

IV.

Descriptions

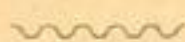
of

some new genera and species of Scarabaeidae

from tropical Asia and Malasia.

By D. Sharp.

Part I.



As my collection of *Scarabaeidae* contains some important new species collected by Wallace in Malasia, and by Mouhot in Siam, I have thought it would be agreeable to entomologists if I described some of the more interesting of them, and I have included also some species from the neighbouring continent of India. I have endeavoured to make the descriptions as brief as is consistent with utility; thereby valuable space is saved, and the students attention not unnecessarily wearied.

Gymnopleurus striatus (n. sp.): *Nigerrimus*, *antennis rufis*; *clypeo elongato, apice simpliciter bidentato*; *thorace laevi, nitido, lateribus pone medium sinuatis*; *elytris subnitidis, regulariter distincte striatis, interstitiis parce evidententer punctatis*; *pygidio apice curvatim nitido*; *abdomine pleuris latissimis*; *tibiis anterioribus dentibus tribus apicalibus valde approximatis*; *femoribus quatuor posticis subtus fortiter punctatis*. — Long. $18\frac{1}{2}$ mill.

Singapore (Wallace!).

This species is allied to the Chinese *Gymnopleurus melanarius*, but is abundantly distinct therefrom, as the characters given above will

sufficiently indicate, and it is unnecessary to describe it at greater length. I will however take this opportunity of remarking that I have some doubt whether the species described as *G. melanarius* by Harold (Col. Heft. I. p. 76) be the species usually standing in collections with the name *G. melanarius* Mannerheim. Harold says l. c. that the species has „Patria Sumatra“; in his Catalogue of Coleoptera however he gives Java as the locality of the species; all the specimens I have seen come from China, and Mr. G. Lewis has given me an individual which he captured in Northern China, so that if Harold's species be really from Sumatra and conspecific with the Chinese individuals, the species must have a rather wide distribution.

Gymnopleurus aethiops (n. sp.): *Nigerrimus*, *antennis rufescentibus*, *clypeo obtuse bidentato*; *thorace laevi (potius parce obsoletissime punctato)*, *nitido*, *lateribus pone medium angustatis haud sinuatis*, *angulis posterioribus obtusis haud productis*; *elytris sericeo-subopacis, sat distincte striatis*. — Long. 15 mill.

Rangoon; Burmah.

G. melanario (e China) *peraffinis*, *sed minor*, *transversim magis convexus*, *elytris evidentius striatis*, *haud adeo opacis*.

Gymnopleurus maurus (n. sp.): *Niger*, *opacus*, *antennis obscure rufis*, *clava fusca*; *clypeo obtuse bidentato*; *prothorace lateribus medio angulatis*, *angulis posterioribus obtusis haud productis*; *elytris distincte subtiliter striatis*. — Long. 16 mill.

Borneo: Sarawak (Wallace!).

Clypeus bidentate in the middle, not at all sinuate outside the middle teeth. Thorax smooth, opaque, with a silky appearance, its sculpture very little marked, consisting of sparing and extremely fine punctures; its sides have in the middle a remarkably distinct angular projection. Elytra finely but distinctly striated, with very obscure sculpture. Pygidium silky and opaque. The three teeth at the apex of the front tibiae very close to one another.

This species is closely allied to the Chinese *G. melanarius*, but is more opaque and readily distinguished by the angulated sides of the thorax. The two specimens from which my description is made are male and female; the spur at the extremity of the front tibiae in the ♂ being broad, and a little sinuated at the extremity, so that the

outer angle is a little produced and acuminate; in the ♀ the spur is simply pointed and slender.

Gymnopleurus planus (n. sp.): *Niger*, *opacus*, *antennis laete flavis*, *articulis duobus basalibus piceis*; *clypeo bidentato*, *juxta dentes utrinque anguste emarginato*; *prothorace lateribus postice angustatis*, *angulis posterioribus rotundato-obtusis*, *coriaceo*, *parce punctato*; *elytris opacis*, *subtiliter striatis*, *striis e punctis elongatis compositis*. — Long. 16 mill.

Penang (Wallace!).

Allied to *G. melanarius* but at once to be distinguished by its opaque silky lustre. The surface of the thorax is coriaceous, and has also fine obsolete punctures pretty regularly scattered over it; the sides of the thorax are prominent but not at all angulated in the middle, the hinder angles not at all produced backwards, but the side of the thorax just in front of them is a little explanate and directed upwards. The surface of the elytra is coriaceous, and is also thickly sprinkled with minute shining specks; the striae are very fine. The exposed abdominal pleurae are rather narrower than in *G. melanarius*, but otherwise similar. The three apical teeth of the tibiae are very approximate.

A single specimen is all I have seen of this species; its finely striated elytra and very bright coloured antennae and the rounded sides of the thorax distinguish it easily from *G. maurus*.

Gymnopleurus stipes (n. sp.): *Niger*, *peropacus*, *antennis rufis*, *clava flava*; *clypeo bidentato*; *prothorace lateribus medio angulatis*, *angulis posticis obtusis*, *haud productis*; *elytris distincte subtiliter striatis*, *striis e punctis compositis*. — Long. 14 mill.

Ins. Philippinae.

The sides of the thorax are distinctly angulated in the middle; its surface is extremely opaque and smooth, the sculpture being very fine and without larger punctures. The elytra are finely but distinctly striated.

I have seen but a single individual of this species; it is allied by the angulated sides of the thorax to *G. maurus*, but its extremely opaque thorax as well as the colour of the antennae sufficiently distinguish it from that species.

