

VIII. *Descriptions of uncharacterized Genera and Species of Phytophaga.* By J. S. BALY.

[Read 1st August, 1864.]

List of New Species.

1. <i>Lema grvida</i>	Port Natal	15. <i>Clitena</i> (n.g.) <i>limbata</i> ..	Siam
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<i>tibialis</i>	Port Natal	18. <i>Cerochroa maculicollis</i> ..	Old Calabar
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Fam. CRIOCERIDÆ.

Genus LEMA, Fab.

Lema grvida.

Robusta, fulva, nitida; antennis (articulo basali excepto), thoracis puncto utrinque, elytrorum punctis sex, femoribus basi et apice, tibiis tarsisque nigris; thorace subquadrato, lateribus modice constrictis, vix pone medium transversim sulcato, dorso antico bifoveolato et ibi subcrebre punctato; elytris ampliatis, thorace multo latioribus, convexis, fortiter punctato-striatis, striis sulcatis, interspatiis convexis, ad apicem costatis.

Long. 4 lin.; lat. elytr. 2 lin.

Hab. Port Natal.

Antennæ slender, entirely filiform, half the length of the body. Thorax scarcely broader than long; transverse sulcation impressed in the middle with a distinct fovea, the rest of its surface covered with nearly obsolete transverse wrinkles; the two black spots are placed one on either side just behind the anterior angles. Elytra

broadier with relation to the thorax than in any other species with which I am acquainted; the usual depression below the basilar space wanting; the black spots, three on each elytron, are arranged as follows, viz., one on the humeral callus, the second just before the middle of the disk, rather nearer the suture than the outer border, and the third nearly half-way between the middle and the apex of the elytron, placed in the middle of the disk.

Fam. CLYTHRIDÆ.

Genus CLYTHRA, Fab.

Clythra (Diapromorpha) Walleri.

Elongata, cylindrica, postice paullo attenuata, nigra, subtus pube argenteâ adpressâ dense vestita; tibiis tarsisque obscure fulvis; thorace fortiter subcrebre punctato, apice lateribusque (illo medio interrupto) flavis; elytris grosse punctatis, utrisque plagâ basali inter callum humerale et suturam positâ, vittâ marginali a basi ad medium ductâ, ibi introrsum flexâ et fasciam transversam ante suturam abbreviatam formante, maculisque duabus subapicalibus, oblique transversim positis, flavis.

Long. 6 lin.

Hab. Zambesi River.

This species is most nearly allied to *D. argentata*; the thorax is rather less closely but more coarsely punctured, and the pattern both of thorax and elytra is different.

Clythra (Peploptera) tibialis.

Subconico-cylindrica, nitida, nigra, subtus cinereo-sericea; tibiis (basi exceptis) fulvis; thorace elytrisque obscure fulvis, illo lævi, vittâ latâ nigrâ, his distincte punctatis, punctis confuse striatim dispositis, utrisque maculis quatuor, duabus ante medium oblique, duabus vix pone medium (exteriori parvâ) transversim positis, nigris.

Long. 5 lin.

Hab. Port Natal.

Head slightly concave and rugose-punctate between the eyes; base of antennæ fulvous. Thorax very convex, smooth and impunctate, with the exception of two or three small foveæ on either side near the lateral margin; sides rounded and narrowed from base to apex. Scutellum broad, triangular. Elytra coarsely punctured, punctures near the suture arranged in irregular striæ.

Fam. CHRYSOMELIDÆ.

Genus DORYPHORA, Illig.

Doryphora Salvini.

Ovata, valde convexa, sordide fulva, nitida; elytris sat fortiter gemellato-punctato-striatis, flavis, vitta suturali vix ante apicem maculam parvam coeunte, limboque laterali angusto postice fere evanescente, rufo-fuscis; utrisque maculis irregularibus novem, 1-3-3-2 positis, castaneis, instructis.

Long. 6 lin.

Hab. Panama.

Head broad, finely punctured, upper portion of face irregularly but at the same time lightly excavated. Antennæ slightly thickened towards their apex, terminal joints longer than broad. Thorax more than twice as broad as long, sides nearly straight and parallel, rounded and narrowed in front; apex deeply excavated, the anterior angles subacute; above strongly punctured, the punctures being irregularly scattered over the surface. Elytra broader than the thorax, subparallel along the sides, their apex regularly rounded; surface strongly punctured, the punctures being arranged in irregular gemellate striæ: the chestnut patches on the disc of each elytron are arranged as follows, viz., one in the middle of the base, three transversely before the middle, three immediately behind the latter, and two others also placed transversely just before the apex. Mesosternal spine more than half the length of the metasternum.

This new and beautiful species ought to be placed close to *Doryphora nigroguttata*, Stål.

Genus CERALCES, Gerst.

Ceralces ferrugineus, Gerst.

Some years ago I described in the Transactions of this Society (N. S. iv. 88) a species of *Ceralces* from Old Calabar, under the name of *Pseudomela Murrayi*; subsequently, on reading Gerstäcker's description, and seeing also the figure of his insect in Peters' Reise nach Mossambique, I concluded that the two species were identical, and that, from his name having the priority, mine must sink into a synonym.

