

XIV. *Descriptions of New Exotic Aculeate Hymenoptera.*
 By W. E. SHUCKARD, V. P. E. S., Librarian to the Royal
 Society.

[Read 4th January, 1836.]

(Plate VIII.)

I BEG leave to occupy the attention of the Society a few minutes with descriptions of some new genera and species of *Exotic Aculeate Hymenoptera*. The Society is indebted to my friend Mr. F. Smith for the accompanying accurately executed plate.

Family. MUTILLIDÆ.

Genus. PSAMATHA,* *Shuck.* Plate VIII. fig. 1.

Head transverse, depressed; *stemmata* placed in a curve on the vertex. *Eyes* lateral, distant and oval. *Antennæ* inserted at the base of the clypeus, nearly as long as the scutellum, thirteen-jointed, the joints very distinct, with the scape the thickest, the second the smallest, and the third the next shortest, the remainder subequal, and the entire antenna subfusiform; the *clypeus* carinated longitudinally in the centre, subemarginate in front, and laterally slightly produced and projecting, giving it the appearance of being subbilobate (approximating to that of *Cerceris*); *labrum* concealed; *mandibles* strong, tridentate with the *teeth* subequal, the external one the largest.

The *prothorax* forming a slight convex curve extending between the tegulæ of the wings; the *mesothorax* with two longitudinal furrows and a central elevation which extend from its centre to the suture of the scutellum; the *scutellum* quadrate; and the *metathorax* on a gradually inclined plane. The *superior wings* with one marginal and four submarginal cells; the fourth apical and the second receiving the two recurrent nervures just beyond its centre. *Legs* moderate, slender; *posterior tarsi* elongate, and all the terminal claws minute.

Abdomen lanceolate; the first segment forming a petiole, and not so wide as the second, and the seventh last segment has on each side two valves projecting beyond it, each forming the quadrant of a circle, and externally fringed; the *hypopygium* quadrate. From a male.

* Ψάμαθος, *sabulum*.

Obs.—This genus, which has precisely the habit of a male *Melanus*, is remarkable as being the only one yet characterized among the *Mutillidæ*, in which the second submarginal cell receives both the recurrent nervures, as also in its clypeus, which approaches to the structure of that of *Cerceris*. I have named it in allusion to its presumed habits of frequenting sandy situations; it may subsequently prove to be the male of Mr. Westwood's genus *Diamma*,* in which case it must necessarily fall; but as there is so great a discrepancy between them, I judge only from analogy, and have, therefore, thought it desirable to characterise it until future observations shall corroborate, or remove, my suspicion.

A similar kind of circumstantial evidence induces me to consider that the genus *Thynnus*† will eventually prove to be the males of the genus *Myrmecodes*; but I have no doubt that the first box of insects sent by Mr. Lewis, or his next letter, will determine if I am correct. Acting upon this view, I have removed *Thynnus* from the *Scoliadæ*, where it was placed by Latreille, amongst which he would have also located the present genus. Insects with apterous females (as I presume this to be) are difficult to determine until positive observations are made by duly qualified collectors.

Species 1. *PSAMATHA CHALYBEA*, *Shuck.* Plate VIII. fig. 1.

Chalybea, nitida, griseo-pubescens; margine postero prothoracis albido; abdomine utrinque maculis quatuor albidis; pedibus rufis et tarsis piceis. ♂.

Length 6 lines. Expansion of the wings $11\frac{1}{4}$ lines.

Chalybeous, shining, loosely covered with grey hair; the antennæ black; the lower half of the internal orbit of the eyes, a short line on their exterior at the vertex, the lateral productions of the clypeus, and the internal margin of the mandibles at the base, all white; the cheeks covered with long hair, as well as the thorax, which is slightly punctured; the prothorax with a narrow white line at its posterior margin, interrupted very slightly in the centre; the wings subhyaline, their nervures black; the legs red, with the coxæ and

* Proceedings of Zoological Society, April 14, 1835.