Gymnopleurus calcar (n. sp.): Niger, opacus, antennis articulo 1 piceo, 2 et 3 piceorufis, caeteris flavis; clypeo obtuse bidentato; prothorace peropaco, punctis majoribus obsoletis, lateribus pone medium sub-sinuatis; elytris subtiliter distincte striatis, striis e punctis compositis. — Long. 14 mill.

Celebes (Wallace!).

The thorax is large, very opaque, and the larger punctures scattered over it are very indistinct, the hinder angles are obtuse, not produced backwards but a little turned upwards.

I have seen but a single male individual of this species; in it the upper tooth of the front tibiae is not placed quite so near to the middle one as in the allied species here described, so that two minute teeth or serrations separate these two larger teeth; the apical spur is remarkable in its form, its extremity being emarginate, so that both its inner and outer angles are acute; the tubercle at the inner extremity of the front tibiae is also remarkably developed, so that the inner margin of the front tibia shewes a remarkable curve at the extremity, as in *G. sinuatus* †.

Gymnopleurus dubius (n. sp.): Niger, sericeo-opacus, antennis flavis articulis tribus basalibus picescentibus; clypeo bidentato, fortiter punctato; prothorace lateribus pone medium angustatis, angulis posticis obtusis; elytris subtiliter striatis, striis e punctis compositis. — Long. 15 mill.

Menado (Wallace!).

Surface of the head rather strongly sculptured. Thorax opaque, finely coriaceous, and with numerous larger but obsolete punctures, with the sides prominent and rounded in the middle and not sinuate behind the middle, the hinder angles obtuse. Elytra with a very indistinct metallic tinge, finely coriaceous and with scattered minute shining specks, the striae fine but distinct.

A single specimen is all I have seen; it has the apical teeth of the tibiae elongate and approximate, the two upper ones however separated by two small serrations; the specimen appears to be a female; though very close to *G. calcar* I have not considered myself justified in treating it as identical therewith. The form and size of the two species is very similar, but the sculpture and form of the thorax are different.

Gymnopleurus celebicus (n. sp.): *Niger, opacus, antennis flavis, articulis tribus basalibus picescentibus; clypeo bidentato; prothorace lateribus medio rotundatis, angulis posticis obtusis; elytris subtiliter striatis* — Long. 13—14 mill., lat. (*prothoracis medio*) 9 mill.

Celebes (Wallace!).

The thorax has the sides rounded and prominent in the middle, then narrowed to the base but scarcely at all sinuate, it is opaque but its surface has distinct scattered larger punctures. The elytra are very opaque and finely striate, the striae when highly magnified are seen to be formed by elongate punctures.

Two specimens, ♂ and ♀. The extremity of the apical spur in the ♂ is broad and rounded at its inner angle, the tubercle at the extremity of the inner margin is but little developed; the apical teeth of the tibiae are approximate, the two upper ones separated from each other in the male specimen by two, in the ♀ by one minute serration. The species though closely allied to *G. calcar* is considerably smaller and the sculpture of the thorax is not quite so obsolete. I have also a specimen from Sula which I consider to be a variety of *G. celebicus*, of which it has just the size and form, but the sculpture of its thorax is nearly as obsolete as in *G. calcar*.

Gymnopleurus rudis (n. sp.): *Niger, opacus, antennis flavis, basi picescente; capite thoraceque fortiter punctatis, hoc angulis posticis obtusis; elytris subtiliter striatis, omnino opacis.* — Long. 14 mill.

Lombok (Wallace!).

This species is distinguished from the others here described by the stronger punctuation of its head and thorax. The thorax has the sides rounded in the middle, then distinctly narrowed towards the base.

Of this species I have also seen but a single specimen, it is a ♂, but the teeth and spurs of the tibiae are much worn down, so that I cannot speak with certainty as to their form.

Obs. The above described 9 species of *Gymnopleurus* are extremely closely allied to one another, the structural characters and general form being very similar in all the species. *G. striatus* and *aethiops* will be readily distinguished by their shining thorax; *maurus* and *stipes* by the angulated sides of the thorax; and *rudis* by the coarser punctuation of the thorax. *G. planus, calcar, dubius* and *celebicus* are undoubtedly very closely allied to one another, and I should

gladly have treated them as but one species, but I have not been able to persuade myself that such is the case, especially on recollecting how extremely similar to one another are our two European species *G. mopsus* and *cantharus*. That these Eastern insects may also be extremely closely allied but truly distinct species seems to me very probable, though such cannot be considered to be certainly the case, till it has been tested by the examination of an abundant supply of specimens.

Gymnopleurus sparsus (n. sp.): *Cupreus*, *antennis articulo primo piceo, clava fusca, articulis intermediis obscure rufis; prothorace sericeo-opaco, fere impunctato, lateribus medio angulatis, angulis posticis obtusis; elytris subtiliter striatis, sat crebre fortiter punctatis; pedibus nigris, tarsis obscure rufis.* — Long. 13 mill.

Borneo.

Clypeus with two distinct teeth in front. Thorax broad in the middle and angulated at the sides, its hinder angles obtuse and not at all produced, its surface is opaque and silky, almost without sculpture. Elytra opaque, finely striated, the striae formed by punctures, the surface coriaceous and sprinkled besides with distinct, rather large punctures. Pygidium very opaque. Front portion of metasternum closely and distinctly punctured. Under surface of femora strongly punctured.

I have seen but a single specimen of this species; the punctuation of the elytra is different from any other species of the genus I have seen.

