


JOURNAL
OF THE
ACADEMY OF NATURAL SCIENCES
OF
PHILADELPHIA.


VOL. III. PART II.

PHILADELPHIA:
PRINTED FOR THE SOCIETY,
BY J. HARDING.

1824

cumstance of the two dorsal fins being much longer than the anal, whilst those of the other species are nearly equal; the first ray of the pectorals is much more fleshy than the second: the body and fins are destitute of bands.

1st D. 3, spinous. 2nd D. 20. P. 32. J. 2.
A. 14. C. 12.

The above description having been made out from an uncoloured drawing, I cannot note the colours of the fish.

Descriptions of COLEOPTEROUS INSECTS collected in the late Expedition to the Rocky Mountains, performed by order of Mr. Calhoun, Secretary of War, under the command of Major Long: By THOMAS SAY, Zoologist to the Expedition. Read October 22, 1823. (Continued.)

MONEILEMA,† Say.

Essential Character.

Elytra undivided; wings none.

Natural Character.

Body convex: head vertical: antennæ eleven.

† Signifying one covering.

jointed, cetaceous, inserted into a profound emargination of the eye; first joint elongated, robust; second joint very short; third nearly as long as the first; remaining joints gradually diminishing in length to the tip: *eyes* rather small, profoundly emarginate: *labrum* prominent, rounded: *mandibles* robust, emarginate at tip: *palpi*, terminal articulation as robust as the preceding one, rounded at tip: *labiales* inserted near the base of the labium: *labium* prominent, bifid; lobes rounded: *elytra* consisting of one piece, convex, subovate, narrowed behind, subtruncate at tip, and rather shorter than the abdomen: *epipleura* dilated, enclosing the abdomen each side: *feet* robust: *thighs* clavate.

SPECIES.

M. annulata. Thorax with a very short tubercle; antennæ annulate.

Inhabits Missouri Territory.

Body glabrous, black: *antennæ* shorter than the body, obsoletely annulated with cinereous: *front* impunctured: *thorax* slightly punctured at base and each side; a lateral, small, subacute tubercle: *scutel* rounded at tip: *elytra* with numerous, indented, irregular, longitudinal, abbreviated, confluent lines; a few distant punctures towards the base.

Length four-fifths of an inch.

This singular insect I found near the Rocky

Mountains, and in the vicinity of the rivers Platte (Nebreska) and Arkansa. Mr. Nuttall also obtained specimens on the Upper Missouri.

It is essentially distinct from the genus *LAMIA*, (to which it is most closely related,) by the total absence of wings, and by having the elytra inseparably united into one piece. The epipleura embraces the sides of the abdomen, as in the genus *PIMELIA*, &c. and its gibbous or convex form and somewhat pointed abdomen give to it almost the habit of some species of that genus.

SAPERDA.

1. *S. alternata*. Blackish, with cinereous hair and ferruginous spots; thorax long.

Inhabits the United States.

Body blackish-brown, with sparse, cinereous, prostrate hair, varied with spots and lines of dense ferruginous hair: *head*, with the edge around the antennæ, much elevated, somewhat spinose on the inner side; between the antennæ profoundly indented: *antennæ* longer than the body, attenuated: *thorax* cylindric, rather long, narrower than the elytra; with four ferruginous lines: *elytra* with three or four series of irregular, ferruginous spots: *tip* rounded.

Length, male seven-twentieths—female nine-twentieths of an inch.

The marginal and sutural series of elytral spots

more regularly alternate with the intervening colours than the intermediate series do.

It somewhat resembles Olivier's figure of *S. maculata*, but the thorax is much shorter, and the spots are differently disposed.

2. *S. puncticollis*. Yellow; beneath plumbeous; elytra black, with a yellow margin and suture.

Inhabits Arkansa.

Body covered with bright yellow, crowded, short, prostrate hair: *head* with a black, frontal dot, and another upon the vertex: *antennæ* as long as the body, black: *thorax* with four black, equal spots above, and one each side: *elytra* black and punctured upon the disk; exterior margin, tip, and suture with an equal line of dense yellow hair; tip entire: *beneath* plumbeous.

Length seven-twentieths of an inch.

A very pretty insect, of which but a single specimen was found by Mr. T. Nuttall on the Arkansa.

3. *S. oculaticollis*. Black, covered with cinereous hair; elytra truncate at tip.

Inhabits Missouri.

