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2.24	Naga hills.	77 ²¹	Neornis assimilis d.
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$2\cdot 2$	Darjeeling.	Hume.	Horeites brunnescens.
$2\cdot 2$	Nepal.	Hodgson.	Neornis assimilis.
2.2	Naga hills.	G. Austen.	" Ý·
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2.18	Nepal.	Hodgson.	
2.15	Darjeeling.	Brooks.	Horeites pallidus.
2.15	Khasa.	G. Austen.	Neornis assimilis.
2.14	Sikkim.	"	Horornis fortipes.
2.14	Shillong.	"	Neornis assimilis d'.
2.14	Cashmere.	Brooks.	Horeites pallidus.
2.13	Shillong.	G. Austen.	Neornis assimilis d.
2.13	Darjeeling.	Blyth.	Drymœca brevicaudata
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4. Description of new Species of Phytophagous Coleoptera from Central and South America. By MARTIN JACOBY.

[Received November 13, 1878.]

1. LEMA SUFFRIANI, Sp. nov.

Oblong, light testaceous. Head and breast black; elytra striatepunctate, testaceous, a short sutural and submarginal stripe at the base and two small spots, one before, the other behind the middle of each elytron, violaceous black.

Length $2\frac{3}{4}$ - $3\frac{1}{2}$ lines.

Head shining black, impunctate, not constricted behind the eyes, the lateral grooves very deep; antennæ nearly as long as half the body, of a uniform light rufous or testaceous colour, only the basal joint stained with piceous; thorax scarcely longer than broad, deeply constricted behind the middle, smooth, impunctate, testaceous; scutellum subquadrate, black. Elytra strongly and very regularly punctate-striate, the ninth stria entire, the interstices slightly raised towards the apex; a short longitudinal sutural stripe at the base, another of equal length covering the shoulder and pointed posteriorly, where both stripes finish a little before the middle, a small round spot between these stripes at their end, and another spot at a little distance from the apex of each elytron, shining violaceous black. Abdomen and the legs testaceous.

Hab. Volcano of Irazu, Costa Rica.

Collected by Mr. Rogers.

This species bears a close resemblance to L. bifida, Oliv., and L. semisepta, Lac., in coloration, but is distinguished from the first by the elytra having two spots instead of one, the uniformly coloured antennæ and the smooth thorax, while the same differences distinguish it from the latter species. I have seen about a dozen specimens, all of which agree exactly with each other in having the light-coloured antennæ and legs and the two spots on each elytron.

2. MASTOSTETHUS SALVINI, Sp. nov.

Elongate, parallel, testaceous, the sides of the breast and the upper part of the head shining black. Thorax rufous, nitidous. Elytra light testaceous, a large semiquadrate patch from the base to the middle on each, and a broad transverse fascia behind the middle, common to both elytra, black.

Length 41 lines.

Head distinctly punctured round the eyes, the other part smooth and shining, lower part of face flavous, upper part black; antennæ reaching to the base of the thorax, testaceous, the first to the eighth joint above stained with black, but diminishing towards the apex, and entirely disappearing from the ninth joint. Thorax narrowed from the base to the apex; surface very minutely and widely punctured, impressed near the hinder angles with a distinct fovea; scutellum black. Elytra subdepressed above, narrowed towards the apex, surface strongly but not very closely punctured; pale testaceous, a large spot on each elytron from the base to the middle, narrowed towards the suture, and a transverse fascia (neither of which extends quite to the lateral margin), the latter only separated from the former by a narrow interval, with the posterior margin irregular, black; the apex of the elytra are of the ground-colour to about the same extent as the width of the transverse band. The underside, with the exception of the sides of the breast, the dorsal surface of the four anterior femora, and all the tibiæ, which are black, testaceous; hinder femora and inner side of tibiæ of the same colour, the former with a distinct tooth near the apex.

Hab. Cache, Costa Rica.

Collected by Mr. Rogers.

3. LAMPROSOMA CHAPUISI, sp. nov.

Ovate, convex, dark violaceous ; head, lateral and anterior margins

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of thorax, apex of the elytra, outside of legs brilliant aureous or copper-coloured. Head distinctly punctured.

Length 2 lines.