Gymnopleurus productus (n. sp.): *Cupreus, subopacus, antennis flavis, basi picea; prothorace coriaceo, parcius obsolete punctato, angulis posticis longe productis, acutis; elytris subtiliter striatis, striis e punctis compositis.* — Long. 15 mill.

Laos (Mouhot!).

Allied to *G. sinuatus*, but of shorter form, and very remarkable by the much produced hinder angles of the thorax. Clypeus bidentate in front. Thorax with the sides rounded in the middle, its surface very metallic. Elytra finely but distinctly striated, opaque, coriaceous and with the little raised points much less developed than in *G. sinuatus*. Legs and under surface obscurely black.

Gymnopleurus abax (n. sp.): *Aeneus, opacus, antennis flavis, basi piceis; clypeo bidentato, prothorace parce obsolete punctato, angulis posticis subrectis; elytris subtiliter striatis, striis e punctis compositis.* — Long. 15 mill.

Cambodia (Mouhot!).

Clypeus distinctly bidentate in the middle. Thorax with the sides rounded and prominent in the middle, the base strongly sinuate near the hind angles, so that each of these projects almost in form of a right angle, the surface is very finely coriaceous, and has also some sparing and very indistinct punctures. Elytra opaque, finely but distinctly striated. The under surface is dull black; the tarsi are pitchy red.

Closely allied to *G. sinuatus*, but of shorter form, and with the sculpture of the upper surface much finer. The species is also closely allied to *G. productus*, and the only important difference I see in the two insects is the shape of the hind angles of the thorax.

Sisyphus thoracicus (n. sp.): *Rufo-fuscus, prothorace linea laterali valde deflexa, angulis anticis longius ciliatis; elytris minus profunde sulcatis, interstitiis angustis; femoribus vix clavatis; tibiis intermediis intus dentatis; pedibus posticis trochanteribus apice acutis, femoribus subtus dente parvo acuto, tibiis extus obtuse angulatis.* — Long. 5 mill.

Singapore (Wallace!).

Clypeus in front emarginate in the middle, on each side of the emargination furnished with a slight projecting tooth, and on each side of this slightly bisinuate. Thorax viewed from above with the sides appearing almost straight, a little broader at the base than in front, just close to the front angles suddenly narrowed; seen from the side, the side piece is noted to be large, and limited above by a fine raised line which extends to near the front angles; the upper surface of the thorax is covered with coarse but very slightly impressed punctures, from each of which springs a rather long curved stiff hair, the punctuation is not quite evenly distributed, so that an obscure maculated appearance is produced. Elytra with striae of very broad obscure punctures, the interstices a little convex; obliquely impressed near the extremity, sparingly setulose. Pygidium long and narrow. Middle tibiae angulated on the inside above the middle. Hind legs with the trochanters projecting at the extremity, which is

very acute; the femora elongate but little clavate, with a small sharp tooth a little beyond the middle; the tibiae scarcely curved, they are a little thickened on the outside above the middle, so as to form a sort of obtuse angular projection, the serrations on their inner margin are only 5 or 6 in number and but little marked.

I have seen but a single specimen of this little species, which is a very distinct one from any other I am acquainted with.

Cassolus (nov. gen.).

Palpi labiales perbreves, triarticulati (?), articulo ultimo praecedentis longitudine sed angustiore. *Mentum* longitudine latitudine paullo brevior, antrorsum angustatum, margine anteriore emarginato. *Antennae* 9-articulatae. *Clypeus* quadridentatus. *Oculorum* pars superior parva. *Mesosternum* mediocre. *Coxae intermediae* distantes, vix obliquae. *Scutellum* occultum. *Elytrorum epipleurae* basi sat latae. *Tibiae anteriores* haud elongatae, extus serratae, apicem versus bidentatae, apice ipso denticulato (haud truncato), facie posteriore unituberculata, obsolete tantum carinata, *tarsis* gracilibus, *calcari* parvo, tenui, acuminato. *Tibiae intermediae* apicem versus incrassatae, *calcari* duobus parvis. *Tibiae posticae* vix elongatae, basi graciles, parte apicali intus incrassata, extus omnino muticae, *calcari* unico, recto: *tarsis* mediocribus, compressis, articulo basali secundo vix longiore, *unguiculis* parvis. *Pygidium* nudum, perpendiculare.

Generi Epilisso affinis; sed tibiis anticis aliter formatis, tarsorumque posticorum articulo secundo brevior.

C. nudus (n. sp.): *Convexus, glaberrimus, supra aeneo-micans, subtus aeneo-piceus, antennis, clava excepta, pedibusque rufis; capite thoraceque crebre sat fortiter punctatis; elytris striatis, striis indistincte punctatis.* — Long. $4\frac{1}{2}$ mill., lat. $3\frac{1}{2}$ mill.

Cambodia (Mouhot!).

Convex, compact, shining. Clypeus with a broad rather deep emargination in front, from the middle of which project two very distinct teeth; its surface is shining and brassy, and is rather closely though not coarsely punctured, with a small transverse smooth space on each side the middle near the eye. Thorax very convex transversely, nearly as broad as the elytra, it is nearly straight at the sides with the hind angles distinct but obtuse, the sides are di-

stinctly margined, but the base is not margined, it is very shining, its punctuation distinct, regular and moderately close. The elytra are short but distinctly longer than the thorax, convex and shining, blackish in colour, with a metallic tinge, each has seven striae, moderately deep, the outer one is much abbreviated, none of them are joined together at the extremity, they are indistinctly punctured, the interstices broad and flat, with a very sparing, scarcely visible punctuation. The pygidium is pitchy or reddish in colour with a metallic tinge, and its punctuation is almost similar to that of the thorax. The colour of the under surface is obscurely reddish, with a slight metallic tinge, the metasternum being darker than the other parts; the front portion of the sides of the prosternum is abruptly turned upwards, so as to form a sort of large hollow, this is limited behind by an oblique transverse raised line, but there is no other raised line besides this; the mesosternum is rather short and is without punctuation; the sides of the metasternum are rather coarsely but obsolete punctured, the middle part very shining and almost impunctate.