† This, I have since discovered, has been stated by Klug, in a paper on the Eyes of Insects, in the Transactions¹ of the Academy of Berlin, and, I presume, from the observation of a correspondent in New Holland. My own supposition proceeded from analogy. Mr. Lewis has since confirmed this by having detected the *Thynnus variabilis*, Leach, in copulâ with an apterous female congeneric with the *Tiphia* (*Myrmecodes*, Latr.) *pedestris*, Fab.

¹ *Abhand. der Akademie der Wissenschaften, für 1831, p. 307.*

trochanters chalybeous, and the extreme apex of the tibiæ and entire tarsi piceous; the tibiæ very slightly externally spinose.

The abdomen with a minute white spot on each side of the first segment at its apex, and a widely interrupted band on the three following, which is continued, yet slightly interrupted in the centre, at the margin of the ventral plates; the lateral valves of the seventh segment also white and externally ciliated. ♂.

From the neighbourhood of Sydney, New South Wales.

In my own Collection, and in that of the Entomological Society, formerly Mr. Kirby's.

Family. POMPILIDÆ.

Genus. CEROPALES, *Latr.*

Species 1. CEROP. PICTA, *Shuck.*

Nigra; ore, antennis, scutello, prothorace, metathorace, pedibusque rufis; abdomine fasciis quinque albidis. ♀.

Length $3\frac{1}{2}$ lines. Expansion of the wings 6 lines.

Black; the orbit of the eyes, with the exception of a small space interrupted at the vertex, and the lateral basal angles of the clypeus, white. The antennæ, remainder of the clypeus, labrum, and mandibles, red. The thorax has the prothorax, scutellum, tegulæ, and metathorax, red; a white line beneath the scutellum, and the wings hyaline, with their extreme apex dark. The legs red.

The abdomen black, with a red band, followed by a white one just beyond the centre of the first segment, and the margins of the third, fourth, and fifth, and apex of the sixth, white. ♀.

From the Cape of Good Hope.

In my own Collection.

Obs.—This is gayest insect I know amongst its congeners.

Species 2. CEROP. ANOMALIPES, *Shuck.*

Nigra; aureo-pubescentis; abdomine pedibusque rufo-testaceis; femoribus tibiisque quatuor anterioribus brevibus, crassis, compressiusculis; pedibus duobus posterioribus gracilibus. ♂.

Length $5\frac{1}{2}$ lines. Expansion of the wings $11\frac{1}{2}$ lines.

Black; the first and second joints of the antennæ beneath, the entire face beneath their insertion, the clypeus and the mandibles, with the exception of their extreme apex, white, as well as a central minute spot beyond the base of the antennæ, and the internal orbits of the eyes halfway up; a depression in the face on each side just beneath the vertex, forming a slight cavity for the reception of the scape of the antennæ; the stemmata placed high, near

the occiput, in a triangle; the whole face, pleuræ, and sides of the metathorax, covered with a close golden down.

The posterior margin of the prothorax, a spot at its lower angle in front, just above the coxæ of the anterior legs, and a small mark beneath the scutellum, white. The tegulæ piceous; the wings hyaline, with their nervures black. The legs rufo-testaceous, with the anterior and intermediate coxæ yellow, and the apex of the posterior tibiæ, and their tarsi entirely, piceous. The anterior and intermediate femora and tibiæ short, incrassate, compressed, their tarsi not longer than their tibiæ; the posterior pair of legs very long and slender, being nearly twice the length of the whole body, and their tarsi twice the length of the tibiæ. The abdomen rufo-testaceous, immaculate. ♂.

From the Brazils?

In my own Collection.

Obs.—The extraordinary disparity in the legs of this insect makes it especially remarkable. I am not quite sure that it is from the Brazils, but I purchased it from a dealer with other undoubted Brazilian insects. The immaculate abdomen also is singular, as in its congeners it is generally spotted or banded.

GENUS. EXEIRUS,* *Shuck*. Plate VIII. fig. 2.