Head finely granulose, rather deeply but not closely punctured, bright aureous; first and second joint of the antennæ of the latter colour, the rest black. Thorax with its sides straight, anteriorly much deflexed, the surface very convex and obtusely punctured, much less distinctly visible than the punctures of the head, of an almost black violaceous, with the anterior margin very narrowly and the sides to a greater extent, but diminishing in width towards the base, ornamented with bright metallic reddish-golden colour; the inner margin of this colour at the sides of the thorax is deeply den-Elytra very convex near their base, distinctly narrowed tate. towards the apex; each elytron with ten rows of rather coarse and very regularly placed punctures, which scarcely diminish in size towards the apex, the interstices smooth and impunctate ; the colour is of the same dark violaceous as that of the thorax; and at the apex of each elytron is an elongate-oval patch of the same metallic colour as the head and the thorax. Underside black, the outer sides of all the legs metallic aureous ; tarsi black.

Hab. Costa Rica.

In my collection.

This species is very closely allied to L. *ignicaudatum*, Lac., and L. *coruscum*, Lac.; but differs from the former by the deeply punctured head, and the shape of the golden lateral band of the thorax, while it is distinguished from the latter species by the shape of the elytral spot, the colour of the thorax, and the colour of the legs.

4. LAMPROSOMA INORNATUM, Sp. 110V.

Ovate-globose, black, shining, above brilliant violaceous blue. Head finely, thorax distinctly punctate; elytra striate-punctate; prosternum smooth.

Length 21 lines.

Head rather convex, with a small roundish fovea in the middle, widely and finely punctured, violaceous blue, bordered anteriorly with metallic green; antennæ black, the second joint fulvous. Thorax transverse, the anterior angles much deflexed, the sides rounded; posterior margin sinuate on each side, with an obsolete short depression on each side of the median lobe; the surface much more distinctly punctured than the head, and increasing in size towards the base. Elytra very convex, their greatest convexity lying very near the middle viewed sideways, they are gradually narrowed towards the apex; and each elytron has ten rows of rather deep punctures, which diminish slightly towards the apex in size; the colour is a brilliant violaceous blue with a greenish tint. Underside and legs black, shining, finely alutaceous and punctured; prosternum elongate, quadrate, perfectly smooth, with a few rows of short whitish hairs.

Hab. Chiriqui.

In my collection.

Although this species is nearly allied to L. testudineum, Lac., as

well as to *L. cyaneum*, Lac., it is from both distinguished by its smooth prosternum, from the former by the punctured head, from the latter by the want of the depression at the head.

5. NODA LEFEVREI, sp. nov.

Broadly ovate, uniformly greenish æneous. Head coarsely, thorax less strongly punctured. Elytra semipunctate-striate, costate near the apex.

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

Head strongly and closely punctate, especially between the eyes, where the punctures are of an oblong shape. Eyes very prominent; clypeus also strongly punctured, separated from the face, its anterior margin crescent-shaped ; antennæ as long as half the body, the last five joints much thickened, and the terminal one very robust and strongly pointed at the apex, the lower six joints shining greenish æneous above, fulvous below, the rest black and opaque. Thorax very narrowed towards the apex, with the posterior angles acutely produced ; surface moderately punctured, the punctures not stronger near the sides than those on the disk, and not extending to the anterior or the posterior margin. Scutellum with a few punctures. Elvtra convex, with a very obsolete depression below the base; surface very deeply and regularly punctate-striate near the outer margin, finer and more irregularly towards the suture ; the intervals towards the apex raised in longitudinal costæ, of which the third and fourth (counting from the outer margin) are united posteriorly sending off a short costa towards the apex. Underside and legs æneous, extreme apex of the tibiæ and the tarsi darkish rufous.

Hab. Costa Rica (volcano of Irazu); Guatemala.

Closely allied to Noda semicostata, Lefèvre ; but distinguished by the equal punctuation of the thorax, which, in the former species, is, according to the description, strong and dense at the sides.

6. NODA BALYI, sp. nov.

Broadly ovate, æneous, shining; antennæ, palpi, and legs ferruginous. Elytra punctate-striate, with a short round tubercle on the disk of each elytron.

Length 11 line.

Head rather deeply but widely punctured, the clypeus not separated from the face; antennæ with the third, fourth, and fifth joints of equal length, entirely ferruginous. Thorax of the same shape as in N. viridis, distinctly punctate throughout, greenish bronze-coloured. Elytra convex, a little more strongly punctured than the thorax, the punctures arranged in regular striæ, the intervals scarcely raised except near the lateral margin and the apex, where they are semicostate; the humeral callus prominent; and each elytron is furnished at a little distance before the middle with a short round tubercle, which is placed nearer the lateral margin than the suture; a very shallow transverse depression is also visible in certain lights immediately above this tubercle. Underside greenish black, opaque; legs ferruginous.