This insect, of which I have only a single specimen before me, has very much the appearance of the small metallic species of *Choe-ridium* or *Canthidium*.

Catharsius aethiops (n. sp.): *C. molosso simillimus, nigerrimus, subtus nigropubescens; capite prothoraceque dense subtiliter granulatis; elytris sericeo-subopacis, leviter striatis.* — Long. 25 mill, lat. 15 mill., alt. 11 mill.

Mas: *Capite cornu acuminato erecto; prothorace retuso, medio utrinque tuberculo acuminato.* (Fem. incognita.)

Ins. Philippines.

I have seen but a single individual of this species, and though it bears an extreme resemblance to *C. molossus* I have no doubt I am right in recognizing it as a distinct species; though the specimen is scarcely so large as the smallest individual of *C. molossus*, it is at the same time a well developed male with elongate horn on the head and very retuse thorax; the entirely black pubescence of the underside readily distinguishes the species from all varieties of *C. molossus*.

Catharsius granulatus (n. sp.): *C. molosso simillimus; nigerrimus, subtus fusco-rufopubescens; capite prope oculos spatium nullo laevi;*

prothorace fortiter granulato: pygidio metasternoque crebre distinctius punctatis. — Long. 31, lat. 19, alt. 14 mill.

Mas: *Capite cornu acuminato, subrecto; prothorace antice retuso, parte elevata medio prominula, utrinque cornu brevi armata.*

India or.

This species bears a very great resemblance to small varieties of *C. molossus* and is only to be distinguished by some peculiarities of sculpture; these are that there is no smooth space on the upper side of the head between the eye and the base of the horn, that the granulations of the thorax are considerably coarser, and the pygidium and metasternum are more closely and distinctly punctured.

I have examined carefully my series of *C. molossus*, which consists of about seventy individuals from widely different localities, and which exhibits a wonderful amount of variety in many respects, but I have not been able to find any specimen connecting the *C. granulatus* with *C. molossus*. I have two specimens, extremely similar to one another, but bearing no indication of locality more special than „India“.

Catharsius platypus (n. sp.): *Nigro-piceus, subtus fusco-rufo-pubescentis; capite thoraceque dense granulatis; elytris subnitidis dense subtiliter oblique strigosulis, basi opaca transversim depressis, epipleuris basi dilatatis; prothoracis linea laterali duplicata; pedibus intermediis, tibiarum apice tarsisque latissimis; metasterno canaliculato, dense fortiter punctato.* — Long. 36, lat. 22, alt. 17 mill.

India or.

Head and thorax densely granulated, the granules on the front of the head widened into transverse lines: the front angles of the thorax quite rounded, the sides sinuate and margined with a double line, the two lines being less approximate at the hind than at the front angles; the base a little produced in the middle. Elytra transversely depressed at the base, and with the depressed part opaque, elsewhere shining, distinctly striated and covered with fine oblique scratches, except at the suture which is convex and finely punctured. The pygidium is shining and rather sparingly punctured. On the underside the thorax is quite smooth and shining at the outside of the front angles. The metasternum is densely punctured, its hind part channelled. The apical segment of the abdomen is coarsely

punctured. The middle tibiae are extremely broad at the extremity, and not in the least digitate, their spurs are broad, the tarsi are broad, the basal joint forming a broad triangle. The hind tibiae are broad at the extremity, their tarsi elongate, distinctly longer than the tibiae.

The single specimen I possess of this fine and very distinct species I obtained from the collection of Grandin de l'Eprevier, where it was indicated as „Copriv nov. spec. Ind. or.“ The specimen is I have no doubt a female, the middle of the head is elevated, the summit of the elevation having a very small notch. The thorax has a slightly curved transverse line in front of the middle. In the rich collection of H. W. Bates the male, I believe of this species, is to be found. I hope he will complete my description by publishing its characters.

Synopsis Batesi (n. sp.): *Subdepressa, nigra; clypeo antice medio inciso, vertice unituberculato; genis angulo posteriore acuto, tenui, posteriorius minus producto; prothorace dense granulato, medio sublaevi, angulis anticis externis minus productis, fere rotundatis, internis fere rectis; elytris striatis, striis angustis, fere simplicibus, interstitiis parcissime subtiliter punctatis.* — Long. 24, lat. 14 mill.

Mas: *Tibiis posticis ciliatis.*

India bor.

Upper side of clypeus rugosely punctured, its angles slender, but only little produced backwardly. Thorax $6\frac{1}{2}$ mill. long in the middle, $12\frac{1}{2}$ mill. in width between the outer front angles; the space between the two side margins rather strongly granulate. The crenation of the striae on the elytra is fine and indistinct. The pygidium rather closely punctured. The hind tibiae are slender, and but little dilated at the extremity.

This species inhabits Northern India; it is closely allied to *S. brahmina* Hope, the angles of the head are less curved, and less produced behind, and the front angles of the thorax, when looked at from the front, form a much less broad cup, and the outer angle of this receptacle is much less prolonged, the striae of the elytra are narrower and their punctuation not so evident, and the hind femora have no tubercle at the base.