The arrival, however, of a specimen of *C. ferrugineus* in the Zambesi Collection which is now before me, enables me to show that the two insects, although closely allied, are really distinct, and present clear points of difference.

In *C. ferrugineus* the thorax is more convex, and, together with the head, more coarsely punctured; the basal joints of the antennæ, instead of being entirely red, as in *C. Murrayi*, are obscure rufo-piceous; and the elytra are irregularly punctured over their whole surface. In *C. Murrayi* the elytra are irregularly punctured on the disk, but near the suture the punctures are arranged in longitudinal rows, the puncturing being also finer than in Gerstäcker's insect.

Ceralces Walleri.

Oblongo-ovata, convexa, rufo-fulva, nitida; antennis nigris, pectore, pedibus, antennarumque basi nigro-piceis; thorace elytris latitudine fere æquali, dorso leviter punctato, utrinque unifoveolato; elytris subcrebre punctatis, punctis prope suturam subseriatim dispositis.

Long. $4\frac{1}{2}$ —5 lin.

Hab. Zambesi River.

Mouth nigro-piceous, epistome and vertex closely punctured; lower portion of face just above the epistome impressed with three short longitudinal grooved lines. Thorax twice as broad as long, nearly as broad at the base as the elytra, sides rounded and narrowed from base to apex; disk somewhat distantly, sides rather more closely, punctured.

The broad thorax at once distinguishes this species from either of the two mentioned above; the punctuation of the thorax is also much finer, more especially on the disk.

Ceralces spilota.

Breviter ovata, convexa, fulva, nitida; antennis extrorsum, oculis, thoracis maculis tribus transversim dispositis, elytrorumque maculis octo, harum quatuor infra basim et quatuor vix pone medium positis, nigris; scutello nigro-piceo; thorace transverso, irregulariter punctato; elytris crebre punctatis, punctis prope suturam in seriebus gemellatis dispositis.

Long. $3\frac{1}{2}$ lin.

Hab. Zambesi River.

In form of thorax and body closely resembling *C. Walleri*; rather shorter, however, and stouter than that species. Head coarsely punctured. Thorax feebly excavated on either side the disk. The black patches on the elytra, which are arranged in two transverse rows, vary in my specimens somewhat in size, and it is probable that in some individuals they are considerably enlarged

and cover a much greater portion of the elytra; in that case they would approach in pattern *C. ornata*, described by me from Lake N'Gami. The present species, however, is nearly twice the size of *C. ornata*, and much less coarsely punctured.

Genus CHRYSOMELA, Auct.

Chrysomela (Atechna) Clarkii.

Ovato-rotundata, valde convexa, rufo-picea, nitida; pedibus obscurioribus; antennis nigris, capite thoraceque obscure rufis; elytris obscure rufo-violaceis, subfortiter punctato-striatis, interspatiis planis, subremote tenuiter punctatis; utrisque pustulis rotundatis quatuor 2-2 oblique positis flavis.

Long. $4\frac{1}{2}$ lin.

Hab. Zambesi River.

This lovely insect, the finest of the known species of *Atechna*, is at once to be distinguished from all its congeners by its much greater size; I have named it after my friend the Rev. H. Clark, who is just now engaged on a monographic paper of the genus *Atechna*.

The four spots on each elytron form two obliquely transverse rows on the disc; the first placed before, the second below the middle.

Genus AUSTRALICA, Chevr.

Australica (Stethomela) Parryi.

Subquadrato-oblonga, parallela, valde convexa, cuprea, nitida, æneo-micans, subtus cupreo-ænea; antennis basi pedibusque obscure rufo-fulvis, illis apice nigris; elytris pone medium declivibus, apice angulatis, profunde punctatis, punctis in striis remote dispositis.

Long. $4\frac{1}{4}$ lin.

Hab. Australia.

Head smooth, impressed just above the epistome with a few deep foveæ. Clypeus fulvous, epistome fulvo-æneous. Thorax more than twice as broad as long, sides straight and nearly parallel, narrowed and rounded in front; disk smooth, very minutely punctured, impressed here and there on the sides and hinder half with large deep punctures, which have a metallic green reflexion. The punctures on the elytra, also metallic green, are similar in size to those of the thorax; they are arranged in nine rows, being placed at somewhat irregular and distant intervals in each row; in this respect they approach the punctation of *Stetho-*

mela gibbosa, but the punctures in the present species are much smaller and also closer than in that insect; on the side just below the shoulder is a large deep somewhat transverse excavation.

Genus GONIOCTENA, Redt.

Gonioctena Murrayi.

Oblonga, valde convexa, subparallela, fulva, nitida; mandibularum apice oculisque nigris; elytris castaneis, confuse punctatis.

Long. 3 lin.

Hab. Old Calabar.

Head somewhat closely punctured; thorax twice as broad at the base as long, sides rounded and narrowed from base to apex; apical margin obsoletely bisinuate; upper surface subremotely but distinctly punctured. Scutellum semirotundate. Elytra irregularly punctured.

Gonioctena Fortunei.

Breviter oblongo-ovata, convexa, pallide fulva, nitida; oculis mandibularumque apice nigris; thoracis maculis duabus elytrorumque singulorum maculis sex, piceis; elytris punctato-striatis, interspatiis subcrebre punctatis.