Head small, subglobose. *Antennæ* filiform, with twelve joints in the ♀, and thirteen in the ♂; the scape short, robust; the pedicle very small, nearly concealed within the scape, the third joint the longest, the rest gradually decreasing in length, subcylindrical, inserted in the centre of the face above the clypeus. The *stemmata* placed in a close triangle, rather below the vertex. *Eyes* inclining forwards, not strictly lateral. *Clypeus* transverse, projecting, slightly emarginate in front. *Labrum* longitudinal, subquadrate, the anterior angles rounded. *Mandibles* large, robust, slightly arcuate, subquadridentate; the external and the third tooth the largest, the external one obtuse. *Thorax* gibbous. *Prothorax* transverse, very slightly curving laterally. *Scutellum* scarcely distinct, a triangular space enclosed by furrows at the base of the metathorax. The *wings* with one elongate marginal and four submarginal cells, the fourth apical, and the second petiolated, receiving the first recurrent nervure near its centre, and the second towards its extremity; the third cell very much curved. The *legs* long, robust; the *tibiæ* strongly spinose, ♀ and the anterior *tarsi* ciliated ♀, simple in the ♂; the *terminal claws* very large.

* Εξείρω, *exsero*.

The *abdomen* ovato-conical, attached by a short petiole to the thorax, and acuminate at its apex ♀, obtuse ♂.

Obs.—This genus is scarcely in its place amongst the *Pompilidæ*, but seems osculant between it and the *Sphegidæ*; yet it may possibly constitute a new family with another insect that I possess, intermediate between the two, and partaking of the characters of both. I have named it in allusion to the extension of its legs.

Species 1. EXEIRUS LATERITIUS, *Shuck.* Plate VIII. fig. 2.

Niger, pubescens; capite, antennis, tibiis, tarsis, abdomineque (basi excepto) lateritiis. ♂, ♀.

Length 12 lines. Expansion of the wings 22 lines.

Black; the head of a yellow-red, excepting a small spot enclosing the stemmata, and extending to the occiput; the apex of the mandibles piceous; the clypeus, face, and cheeks covered with a dense silvery down.

The thorax very pubescent; the tegulæ testaceous; the wings testaceous, their nervures fuscous. The anterior legs entirely, excepting the coxæ, and the knees, tibiæ, and tarsi of the remainder, lateritious or of a yellow red; of which colour is also the abdomen, excepting the basal joint, the extreme base of the second and third joints, and the venter. ♂, ♀.

From Sydney, New South Wales, and Van Diemen's Land.

In my own Collection, and that of the Entomological Club.

Family. NYSSONIDÆ, *Leach.*

Genus. ASTATA, *Lat.*

Species 1. ASTATA AUSTRALASIE, *Shuck.*

Atra, nitida; abdomine rufo. ♀.

Length 4½ lines.

Head and thorax black and shining; antennæ piceous, the scape alone black; metathorax reticulated, tegulæ testaceous, wings dark at the base, fuscous towards the apex, nervures testaceous, legs black; tibiæ and tarsi rufo-piceous, the tibiæ very spinose.

Abdomen entirely rufo-testaceous; the margins of the segments very slightly depressed. ♀

From New Holland.

In my own Collection.

Obs.—I have described this insect, which is unique as Australasian in my Collection, to show its wide geographical range. I know no other extra-European species of the genus, excepting those figured in Savigny's *Egypt.*

Genus. PISON. *Jurine, Spinola, Latr. &c.*
 [*Tachybulus*, Lat., *Nephridia*, Brullé.]