I am indebted to Mr. Bates for the individual described and have much pleasure in naming the species in his honour.

Synapsis Thoas (n. sp.): *Subdepressa, nigra, nitida; clypeo antice medio inciso; vertice mutico; genis hamatis; prothorace subtiliter punctato, angulis anticis prominulis rectis, subtus fovea pubifera profunda; elytris striatis, striis minus evidenter punctatis.* — Long. 24, lat. 13 mill.

Copris Thoas Dej. Cat. 3. ed. p. 154.

The upper surface of the head is rugosely sculptured, the vertex is convex but not tuberculate. The thorax is finely punctured, the notch at the front margin small. The striae of the elytra are fine but rather deep, the interstices finely punctured. On the under surface the front portion of the thorax is occupied by a deep transverse pubescent fovea. The sides of the sternum are sparingly but coarsely punctured. The abdomen is opaque being finely sculptured. The middle tibiae are slender. The hind femora tuberculate, the hind tibiae very peculiar in form, viewed from inwards and above they are extremely slender but abruptly dilated at the extremity, but looked at from behind they seem stout, and not so broad at the extremity as a little above it.

This species probably inhabits Java, the single individual I have seen may be either a male or female: there is no thick fringe of ciliae on the hind tibiae, but the two apical segments of the abdomen are very short.

Obs. This is an interesting and important insect. Its resemblance in form to *Megathopa* is considerable, and the hind legs seem to offer a real approach to the *Ateuchus*-structure. It has some important points of difference from *S. brahmia* and *S. Batesi*, among which must be noted that the basal segments of the abdomen are more elongate, and that the peculiar additional piece (characteristic of the genus) which is placed between the side wings of the metasternum and the outer margin of the middle coxal cavities, is here narrow and parallel, while in the other two species mentioned it is much broader in its anterior part.

M. van Lansberge has recently described a species of *Synapsis* (Comptes-Rendus Ent. Soc. Belg. 1874. p. CXLIV) under the name of *S. Ritsemae*; this species though coming from Java is certainly

not the species here described; and it is possible that *S. Ritsemae* is the true *S. brahmina*, for it is evident from the description of Mr. Lansberge that the *S. brahmina* of his description is not the species described under that name by Mr. Bates. I may mention that I have no doubt that the species described by Mr. Bates is the true *brahmina* of Mr. Hope.

Synapsis simplex (n. sp.): *Subdepressa, piceo-nigra, nitida; clypeo antice medio inciso; vertice tuberculato; genis prothoracisque angulis anticis simplicibus; prothorace subtiliter punctato, nitido; elytris striatis, striis minus evidenter crenato-punctatis.* — Long. 25, lat. 15 mill.

Laos (Mouhot!).

Head less densely and rugosely punctured than in the other species. Thorax shining with the punctuation distinct only at the sides and front angles. The striae of the elytra fine and their punctuation indistinct, the interstices almost or quite impunctate. The metasternum is very deeply impressed at the extremity, the abdomen smooth and shining. The middle tibiae are rather stout. The hind tarsi short, only about half as long as the tibiae.

My specimen is probably a male as the hind tibiae bear a dense fringe of long ciliae; the 5th segment of the abdomen is much longer than either the 4th or 6th.

Obs. Some of the peculiarities of the genus are nearly or quite absent in this species. The angles of the head and thorax do not differ materially from those of *Copris*, the legs are less ateuchoïd, and the suture separating the piece of the metasternum, alluded to in my description of *S. Thoas*, is short and incomplete, only its posterior portion exists and this is concealed by the middle femora. On the other hand the structure of the elytral pleurae and the thoracic side lines remains as in the other species of the genus.

Copris Iris (n. sp.): *Niger, nitidus, elytris hyalinis, subtiliter striatis; clypeo margine integro; vertice cornu magno, recurvo; thorace valde retuso, margine anteriore medio tuberculato; tibiis tarsisque posticis gracilibus; mento lato, minus discrete transversim impresso, palpis labialibus articulo 1 et 2 latis, 3 brevi, angusto. ♂.* — Long. 23 mill.

Laos (Mouhot!).

Clypeus rounded in front, without notch, armed with a long horn curved backwards, moderately punctured, the horn not punctured

except at the base. Thorax with the anterior angles nearly rectangular, round and not sinuate at the sides, the hind angles entirely absent, the front margin trisinate, with a small elevated tubercle in the middle; the hind part of the thorax rises a little from the base towards the front, till at a distance of about 3 mill. from the base it descends abruptly towards the head, the front margin of the basal portion is trisinate, the retuse portion is rather coarsely but sparingly punctured, the posterior portion smooth; the elytra have a faint hyaline tinge (such as is seen in some of the species of *Pinotus*), they are finely but distinctly striated, the striae very finely punctured, the 8th stria is very short; the pygidium is very coarsely punctured; the middle portion of the metasternum is impunctate except for some obsolete punctures at the anterior extremity, its sides are coarsely and sparingly punctured. The hind tibiae are slender with the lateral tooth very prominent, their tarsi slender, with the joints not triangular, but almost parallel sided.

This insect in its horn and the form of its thorax is a good deal like *C. hispanus*, but the species will be easily recognized by the remarkably broad basal joints of the labial palpi.

