former occasion.

#### XIX.—*Carabideous Insects collected by Charles Darwin, Esq., during the Voyage of Her Majesty's Ship Beagle.* By G. R. WATERHOUSE, Esq., Curator to the Zoological Society of London.

[Continued from vol. vii. p. 129. With a Plate.]

##### Section CARABIDES.

##### Genus ABROPUS\*, nov. gen.

*Caput* elongatum, anticè et posticè acuminatum. *Labrum* subquadratum. *Mandibulæ* edentulæ, acutæ. *Mentum* profundè emarginatum, angulis anticis acutis. *Palpi*, articulo ultimo elongato, subcylindraceo, in medium paulò incrassato, ad apicem truncato. *Antennæ* perlongæ.

*Thorax* capite vix latior, ferè quadratus.

\* From ἀβροῦς and ποῦς, having soft or tender feet; the joints of the tarsi in both sexes being many of them furnished with soft brushes of hair and membranous appendages on the under side.

*Elytra* oblongo-ovata, posticè distinctè acuminata.

*Pedes* longi; *tibiæ anteriores* intùs emarginatæ; *tarsi* articulo penultimo bilobato, subtùs spongiosi; *tarsi anteriores* in maribus dilatati, articulis oblongo-quadratis, subtùs membranaceis.

Sp. *ABROPUS SPLENDIDUS*, Plate III. fig. 1.

*Metius splendidus*, Guérin, Revue Zoologique, No. 10, 1839, p. 297.

*Abr. viridis*; supra splendide viridis; antennis, palpis pedibusque flavescens; thorace ferè quadrato, anticè indistinctè acuminato, posticè foveis duabus impresso; elytris oblongo-ovatis, ad apicem distinctè acuminatis, leviter striatis, striis impunctatis. Long. corp. 5 lin.; lat. 2 lin.

*Hab.* Tierra del Fuego.

*Descrip.*—Head elongated and pointed in front, with a large puncture on each side near the inner margin of the eye, and two oblong shallow foveæ in front; eyes large and moderately prominent; antennæ long and slender, when extended backwards reaching to about the middle of the elytra. Thorax scarcely broader than the head, nearly of a quadrate form, but slightly contracted in front; the anterior and posterior angles very nearly forming right angles; the upper surface but little convex, with a distinct dorsal channel and two large and shallow posterior foveæ: minute transverse rugæ are generally visible on the upper surface of the thorax. The elytra are ample, and together are about twice as broad as the thorax, of an elongated and subovate form; the broadest part is rather behind the middle, and at a short distance from the apex they are suddenly contracted in width; the point of each elytron is rounded: the surface is rather delicately striated, but the striæ are obliterated near the outer margin and on the apical portion of the elytron; those striæ nearest the suture are most distinct and continued nearly to the point of the elytron: no punctures are observable in the striæ, the interspaces are flat and impunctate. The upper surface of the head, thorax and elytra is of a brilliant green colour; the under surface of the insect is chiefly of a deep green hue; the head is of a pitchy red colour beneath, but faintly tinted with greenish, and the labrum is of the same tint; the mandibles are testaceous at the base and blackish at the point; the terminal segment of the abdomen is pitchy red at the tip. The legs, antennæ and palpi are testaceous, but a slight pitchy hue is observable in the middle of the terminal joints of the palpi. The outer margin of the elytra is also reddish, and this tint is more or less visible at the suture.