Hab. Guatemala.

Collected by Mr. Salvin. Collection Jacoby.

Allied to N. propinqua, Lefèvre, but differing in the stronger punctuation of the thorax and the sculpture of the elytra.

7. NODA VIRIDIS, Sp. nov.

Broadly ovate, shining metallic-green above, below greenish black, the first six or seven joints of the antennæ and the legs entirely ferruginous.

Length 11-13 line.

Head coarsely but widely punctate, the clypeus distinctly separated, also strongly punctured, with the anterior margin emarginate ; labrum dark ferruginous or brown; vertex of head with an obsolete longitudinal groove. Antennæ of half the length of the body, very robust, with the exception of the short second joint, gradually thickened towards the apex, the three penultimate joints of nearly equal length and cylindrical, the terminal joint the longest of any, and pointed at the apex; the first six or seven joints ferruginous, the rest black, opaque. Thorax transverse, the anterior margin nearly straight, the posterior one evenly rounded and produced in the middle, the sides nearly parallel at the base, but narrowed towards the apex, all the angles acute; surface shining metallic green with a slight bluish tint, not very closely but rather deeply punctate. Scutellum smooth. Elytra slightly wider at the base than the thorax, very gradually and evenly rounded towards the apex ; disk rather convex, without any basal depression ; the humeral callus produced and smooth; surface finely punctured a little more strongly near the base, the punctures arranged in rather regular lines, partially running in pairs, and forming one stria near the suture towards the apex. Underside opaque blackish green. Legs and tarsi ferruginous.

Hab. Guatemala.

Collected by Mr. O. Salvin. In my collection.

8. NODA BOUCARDI, sp. nov.

Broadly ovate, above violaceous blue, shining, below greenish black. Tibiæ, tarsi, and base of the antennæ rufous. Elytra geminate-punctate-striate.

Length $1\frac{1}{2}$ line.

Head strongly punctured, especially towards the lower part, shining greenish blue; antennæ with the first six joints light rufous, the rest darker. Thorax of the same shape as *N. lefevrei* of this paper, also equally punctate throughout, the puncturing extending at the same time to all the margins. Elytra not differing in form from the above species, the punctuation on the disk, however, united in pairs, and only the extreme apex distinctly costate. Underside semiopaque, greenish black, all the tibiæ and tarsi bright rufous.

Hab. Valin, Guatemala.

Collected by Mr. Salvin.

Allied to *Noda rufipes*, Lefèv. (Mittheil. Münch. Ent. v. 1878), but differing in the equal punctuation of the thorax, the double rows of punctures of the elytra, and the costate apex of the latter.

1878.] MR. M. JACOBY ON PHYTOPHAGOUS COLEOPTERA.

9. NODA VIOLACEIPENNIS, sp. nov.

Oblong-ovate, blackish green below, violaceous blue above; thorax moderately punctured, elytra semi-punctate-striate, without costæ. Legs and antennæ greenish æneous.

Length 2 lines.

Head and clypeus with some widely dispersed deep punctures, the former besides with an obsolete fovea in the middle; antennæ more than half the length of the body, robust, uniformly greenish æneous, with the exception of the two basal joints, which are stained with piceous. Thorax of the same shape as the other species of this paper, but rather finely punctured, the punctures on the disk assuming an oblong shape here and there, while the punctuation near the lateral margins is very obsolete. Elytra more oblong than in the other species, shining violaceous blue, with the punctures stronger than those of the thorax, and rather confusedly placed, only towards the apex more distinctly geminate-punctate-striate; the intervals not raised, only an obtuse tubercle visible near the extreme apex; the suture on each side accompanied by an impressed line, commencing about the middle of the elytra, to the apex. Underside and legs greenish black. Tarsi and claws obscure piceous.

Hab. Guatemala.

My collection. Collected by Mr. Salvin.

10. METAXYONYCHA RUFOLIMBATA, Sp. nov.

Oblong, broadly ovate. Head aureous, deeply and closely punctured. Thorax laterally obsoletely tridentate, greenish, coarsely punctured. Elytra punctate-striate, the interstices longitudinally costate, greenish; the sides and the apex broadly rufous-coloured, abdomen flavous.

Length 41 lines.