Copris calvus (n. sp.): *Nigro-piceus, nitidus; clypeo medio leviter emarginato, cornu brevi, acuminato, vix recurvo; thorace lateribus angulisque anterioribus simpliciter rotundatis, pone apicem leviter retuso, medio tenuiter punctato-canaliculato; elytris subtiliter striatis, striis haud impressis sed distincte punctatis, interstitiis laevibus; pygidio laevi.* ♂. -- Long. 18, lat. prothoracis 9 mill.

Menado (Wallace!).

Front part of clypeus finely rugosely punctured, lateral portion with rather large well separated punctures, the horn and the part behind it almost impunctate. Thorax transversely very convex, impunctate except at the anterior angles, the sides and front angles rounded, the front part a little retuse, the limit of this a little bisinate, the posterior portion with a fine channel along the middle, which is formed by fine punctures. The elytra are very finely striated. The central part of the metasternum is quite smooth and impunctate, the lateral portions sparingly punctured. The basal joints of the hind tarsus are short and rather broad and triangular.

This species is remarkable by its very finely striated elytra, in this respect *C. Saundersi* Har. appears (from description) to resemble it. I do not know any species to which it is at all closely allied.

Copris agnus (n. sp.): *Niger, subdepressus, clypeo antice laevi, margine obsolete bidentulo, medio tuberculo subacuminato; thorace mox pone apicem obsolete retuso; elytris profunde striatis, striis punctatis, interstitiis haud visibiliter punctatis; tibiis anterioribus apice valde obliquis, dentibus duobus apicalibus, a tertio remotis, extrorsum minus, antrosum valde porrectis.* — Long. 16 mill.

Malacca; Singapore (Wallace!).

Clypeus with the front margin not interrupted in the middle, but slightly projecting as two broad very short teeth: in its centre is a conical tubercle, the part in front of which is quite smooth and shining, the genae near the eyes rather strongly punctured, behind the tubercle the vertex is rather deeply transversely impressed. The thorax is not sinuate at the sides, the front angles are nearly but not altogether rounded, its punctuation is irregular, along the middle in front of the base is a short channel formed by a few punctures, on each side of this there is no punctuation, in front of it the disc is a little flattened and there rather coarsely punctured, the small indistinctly retuse front portion is also impunctate, but the front angles and lateral portion of the thorax are rather strongly punctured. The striae of the elytra are deep and distinct, the 8th is continued along the extremity of the elytra and joins the third. The pygidium is strongly punctured. The hind tarsi are rather long, the basal joint not triangular but rather strongly spined at the extremity.

In this species the structure of the front tibia is peculiar. It is broad, and the two apical teeth are sub-amalgamated and very strongly directed forwards. The species stands in some respects intermediate between the aberrant *C. punctulatus* and the more ordinary forms of the genus. I do not know the sex of my two individuals.

Coptorhina parva (n. sp.): *Valde convexa, nigra, sat nitida, pedibus piceis, antennis tarsisque rufis; clypeo antice quadridentato; elytris seriebus octo punctorum magnorum; pygidio brevi, apice profunde transversim impresso.* — Long. 6, lat. 4, alt. $3\frac{1}{2}$ mill.

Northern India.

Clypeus in front with three notches in the middle, of which the central one is the deeper, the lateral ones being but small, its surface is even, and is densely and moderately coarsely punctured. Thorax simple, nearly twice as long as broad, its surface closely and rather coarsely punctured, the punctures becoming obsolete at the middle part of the front margin, it is bordered by a fine margin along the front and sides, and this extends also a little way along the base from the hind angles, but is quite wanting on the greater part of the base. Scutellum not visible. Elytra very finely striated, on the striae are placed some very large, quite round punctures, these being at a considerable distance from one another, the punctures are smaller and the striae deeper at the deflexed extremity, the outer row is abbreviated at the very deep and abrupt pleural sinuosity; the interstices are quite impunctate. The pygidium is broad and short, and its lower half is entirely occupied by a peculiar deep transverse impression. Metasternum coarsely punctured at the sides, its middle part quite impunctate, mesosternum rather broad, impunctate.

My unique individual of this remarkable species I obtained from Lafertés collection where it was labelled „nov. gen. *perforatus* Reiche“. I am unable to detect any character to distinguish it as a genus from the South African *Coptorhina*, except the quadridentate clypeus; as I do not consider this character would of itself justify the establishment of a new genus, I leave the species in the genus *Coptorhina*; possibly an examination of the trophi might reveal some distinctive generic character.

Cyobius (nov. gen.).

Corpus glaberrimum, crassum, perconvexum. Palpi labiales biarticulati. Clypeus fere muticus. Thorax antice retusus. Tibiae anticae apice truncatae, latae, extus leviter tridentatae, tarsi graciles, articulis 5. Prosternum angulis anterioribus foveolatis, linea longitudinali nulla. Mesosternum breve. Coxae intermediae distantes, parallelae. Pedes 4 postici abbreviati, femoribus latissimis, fere circularibus; tibiae nudaе, laminatae, apice subangustatae, intermediae apice calcaribus duobus, posteriores unico; tarsis biarticulatis, articulo secundo minuto sine unguiculis, articulo basali sat magno. Epipleurae abrupte inflexae.

Genus tarsorum structura perinsigne, ex affinitate generis Caccobii.

C. Wallacei (n. sp.): *Nitidus*, *piceus*, *subaeneo-micans*, *clypeo crebre subtiliter punctato*; *thorace disco utrinque ante medium angulato, medio obsolete, marginibus distincte punctato*; *elytris punctato-striatis, interstitiis impunctatis*; *pygidio fere laevi*. — Long. 5, lat. 4 mill.