This insect I feel no doubt is the *Metius splendidus* of Guérin; it differs however considerably from the *Metius harpaloides*\* of Curtis, which is the type of the genus *Metius*. The general form of the two insects is very dissimilar, the one (*Metius*) having the form of a *Harpalus*, and the other approaching more nearly in form to an *Agonum*. Besides the difference in the general form, *Abropus* differs from *Metius* in having much longer antennæ (as pointed out by M. Guérin), in having longer legs, the head also more elongated, and the labrum

\* Transactions of the Linnæan Society, vol. xviii. p. 189.

not distinctly emarginated in front. The most important distinguishing character however is perhaps that furnished by the structure of the tarsi, the penultimate joint of which is distinctly bilobed and furnished beneath with membranous appendages in both sexes. I fancy I can also perceive similar appendages on the under side of the antepenultimate joint. In the male the whole under surface of the anterior tarsi is covered with small hairs and membranous appendages, and at least the penultimate and antepenultimate joints of the other tarsi are provided with the same soft cushions. Most of the above characters will serve to distinguish *Abropus* from *Antarctia*, but in a less marked degree; some of the species of the last-mentioned genus approaching very nearly to *Abropus* in their general form, as well as in the structure of the parts of the mouth. The labrum in *Antarctia* is shorter and broader and more distinctly emarginated in front; the mandibles are rather more curved and acutely pointed, and one of them has a distinct tooth on the inner side; the labrum differs only in being shorter and broader; scarcely any difference is perceptible in the palpi or in the maxillæ. Whilst, on the one hand, I find species of *Antarctia* with the narrow thorax and general form approaching *Abropus*, on the other, I find species which I can scarcely say differ from *Metius*;—the *Antarctia carnifex* of Dejean, for example, might with perfect propriety be placed in the genus *Metius*.

Plate III. fig. 1 *a*, head magnified; 1 *b*, mentum; 1 *c*, fore tarsus of male.

Mr. Darwin found the *Abropus splendidus* flying in numbers about the sea-coast in the evening in the month of December. "These insects live amongst the soft yellow balls which are excrescences, or rather fungi, growing on the *Fugus antarctica*, and which are eaten by the Fuegians."

Some specimens were found by Mr. Darwin under bark at Port Famine in the month of February.

#### MIGADOPS\*, nov. gen.

*Caput* latum, subdepressum: *labrum* transversum, anticè emarginatum: *mandibulæ* intùs bidentatæ: *mentum* emarginatum, dente medio, lato, ad apicem bifido, instructum: *palpi* articulo ultimo mediocriter elongato, in medium paulò incrassiore, ad apicem indistinctè truncato: *antennæ* mediocres.

*Thorax* transversus, elytris angustior.

*Elytra* ovata.

*Pedes* mediocres: *tibiæ* anteriores intùs emarginatæ: *tarsi* quatuor anteriores in maribus dilatati et articulis transversis, subtùs spongiosis.

*Sect. A*, with the four anterior tarsi distinctly dilated in the male sex.

Sp. *Migadops virescens*, Plate III. fig. 2. Mig. niger, suprà virescens; antennis pedibusque rufo-piceis; capite lato, subdepresso; thorace transverso, subquadrato, ad latera in medio paulò dilatato,

\* From  $\mu\iota\gamma\alpha\delta\omicron\varsigma$ , mixed, and  $\delta\psi$ , the countenance, aspect, &c. the species of the genus having the general aspect of one division of the *Carabi*, but an affinity to another.

posticè foveis duabus magnis impresso : elytris ovatis, posticè obtusis, leviter striatis, stris internis subpunctatis. Long. corp.  $4\frac{2}{3}$  lin. ; lat.  $2\frac{1}{4}$  lin.

*Hab.* Tierra del Fuego.

Head broad and depressed, with a very shallow fovea on each side near the eye, and another in front of each of these. Thorax about one-third broader than the head, broader than long, but little convex above ; the posterior margin slightly sinuous, the lateral margin somewhat rounded, the sides being dilated in the middle ; the anterior and posterior angles nearly in the form of right angles ; an impressed line runs parallel with and close to the lateral margins ; the dorsal channel is distinct, and commences at the anterior margin of the thorax and terminates at a short distance from the posterior margin ; on either side, behind, is a largish shallow fovea, and there is a second small and indistinct fovea close to the posterior angle. Elytra about one-third broader than the thorax, and less than one-third longer than broad ; nearly ovate, but obtuse and rounded behind ; the surface but little convex, striated, the striæ distinct near the suture and having a faint trace of punctures ; on the outer half and apical portion of the elytra the striæ are very nearly obliterated ; the interspaces are flat and smooth. The upper surface of the head, thorax and elytra is of a blackish green hue and glossy ; the under parts of the head and body are black ; the legs and four basal joints of the antennæ are pitchy red, but the second joint of the antennæ is black at the base ; the palpi are black, with the extremities of the joints pitchy.