Long. $2\frac{1}{2}$ lin.

Hab. Northern China.

Very nearly allied to *Gonioctena nigroplagiata*, but separated from that insect, in addition to the different number of spots on the elytra, by its shorter form, its pale scutellum, and more coarsely-punctured elytra.

Genus GASTROLINA, Baly.

Gastrolina thoracica.

Oblonga, depressa, æneo-nigra, nitida; thoracis lateribus flavis; elytris fortiter subcrebre punctatis, interdum obsolete costatis, nigro-cæruleis aut purpureis, margine elevato lævi, æneo-nigro; abdominis apice piceo.

Long. $3\frac{1}{2}$ lin.

Hab. Japan.

This pretty species is perhaps only a local variety of *Gastrolina depressa*: it differs chiefly in the coloration of the thorax, which is in the present insect brassy-black with broad lateral margins; this character is constant, without the slightest attempt at variation. The raised vittæ, always more or less visible on the elytra of *G. depressa*, are usually obsolete in the present species.

Genus *LINA*, Redt.*Lina Adamsii*.

Anguste oblonga, convexa, viridi- aut cæruleo-metallica, nitidissima; abdominis limbo, pedibus, thorace antennisque rufo-fulvis, his unguibusque extrorsum nigris; elytris subcrebre punctatis, viridi-æneis aut cæruleis.

Long. 4—5 lin.

Hab. Chusan. This beautiful insect was collected in some abundance by Messrs. Bowring and A. Adams. After this latter gentleman I have named it, as a slight token for his exertions in obtaining, and liberality in dispersing, the Phytophagous Coleoptera of Japan and Mantchuria.

In size this species approaches closely to *Lina cuprea*, but in sculpture and form of thorax, viz., in the absence of the thickened lateral border, it resembles *Lina ænea*. The totally different coloration will easily separate it from either insect.

Genus *PLAGIODERA*, Redt.*Plagiodera celestina*.

Late ovata, modice convexa, rufo-testacea, nitida; vertice antennisque extrorsum nigris; elytris tenuiter subcrebre punctatis, cupreis.

Long. $2\frac{1}{2}$ lin.

Hab. Hong Kong. Collected by Mr. Bowring.

Narrower and more ovate than *P. cinctipennis*; the elytra also more closely punctured and wanting the pale lateral border.

Plagiodera cuprea.

Ovata, valde convexa, cuprea, nitida; thorace disco tenuiter, irregulariter, lateribus rude, subcrebre punctato; scutello lævi; elytris confuse punctatis.

Long. $4\frac{1}{2}$ lin.

Hab. Lake N'Gami.

Sides of thorax nearly straight and parallel behind, narrowed and rounded in front; scutellum semi-rotundate; elytra rather broader at their base than the thorax, their sides rounded.

Fam. *GALLERUCIDÆ*.Genus *CLITENA*.

Corpus elongato-oblongum, convexum, opacum, supra pube brevissimâ vestitum. *Caput* thorace insertum, perpendicu-

lare; *antennis* robustis, articulis 4^{to} ad 11^{um} modice dilatato-compressis; *oculis* ovatis, integris; *palporum* maxillarium articulo ultimo conico, acuto. *Thorax* transversus, irregulariter excavatus. *Elytra* thorace paullo latiora, parallela, convexa. *Pedes* modice robusti, simplices; *coxis* anticis fere perpendicularibus, contiguis; *femoribus* posticis non incrassatis, *tibiis* posticis apice inermibus, *unguiculis* bifidis. *Mesosternum* angustum, acutum.

Type *Clitena limbata*.

The dilated antennæ at once separate this genus from *Galleruca*, near to which it must be placed.

Clitena limbata.

Subelongata, subparallela, fulva, subtus nitida; pedibus (femorum basi excepta) obscure æneis; antennis nigris; thorace elytrisque crebre punctatis, obscure æneis, subopacis, illo limbo vittâque latâ centrali, his limbo angusto, fulvis.

Long. 5 lin.

Hab. Pachybouri, Siam. Collected by the late M. Mouhot.

Head coarsely punctured, front impressed by a longitudinal groove, which extends downwards as far as the apex of the epistome; just below the upper margin of the eyes it is traversed by a deep transverse groove, either extremity of which curves downwards and runs parallel with the inner edge of the eye; on either side, placed immediately above the insertion of the antennæ, is a smooth slightly-raised semi-lunate space, bounded above and outwardly by the transverse, within by the longitudinal, groove; antennæ more than two-thirds the length of the body; vertex marked with a large obscure viridi-æneous patch. Thorax twice as broad as long; sides nearly straight and parallel, narrowed and rounded in front, anterior angles produced into an obtuse tooth; surface rugose-punctate, impressed on either side with a short transverse excavation; middle of the disc impressed with a longitudinal groove, which extends from just behind the apical margin nearly to the base, its basal portion dilated. Elytra subparallel, scarcely dilated posteriorly, their apex broadly rounded, very closely punctured, and clothed with short adpressed hairs; on the surface of each elytron are three or four indistinct, nearly obsolete, raised vittæ.

Clitena melancholica.