As some doubt and confusion still exists respecting this genus, it will perhaps be as well to state its history. The type was first discovered in 1805, by Spinola, near Genoa; he took three specimens, one of which he sent to Latreille, the second to Jurine, and the third he retained, and which he described, in the fourth fasciculus of his *Insecta Liguriæ*, as *Alyson ater*. Latreille wrote him word in 1807, that he had found the same insect, and thought it to be the *Myrmosa atra*, but if not, it was a new genus in the vicinity of *Trypoxylon*. In 1808, Jurine replied to Spinola, by sending him the generic character of the insect in question, which he called PISON, and considered it as allied to *Alyson*. Latreille forgetting this, for I presume he had Spinola's book as soon as published, which was in 1808, gave in the fourth volume of his "*Genera*," published in 1809, at page 57, the characters of the genus *Dolichurus*, under the name of *Pison*, which he refers to Spinola as the author, and under the name of *Tachybulus*, he gives the characters of the true genus *Pison*. The first error he corrects in the Addenda to the same volume; and the second error he continues in the same place, by making Jurine's *Pison* the synonyme of his *Tachybulus*. It is needless to follow him through his several works; as in the 5th volume of Cuvier's *Règne Animal*, 2d ed. he corrects his original error, but still refers the genus to Spinola, for he expressly says, "Jurine is not the author of the genus *Pison*." In vol. 2, p. 403, of the *Annales de la Société Entomologique de France*, M. Brullé has laid down the characters of a genus of *Fossorial Hymenoptera*, which he calls *Nephridia*, and which is identical with *Pison*. I have consequently been obliged to reduce his genus to a synonyme of the old one, and I will beg to make an observation or two upon his remarks. I shall say nothing upon his waste of words respecting its being parasitic, from the structure of its legs, which I have elsewhere* shown, in controverting St. Fargeau's theory, to be wholly untenable, and into which opinion its first propounder appears to give, by not saying a word about it, nor making the least use of it when it would have afforded him such abundant materials in his subdivision of the genus *Crabro*. But it was unnecessary of M. Brullé to recapitulate all this, as St. Fargeau had already given the entire theory in the first number of the same work. It was also unnecessary for him to go into his detailed comparison with the genus *Alyson*, as the first

* *Transactions of the Entomological Society of London*, vol. i. p. 52, and *Essay on the Indigenous Fossorial Hymenoptera*, p. 19, 210, &c.

glimpse tells us that it is more closely allied to *Tachytes*, Pz. (*Lyrops*, Ill.) than to any other fossorial insect, view being had to general habit rather than to any single character; nor does it agree with *Alyson* in more than a single character. Reniform eyes, which *Alyson* has not, and which is one of the chief characters of the present genus, we find straggling through several families of the *Aculeate Hymenoptera*. Amongst the *Mutillidæ* we discover it in many males of *Mutilla*, and slightly so in *Myzine*, but always in *Scolia*, *Sapyga*, *Polochrum*, and *Trypoxylon*, and slightly in *Philanthus*, when we at last observe it as almost universal in the *Vespadæ*, wherein the instances in which it is not so form rare and remarkable exceptions, and one of which the present paper will describe. The only character in which *Pison* agrees with *Alyson* is the petiolated second submarginal cell, which we also find in the just-described genus *Exeirus*, amongst the *Pompilidæ*, and in *Miscophus*, *Nysson* and *Cerceris*. His subsequent observations on the families are of but little value, as they point out no new affinities; and the only generic character he has really added is the single calcar of the intermediate legs, to which I may supply, as generic also, the longitudinal furrow of the metathorax with its central carina. I consider myself right in treating this as generic, as it occurs in all the species, but in the *Pison Spinolæ* it is rather less developed. That the metathorax frequently yields generic characters in these insects, we find in the mucro of *Oxybelus*, the spines of *Nysson* and *Alyson*, the triangle of *Gorytes*, and the carinæ and obtuse spines of *Ampulex*. I may, therefore, be justified in treating it as such. The segments of the abdomen are not constricted as in *Cerceris*, but the margin of the first three are much depressed, which gives them slightly this appearance, aided, too, by the sometimes considerable gibbosity of the first segment. There is great specific diversity in the form and size of the second submarginal petiolated cell, as well as in the mode of its receiving the recurrent nervures, which are sometimes interstitial, inosculating with the transverse cubital nervures, and sometimes received within it; and in other instances which, in accordance with my adopted principles, I must consider as subgeneric,—the first submarginal cell receives the first recurrent nervure towards its extremity, and the second receives the second recurrent about its centre. I am enabled here to add seven new species to those already described. The genus appears to be widely distributed, as there is one European and four African, including that from St. Helena, one from the Mauritius, and three from the Australian group, where it appears to take the place of *Tachytes*, Pz. (*Lyrops*, Ill.)