Plate III. fig. 2 *a*, labrum and mandibles ; 2 *b*, mentum ; 2 *c*, maxilla ; 2 *d*, fore tarsus of male ; 2 *e*, middle tarsus of ditto.

The insect from which the above description is taken, somewhat resembles an *Helobia*, and in the form of the head, thorax and body is very dissimilar to the generality of the *Harpalidæ*, though it has the four anterior tarsi distinctly dilated in the males. It appears to form a connecting link between the family just mentioned and the genus *Antarctia*.

Mr. Darwin's notes state that this species is abundant under stones, &c. in the damp forest of Navarin Island. The specimens were collected there in the month of January. Mr. Darwin also found the same species in the month of December at the summit of Hunter's Peak, an abrupt cone of greenstone 1700 feet high, in Hermite Island near Wigwam Cove, not far from Cape Horn. It was found at Hardy Peninsula in the month of March, and "under bark" at Port Famine in February.

*Migadops Falklandicus*.—Mig. nigro-viridis ; corpore subtùs piceo ; antennis ad basin femoribusque piceo-rubris ; thorace transverso, lateribus paulò dilatatis, posticè transversim impresso atque punctulato ; elytris latis, ovatis, subdepressis, posticè obtusis, punctato-striatis, interstitiis paulò convexis. Long. corp.  $4\frac{1}{3}$  lin. ; lat.  $2\frac{1}{6}$  lin.

*Hab.* East Falkland Island.

Head with a few waved transverse rugæ between the eyes, impunctate : thorax transverse, broadest in the middle, and but slightly

contracted before and behind; the posterior angles acute, the anterior angles slightly rounded; dorsal channel distinct, and extending from the anterior to the posterior margins; on the disc of the thorax this channel is very broad; a transverse depression is observable on the hinder part of the thorax, and the space between this depression and the posterior margin is thickly but finely punctured; the lateral margins are reflected, and present a few scattered punctures. The elytra are ovate, but little convex, and obtusely rounded at the apex; punctate-striated, the punctures small, and the spaces between the striæ slightly convex; the lateral margins of the elytra are reflected. The colouring of the upper parts is blackish green; the under parts are pitchy; the thighs are also pitchy, but inclining to reddish; the tibiæ and tarsi are black; the antennæ have the four basal joints of a pitchy red colour, and the remaining joints dusky; the palpi are also pitchy red, but the terminal joint is blackish in the middle.

This species approaches in form the *M. ovalis*, but differs in being more depressed, and in having the apex of the elytra obtusely rounded.

*Migadops Darwinii*.—Mig. ater, antennis ad basin, pedibusque piceo-rubris, corpore subtùs piceo; thorace posticè punctulato, transversim impresso, et foveis duabus magnis notato; elytris punctato-striatis. Long. corp.  $3\frac{1}{2}$  lin.; lat.  $1\frac{5}{4}$  lin.

*Hab.* Tierra del Fuego.