Subelongata, convexa, nigra, subopaca; thorace rugoso, irregulariter excavato, elytris crebre punctatis, pube brevi adpressâ concolori dense vestitis.

Long. $5\frac{1}{3}$ lines.

Hab. Laos, Siam.

Head coarsely punctured, excavated on the front; antennæ more than two-thirds the length of the body, sixth and following joints compressed and dilated, ninth, tenth and eleventh very short, decreasing in width. Thorax scarcely twice as broad as long, sides rounded at the base, nearly straight and subparallel along their middle, thence quickly narrowed to the apex, anterior angles thickened; surface irregular and excavated. Elytra subparallel in front, scarcely dilated posteriorly, much more finely punctured than the thorax.

Genus LAPHRIS.

Corpus oblongo-elongatum, convexum. *Caput* exsertum, facie perpendiculari; *antennis* modice robustis, filiformibus, articulo secundo brevissimo; *palporum* articulis duobus ultimis conjunctim ovatis. *Thorax* transversus, dorso utrinque transversim sulcatus. *Elytra* oblonga, irregulariter punctata. *Pedes* modice robusti; *coxis* anticis fere contiguis, perpendicularibus, *femoribus* posticis non incrassatis; *tibiis* posticis apice spinâ brevi armatis, *unguiculis* appendiculatis. *Metasternum* antrorsum ultra coxas intermedias productum.

Type *Laphris emarginata*.

Nearly allied to *Aplosonyx*, separated by the appendiculated claws and produced metasternum.

Laphris emarginata.

Oblongo-elongata, parallela, convexa, pallide fulva, nitida; oculis elytrorumque vitta lata, mox infra basin fere ad apicem extensa, extus sat profunde emarginata, nigris; antennis (basi exceptâ) fuscis.

Long. 5 lin.

Hab. Northern China.

Thorax nearly twice as broad as long, coarsely punctured, impressed in the middle of the base with a large fovea; sides nearly parallel, sinuate behind the middle, posterior angles produced, the anterior angles thickened and rounded, very obtuse. Scutellum smooth, triangular. Elytra convex, their apex slightly

dehiscent, indistinctly impressed transversely below the basilar space, somewhat closely punctured.

Genus CEROCHROA, Gerst.

Cerochroa maculicollis.

Elongata, convexa, nitida, subtus cum antennis nigra; capite, thorace, antennarum articulo basali, scutelloque sordide flavis, ore verticisque plagâ pallide piceis; thoracis punctis quinque, 4-1 transversim positus, nigris; elytris castaneis.

Long. 6 lin.

Hab. Old Calabar.

Antennæ longer, more slender, and less compressed than in any other known species of the genus; nearly half the length of the body. Thorax narrowed and slightly rounded from base to apex; disc coarsely but subremotely punctured. Scutellum subtrigonal, distinctly punctured. Elytra somewhat closely punctured. Metasternum produced anteriorly into a strong spine, which reaches to the front edge of the anterior coxæ. Extreme apex of abdomen obscure fulvous.

Genus LÆTANA.

Corpus subelongatum, convexum, non metallicum. *Caput* modice exsertum, perpendiculare; *oculis* prominentibus, rotundato-ovatis, integris; *antennis* corporis longitudini fere æqualibus, ♂ robustis, ad apicem attenuatis, articulis 3-8 incrassato-dilatatis, 7-8 latitudine decrescentibus, 9-11 gracilibus, filiformibus; ♀ gracilibus, filiformibus; in utroque sexu articulis primo incrassato, secundo brevi. *Thorax* transversus, dorso impressus. *Elytra* thorace sat latiora, oblonga, postice paullo ampliata, convexa, confuse punctata. *Pedes* mediocres, robusti, simplices; *coxis* anticis erectis, contiguis; *femoribus* posticis non incrassatis; *tibiis* posticis apice spinâ validâ armatis; *unguiculis* bifidis. *Prosternum* obsoletum.

Type *Lætana histrio*.

The spine at the apex of the hinder tibiæ, the peculiar form of the antennæ in the male, together with numerous other characters, separate this genus from *Diamphidia* and other allied forms.

Lætana histrio.

Subelongata, postice paullo ampliata, convexa, pallide fulva, subnitida; oculis, antennis (harum articulis basalibus infra exceptis), pectore, pedibus, scutello, elytris nigris; his

crebre punctatis, margine basali plagisque tribus, duabus transversim ante medium, tertia magna pone medium, superficiem fere amplectente, positus, pallide fulvis; thorace punctis duobus fuscis notato.

Var. A. Thoracis punctis fuscis obsoletis, elytrorum plagis inter se confluentibus.

B. Elytris totis fulvis.

C. ♀ Abdomine nigro, disco obscure fulvo.

Long. 4—4½ lin.

Hab. Port Natal.

Epistome strongly raised into a longitudinal ridge between the insertion of the antennæ; between the upper portion of the eyes extends a transverse groove, from the middle of which a longitudinal grooved line runs downwards to join the apex of the epistome; on either side this medial line, and bounded above by the transverse groove, is a smooth, slightly raised, subtriangular space; vertex minutely but not closely punctured. Thorax transverse, nearly twice as broad as long; sides narrowly margined, nearly straight and parallel, slightly narrowed and rounded just behind the anterior angles; disc impressed on either side by a large deep fovea, surface finely punctured.

