

XXXV.—*Descriptions of some new genera and species of Heteromorous Coleoptera.* By G. R. WATERHOUSE, Esq.

PLATESTHES, nov. gen.

*Head* rather short, the lateral lobes or ridges protecting the base of the antennæ, less prominent than the eye.

*Clypeus* separated from the head by a distinct transverse impression, and by two less distinct lateral grooves; the anterior margin slightly emarginated.

*Eyes* transverse, convex, rather large and distinctly emarginated in front.

*Labrum* prominent, transverse, distinctly emarginated in front.

*Mandibles* moderate, bidentate at the apex.

*Maxillæ* with the outer lobe entirely uncovered by the mentum: the maxillary palpi moderate, the terminal joint triangular.

*Labial palpi* short and stout, the terminal joint truncated.

*Mentum* broader than long, four-sided, the hinder margin distinctly shorter than the front, which is obscurely emarginated, but nearly straight.

*Labium* transverse, corneous, exposed.

*Throat-plate\** with a narrowish oblong polished and transversely grooved area in the middle, joining the mentum by a straight margin.

*Antennæ* rather long and slender; if extended backwards would nearly reach the base of the thorax; the joints, most of them, of a long obconic form; the second joint short, the third scarcely longer than the fourth; the three terminal joints distinctly broader than the rest, the last of a short ovate form and equal to the penultimate.

*Thorax* large, very nearly equal in width to the elytra, and nearly quadrate, but slightly narrower in front, the outer edge emarginated, the posterior margin very nearly straight, and not closely applied to the elytra; the angles nearly right angles, but slightly rounded; the upper surface slightly convex in the middle, but the lateral margins are recurved; the whole dorsal surface however is pretty nearly flat.

*Scutellum* very broad, but rather short, and obtusely pointed behind.

*Elytra* soldered together at the suture; oblong; the dorsal surface nearly flat, the sides parallel, but on the posterior third gradually contracted, so that the outline of that region would form half an oval; the apex however is produced, recurved and

\* This part, which I term *throat-plate*, often furnishes somewhat important characters: it is the mesial part of the head beneath, below (or behind) the mentum.



rounded; the lateral keel is very distinct, acute, and remote from the lateral margins of the elytra.

*Legs* moderate; the anterior tibiæ but little compressed, and very little dilated at the extremity: they are provided with a short spine on the inner side at the apex, and the outer angle is somewhat prominent. *Tarsi* moderate as to thickness and rather long, those of the middle and hind legs being equal to the tibiæ in length, and those of the anterior pair of legs but little shorter than the tibiæ from which they spring: claws rather large.

*Præsternum* not produced posteriorly.

This genus, to which I have given the name *Platesthes* in allusion to its flat covering, the whole back of the insect being depressed and nearly on the same plane, evidently approaches closely to the genera *Gyriosomus* and *Praocis*, near to which should also be placed, in my opinion, the genus *Physogaster*. The last-mentioned genus, M. Le Comte de Castelnau says, is closely allied to *Pimelia*; but in making this assertion he must entirely have overlooked the structure and position of the labium, a part of the mouth which furnishes good characters for the sections of the *Heteromera*. On this subject I cannot enter at present, but I will merely remark, that in the *Pimelidæ*, *Akisidæ*, *Tentyriidæ* and *Erodiidæ* the labium is attached to the back part of the mentum in such a manner as to be totally hidden, or, at most, to leave exposed the points only of the paraglossæ\*; to these we may also add the *Adesmia* and *Epitragus* group†. In the genus, the affinities of which I wish to determine, as well as the genera with which I have associated it, the labium is attached to the anterior extremity of the mentum, and is completely exposed and combined with a great similarity in the structure of other parts of the mouth; they all have the throat-plate marked with the pecu-

\* The term paraglossæ is applied by Kirby and Spence to the lateral lobes of the labium of the bees, and as the same parts exist in beetles, I think it well to call them by the same name; they lie for the most part behind the tongue, and are nearly always fringed with hairs in the *Heteromera*; but in the latter groups (according to Dejean's arrangement of the order), *Taxicornes* and *Tenebrionites*, where the tongue is narrower, the outer margins of the paraglossæ are distinctly exposed; in some cases where the tongue is broad, as in *Bolitophagus*, the paraglossæ are still very distinct (viewing the labium from its outer surface), projecting as they do considerably in the lateral direction.