Head deeply and closely punctured, with a deep longitudinal middle groove, bright aureous or copper-coloured; antennæ black, the first six joints shining. Thorax transverse, distinctly tridentate at the sides, the disk covered with rather deep punctures in the middle and along the anterior margin; the rest of the surface minutely punctate, of a greenish opaque colour. Scutellum elongate, smooth, purplish. Elytra not much wider at the base than the thorax, rather finely punctate-striate, the interstices broadly costate from the base to the apex, where their ends are joined, of the same green opaque colour as the thorax, the sides (narrowly at the base, gradually widened to the apex, the latter broadly) of a rufous colour. Breast and legs purplish green, abdomen light rufous or flavous.

Hab. Venezuela.

Collection Jacoby.

11. PRIONODERA ELEGANS, Sp. nov.

Elongate, dark purplish. Head and thorax irregularly punctured and finely transversely wrinkled, the latter at the sides obsoletely bidenticulate. Elytra longitudinally costate, the intervals punctate-

striate, purplish blue, a large triangular sutural patch from the base to the middle reddish copper-coloured.

Length 41 lines.

Head and clypeus deeply punctured, with a deep longitudinal groove in the middle, of a greenish semiopaque colour, here and there with a purplish tint; labrum and jaws nearly black; first joint of the antennæ very thick and subcylindrical, the second short and globose, the rest cylindrical, equal in length; the first six joints shining greenish aureous, the rest black, opaque. Thorax subquadrate, slightly broader than long, all the angles acute and produced externally, the sides with a distinct tooth behind and another very obsolete one before the middle; disk irregularly transversely wrinkled, visible only when viewed sideways, and covered with large and small punctures; of a greenish colour, sometimes with purplish patches. Scutellum elongate, finely punctate. Elytra much wider at the base than the thorax, a little widened posteriorly; each elytron with eight longitudinal costæ, the intervals subgeminate-punctatestriate; bluish purple, a large sutural triangular patch, extending from the base to below the middle, of a reddish copper, surrounded by light green colour. Underside and legs dark green, with a purplish hue.

Hab. Columbia.

Two specimens in my collection.

12. CHALCOPHANA SEMIRUFA, Sp. nov.

Elongate, subparallel, piceous below. Head, thorax, first six joints of the antennæ, and the legs rufous. Elytra deeply and closely punctate-striate and partly costate, shining bronze-colour, extreme margin and the apex rufous.

Length 3¹/₂ lines.

Head deeply punctured, with a median groove, labrum yellowish, apex of mandibles black ; antennæ with the first six joints rufous, the rest black. Thorax transverse, the posterior margin round and widened in the middle, the anterior one straight, all the angles produced into a short acute tooth, the surface rather coarsely punctate towards the sides, less so on the disk. Scutellum rufous. Elytra with a more or less distinct oblique depression below the base, closely punctate-striate, the punctures not united in pairs, and regularly placed only towards the suture, the rest confused and irregular; the apex as well as the sides of each elytron furnished with three or four more or less distinct costa, those at the sides commencing below the humeral callus; the surface of a bronze or metallic green colour, the extreme lateral margins and the apex rufous. Underside dark piceous, as well as the tarsi.

Hab. Costa Rica.

Of the six or seven similarly-coloured described species, the present one will be easily recognized by the colour of the first six joints of the antennæ, which is constant in all the specimens before me, as well as by the strong punctuation of the thorax and the elytra.

13. CHALCOPHANA UNIFORMIS, sp. nov.

Entirely dark rufous, with the exception of the last five joints of the antennæ, the apex of the tibiæ, and the tarsi. Thorax finely, elytra deeply geminate-punctate-striate, and more or less costate.

Length 3-31 lines.

Head exactly punctured as in *semirufa*, the antennæ also coloured as in that species. Thorax a little more finely punctate. Elytra distinctly and closely punctured, the punctures running together in pairs, the interstices either raised over the whole disk in costæ, or only distinctly visible towards the apex. The underside rufous; extreme apex of tibiæ and the tarsi black.

Hab. Costa Rica.

This species may possibly be only a variety of C. semirufa; but the uniform coloration, the punctuation of the elytra approached in pairs distinguish it sufficiently from that species, while the colour of the first six joints of the antennæ will separate it from species in other respects similarly coloured.

14. DORYPHORA BRUNNEIPENNIS, sp. nov.

Broadly ovate, narrowed behind, below black; antennæ with the last two joints yellowish white. Head, thorax, and elytra rufous, opaque.

Length 6 lines.

Head strongly but not closely punctate, brown with a greenish tint; antennæ brownish æneous, last two joints whitish. Thorax with the sides parallel, the anterior angles acute; surface with the same-sized punctures as the head, but closely and uniformly distributed. Scutellum smooth, broadly triangular. Elytra broader at the base than the thorax, very convex at their first third, from there strongly declining to the apex, the latter pointed; surface finely and irregularly punctured and longitudinally aciculate, the intervals finely alutaceous, opaque, of a uniformly rufous colour. Beneath black; mesosternal process robust, long, slightly curved. Legs rufous.