Sarawak (Wallace!).

Clypeus quite rounded in front, with traces of a curved transverse raised line on the middle and behind this a little depressed (accidental?), finely punctured. Thorax excessively convex, scarcely rounded on the sides, the hind angles obtuse, near the front on each side of the middle is a slight angular impression, and under this the surface is depressed, the front part is moderately closely and coarsely punctured, the middle part finely and sparingly, the part towards the hind angles rather coarsely. The mesosternum as well as the sides of the prosternum are distinctly punctured; the whole of the middle part of the metasternum is impunctate, but the sides are rather coarsely punctured.

I have seen but a single specimen of this remarkable little insect; it was captured at Sarawak, by the distinguished naturalist G. R. Wallace, in whose honour I have given its trivial name.

Anoctus (nov. gen.).

Corpus glaberrimum. Palpi labiales biarticulati. Clypeus margine anteriore rotundato, linea verticali recta haud alte elevata. Antennae 9-articulatae, articulis 3 et 4 vix discretis. Tibiae anteriores apice truncatae, extus obtuse tridentatae, tarsi gracilibus. Prosternum angulis anterioribus foveolatis, linea longitudinali nulla. Mesosternum breve. Coxae intermediae distantes, parallelae. Pedes quatuor postici breves, tibiis apicem versus leviter leniterque incrassatis, laminato-compressis, parce brevissime ciliatis, apice recte truncatis, tarsi compressis, tibiis paullo brevioribus, subtus brevissime ciliatis, articulo basali sequentibus tribus paullo longiore, articulo quinto secundi longitudine, unguiculis minutissimis. Epipleurae acute inflexae. Pygidium convexum, apicem versus inflexum.

Affine generi *Caccobio*, differt elytrorum epipleuris abrupte inflexis et structura pedum quatuor posteriorum.

A. laevis (n. sp.): *Pernitidus*, *minus convexus, niger, antennis (clava fusca) pedibusque rufescentibus, clypeo antice pygidioque picescenti-*

bus; clypeo linea verticali recta, alteraque anteriore obsoleta, subtiliter punctato; prothorace subtiliter, latera versus distinctius punctato; elytris punctato-striatis, interstitiis parce subtiliter punctulatis; pygidio parce punctato. — Long. 4, lat. $2\frac{2}{3}$ mill.

Singapore (Wallace!).

The species greatly resembles a *Hister*, even more so than *Caccobius histeroides*. The clypeus is completely rounded in front and is finely punctured, rather closely in front, sparingly behind. Thorax with the sides rounded in front of the middle, then narrowed behind, so as to appear sinuate at the sides, the hind angles are distinct though very obtuse, it is quite destitute of depressions or elevations, and is rather sparingly punctured, the disc finely, the sides more coarsely. The elytra are much rounded at the sides, each with 7 striae which do not reach the extremity, and of which the outer is abbreviated. The mesosternum is rather coarsely punctured. The metasternum is finely punctured on its front part, smooth in the middle, more distinctly punctured on the hind part.

Caccophilus tortus (n. sp.): *Nigro-aeneus, elytris apice rufis, sat nitidus; clypeo parce punctato, margine anteriore medio emarginato, disco carina unica valde elevata utrinque in cornu subrecurvum, apice obliquum, terminata; prothorace antice retuso, margine medio leviter emarginato; pedibus piceis, tarsis rufescentibus.* ♂. — Long. 4 mill.

Very closely allied to *C. Vulcanus*, but darker in colour, and differing by the armature of the head and thorax; in other respects it so closely resembles that species that a full description is unnecessary; the anterior carina of the clypeus is wanting, the posterior one is at its base nearer the front of the head, and its lateral horns are twisted, so that their broad face is placed laterally, and they are not truncate, but obliquely rounded at the extremity; the thorax is abruptly retuse near the front, and the margin of the retuse part is a little emarginate in the middle but not in the least lobed.

I obtained this species from the collection of Laferté, where it was labelled „*Onthophagus bicuspis* Reiche. Java.“

Caccophilus ultor (n. sp.): *Fulvo-piceus, elytris apice rufescentibus, capite thoraceque aenescentibus; clypeo margine anteriore emarginato, disco bicarinato, carina antica fere recta, postica valde elevata, utrinque*

in cornu elongatum, sat tenue, apice truncatum terminata; prothorace dense punctato, punctis umbilicatis, antice retuso, medio in lobum supra caput producto; elytris minus discrete striatis, interstitiis densius subtiliter biserialiter punctatis. — Long. $4\frac{1}{2}$ mill.

Northern India.

This species is very closely allied to *C. Vulcanus*, but is readily distinguished by the denser sculpture of the thorax and elytra; the colour in my single individual is also different, but this may be the effect of immaturity.

Besides the two species here described I have in my collection 4 or 5 other species from India, excessively closely allied to *Caccobius Vulcanus*, but as I am unable to ascertain with certainty the sexual and other characters, it might be only a source of trouble to future inquirers if I attempted to characterize them. The *C. tortus* and *C. ultor* will however I believe be readily identified by the characters above pointed out.

Caccophilus mutans (n. sp.): *Rufescens, antennis, pedibus elytrorumque apice rufis, prothorace aeneomicante; clypeo obtuse bidentato, disco bicarinato, carina posteriore simplice; prothorace fortiter punctato; elytris striatis, interstitiis vix serialiter punctatis, breviter setosis.* — Long. 3 mill.

Northern India.