† Why should not these groups, in which the tongue is hidden, be associated together? We might commence with *Epitragus*, and continue through the other groups, *Tentyriidæ*, *Erodiidæ*, *Adesmia*, &c., where there is no separate emargination for the maxillæ, and where the mentum covers that organ, to the *Pimelidæ*, *Akisidæ* and *Nyctelidæ*, where there is a separate notch in the throat-plate for the maxillæ, which are exposed—at the base at least.



liar transverse rugæ in the middle, and the part thus marked is more or less distinctly separated from the other under parts of the head by an oblong furrow on each side. Near to these insects are the *Nyctelidæ*, also a South American group, in which the throat-plate presents a more striking peculiarity,—that of having a distinct and deep mesial groove immediately under the mentum, and extended more or less in the longitudinal direction; they however have the labium almost entirely hidden.

*Platesthes silphoides*. Platesth. ater, nitidus, corpore oblongo, lateribus fere parallelis; capite distincte punctatis; thorace crebre punctatis, lateribus piceis; elytris punctis distinctis adspersis, singulo tricostatis; antennis tarsisque piceis.—Long. corp. 6 lin.; lat. 3 lin.

This insect was found by Mr. Darwin at Port Desire, Patagonia: in general aspect it greatly resembles a *Silpha*. The head has large punctures scattered on its upper surface, but on the fold covering the base of the antennæ and under surface they are smaller, more dense, and for the most part confluent. The thorax is very thickly punctured, the punctures distinct and of a triangular form; on and near the lateral margins, however, they are less numerous and more delicate: on the anterior portion of the thorax the lateral margins are scarcely reflected, but they become gradually more so towards the posterior margin, where the reflected portion is broad; a slightly impressed line runs parallel with, and close to the lateral margin. The elytra have the dorsal surface nearly flat, but on each elytron are two sharp longitudinal ridges, besides a third, which forms the lateral keel: between the ridge on each elytron which is nearest the suture, the space is flat, but the other interspaces are concave, and the whole surface has distinct, and widely, and irregularly scattered punctures: the ridges themselves have a few punctures. The produced apical portion of the elytra is pitchy; distinct scattered punctures are observable on all the under parts.

*Scotobius Akidoïdes*. Scot. ater, obscurus; corpore supra fere plano, punctulato; thoracis marginibus lateralibus reflexis; elytris carina laterali distincta.—Long. corp. 9 lin.; lat.  $4\frac{1}{4}$  lin.

This species, brought by Mr. Darwin from Port Desire, Patagonia, is remarkable for the produced and reflected lateral keel of the thorax, the distinct lateral keel to the elytra, and the absence of any distinct sculpturing on the upper parts of the body, to which peculiarities we may add, the very slight convexity of the dorsal surface of the thorax and elytra. In size it is nearly equal to the *Scotobius pilularius*; its thorax, however, is larger in proportion to the elytra than in that insect, and the anterior tibiæ are stouter. The head is distinctly punctured; the thorax is



strongly emarginated in front, much broader than long, and but little narrower than the elytra; it is contracted in front and behind, and broadest rather behind the middle; the lateral margins are greatly produced and distinctly curved upwards; the dorsal surface is slightly convex and thickly but finely punctured. The elytra are but slightly convex above, have a distinct lateral keel, which is slightly reflected, and towards the apex of the elytra this keel is indistinctly broken up into some small tubercles; the whole surface is finely punctured, and there are some extremely faint traces of striæ; the apex of the elytra is slightly produced. It is the distinct lateral keels to the thorax and elytra which gives the flatness to the back of this insect, and imparts to it the aspect of an *Akis*.