Hab. Columbia.

Collection Jacoby.

15. DORYPHORA FLAVIPENNIS, Sp. nov.

Greenish black, shining. Head and thorax strongly punctate. Elytra sparingly irregularly punctured, flavous, a sutural stripe narrowed towards the apex, greenish black.

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

Head more strongly punctured near the apex than at the vertex ; antennæ with the last five joints flattened and widened, the first five joints testaceous, stained with greenish æneous above, the rest fuscous. Thorax more strongly punctured than the head, very coarsely towards the sides, dispersedly on the disk. Scutellum smooth. Elytra rotundate towards the apex, parallel near the base, sparingly and rather finely punctate without order, the intervals finely aciculate ; the extreme outer margin has a row of punctures, and is accompanied, at some distance, with another row of double

punctures; the suture has also at its posterior part a deeply impressed line running parallel with it at each side. The elytra are of a light flavous, shining, the entire suture greenish or bluish black, which colour is gradually narrowed towards the apex. Underside and legs black with a bluish tint.

Hab. Columbia.

In colour this species approaches close to *D. limbatipennis*, Stål; but the want of the outer marginal vittæ, together with the roundish shape, will distinguish the species before us from the above insect.

16. DORYPHORA VITTATIPENNIS, Sp. nov.

Black. Head and thorax opaque. Elytra strongly semipunctatestriate, black, shining; each elytron with five narrow longitudinal flavous stripes.

Length 6 lines.

Head finely punctate; antennæ black, shining. Thorax deeply and irregular punctured, the intervals partly convex; sides narrowed at the base, from there rounded to the apex. Scutellum smooth, triangular, black. Elytra parallel, convex, deeply punctate, striate near the suture, more irregularly towards the sides; black, shining, each elytron with five narrow flavous vittæ at equal distances from each other, of which the outer one is the broadest, all of which are confluent at the apex and extending to the base. Underside and legs black.

Var. Elytra with only the outer vittæ entire, the sutural one only visible at the posterior third, the other stripes entirely absent or only partially visible near the apex.

Hab. Columbia.

Collected by Mr. Salmon.

17. DORYPHORA POROSA, Sp. nov.

Broadly ovate, very convex, piceous below. Head and disk of thorax black; sides of latter testaceous. Elytra deeply foveolate, the intervals irregular transversely reticulate, dark brown.

Length 7 lines.

Head opaque, with a few very minute punctures; antennæ long, scarcely thickened towards the apex, fuscous. Thorax with the anterior and posterior margin parallel in the middle, the anterior angles acute and much produced, the sides much flattened and slightly thickened; disk minutely punctate, of the same colour as the head, the sides light testaceous, impunctate. Scutellum broad, smooth, piceous. Elytra convex at their first third, thence suddenly declining and subdepressed towards the apex, uniformly dark brown; the suture shining, piceous, smooth; surface deeply punctate, striate near the suture, foveolate towards the sides, the intervals raised and connected partially by transverse short costæ, forming a kind of network towards the sides. Femora greenish æneous; tibiæ piceous.

Hab. West Columbia. Collection Jacoby.

18. DORYPHORA HYBRIDA, sp. nov.

Ovate, black below. Head and thorax greenish black, distinctly punctured. Elytra geminate punctate-striate, testaceous; the suture, the outer margin, and two transversely placed large irregularly shaped spots, one placed before, the other behind the middle, as well as the base narrowly, greenish black.

Length 8 lines.

Antennæ rufous. Thorax not very strongly or closely punctured; the intervals also minutely punctate. Scutellum black. Elytra convex, geminate-punctate-striate, each puncture surrounded by a piceous spot; the extreme base, a spot on the shoulder, the outer margin, the suture (which is widened below the base into a squareshaped spot), and a transverse patch, consisting of two united spots before the middle as well as a similar shaped one (formed by three united spots) behind the middle, greenish black. Underside and legs black.

Hab. Peru.

Collection Jacoby.

The insect before me is so exactly similar in markings to the *Doryphora imperialis* of Stal, that it may be only a variety of that species. The colour, however, instead of being rufous, is greenish black. The elytra, besides having the sutural stripe broader, are also marked with regular rows of small piceous spots which surround the puncturing everywhere; and the underside is shining black.