DIVISION 1. (PISON, Jurine, &c.)

The recurrent nervures either interstitial or both received by the second submarginal cell.

Species 1. PISON ATER, Spin.

Ater, subpubescens, vagè punctatus; alis hyalinis, apice obscuris, nervis nigris.

Long. 4 lin.

Alyson ater. Spin. Insect. Lig. fasc. 4, p. 253.

Pison Jurini. Ib. 256; St. Fargeau et Serville, Ency. Méth. x. 143, 1.

Tachybulus niger. Latr. Gen. Crust. et Insect. vol. iv. p. 75.

Pison ater. Latr. ib. 387.

Obs.—I have been obliged to construct the best specific diagnostic that I could contrive for this species, as I do not possess it, nor do I know any cabinet in London in which it is to be found Spinola's, Latreille's and St. Fargeau's descriptions contain no character beyond colour, which is not common to all the species, and consequently generic.

Species 2. PISON XANTHOPUS, Brullé.

Niger; thorace tenuissimè punctato, metathorace obliquè striato; capite antèrius aureo-villoso; mandibulis, palpis, tarsisque saturatè, abdominis apice obscurè, rufis; segmentis 3 primis margine argenteo-pilosis; alis hyalinis, apice nervisque fuscis.

Long. 4 lin.

Nephridia xanthopus. Brullé, Annales de la Soc. Ent. de France, vol. ii. p. 403.

Species 3. PISON OBSCURUS, Shuck.

Niger, tenuissimè punctatus; metathorace obliquè striato; alis fuscis, nervis tegulisque testaceis. ♂, ♀.

Length 4—5½ lines.

Entirely black, delicately punctured; the apex of the antennæ and mandibles rufo-piceous; the face and clypeus covered with a golden down, which extends as high as the emargination of the eyes. The tegulæ of the wings testaceous, the wings fuscous, their nervures testaceous; the extreme joints only of the tarsi piceous, and the tibiæ and tarsi without spines or ciliæ.

The abdomen has the margins of the first, second, and third segments much depressed and covered with a dense silvery down. ♀.

The ♂ differs in having more joints of the tarsi rufo-piceous, as well as the knees and the margin of the fourth, fifth, and sixth seg-

ments of the abdomen, and the terminal one entirely so; the latter obtuse at its extremity.

From the Cape of Good Hope?

In my own Collection.

Obs.—The above *Pis. xanthopus* may, perhaps, be a variety of this insect, in which case my name must fall, and Brullé's be retained, although mine will be the species, and his the variety, as piceous, red, and even testaceous, are frequently the immature stages of black. The difference in the colour of the wings and nervures may also be accidental, as his is probably an insect in fine condition, and mine are evidently old individuals; and it is a fact long known, that the dark colour of wings, by exposure and wear, will become pale at the apex, and hyaline wings will frequently become fuscous. If, therefore, my suspicion be correct, which is founded entirely upon my male, the wings of his and the body of mine would constitute the true species. The several differences have induced me to describe mine as distinct, yet that of size is of no moment, as all these insects vary greatly in that particular. I am doubtful of its exact locality, but I believe it to be from the Cape.

Species 4. PISON SPINOLÆ, *Shuck.*

Niger, cinereo-pubescentis; alis schistaceis, cellulâ secundâ submarginale minutissimâ; metathorace obliquè striato. ♀.

Length $7\frac{1}{2}$ lines.

Black; the forehead, cheeks, entire thorax and base of the abdomen, covered loosely with long grey hair. The emargination of the eyes, clypeus, cheeks, covered with silvery down. The mandibles bearded externally towards the base, and longitudinally carinated, the carina being formed by two furrows, their internal tooth placed at about one half their length, and very obsolete. Labrum transverse, slightly emarginate, and ciliated anteriorly.

The carina of the central longitudinal furrow of the metathorax nearly obsolete, and the metathorax itself on each side irregularly and obliquely striated, the striæ diverging from the base. The wings clouded-slaty, their extreme apex dark, and the nervures black; the petiolated submarginal cell very minute, and receiving the two recurrent nervures at the inosculating points of its transverse cubitals. The tibiæ and tarsi simple.

