

Of a pale fuscous colour, with a distinct yellowish median line on the prothorax: the head is yellowish, with two elongate fuscous spots, which extend to the margin of the prothorax, in this respect differing from the common British species *C. virescens* of Pictet, to which it is very closely related; in *C. virescens* these spots are of a nearly circular form: the wings are hyaline, very shining, and tinged with yellow at the base, with scarcely any admixture of green; the nervures of the fore wings, and those of the apex of the hind wings, are brown.

Inhabits Canada, &c. Taken by Messrs. Doubleday and Foster, at Trenton Falls. The difference between this and the British cognate species, considered independently of the widely-removed localities, is quite insufficient for the establishment of a species.

GENUS.—*SIALIS*, Latreille.

Sialis infumatus. *Nigra, alis vix hyalinis, nigro-punctatis, basi præcipue infuscat.* (Corp. long. .3 unc.; alar. dilat. .8 unc.)

This species differs principally from *Sialis lutarius* in the dark shade, approaching to black at the base of the fore wings: the entire body is black, including the antennæ and legs, and the wings are scarcely transparent, and thickly sprinkled with minute black dots.

Inhabits North America. A single specimen taken by Mr. Doubleday at Trenton Falls.

ART. LI.—*On the Genus Cerapterus of Swederus.*

By J. O. WESTWOOD, F.L.S.

THIS extraordinary genus of Coleopterous insects was established sixty years ago (1788) by Swederus, who described a single species, *C. latipes*. To these Donovan added another from New Holland, *C. MacLeaii*, and I described a third in my Monograph on the *Paussidæ*, under the name of *C. Horsfieldii*; without, however, being quite certain of its specific difference from *C. latipes*. In the last part of the Transactions of the Entomological Society, I figured an Australian species from the collection of M. Gory, which, judging from the acknowledged inaccuracy of Donovan in minute points of organization, I regarded, but doubtingly, as identical with

C. MacLeaii. Mr. MacLeay, himself the possessor of the individuals described by Swederus and Donovan, has in the first portion of the *Annulosa* of Dr. Smith's work, published a memoir upon this genus, (adding another species,) upon which I shall take the liberty to make a few remarks.

Of the characters given by Mr. MacLeay of the genus, we find the tarsi described as tetramerous and *filiform*. In M. Gory's insect they are decidedly pentamerous, which is the typical structure of the family; and the figures given by Mr. MacLeay represent the basal joints as broad and pulvillöse. The other characters which he has given of the genus appear almost verbally extracted from those given by me in the *Linn. Trans.*, although he is pleased to remark upon the extreme inaccuracy of previous writers upon the genus.

Mr. MacLeay has divided the genus (which, in accordance with his new system of nomenclature, must be called *Cerapterinus*;) into two subgenera, the characters of which may thus be contrasted:—

Subgenus CERAPTERUS, <i>Swed.</i>	Subgenus ARTHROPTERUS, ^a <i>MacLeay.</i>
Caput thorace angustius, collo brevi, oculis mediocribus:	Caput thorace haud angustius, collo conspicuo, oculis magnis.
Thorax latior quam longus lateribus dilatatis rotundatis:	Thorax longior quam latus subquadratus.
Scutellum mediocre:	Scutellum minimum.
Elytra abdomine vix breviora apice subrotundata:	Elytra angusta parallela apice truncata abdomine breviora.
Tibiæ lateribus parallelis apice truncatis haud bispinosis:	Tibiæ lateribus haud parallelis apice bispinosis.
Tarsi intra tibiarum apices excavatos retractiles.	Tarsi intra tibiarum apices excavatos haud retractiles.
Tropical, Asia and Africa.	New Holland.

In the first of these subgenera are placed *C. latipes*, *Horsfieldii*, and *Smithii*, MACL.; and in the second *MacLeaii*, and M. Gory's species, of which Mr. J. Curtis possesses a specimen, noticed by Mr. MacLeay. It will be seen that these two subgenera are founded, not upon the variations of the trophi, (which are not described,) but almost entirely upon mere outline.

In the other *Paussidæ*, I have, however, clearly shown that external outline is valueless as a character, whilst the variation in the trophi led to the establishment of the genus *Platyrho-*

^a Upon what character can Mr. MacLeay, (who speaks so harshly of names proposed by others,) have established this name?

palus. The armature of the tibiæ is a more tangible character, but Mr. MacLeay has either shown that he deemed it as of no value, or has dreaded the establishment of a third subgenus for the reception of *C. Smithii*, which differs from all the other species in this respect. In like manner M. Gory's species will not enter into the subgenus *Arthropterus*, as described by MacLeay, so that its characters must be modified, and which will render the following distribution of the species necessary:

Subgen. I.—CERAPTERUS.

Thorax latissimus lateribus rotundatis: antennæ latissimæ lateribus serratis, articulo ultimo maximo: elytra abdomen tegentia: tibiæ spina nulla interna.

Habitat Asia.

Sp. 1. The original *C. latipes* of Swederus, which Mr. MacLeay characterizes thus:—" *C. piceus*, elytris maculâ apicali flavescente subrotunda antice quadridentata postice lobata, antennis rufis, articulo ultimo in tuberculum ad basim elevato:" and

Sp. 2. The species which I doubtingly described as *C. latipes*, suggesting that if distinct it should receive the name of *C. Horsfieldii*. Mr. MacLeay, however, although stating this, gives the reference to my name, *C. Horsfieldii*, with a mark of interrogation. Mr. MacLeay's character of this species is, "*C. piceus*, thorace antice emarginato, elytris maculâ apicali flavescente haud rotundata literam Y quodammodo simulante."