19. DORYPHORA MILITARIS, Sp. nov.

Greenish æneous, shining. Elytra closely punctate-striate, four roundish spots placed transversely at the base, two others behind the middle, with two submarginal longitudinal vittæ from the middle to the apex, light flavous, margined with rufous.

Length 6 lines.

Head closely punctured, dark brownish green, labrum fulvous; antennæ gradually thickened towards the apex, the basal joints shining fulvous, the rest greenish æneous. Thorax closely and deeply punctured towards the sides, much more sparingly punctate on the disk, the intervals also minutely punctured. Scutellum smooth. Elytra moderately convex, closely and rather regularly punctate-striate, the punctures diminishing towards the apex; of a greenish æneous colour; each elytron with two spots near the base, of which one is placed on the shoulder, another near the scutellum, an elongate spot behind the middle near the suture, and a longitudinal stripe near the outer margin, from immediately behind the middle to the apex, flavous, all the markings surrounded by a narrow rufous border. Underside shining greenish black; legs more brownish; mesosternal process slightly curved and pointed.

Hab. Columbia.

My collection.

20. DORYPHORA OCELLATA, sp. nov.

Ovate, very convex, testaceous. Thorax with four piceous spots.

Elytra geminate-punctate-striate, fuscous; two large round spots near the scutellum, four others placed transversely, and the apex broadly flavous, the latter with a small fuscous spot.

Length 5 lines.

Head minutely punctured, flat, with an indistinct piceous mark at the vertex ; antennæ testaceous, slightly thickened towards their apex, terminal joint scarcely longer than broad. Thorax narrow, sides rounded in front, anterior angles scarcely produced; above much more strongly (but not closely) punctured than the head, of a rather indistinct testaceous colour; four spots placed transversely on the disk, the middle ones, which are in shape of two short longitudinal vittæ, of a greenish piceous colour. Scutellum testaceous. Elytra slightly broader at the base than the thorax, very convex on the disk, their apex regularly rounded; the surface rather finely punctate-striate, consisting of double rows of punctures, which are more deeply impressed on the disk than at the base or the apex; the flavous patches on the disk of each elytron arranged as follows, viz. one in the middle of the base, two transversely, of which the outer larger one is placed immediately below the shoulder, the inner one on the middle near the suture, the fourth occupying the apex to nearly a third of the length of the elytra, having its inner margin sinuate, and in its interior a small fuscous square spot. Underside and legs testaceous. Mesosternal spine rather short, slightly curved.

Hab. Costa Rica?

My collection.

Closely approaching in colouring to *D. æstuans*, Lin., the species described here is distinguished by its much larger size and by the four spots on the thorax.

21. DORYPHORA DECORATA, Sp. nov.

Ovate, convex, testaceous. Head with the base, thorax with two vittæ black. Elytra geminate-punctate-striate, testaceous, with three transverse metallic green fasciæ and a longitudinal vitta between the second and third bands.

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

Head minutely punctate, with a shallow transverse depression and an obscure longitudinal groove, testaceous, with an irregular transverse bifurcate patch on the vertex ; antennæ longer than the thorax, gradually thickened towards the apex, as well as the palpi, testaceous; apex of mandibulæ black. Thorax with a longitudinal depression parallel with the lateral margins, the latter regularly rounded ; surface very sparingly but rather deeply punctate, shining testaceous, with two longitudinal black vittæ from the apex to the base, slightly curved outwards, and connected at the base by a very narrow band. Scutellum impunctate, testaceous. Elytra regularly geminate-punctatestriate near the suture, more confusedly towards the sides ; shining testaceous, the suture, an obliquely placed transverse band from the shoulder to the suture a little below the scutellum (with its posterior margin denticulate and connected by a narrow stripe at the lateral margin anteriorly with another transverse band of a Λ -shaped form, and placed in the middle of the elytra), as well as a short rounded band near the apex (this latter band being also connected with the former one by a short vitta near the lateral margin), shining metallic green; the inflexed margin of the elytra, as well as the underside and the legs, testaceous.

Hab. Costa Rica?

Collection Jacoby.

Allied to *D. vittaticollis*, Stål, but differing in the colour of the head, antennæ, and palpi, and the longitudinal stripe between the second and third bands.

22. SCELIDA BALYI, sp. nov.

Elongate, parallel, testaceous; vertex of head, last six joints of antennæ, and the coxæ black. Elytra metallic green, closely rugose-punctate.

Length $4\frac{1}{2}$ lines.