Genus PLATYXANTHA.

Corpus elongatum, depressum, non metallicum, nitidum.

Caput exsertum, subelongatum, compressum, perpendiculare; *antennis* robustis corpore brevioribus, aut filiformibus, aut apicem versus perparum incrassatis, articulis duobus ultimis (♂) dilatatis, sæpe difformibus; *oculis* modice prominentibus, integris; *mento* a basi ad apicem angustato, subconico; *ligulâ* elongatâ, 5-angulatâ; *palpis* prope apicem insertis, palporum maxillarium articulis duobus ultimis conjunctim ovatis. *Thorax* subquadratus, disco deplanato, leviter excavato, angulis anticis deflexis. *Elytra* thorace latiora, modice convexa, dorso leviter depressa, parallela, confuse punctata. *Pedes* elongati, modice robusti; *coxis* crassis, erectis, contiguis; *femoribus* non incrassatis; *tibiis* posticis apice non spinosis, intus vix ante apicem in processum validum productis; *unguiculis* acute appendiculatis. *Prosternum* obsoletum. *Mesosternum* apice subacutum, integrum. *Abdominis* apice exserto.

Type *Platyxantha apicalis*.

This genus is one of the most remarkable in the whole group of *Gallerucidæ*. The peculiar depressed form of the head and

thorax, the dilated joints at the apex of the antennæ, together with the peculiar lobe or process at the apex of the hinder tibiæ, will readily separate it at once from all other known genera. Although I possess three distinct species, all collected by Mr. Wallace, I unfortunately know apparently only the male sex.

Platyxantha apicalis.

Angustato-elongata, pallide fulva, nitida; antennarum articulis duobus ultimis, scutello, genubus, tibiis, tarsisque nigris.

Long. 4 lin.

Hab. Sumatra.

Head flattened and strongly compressed, oblong-elongate; epistome slightly thickened, triangular, truncate at the base, its surface smooth, the centre being traversed by a longitudinal ridge; on the front, just above the insertion of the antennæ, is a short perpendicular groove, which is bounded above by a transverse impressed line; at the point of junction between the two is a single fovea. Antennæ moderately robust; third and six following joints gradually decreasing in length, the ninth, tenth and eleventh joints moderately thickened, the tenth nearly equal in length to the ninth, the eleventh somewhat longer, its apex pointed; on the upper edge of each joint from the third to the ninth inclusive is a raised ridge, this is replaced on the last two joints by an elevated, ovate, cup-like space. Thorax scarcely longer than broad; sides nearly parallel, running slightly outwards from their base to beyond their middle, then curving slightly inwards to their apex; upper surface deflexed on the sides, especially in front, remotely and finely punctured; disc flattened and impressed with three large ill-defined foveæ, the first larger than the others, broadly ovate and extending from the apex to below the middle, the two others smaller but more deeply impressed, placed transversely one on either side the hinder portion of the disc, just in front of the posterior margin. Scutellum triangular, its apex rounded. Elytra not depressed below the base, finely punctured. Hinder tibiæ produced on the inner edge, just before the apex, into a slightly curved lobiform process, the apex of which is armed with a small incurved tooth.

Platyxantha nigricornis.

Elongata, parallela, rufo-picea, nitida; capite thoraceque obscure fulvis; oculis, pedibus antennisque (articulo basali excepto)

nigris; harum articulis duobus ultimis magnis, valde incrassatis, difformibus.

Long. $3\frac{1}{2}$ lin.

Hab. Java.

Head as in the last species; antennæ very robust, joints increasing in thickness from the fourth to the ninth, fourth to the eighth inclusive short, slightly compressed, subtrigonal, furnished, as in *P. apicalis*, with an acute ridge on their inner edge; ninth rather thicker, equal in length to the fourth; tenth and eleventh large, greatly thickened, nearly equal, forming conjointly more than a third of the whole length of the antenna, the inner surface of each deeply excavated, the excavations smooth and shining, the one on the tenth irregular and armed with two coarse teeth; terminal joint acute. Thorax more narrowed in front than in *P. apicalis*; surface smooth, impressed in front with a longitudinal groove, and on either side, behind the middle, with a broad transverse depression. Elytra very minutely punctured; basilar space bounded below by a curved depression. Hinder tibiæ armed on the inner edge, just before the apex, with a curved styliform process.

Platyxantha ventralis.

Elongata, modice convexa, parallela, fulva, nitida; pedibus antennisque pallidioribus; harum articulis duobus ultimis crassis, intus excavatis, concoloribus; oculis abdomineque piceo-nigris.

Long. $3\frac{1}{2}$ lin.

Hab. Mount Ophir, Singapore.

Head shorter than in either of the two preceding species; forehead less depressed, the part above the insertion of the antennæ between the upper portion of the eyes occupied by two indistinctly-raised subquadrate spaces; antennæ intermediate in size between those of *P. apicalis* and *nigricornis*, joints coarsely punctured, third to the eighth nearly equal both in length and thickness, the ninth much shorter than the eighth, tenth and eleventh much thickened, together nearly equal in length to a third part of the whole antenna, the eleventh half as long again as the tenth, its apex acute, both joints deeply excavated on their inner sides. Thorax distinctly but finely punctured; disc impressed on either side behind the middle with an oblique fovea; sides nearly straight and parallel, narrowed just behind the anterior angles. Elytra distinctly punctured; basilar space bounded beneath and laterally

by a curved depression. Hinder tibiæ armed within, just before the apex, with a slightly curved styliform process.