The margins of the first, second, and third segments of the abdomen depressed, and with its sides and the extreme edges of their margins reflecting an obscure silvery hue. ♀.

From Sydney, New South Wales.

In my own Collection, and in that of the Rev. F. W. Hope.

Obs.—This conspicuous species, the largest yet discovered, I dedicate with much pleasure to the Marquis of Spinola, the first discoverer of the genus. It differs slightly from the type in its mandibles and metathoracic sculpture.

Species 5. *PISON PUNCTIFRONS*, *Shuck.*

Niger, cinereo-pubescentis; fronte et thorace anteriore densè et crassè punctato; alis hyalinis, margine obscuriore. ♀.

Length $5\frac{1}{2}$ lines.

Entirely black; the head, thorax, pectus, legs, and base of the abdomen, loosely covered with long grey hair; the face beneath the antennæ, the cheeks, and the sides of the abdominal segments, with a silvery reflection; the face above the antennæ very thickly and coarsely punctured, but which diminishes in coarseness above the anterior stigma.

The thorax in front and beneath also coarsely and thickly punctured, its disk and scutellum equally coarsely but less thickly so, and slightly shining; the metathorax very coarsely obliquely striated, but which is somewhat concealed by the hairs covering it; the wings hyaline, with their margins obscure and nervures black, the recurrent nervures inosculating with the transverso-cubitals; the legs and tarsi without ciliæ and lateral spines.

The abdomen shining and reflecting, laterally only, a silvery hue. ♀.

Either from India or St. Helena.

In the Cabinet of Mr. Westwood.

Obs.—This species at first sight much resembles the *P. Spinolæ*, but, upon examination, it is at once distinguished by its very coarse sculpture, and the size of its second submarginal cell.

Species 6. *PISON WESTWOODII*, *Shuck.*

Ater, glaber, tenuissimè punctatus; capite antèrius argenteo-villoso, alis hyalinis, margines versus leviter nebulosis; metathorace obliquè striato, carinâ obsoletâ. ♀.

Length $3\frac{1}{2}$ lines.

Entirely atrous; the head and thorax very delicately punctured, the lower part of the face and clypeus covered with a silvery down. The metathorax obliquely striated, and the carina of the central channel obsolete. The wings hyaline at the base, and clouded towards their apex; their nervures black; the first and second recurrent nervures received distinctly within the second submarginal cell. The tibiæ and tarsi simple.

The abdomen deeply atrous and slightly shining, but without any silvery reflection. ♀.

From Van Diemen's Land.

In the Collection of Mr. Westwood.

Obs.—This species is distinguished from all its black congeners by the way in which its recurrent nervures are received in the second submarginal cell; it is also remarkable for its intensely atrous hue, without any of the silvery reflection which is seen in them. I am not sure that this is peculiar to it, for it may have arisen from immersion in spirits of wine, which the specimen has much the appearance of having undergone. I have much pleasure in dedicating it to my friend Mr. Westwood, whose highly interesting Collection has furnished me with the means of describing several new species in this much-neglected genus.

Species 4. *PISON AURATUS*, *Shuck.*

Niger, subtiliter punctatus, aureo-pubescentis; segmento primo et ultimo abdominis marginibus reliquis et pedibus rufo-testaceis. ♀.

Length 6 lines.

Black; delicately punctured; entirely covered with a dense golden pubescence, which is thickest upon the face and clypeus, the cheeks, collar, sides of the mesosternum and metathorax and the depressed margins and sides of the segments of the abdomen. The first five joints of the antennæ and the mandibles, except their apex, rufo-testaceous, as well as the legs, the calcaria and apical pulvilli of which are black; the tarsi and tibiæ all simple. The metathorax laterally delicately punctured, the central carina very conspicuous: the petiolated second submarginal cell rather large, and distinctly receiving the recurrent nervures within it, although close to the transverso-cubitals. The tegulæ testaceous; the wings clouded, their nervures piceous.