Head broad, depressed, and with four shallow foveæ arranged in a transverse line between the eyes: thorax broader than long, dilated in the middle and contracted behind; the upper surface but little convex; the dorsal channel short, the sides rather broadly margined, especially towards the hinder angles, where the lateral margin is recurved; behind is a faint transverse impression, and two large shallow foveæ; these, as well as the whole space between the transverse impression and the posterior margin, are rather thickly and finely punctured; some punctures are also observable on the lateral margins, which have a pitchy tint: elytra considerably broader than the thorax, and of a short ovate form, moderately convex above, and punctato-striated; the punctures are small, and arranged closely together; the interspaces of the striæ are nearly flat. The general colour of the insect is black, and it is moderately glossy; the palpi and four basal joints of the antennæ are pitchy red, but the terminal joint of the former is blackish in the middle, and so is the apical portion of the second, third and fourth joints of the antennæ; the body beneath is pitchy red, and so are the legs.

The pitchy tint of the under parts of the present insect would lead one to suppose the specimens to be somewhat immature.

Mr. Darwin found this insect at Navarin Island, near Hardy Peninsula; its form differs but little from the *Mig. ovalis* (Pl. III. fig. 3); the body, however, is broader, the thorax is more broadly margined, and the lateral margins are more recurved near the posterior angles. In size the present species slightly exceeds the *M. ovalis*.

*Migadops nigro-cæruleus*.—Mig. nigro-cæruleus; corpore subtùs, antennis, pedibusque piceo-nigris; thorace posticè transversim impresso, punctis minutissimis adspersis, foveisque duabus; elytris

ovatis, punctato-striatis, interstitiis paulò convexis. Long. corp.  $3\frac{1}{2}$  lin.; lat.  $1\frac{3}{4}$  lin.

*Hab.* Tierra del Fuego.

This species very closely resembles the *M. ovalis*, but the antennæ are longer and black at the base; the thorax is more dilated in front, and the elytra are rather more distinctly sculptured. The most important difference, however, consists in the intermediate tarsi of the male being distinctly dilated. In this respect the present species resembles the *M. Darwinii*; its smaller size, more elongated form, more distinctly sculptured elytra, and the steel-blue colouring of the upper parts, will serve to distinguish it.