Subgen. II.—ORTHOPTERUS, *Westwood*.

Thorax latus (capite haud duplo latior): antennæ longiores sublatae planæ lateribus subrectis, articulo ultimo mediocri: elytra abdomen tegentia: tibiæ spino apicali intus instructæ.

Habitat Africa.

Sp. 3. *O. Smithii*, *Westw.* *C. nigro-piceus*, subnitidus: elytris maculâ fulvâ, thorace latioribus et fere quintuplo longioribus. (Long. corp. lin. $7\frac{1}{2}$.)

Habitat South Africa, within the tropic of Capricorn.

Cer. Smithii, *MacLeay*, *Illustr. Ann. So. Africa*, p. 74, pl. 4, fig. superior sinistra. (Mr. MacLeay's figures are not numbered.)

Subgen. III.—ARTHROPTERUS, *MacLeay*.

Caput thorace haud angustius : thorax subquadratus : antennæ sublatæ, articulo ultimo mediocri : elytra angusta, abdomine breviora : tibiæ apice bispinosæ :^b angulo externo acutissimo.

Habitat New Holland.

Sp. 4. *A. MacLeaii*, *Donov.* *A. rufo-brunneus* : thorace subconvexo postice angustiore, angulis anticis rotundatis : disco medio vix canaliculato.

A. MacLeaii, *MacLeay* op. cit. p. 75.

Subgen. IV.—PHYMATOPTERUS, *Westwood*.

Depressiusculus : caput thorace angustius : thorax cordato-truncatus medio longitudinaliter impressus : antennæ latæ : elytra oblongo-quadrata angulo externo apicali tuberculo munita : tibiæ latæ, interne spinis duabus armatæ anguloque externo rotundato : tarsi distincte 5-articulati.

Habitat New Holland.

Sp. 5. *P. piceus*. *Piceus nitidus*, antennis pedibusque rufo-piceis, punctis minutissimis irregularibus. (Long. corp. lin. 5.)

Syn. *Cerapterus MacLeaii*, *Westw.* in *Trans. Ent. Soc.* Vol. II. p. 95. pl. X. fig. 17.

In the collections of Messrs. Gory^c and J. Curtis.

Mr. MacLeay states that his brother had recently captured *Cerapterus MacLeaii* in the nests of ants; and moreover remarks, that when alive they had the power of exploding, after

^b Mr. MacLeay employs the term "bispinose," by which I presume we are to infer that the tibiæ have one internal spur and one external spine—at least they are so represented in the figure of *A. MacLeaii*; but the figure of the leg of *C. Smithii* has also one spur and one external spine, and yet it is described as "having only one spine at the extremity of the tibia."

^c In addition to M. Gory's specimen, Donovan notices that another species of *Cerapterus* was communicated by M. Fichtel to the Royal Museum of Vienna, making at least two specimens of the genus in continental collections. It is possible, however, that the insect mentioned by Donovan may be that described by Kollar under the name of *Paussus bifasciatus*. (See *Trans. Ent. Soc.* Vol. II. p. 90.) The singular structure of the antennæ of this species will probably render the establishment of another subgenus requisite.

the manner of the *Brachini*; the former of which circumstances was also observed by M. Verreaux in the *Paussi* of the Cape; and I noticed in my Monograph, that a correspondent of M. Dupont had observed the crepitating powers of *P. excavatus*, Westw.

In proposing the separation of these four subgenera from *Cerapterus*, I have no hesitation in regarding them as of equal value. If the genus is to be dismembered as proposed by Mr. MacLeay, it appears to me to be necessary, in order to preserve an uniformity of value in the characters, that *C. Smithii* and *C. piceus* should be regarded as equally distinct with *C. MacLeayi*.

As to the circular progression of the *Paussidæ*, neither previously nor at the present time do I conceive it established. Mr. MacLeay proposes commencing with the true *Paussi*, thence to *Platyrhopalus*; *P. Mellii* leading to *Cerapterus latipes*, and *Cerapterus MacLeayi* to *Pentaplatarthrus*, from which he returns to *Paussus*.^d It is necessary, however, in order to maintain this circularity, that the other genera placed in the family must be got rid of, "since, if inserted in the above circular series, they appear to interrupt it."

The genera *Hylotorus* and *Trochoideus* are accordingly removed from the family; and I presume that my new genus *Lebioderus* will be similarly dealt with by Mr. MacLeay; because, although evidently intermediate between *Platyrhopalus* and *Cerapterus*, it interferes with the passage between *Platyrhopalus Mellii*, and *Cerapterus latipes*. *Hylotorus*, moreover, has so entirely the habit of the family, that, without more decisive proof to the contrary, it ought evidently to be retained in the family. As to the relations of *Trochoideus*, suggested by Mr. MacLeay, with *Myrmecoxenus* and other genera, such as *Cryptophagus*, it will be seen by my characters and figures given of it in the Trans. Ent. Soc. Vol. II. p. 96, that it has no relation therewith, but is, on the contrary, closely allied to *Endomychus*.

Mr. MacLeay's observations upon the relations of the family, appear to me to be entirely unfounded. He says that I seem to have been "the first to suspect the affinity of *Cryptophagus*

^d It will be seen that I pointed out this succession of the genera in my Monograph (p. 616), commencing with *Pentaplatarthrus*, thence to the *Paussi* and *Platyrhopali*, which I regarded as evidently leading to the *Cerapteri*, considering *Pentaplatarthrus* intermediate between *Paussus* and *Cerapterus* (p. 618).



Westwood, J. O. 1838. "On the genus Cerapterus of Swederus." *The Entomological magazine* 5, 500–505.

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