The abdomen rufo-testaceous, with the base of the intermediate segments black. ♀.

From the Cape of Good Hope?

In my own Collection.

Obs.—This is a very beautiful insect; the size of the petiolated cell is a little larger than in its congeners. Its sculpture is apparent only where its pubescence is rubbed off, and I expect that, in fine condition, it is wholly covered with the golden down. I am doubtful of its true locality, but I think it is from the Cape.

DIVISION 2. (PISONITUS, *Shuck.*)

The first recurrent nervure received towards the apex of the first submarginal cell, and the second recurrent received about the middle of the second submarginal cell.

Obs.—In adhering strictly to the neuration of the wings as a distinctive character for generic subdivision in the Aculeate Hymenoptera, it would be proper to consider this as a genus, but I am less inclined to adopt it as such here, from the circumstance that all the preceding species vary in the mode of receiving the recurrent nervures, and in the size of the second submarginal cell, and also because there is no other character to support this generic separation. In adopting this same principle in my "*Fossorial Hymenoptera*," upon separating *Mimesa* from *Psen*, and *Celia** from *Stigmus*, my views have been supported by general habit, but here it is not so.

Species 8. PISON RUFIPES, *Shuck.*

Niger; *mandibulis basi, palpis pedibusque rufis*; *tegulis testaceis*; *metathorace obliquè striato* ♀.

Length $3\frac{1}{4}$ lines.

Black; delicately punctured; the face beneath the antennæ, the clypeus, the cheeks, the collar, and sides of the segments of the abdomen, all covered with a silvery down. The mandibles and palpi rufescent.

The metathorax obliquely striated; the central carina distinct; the tegulæ testaceous; the wings slightly clouded with fuscous, their nervures black. The legs red, with the exception of the anterior pair of coxæ, trochanters, and femora, and the base of the posterior coxæ; the tibiæ and tarsi simple.

The abdomen somewhat less shining than in its congeners. ♀.

From Van Diemen's Land.

In the Collection of Mr. Westwood, and in my own.

Species 9. PISON ARGENTATUS, *Shuck.*

Ater, argenteo-pubescentis; *metathorace obliquè striato, striis distantibus, interstitiis punctatis*; *alis hyalinis, tegulis testaceis*. ♀.

Length 3 lines.

* This name I have discovered since my book was printed is pre-occupied, Zimmerman having used it to designate a genus of the *Harpalidæ* in his monograph of the *Zabroïdes*: but this would have been of no consequence whilst it was merely a name; but he has since characterized the genus in a paper on the *Amaroïdes* in the "*Faunus*" of Gistl. It is, therefore, necessary to change my name, and I propose in lieu *Spilomena*, from *σπιλωμα*, *nævus*, the synonyme of *κηλίς*.

Atrous; densely clothed with a silvery pubescence, especially the face, cheeks, collar, sides of the thorax, sternum, metathorax, and legs, and the sides and margins of the segments of the abdomen. The metathorax with the central carina distinct, laterally obliquely striated; the striæ far apart, and the interstices punctured. The tegulæ testaceous. The wings hyaline, their apex somewhat obscure, and the nervures black; the legs unarmed. The abdomen having the constrictions of the three first segments very conspicuous. ♀.

From the Mauritius.

In the Collection of Mr. Westwood.

Obs.—The chief character of this elegant little insect, namely, its silvery clothing, is evanescent, as it would exhibit this only in a fine condition; but the sculpture of its metathorax, combined with the peculiar neurulation of its wings, afford sufficient positive characters to separate it from its yet known congeners. It is unique in Mr. Westwood's Collection. This genus, as I have above remarked, appears very widely distributed, even more so than *Tachytes*, the metropolis of which is either Africa or India, whereas, most probably, that of the genus before us is New Holland and its dependant islands.

Family. CRABRONIDÆ, *Leach*.

Genus. GORYTES, *Lat.*

(*Hoplisus*, *St. Farg.*)

GORYTES BRASILIENSIS, *Shuck.*

Ater, nitidus; abdomine fasciis tribus flavis. ♂.