*Sect. B, with the intermediate tarsi very indistinctly dilated in the males.*

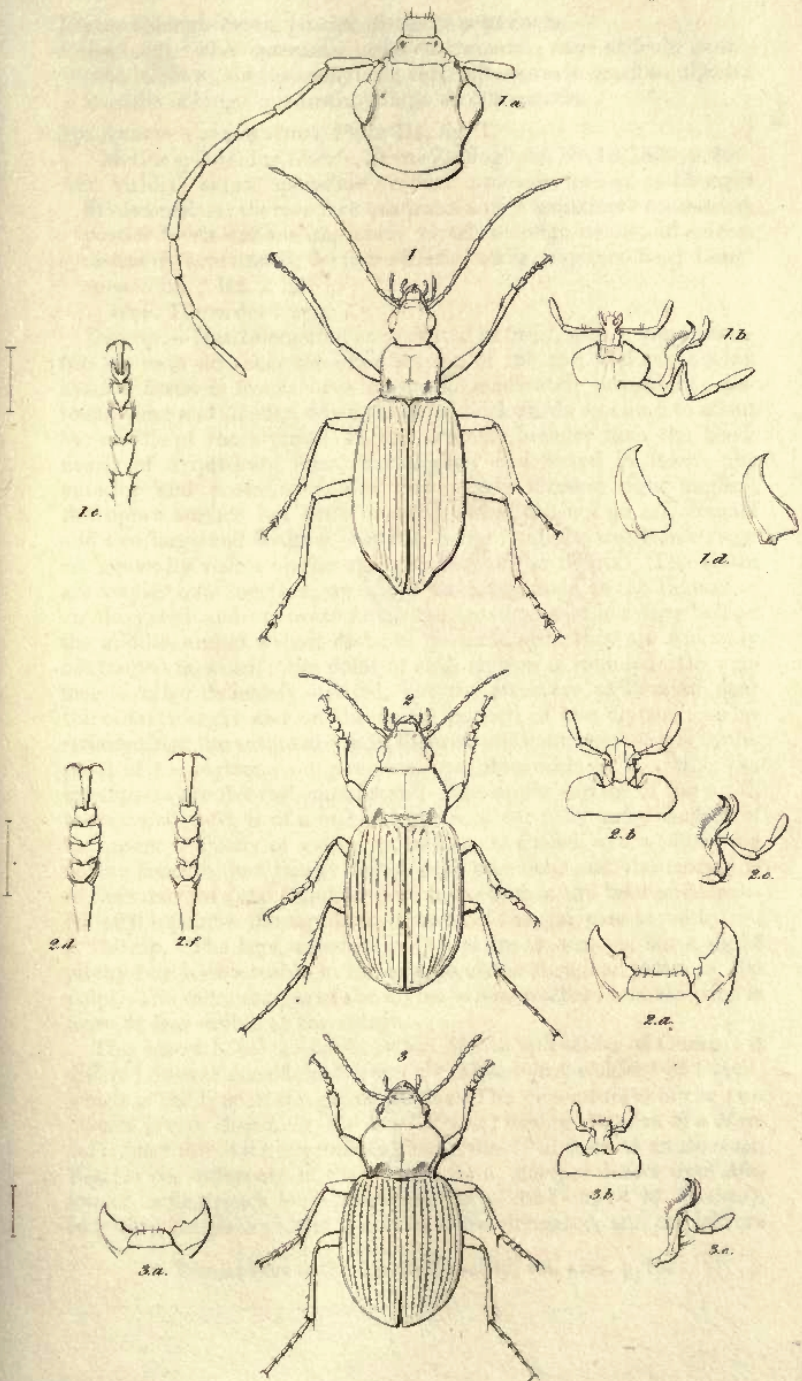
*Migadops ovalis*, Plate III., fig. 3.—*Mig. nigro-viridis*; corpore subtus piceo; antennis ad basin femoribusque piceo-rubris; tibiis, tarsisque nigris; capite lato, subdepresso, inter oculos foveis duabus impresso; thorace transverso, disco convexo, lateribus in medium dilatatis, posticè foveis duabus, atque punctis minutis, impresso; elytris breviter ovatis, convexis, punctato-striatis. Long. corp. 3 lin.; lat.  $1\frac{3}{4}$  lin.

*Hab.* Tierra del Fuego.

Head broad and depressed; thorax broader than long, moderately convex above, the posterior angles acute; the lateral margins somewhat reflected near the posterior angles, rounded, most dilated in the middle; the dorsal channel short, being generally confined to the disc of the thorax; behind, the thorax has a slightly marked transverse impression, the area between which and the posterior margin is very finely punctured; on each side, towards the posterior angle, is a largish and somewhat deep fovea. Elytra convex, and of a short ovate form; punctato-striated, the punctures distinct and rather close together, but not large; the interspaces of the striæ flat, or very slightly convex. The upper parts of the insect are of a greenish black colour, sometimes inclining to blue-black, the under parts are pitchy; the basal joint of the antennæ is pitchy red, the second and two following joints are black, but more or less pitchy at the base, and the remaining joints are dusky; palpi black, the terminal joint pitchy at the apex; femora pitchy red; tibiæ and tarsi black, or pitchy black.

Pl. III. fig. 3 a, labrum and mandibles; 3 b, mentum; 3 c, maxillæ.

This species Mr. Darwin found in considerable numbers at Kater's Peak, Hermite Island, which is close to Cape Horn; he also found it on the mountains at Hardy Peninsula, in the month of February. From the last-mentioned locality the specimens are of a larger size (being  $3\frac{1}{2}$  lines in length) than those found at Kater's Peak, but do not appear to be specifically distinct. This insect is readily distinguished from others here described, if the males be examined, by the two basal joints of the intermediate tarsi only being dilated in that sex, and these joints are much less dilated than usual. The palpi are moreover shorter.



DeMeuse del.

*Carabidae from the Straits of Magellan.*

J.D.C. Sowerby sculp.