Head impunctate, with two distinct tubercles between the antennæ, limited behind by a transverse groove, lower part of face with a raised triangular ridge ; last joint of maxillary palpi piceous ; vertex of head black, shining; lower part and the basal five joints of the antennæ flavous, the latter about three fourths the length of the body, with the three terminal joints slightly curved. Eyes prominent, black. Thorax subquadrate, widened from the apex towards the middle, from there straight to the base, the anterior and posterior margins slightly sinuate in middle; surface entirely impunctate, the disk depressed, flavous, with indistinct irregular blotches of a piceous colour. Scutellum semiovate, dark piceous, with a light-coloured margin. Elytra much wider at the base than the thorax, sides entirely parallel, the surface covered throughout with crowded and rather deep punctures, the intervals of which are finely rugose, of a metallic, moderately shining green colour, which assumes towards the apex and near the suture a purplish hue. Under surface and legs flavous, the base of the coxæ and a spot at the base of the anterior femora piceous or black; the metathorax on each side raised in the shape of a triangular-pointed elevation.

This species is the second one belonging to this genus, the first of which was published in diagnosis by Mr. Chapuis in his eleventh volume of the 'Genera of Coleoptera.' From this species it is sufficiently distinguished by its smaller size, the black vertex of the head, together with the spots on the coxæ of the legs, and by the peculiar shape of the metathorax.

23. DIABROTICA WATERHOUSEI, sp. nov.

Elongate, convex, widened behind, flavous. Head, breast, and the extreme base of the elytra pitchy black, the apex of the latter brownish fuscous.

Length 3 lines.

Head shining black, with a distinct fovea between the eyes; antennæ ferruginous, the basal joint flavous. Thorax quadrate,

rather convex, smooth, narrowed towards the base, surface shining, flavous. Scutellum black. Elytra widened towards the apex, rather convex, light flavous, a narrow transverse band at the base undulated at its posterior edge, and extending to the humeral callus, dark fuscous or black; the posterior third of the elytra fuscous brown, surrounded by an indistinct crescent of a darker colour; the rest of the surface covered with minute piceous spots, visible only under a lens. Underside black; abdomen brownish; legs flavous, the hinder tibiæ on their outer side blackish.

Var. Thorax at the anterior margin with a triangular black spot; the apical markings of the elytra obsolete.

Hab. Cache, Costa Rica. Collected by Mr. Rogers.

24. DIABROTICA JANSONI, sp. nov.

Elongate, convex, widened behind, fulvous. Thorax and elytra closely punctate, a large oval patch near the apex of the latter violaceous blue.

Length $4\frac{1}{2}-5$ lines.

Head with a deep transverse groove, closely punctured, fulvous; antennæ robust, as long as half the length of the body, fuscous, the first joint below fulvous, the fourth joint nearly double the length of the third. Thorax transverse, sides nearly parallel, with three indistinct shallow depressions on the disk, of which two smaller ones are situated on each side and a large one near the posterior margin at its middle; surface distinctly but not very closely punctate, fulvous. Scutellum broad, triangular, its surface very finely alutaceous, and slightly excavated near the base. Elytra more than four times the length of the thorax, much widened towards the apex, and distinctly margined; the surface crowded everywhere with distinct punctures of the same colour as the head and thorax, the whole of the posterior third occupied by a large rounded spot of violaceous blue, which sometimes terminates at some Underside and the femora testaceous; distance from the apex. tibiæ and tarsi fuscous.

Hab. Chontales, Nicaragua. Collected by Mr. Janson. In my collection.

25. DIABROTICA FUSCOMACULATA, Sp. nov.

Testaceous below. Head, thorax, and elytra olive-green, the latter obsoletely costulate, with the base and two spots on each elytron dark fuscous, margined with pale yellow.

Length 21 lines.

Head impunctate, with a fovea in the middle, shining green; labrum dark brown; antennæ nearly reaching to the end of the body, with the second and third joint very short, the fourth three times as long as the second joint, of an indistinct brownish colour, the first joint pale greenish. Thorax bifoveolate, impunctate, very shining olive-green. Scutellum flavous. Elytra subdepressed,

1878.] MR. M. JACOBY ON PHYTOPHAGOUS COLEOPTERA.

parallel, closely punctate, with two or three obsolete costæ on the disk, of which the outer one is more distinctly raised, of the same colour as the thorax; a transverse band at the base narrowed towards the suture and extending to the shoulders, a transverse spot in the middle and another at a little distance from the apex of each elytron, dark fuscous; all the spots, as well as the lateral margin at its anterior part, surrounded with yellowish white. Underside pale testaceous, the tibiæ darker, and the femora olive-green.