Genus DORIDEA.

Corpus anguste oblongum, convexum, non metallicum, nitidum. *Caput* exsertum, facie perpendiculari; *oculis* prominulis, integris; *antennis* ♂ robustis, articulis 9-10 valde incrassatis, difformibus; ♀ minus robustis, filiformibus; *mento* transverso-quadrato; *palporum* articulis duobus ultimis conjunctim ovatis. *Thorax* transverso-quadratus, dorso impressus. *Elytra* thorace latiora, subparallela, modice convexa, dorso subdepressa, sæpe elevato-vittata, confuse punctata. *Pedes* robusti; *coxis* anticis crassis, erectis, fere contiguis; *femoribus* posticis non incrassatis; *tibiis* posticis ♂ apice in processum acutum productis, ♀ simplicibus; *tarsorum* anticorum articulo basali ♂ valde dilatato; *unguiculis* appendiculatis. *Prosternum* fere obsoletum. *Mesosternum* apice non emarginatum.

Type *Doridea insignis*.

Doridea is very closely allied to *Platyxantha*; they both agree in having a certain number of joints dilated in the antennæ of the ♂, but in the present genus these joints are the ante-penultimate and penultimate, not the two ultimate as in the former; *Doridea* is also more robust and less depressed than *Platyxantha*.

Doridea insignis.

Subelongata, modice convexa, nitida, picea; pedibus antennisque obscure fulvis, antennarum articulis 9-10 sat dilatatis, compressis.

Long. $3\frac{1}{2}$ lin.

Hab. Tringaneæ.

Head short, apex of epistome forming a perpendicular ridge, which passes upwards between the insertion of the antennæ; front smooth, impressed with three small foveæ, placed in a triangle on its surface, from the centre one a perpendicular groove runs downwards to join the apex of the epistome. Antennæ nearly as long as the body, robust; basal joint incrassate, curved, clavate, second short, third to the seventh cylindrical, each gradually thickened from base to apex, nearly equal in length, the third being rather longer than the others; all gradually increasing in width from the fourth to the eighth, this latter joint very short and transverse; ninth and tenth largely dilated and thickened, irregular in shape,

compressed; eleventh slender, styliform. Thorax transverse-quadrate, sides nearly straight and parallel, obliquely narrowed just behind the anterior angles; above smooth and shining, distantly punctured, impressed on either side, just behind the middle, with a large deep fovea; foveæ more closely and coarsely punctured than the remainder of the surface. Scutellum triangular, its apex obtuse. Elytra broader than the thorax, subparallel; their apex obtuse, conjointly emarginate at the sutural angle, strongly but not coarsely punctured; the surface of each elytron with about eight indistinctly raised longitudinal vittæ.

GENUS THEOPEA.

Corpus elongatum, angustatum, parallelum, sæpe metallicum.

Caput exsertum, declive; *antennis* sat gracilibus, corpore vix brevioribus, articulis cylindricis; ♂ subfusiformibus, articulis intermediis leviter incrassatis, cylindricis aut compressis; ♀ subfiliformibus, ad apicem non aut vix attenuatis; articulo primo leviter curvato, paullo incrassato, secundo brevi, cæteris inter se fere æqualibus, singulatim primo brevioribus; *oculis* ovatis, prominentibus, integris. *Thorax* subquadratus, dorso impressus. *Elytra* thorace paullo latiora, elongata, parallela, modice convexa, dorso subdepressa, punctato-striata, interspatiis alternis leviter costatis. *Pedes* graciles, elongati; *coxis* anticis erectis, contiguis; *femoribus* posticis non incrassatis; *tibiis* posticis apice inermibus; *tarsorum* posticorum articulo basali duobus sequentibus longiori; *unguiculis* appendiculatis. *Prosternum* fere obsoletum. *Mesosternum* apice acutum.

Type *Theopea impressa*, Fab.

Theopea pulchella.

Elongata, angustata, parallela, metallico-cærulea, nitida; *antennis* nigris, articulis apice albidis, articulis intermediis inter se longitudine æqualibus; thorace profunde bi-impresso; elytris costatis, interspatiis bifariam punctatis.

Mas.—*Antennarum* articulis intermediis modice incrassatis, cylindricis.

Fæm.—*Antennis* subfiliformibus, ad apicem vix attenuatis.

Long. 3 lin.

Hab. Sumatra.

This species closely resembles *T. impressa*, Fab.; in the present insect the intermediate joints of the antennæ are cylindrical and

nearly equal in length; in *impressa* they are unequal, the sixth joint being elongate, and, together with the seventh, compressed.

Theopea elegantula.

Elongata, angustata, parallela, metallico-cærulea, nitida; antennarum apice albido; thorace foveâ magnâ transversâ antice bilobatâ profunde impresso; elytris costatis, interspatiis bifariam punctatis.