Family TENTYRIIDÆ.

Genus THINOBATIS, Eschscholtz.

*Thinobatis rotundicollis*. Thin. piceo-rufa, pilis minutissimis adspersis; thorace transverso subrotundato, supra convexo; elytris breviter ovatis, postice subacutis, indistincte striatis, interstitiis paulo convexis; antennis pedibusque ferrugineis.—Long. corp.  $1\frac{2}{3}$  lin.

This species, as it would appear (judging partly from Eschscholtz's description and partly from his figure\*), is of smaller size than the *Th. ferruginea*, the thorax more transverse, and more boldly rounded at the sides, and the posterior angles must be more obtuse; indeed the hinder margin is almost evenly rounded, the angles being scarcely perceptible.

The characters of the genus *Thinobatis*, as drawn up by M. Solier†, are taken from an insect which evidently differs in several respects from the type of the genus (*Thinobatis ferruginea*), and more especially in having distinct posterior angles to the thorax, the humeral angles of the elytra prominent, and, I strongly suspect, in the form of the mentum. Unfortunately Eschscholtz is silent on this last point; but in the insect above described, which approaches *most nearly* to the *Th. ferruginea*, the mentum is either truncated in front or *most indistinctly* emarginated, and not deeply emarginated as in the figure and description of M. Solier. Again, the elytra are of an ovate form in the two species of *Thinobatis* with which I am acquainted, and not subparallel. The terms "*corps filiforme, déprimé*," used by the Comte de Castelnau‡ in his definition of *Thinobatis*, will by no means apply to the type of the genus.

\* See Eschscholtz's Zoologischer Atlas, part 4. pl. 18. fig. 3. p. 8.

† Annales de la Société Entomologique de France, tom. iv. p. 406.

‡ Cours complet d'Histoire Naturelle, Insectes, tom. ii.



## Genus MEGALOPHRYS\*.

*Head* large, but little narrower than the thorax, strongly trilobed in front, the mesial lobe the largest, nearly semicircular, but having an indistinct angle in the middle: the lateral lobes very prominent, recurved and descending posteriorly, so as partially to inclose the base of the antenna, and indistinctly encroaching upon the fore part of the eye, above which is a longitudinal ridge. The eye lateral, tolerably prominent, with the vertical diameter the greatest, slightly emarginated in front.

*Labrum* small, obtusely pointed in front; hidden when the jaws are closed.

*Mandibles* short and stout, very broad at the apex, which is strongly notched, and thus divided into two lobes, of which the lower one is the largest and longest and truncated at the extremity, and the upper one is pointed.

*Maxillary palpi* moderately long; the terminal joint securiform, and obliquely truncated at the apex.

*Mentum* broad, hiding the maxillæ, truncated in front: it may be described as hexagonal, with the hinder margin by far the longest, and the remaining sides nearly equal to each other.

*Antennæ* moderately long and slender; the joints, most of them, of a longish obconic form; the second joint nearly equal in length to the fourth or fifth, the third about half as long again as the fourth: from the fourth to the tenth the joints become gradually and successively shorter; the penultimate joint presents a nearly triangular outline, and the last is of a short ovate form, and smaller than the preceding; the terminal joints are of equal width, or *very* nearly so, to the other joints.

*Thorax* rather narrow, but little convex above, the width in front exceeding the length; contracted behind and with the angles acute: its posterior margin is bisinuated, and applied to the base of the thorax: a delicately impressed line is observed close to the lateral and posterior margins, which are acute.

*Scutellum* small, and rounded behind.