Var. The middle spot on the elytra absent, as well as the apical one, which is replaced by a yellowish patch.

Hab. Nicaragua, Bogotá. Var. Guatemala. Collected by Mr. Salvin.

26. DIABROTICA NIGROVITTATA, sp. nov.

Elongate, parallel, black. Thorax bifoveolate. Elytra yellowish white, with the suture and a submarginal longitudinal stripe on each elytron not reaching the apex, black.

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

Head very shining black, smooth, with a fovea above the antennæ; the latter of about half the length of the body, entirely black; second and third joints short, equal. Thorax quadrate, narrowed near the base, surface deeply bifoveolate, smooth, very shining black. Scutellum black. Elytra about three times the length of the thorax, with a longitudinal depression below the shoulders and extending a little below the middle; surface very minutely punctured and finely granulose, of a yellowish white, a longitudinal stripe from the base, extending to a little distance from the apex and narrowed at each end, black. Body and the legs shining black.

One specimen from Mexico and another from Guatemala, in my collection.

27. DIABROTICA NOVEMMACULATA, sp. nov.

Elongate, widened behind, flavous. Head and breast black. Elytra finely punctate, flavous, five spots near the base and four near the apex black.

Length 4 lines.

Head black, impunctate, with a fovea and two flat tubercles in front of the antennæ; the latter more than half the length of the body, with the third joint a little longer than the second, and the fourth the longest, of a flavous or ferruginous colour, with the middle joints stained more or less with fuscous. Thorax impunctate, with two shallow depressions on its surface; sides much deflexed and margined, parallel near the base, widened above the middle. Scutellum fuscous. Elytra but little wider at the base than the thorax, gradually widened towards the apex, closely and irregularly punctured, flavous, a triangular spot extending a little below the base at the suture and surrounding the scutellum, an elongate short stripe on each shoulder, a roundish spot between the latter and the sutural one on each elytron, as well as four spots placed

transversely at a little distance from the apex, of which the outer one is elongate, black. Underside and legs flavous, breast black.

Hab. Costa Rica.

Var. The round spots on the elytra replaced by short longitudinal stripes.

28. DIABROTICA COSTATIPENNIS, Sp. nov.

Elongate, uniform rufo-flavous. Thorax deeply bifoveolate, shining. Elytra closely rugose, punctate, with five or six elevated more or less distinct longitudinal costæ.

Length 3 lines.

Head perfectly smooth and shining, with a deep fovea above the antennæ; the latter of half the length of the body, the second and third joints very short, the fourth joint more than twice as long as the preceding one, ferruginous, the first three joints shining, the rest opaque. Thorax distinctly margined, narrowed at the base, the surface with two deep foveæ, very shining and impunctate, rufoflavous. Elytra scarcely widened behind, with a distinct margin which is wider in the middle than on either end; surface closely punctate and finely rugose; each elytron with about six longitudinal raised costæ, which are a little more obsolete near the apex and the base, of a little lighter rufous colour than the thorax. Entire underside and legs flavous, the breast covered with whitish hairs.

Hab. Costa Rica.

29. CEROTOMA NIGROFASCIATA.

Oblong, widened behind, black. Thorax and legs flavous. Elytra dark red, with three broad transverse black bands.

Length 31 lines.

Head black, vertex punctate; lower part of face coarsely and deeply punctate, with a few flavous hairs; antennæ closely approximate, of half the length of the body, with the first joint very long, the second short, the third longer than the fourth, of a flavous or ferruginous colour. Thorax transverse, the sides much deflexed, the lateral margins much widened before the middle, anterior angles obsolete, posterior ones produced but rounded; the surface rather convex, smooth, indistinctly depressed on the disk, of a light flavous colour. Scutellum black. Elytra much widened towards the apex, deeply and closely punctate, the intervals raised in irregular longitudinal costæ and transverse wrinkles, of a dark red colour; a transverse band common to both elytra at the base, another band slightly arched in the middle not reaching the suture, and a large triangular patch near the apex black; none of these bands reach quite to the lateral margins. Underside black, shining; legs uniformly flavous. *Hab.* Costa Rica, Guatemala.



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Jacoby, Martin. 1878. "Description of new Species of Phytophagous Coleoptera from Central and South America." *Proceedings of the Zoological Society of London* 1878, 982–996. <u>https://doi.org/10.1111/j.1469-7998.1878.tb08042.x</u>.

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