Mas.—Antennarum articulis 7—9 paullo incrassatis, latitudine perparum decrescentibus, cylindricis.

Fœm.—Antennis subfiliformibus, ad apicem obsoletius attenuatis.

Long. $2\frac{2}{3}$ lin.

Hab. Sarawak.

The different form of the dorsal impression on the thorax, together with the difference in the structure of the antennæ in the male, will separate this insect from the preceding.

Theopea Mouhoti.

Elongata, angustata, parallela, subtus nigro-picea, supra sanguinea; antennis nigris; thoracis dorso utrinque profunde excavato; elytris costatis, interspatiis bifariam punctatis.

Mas.—Antennarum articulis intermediis inter se fere æqualibus, modice dilatatis, cylindricis.

Long. $3\frac{1}{2}$ lin.

Hab. Siam. Collected by the late M. Mouhot.

Genus *ATYSA.*

Corpus elongatum, angustatum, parallelum, subopacum, non metallicum. *Caput* exsertum; *antennis* robustis, corporis longitudini æqualibus aut vix brevioribus, filiformibus, ad apicem paullo attenuatis, articulo secundo brevi; *oculis* integris, prominentibus, ovatis. *Thorax* transversus, dorso plano aut transversim concavo-excavato. *Elytra* thorace vix latiora, parallela, modice convexa, crebre punctata, pube brevissimâ adpressâ vestita. *Pedes* subelongati, modice robusti, simplices; *coxis* anticis basi transversis, crassis, erectis, subcontiguis; *femoribus* posticis non incrassatis, *tibiis* posticis muticis; *unguiculis* appendiculatis. *Prosternum* angustissimum.

Type *Atysa terminalis*.

The narrow parallel form will at once divide this genus from *Galleruca* and its allies.

Atysa terminalis.

Elongata, angustata, nigra; thorace depresso, rude crebre punctato; elytris fulvis, crebre punctatis, tertio postico nigro-purpureis.

Long. 3—4 lin.

Hab. Mysol.

Genus *ALOPENA*.

Corpus elongato-ovatum, convexum, nitidum. *Caput* extrorsum subperpendiculare; *antennis* corpore multo longioribus, gracilibus, *articulis* filiformibus, primo vix incrassato, curvato, secundo brevissimo, 3-4que utrisque articulo basali fere æqualibus, cæteris singulis paullo longioribus, 3-7 leviter curvatis; *oculis* prominentibus, integris. *Thorax* transversus, disco lævi, utrinque obsolete impresso. *Elytra* thorace paullo latiora, oblonga, subparallela, confuse punctata. *Pedes* simplices, graciles; *coris* anticis crassis, erectis, contiguis; *femoribus* posticis non incrassatis; *tibiis* posticis apice spinâ acutâ armatis; *tarsorum* posticorum articulo basali tribus sequentibus longiori; *unguiculis* appendiculatis.

Type *Alopena collaris*.

This genus must stand close to *Luperodes*, Motsch.; it is separated by the long slender antennæ, together with the longer third joints of the latter.

Alopena collaris.

Elongata, ovata, pallide fulva, nitida; oculis, antennis elytrisque nigris; abdomine, tibiis posticis apice, tarsisque piceis.

Long. 2 lin.

Hab. New Guinea.

Antennæ more than half as long again as the body; face deeply excavated on either side between the eyes; epistome produced upwards as a longitudinal ridge between the insertion of the antennæ; above the latter is a distinct transverse groove. Thorax smooth, impressed on either side the disc by a shallow fovea. Elytra closely punctured.

Fam. CASSIDIDÆ.

Genus *CALOPEPLA*, Boh.*Calopepla Livingstonii*.

Elongata, subparallela, modice convexa, dorso deplanata, subtus obscure nigro-picea; pedibus nigris, prosterno abdominisque

maculis obscure fulvis; supra fulva, subnitida; antennis vertice elytrorumque margine basali nigris; thorace lateribus sinuatis, intra latera bifossulato, disco lævi utrinque foveolato et ibi fusco-maculato; elytris profunde punctato-striatis, interstitiis elevato-reticulatis, interspatiis alternis modice carinatis.

Long. 5 lin.

Hab. Zambesi. Collected by Mr. Waller.

Thorax nearly as wide at its base as the elytra, quickly narrowed from base to apex; sides nearly straight, sinuate in their middle; apical margin truncate, anterior angles scarcely produced, obtuse.

The discovery of a species of the (hitherto considered) exclusively Indian genus *Calopepla*, in the southern portion of tropical Africa, is highly interesting, and, like the similar occurrence of *Sagra*, *Hoplionota*, *Aspidomorpha*, and other genera common to the two countries, would seem to point to a former more intimate connexion between these two quarters of the globe, rendering it probable that in some former geological epoch a large connecting tract of now-submerged land existed in the Indian Ocean. In accordance with this view, the few known species of the genus (only four in number) found in such widely-distant localities, and agreeing so completely in generic characters, may be looked upon as the remnants of a much more numerous race, which formerly flourished in greater abundance on the now lost intermediate continent.