Length $5\frac{1}{4}$ lines.

Entirely black and shining; the antennæ slightly increasing towards the apex, and a little longer than the head; the scape, beneath at its apex having a minute yellow dot; labrum piceous, ciliated externally; the mandibles rufo-piceous in the middle.

The thorax having the collar on each side marked with a short and slight sericeous line: the metathorax very gibbous; the triangle at its base with a central furrow produced by two longitudinal carinæ, and laterally and posteriorly rufous. The wings dark at the base as far as the commencement of the marginal and second submarginal cells, beyond which they are hyaline; the nervures black; the tibiæ and tarsi shining and spinose, the anterior pair of the latter strongly ciliated.

The abdomen with the first segment prolonged anteriorly into a petiole; the margins of the second, third, and fourth segments with

a very narrow yellow border; the margin of the sixth segment testaceous. ♂.

From the Brazils.

In my own Collection.

Obs.—I believe this to be the first instance of this genus recorded as Brazilian.

Family. VESPIDÆ, *Leach.*

Genus. PARAGIA,* *Shuck.* Plate VIII. fig. 3.

HEAD transverse, stemmata placed in a triangle on the vertex; eyes oval, lateral, distant; antennæ geniculated, inserted above the clypeus near the middle of the face, and at equal distances between the eyes; clypeus slightly convex; labrum concealed; mandibles robust, tridentate, the external tooth the largest.

THORAX nearly square; the prothorax making a wide curve backwards to the tegulæ, its anterior angles acute; the tegulæ placed about the middle of the thorax; an impression of the shape of a lyre upon the mesothorax, with another longitudinal and central; scutellum subquadrate, very prominent; metathorax abruptly truncated; anterior wings with one marginal cell, and two submarginal cells, the first of the latter very long and narrowing towards the second, which is nearly oval, and receives both the recurrent nervures; the legs short, and somewhat robust; all the tarsi longer than the tibiæ, the anterior pair furnished beneath with pulvilli; the terminal claws minute, and the apex of all the tibiæ furnished with a pair of small calcaria.

ABDOMEN elliptical, abruptly truncated at its base.

Obs.—This genus I have named in allusion to its deceptive habit, which is precisely that of a *Vespa*; but, upon closer inspection, its distinctive characters are exhibited, which are very remarkable, and form another exception to the general characteristic of the family, even if *Ceramius* be removed from it, which I think ought to be. The distinctions are its ovate, not reniform eyes, and its two submarginal cells. In this latter character it however participates with the *Masaridæ*. The structure of its mandibles and anterior tarsi induce me to consider it as social, and it is possibly the New Holland analogue of the genus *Vespa*, which I have not yet discovered to come from that place; but even, if so, it must be of unfrequent occurrence, as mine is the only specimen I have hitherto

* From Παγαγῶ, *fallo*.

seen. I do not remember if it folds its wings, as when it came into my possession I was too young an Entomologist to know the value of that character, to observe it before I set the insect.

Species 1. PARAG. DECIPIENS, *Shuck.* Pl. VIII. fig. 3.

Niger, opacus, abdomine sordidè ochraceo. ♀.

Length 9 lines. Expansion of the wings 14 lines.

Black, opaque; with the head and thorax delicately shagreened; two minute yellow spots between the base of the antennæ. A narrow yellow line on each side of the anterior edge of the prothorax, and another spot of the same colour beneath the base of the wings, which are subhyaline, with a dark cloud covering their marginal, submarginal, and discoïdal cells, and their nervures black; the legs black, and, the posterior ones especially, covered externally and internally with a close silky down, which gives them the appearance of having a white streak.

The abdomen of a dirty ochre yellow, which was probably originally of a bright tint; the extreme base of the first segment black, which descends in the centre to its margin. ♀.

From New South Wales.

In my own Collection.

Obs.—If my suspicions be correct as to the social habits of this insect, it is probably a neuter.



Shuckard, William Edward. 1838. "Descriptions of new exotic aculeate Hymenoptera." *Transactions of the Entomological Society of London* 2, 68–82.
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