*Elytra* soldered together at the suture, distinctly broader than the thorax, convex, and of an oblong-ovate form, sinuated at the base so as to present an outline corresponding to the hinder margin of the thorax; the humeral angles obtuse, and the apex somewhat pointed: they are simply rounded at the sides, the lateral keel being only represented by a line situated close to the lateral margin, and which can scarcely be said to be raised excepting at, and near the humeral angle.

*Legs* moderately long and slender, the tibiæ cylindrical or nearly

\* This name is suggested by the great projection of the lobes of the head, which are situated in front of the eye.



so : tarsi slender ; the hindermost but little shorter than the tibiæ.

*Præsternum* rather narrow, with a longitudinal groove, and not produced posteriorly beyond the hinder margin of the anterior coxæ.

In having the scutellum distinct, the eyes not crossed by the lateral keel of the head, the tibiæ filiform, the thorax contracted behind, and the clypeus rounded in front, this genus approaches *Tentyria* ; it has the head proportionately larger, the thorax more strongly margined at the sides, the antennæ longer, and the second joint not so distinctly shorter than the rest ; its more direct affinity I believe to be with *Hylithus*, *Thinobatis*, *Evaniosomus* and *Melaphorus*. *Megalophrys* evinces its affinity to these insects in having the eye nearly round, more convex (as compared with *Tentyria*), and with the lenses very large (they appear to be positively larger and more distinct in the small insect, *Megalophrys patagonica*, than in a *Tentyria* of at least five or six times the bulk) : the lateral lobes of the head, or folds which cover the base of the antennæ, are more produced, and separated from the clypeus by a distinct notch in all these genera with the exception of *Thinobatis*. None of these insects have the comparatively hard wing-cases which we find in *Tentyria* and its approximate genera. The principal distinctive characters of the South American genera above alluded to, may be thus expressed :—

I. Antennæ cylindrical, the terminal joint smaller than the others.

A. Antennæ with the three basal joints equal or very nearly so ; the head elongated ; thorax without lateral keel.

- |                    |  |
|--------------------|--|
| a. Eye minute..... | 1. { <i>Melaphorus</i> , Guerin.<br><i>Stenholma</i> , Solier. |
| b. Eye large ..... | 2. <i>Evaniosomus</i> .  |

B. Antennæ with the second joint shorter than the first or third, and the third the longest ; head as broad or broader than long ; thorax with a distinct lateral keel ..... *Megalophrys*.

II. Antennæ incrassated at the apex, the last joint as large, or larger than the penultimate.

A. Antennæ with the three basal joints nearly of equal length ; clypeus truncated in front ; anterior tibiæ short and distinctly dilated at the apex ..... *Thinobatis*, Eschsch.

B. Antennæ with the second joint short, the third longer than the other joints ; clypeus rounded in front ... *Hylithus*, Guerin.

*Megalophrys patagonica*. *Megaloph.* picea ; antennis pedibusque piceo-rufescentibus ; capite thoraceque crebre punctatis ; thorace subquadrato, postice angustiore, marginato, angulis anticis posticisque acutis, supra subconvexo ; elytris elongato-ovatis, convexis, seriatim punctatis interstitiis subseriatim punctulatis ; corpore subtus punctato.—Long. corp.  $4\frac{1}{2}$  lin. ; lat.  $1\frac{3}{4}$  lin.

In general form this insect somewhat resembles a *Tagenia*, but



its body is rather less narrow in proportion, and the elytra are more convex; they are considerably broader than the thorax. The thorax is rather broader than long, broadest in front, and considerably contracted behind. The elytra have the punctures forming the ordinary striæ rather small, and there are some very minute punctures between these rows, and these have a tendency to a linear arrangement, there being two irregular rows of them on the fore part of the elytra, and one row on the hinder part.

Mr. Darwin found this insect at Port Desire in Patagonia.

Family TAGENIIDÆ.

GRAMMICUS, nov. gen.