An analogous case in the same family is to be found in the nearly allied genus *Hoplionota*, the species of which, according to Boheman, are exclusively confined, on the one hand, to Madagascar and southern Africa, on the other to India and the Malay Archipelago. Madagascar and Ceylon (both of which islands are probably remnants of the now lost land) contain more than two-thirds of the known species, the others (four in Africa and five or six in India and the Malay Archipelago) spreading in either case in a southerly direction on their respective continents. The occurrence of so large a proportion of the species in Madagascar and Ceylon would seem to show that the birthplace or metropolis of the genus formerly existed at some intermediate point, and that the species now living have spread themselves on either side from this common centre.

It may however be argued that these various genera have migrated over both continents through Egypt, Arabia and Persia; the alteration of climate, the spread of sandy deserts, and other causes, having given rise to the gradual or sudden extinction of

species formerly living in great abundance in those portions of the globe: indeed, several species of *Sagra* are still existing in Abyssinia and northern India. But I think it may be shown that these species originally migrated northwards from the southern tropics, and not southwards from more northerly latitudes. The African and Asiatic species of *Sagra* present two well-marked types; the species found in either continent bearing those peculiar characters which belong to their congeners of that quarter of the world to which they geographically belong. Now had the genus originally spread itself southwards from the northern tropics across the equator, the species inhabiting Abyssinia and northern India ought surely to present more points of similarity than those of the more southern latitudes, as being nearer the common source from which the genus originally sprang; this, however, is not borne out by facts, the species inhabiting those countries being as distinct from each other, and bearing respectively the characters of the African or Asiatic types as strongly developed, as those found in Madagascar, India or Java.

Genus *DOLICHOTOMA*, Hope.

Dolichotoma Salvini.

Rotundata, ♂ subtriangularis, ♀ convexa, obscure ænea, subnitida; elytris rude et profunde punctatis, elevato-reticulatis, antice retusis, modice transversim gibbosis, disci maculis plurimis margineque explanato-sanguineis, hoc sat dilatato, æneo-limbato, disco maculis irregularibus æneis notato.

Var. A.—Elytris sanguineis, sutura, limbo exteriori, maculis rugulisque disci æneis.

B.—Elytris disco toto æneo.

Long. 7 lin.

Hab. Panama. Collected by Mr. Salvin.

Antennæ ♂ longer than half the body. Thorax twice as broad as long, sides oblique, base deeply bisinuate on either side, medial lobe emarginate at its apex; surface opaque, centre of disc impressed with a longitudinal groove, which terminates anteriorly in a narrowed ridge; this last is continued onwards to the apical margin. Elytra much wider than the thorax, their lateral border broadly dilated; shoulders regularly rounded in the ♂, obliquely rounded in the ♀; sides rounded, gradually narrowed from their middle towards the apex, the latter obtuse; dilated margin smooth, opaque, impunctate.

Genus MESOMPHALIA, Hope.

Mesomphalia Salvinii.

Subrotundata, modice convexa, viridi-metallica, subnitida, subtus nitida; thorace subtilissime punctato, lateribus a basi ad apicem rotundato-angustatis, margine antico fulvo; elytris dorso antico minus profunde—pone medium margineque subtilissime—punctatis, utrisque plagâ transversâ magnâ, antice emarginatâ, postice sinuatâ, fulvâ, æneo-trinotatâ.

Long. 5—6 lin.

Hab. Panama.

Extremely close to *M. discoides*, but at once to be distinguished from that insect by its much finer punctation; the elytra are also broader, their shoulders being more regularly rounded. Antennæ equal in length to the thorax, black, four or five basal joints fulvous beneath. Thorax opaque, obsoletely punctured; sides less dilated than in *M. discoides*, being regularly narrowed and rounded from base to apex. Elytra ♂ much broader than the thorax; sides broadly dilated, obliquely rotundate-ampliate at the shoulders, thence rotundate-angustate to the apex, the latter conjointly subangulate; the fulvous patch on each elytron is placed transversely across the middle of the disc, extending from just within the lateral border nearly to the suture; its surface is marked with three small æneous spots, placed triangularly on its middle.

Genus BATONOTA, Boh.

Batonota Godmanii.

Subtriangularis, convexa, obscure fulvo-fusca aut picea, subnitida; antennis (basi exceptâ) nigris; elytris viridibus, basi retusis, ante medium alte transversim gibbosis, confuse, prope suturam seriatim punctatis, disco laxe elevato-reticulatis, ad suturam bicarinatis; humeris antrorsum vix productis, acute angulatis, dorso carinâ obliquâ instructis; margine late explanato, fulvo, æneo-punctato, limbo toto æneo.

Long. 6 lin.

Hab. Panama.

Nearly allied to *B. bivittipennis*, Boh., to which species it bears the most striking resemblance in general form, sculpture and pattern of coloration; it may, however, be distinguished by the colour of the body, and still more easily by the form of the

gibbosity of the elytra, this part being much produced in the present species, and forming a short flattened spine; in *bivittipennis*, on the other hand, it is very short, and approaches more nearly to *B. peregrina* and other allied species.

Thorax twice as broad as long; sides obliquely dilated, very slightly rounded; surface opaque, obsoletely punctured, impressed along the base with four or five large foveæ; anterior half of the disc deeply excavated, leaving the medial line as a distinct longitudinal ridge. Scutellum smooth, impressed in the middle with a large deep fovea.



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