Clypeus rather deeply notched in the middle and prominent on each side of the notch so as to appear bidentate, its surface is of a reddish colour with brassy tinge, it is rather coarsely but sparingly punctured, it has a nearly straight raised line along the middle, and on the extreme vertex is another line, which is slightly depressed in the middle. The thorax is shining, coarsely and rather closely punctured, it is not retuse, but is close behind the front margin just a little (scarcely visibly) lobed in the middle. The elytra are distinctly striated, the interstices very faintly convex and rather coarsely punctured. The pygidium is sparingly, very coarsely punctured. The metasternum is channelled in its posterior part, and coarsely and sparingly punctured.

From the collection Laferté, were it was labelled „*Onthophagus apicalis* Reiche.“ It approaches somewhat the *Caccobius Vulcanus*, but

besides the differences in the head and thorax, it is so much smaller that it cannot be confounded therewith.

Caccophilus gemma (n. sp.): *Nigro-cyaneus, nitidus, capite thorace-que aureocupreis, antennis flavis, pedibus rufis; corpus parcius setigerum; clypeo tenuiter marginato, medio obsolete emarginato, disco carinis duabus vix elevatis, anteriore brevissima; prothorace basi tenuiter marginato, parcius sat fortiter punctato, praeter puncta majora punctis minimis adsperso; elytris distincte striatis, interstitiis fortiter parcius biserialim punctatis; metasterno apice obsolete canaliculato.* — Long. 3½ mill.

Pondichery.

Clypeus coarsely and rugosely but not densely punctured, on the middle about as far back as the front of the eyes is a curved but very slightly raised line, and midway between this and the front margin is a second very short line, this is however so small as to be easily overlooked. Thorax very shining, sparingly but rather coarsely punctured. Prosternum without longitudinal carina. Metasternum with only a few scattered punctures, with an obsolete and very short channel at its extremity.

This pretty little species I obtained from the collection Laferté, where it was labelled „*Onthophagus cupricollis* Reiche. Coromandel“, and one of the specimens bore the more special locality. My two specimens are quite alike and though I am not sure as to their sex, I think them probably females.

Obs. Though I have described these species under the generic name of *Caccophilus*, I do not wish it to be therefore considered, that I accept the validity of that genus (or even of the genus *Caccobius*), as distinct from *Onthophagus* as at present understood. After a careful examination of my numerous species of *Caccophilus* and allied *Onthophagi*, I am unable to find in them any character as to which gradual transitions to the genus *Onthophagus* do not exist. Nevertheless as the genus has been established and as these species undoubtedly belong thereto, I have adopted the name for the present.

Oniticellus falsus (n. sp.): *Indumento fusco dense obtectus; palpi labiales articulo secundo valde dilatato, longitudine latiore; clypeo margine anteriore minus fortiter bidentato, dentibus remotis; prothorace antrosum leviter dilatato, superficie areolata; elytris planis, subtiliter sim-*

pliciterque striatis; pygidio trinodoso. — Long. $8\frac{1}{2}$, lat. (prothoracis) 4 mill.

Laos (Mouhot!).

Clothed with a peculiar substance, like *O. ambiguus*, to which species this also bears a resemblance in its facies. The clypeus is a little uneven, it has two obscure longitudinal elevations at the vertex, and is on each side a little depressed between these and the eyes. Thorax about one third broader than long, the front angles produced and rounded, the hind angles indistinct; it bears some obtuse longitudinal elevations which are not well defined, they consist of two central ones which approach one another in the middle so as to be confluent, and on each side a lateral one which is abruptly bent outwards towards the front angles. The scutellum is narrow and similar in form to that of *O. ambiguus*. The elytra are finely striated; the striae being obscured by the clothing, the 4th and 6th interstices are a little elevated. The pygidium is rather large, quite perpendicular, it is densely clothed and has three tubercular elevations. The hind tibiae are slender, their transverse carinae reduced to one or two tubercles bearing setae, their apical spur short, only about half as long as the first joint of the tarsus. The antennae and palpi are yellowish red.

This and the following species will probably form a distinct genus, but as the limits of *Oniticellus* and allied genera are very dubious, I have not ventured to characterize this at present. The dilated joint of the labial palpi meantime will help the recognition of these species.

Oniticellus exsul (n. sp.): *Indumento fusco dense obtectus; clypeo margine anteriore bidentato dentibus approximatis; prothorace antrorsum leviter dilatato, superficie inaequali; elytris planis, subtiliter simpliciterque striatis; pygidio basi biimpresso.* — Long. 8, lat. (prothoracis) 4 mill.

Siam (Mouhot!).

This species resembles closely *O. falsus* and has the last joint of the labial palpi similarly dilated. It is readily distinguished however by the approximate teeth of the clypeus and the structure of the hind legs, as also by some other slighter characters. The hind tibiae are without any trace of carina and bear on the outer side only a few very short and obscure setae; their tarsi are much shorter than those of *O. falsus*.

The specimen described is doubtless a male, it has the inner margin of the front tibiae much curved and the outer margin furnished near the extremity with three very small teeth; on the other hand the individual described of *O. falsus* has the front tibiae, though broad and truncate at the apex, less dilated inwardly and furnished on the outer margin with three stout obtuse teeth, and is probably a female.

Obs. Since the above is in print I have found in a box of unexamined *Onthopagus*, a second ♂ specimen of *Caccophilus tortus* agreeing exactly with the individual above described; this specimen is from Bengal, and as many of the insects placed in the old collections as being from Java, are not found in that island at all, the locality Java for *C. tortus* may be considered very doubtful.