*Head* with obtuse posterior angles, which are rather remote from the thorax (the head being furnished with a long neck, which however is but little seen), longer than broad, the sides straight and parallel and with a lateral keel; the part in front of the eye as long as the hind part; the clypeus contracted and truncated in front; the fold covering the base of the antennæ but little prominent, not produced laterally beyond the outline of the head, its margin somewhat reflected: cheek-plate considerably produced in front; the space between it and the mentum, for the maxilla, narrow.

*Eye* small, nearly round; situated entirely above the lateral groove of the head, its vertex directed upwards.

*Antennæ* about equal in length to the head and thorax taken together; very thick, the joints equal to each other, with the exception of the last two, and presenting a square outline; each joint is joined to the next by a narrow neck; the penultimate joint longer than the rest; the last very small, somewhat pointed, and so joined to the last that the line of separation is with difficulty perceived.

*Mandibles* short and stout, very broad and bidentate at the extremity.

*Maxillary palpi* rather long and with the joints moderately stout; the first and second obconic; the third rather the longest, of an elongate-ovate form, the broadest part however rather beyond the middle.

*Mentum* moderate; transverse, hexagonal, slightly emarginated in front, not covering the maxillæ.

*Thorax* fully as long as broad, slightly trisinuated in front; the hinder margin straight (or very nearly so), the lateral margins parallel on the fore half of the thorax, and from the middle gradually contracted to the hinder angles; the angles right angles; the sides keeled.

*Scutellum* very small.



*Elytra* elongated, but little broader in the middle than at the base, rounded at the extremity; distinctly broader at the base than the thorax at the same part, and with a transverse ridge; the humeral angles prominent; lateral keel distinct.

*Legs* moderate; the tibiæ simple; tarsi rather shorter than the tibiæ.

*Grammicus chilensis*. Gramm. rufo-piceus; corpore elongato, subdepresso; capite thoraceque rugoso-punctatis; thorace bicostato; elytris singulis quadricostatis, seriatim punctatis, subtransversim rugosis.—Long. corp.  $1\frac{3}{4}$  lin.

This little insect was found by Mr. Darwin at Valparaiso. It is exceedingly like a *Tagenia*, having the small, narrow, elongated form, and in having the thorax and elytra furnished with distinct longitudinal ridges it will bear a still closer comparison with M. Solier's genus *Microtelus*; from both these genera, and indeed all the *Tageniidæ*, it differs in having the eye situated entirely above the lateral groove of the head\*; from *Tagenia* it may moreover be distinguished by the antennæ being of equal width throughout, the joints being less transverse, and indeed presenting a nearly square outline, though rather broader than long,—by the penultimate joint being distinctly longer than the rest, and longer than broad, and the terminal joint smaller and confounded with the penultimate, to which differences may be added that of the mentum not being notched at the side. The long head and equal joints of the antennæ (if we except the last two) at once distinguish the present insect from *Microtelus*; the epistoma or clypeus moreover is not emarginated in front, and in the genus last mentioned we do not find the penultimate joint of the antennæ longer than the rest.

The two longitudinal keels on the thorax divide its dorsal surface into three equal parts, and the interspaces are flat: the keels or ridges of the elytra are nearly equidistant, sharp and distinct; and in the interspaces are two rows of distinct punctures, each row being placed close to a ridge; and there are moreover some irregularly transverse rugæ, but these are by no means strongly marked.

\* In *Leptinoderes* I find the nearest approach, in the extremely contracted condition of the eye, to the present insect.





Waterhouse, G. R. 1845. "XXXV.—Descriptions of some new genera and species of heteromorous Coleoptera." *The Annals and magazine of natural history; zoology, botany, and geology* 16, 317–324.

<https://doi.org/10.1080/037454809496527>.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/71834>

**DOI:** <https://doi.org/10.1080/037454809496527>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/60375>

**Holding Institution**

University of Toronto - Gerstein Science Information Centre

**Sponsored by**

University of Toronto

**Copyright & Reuse**

Copyright Status: NOT\_IN\_COPYRIGHT

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.