Body black, immaculate, cylindrical, covered with short prostrate hair, which partially conceals the punctures: *palpi* piceous: *antennæ* rather shorter than the body: *thorax* cylindric; diameters nearly equal; two small glabrous spots on the disk, and an obsolete, glabrous, longitudinal line: *elytra* truncate at tip.

Length nine-twentieths of an inch.

4. *S. inornata*. Black, covered with cinereous hair; antennæ annulate; elytra entire.

Inhabits Missouri.

Body black, immaculate, cylindrical, covered with short, prostrate hair, which conceals the punctures: *palpi* black: *antennæ* rather shorter than the body, and, excepting the basal joints, annulate, with cinereous and black: *thorax* cylindric, diameters subequal: *elytra* entire and subacute at tip, which is equally attenuated from the suture and exterior margins.

Length less than nine-twentieths of an inch.

The entire termination of the elytra sufficiently distinguishes this species from the *oculaticollis*, and it is also a more robust insect; it is, however, still more closely allied to the *S. pergrata*, but in addition to the difference in the colour of the femur, and that of the margins of the elytra, the elytra are much less obtuse at tip, and the thorax is entirely destitute of glabrous spots. It cannot be the *cinerea*, Oliv. as the antennæ of that insect are described to be as long again as the body.

5. *S. pergrata*. Black, covered with cinereous hair; antennæ annulate; elytra entire; thorax with small glabrous spots.

Inhabits Missouri.

Body black, covered with short, prostrate hair, which partially conceals the punctures: *antennæ* nearly as long as the body, annulate, with cinereous and black: *thorax* slightly dilated in the

middle; a transverse, arquated series of four glabrous spots, and a longitudinal, abbreviated, glabrous line behind the middle: *scutel* whitish: *elytra* with a narrow white margin and suture; tip entire: *thighs* dull rufous.

Length about nine-twentieths of an inch.

Upon the middle of each elytron is a very indistinct, rufous line, which is only visible upon close inspection, and is very probably often wanting; a similar spot is upon the anterior portion of the thorax; the white appearance of the margin of the elytra is occasioned by the more dense disposition of the hairs on that part. We captured but a single specimen on the Platte river (Nebreska) near the Mountains.

6. *S. calcarata*. Reddish-brown, covered with cinereous and yellow hair; elytra mucronate at tip.

Inhabits Missouri territory.

Body clothed with dense, prostrate, cinereous hair, varied with yellow or somewhat ferruginous hair: *front*, a geminate line on the *vertex* and lateral line, yellow: *antennæ* cinereous, longer than the body: *thorax* trilineate, with yellow: *scutel* yellow, subemarginate behind: *elytra* cinereous, varied with yellowish-ferruginous lines and spots; numerous small glabrous punctures; tip mucronate in the middle: humerus rather prominent.

Length nearly nine-tenths of an inch.

Closely related to *S. mutica*.

7. *S. bivittata*. Hoary; above light brown, with two broad white fillets.

Inhabits the United States.

Body white: *eyes* fuscous; a small spot on the vertex, and another behind each eye, light brown: *antennæ* moderate, slightly tinged with bluish: *thorax* light brown, with two broad, white lines approaching before: *elytra* light brown, irregularly punctured; a broad, white, longitudinal line on each, nearer to the suture than to the outer edge.

Length from one half to seven-tenths of an inch.

A very pretty insect. In the larvæ state it is very injurious to the apple tree; boring into the wood.

8. *S. mutica*. Reddish-brown, covered with cinereous and ferruginous hair; *elytra* mutic; *antennæ* annulated.

Inhabits Missouri Territory.

Body dark reddish-brown, partially covered with cinereous-yellow, prostrate hair, varied with ferruginous hair: *front*, and a geminate line on the *vertex*, ferruginous: *antennæ* annulate, with cinereous and blackish; shorter than the body: *thorax* trilineate, with ferruginous: *scutel* yellow, subemarginate behind: *elytra* with yellowish-cinereous hair, varied with ferruginous spots; numerous glabrous punctures; tip mutic, obtusely sub-lanceolate.

Length half an inch.

Very much resembles *S. calcarata*, and may possibly prove to be a sexual variety, nevertheless the differences are remarkable; in the present insect the antennæ are shorter than the body, and annulated, and the elytra are destitute of a spinose point at tip.

CERAMBYX, *Fabr.*

C. solitarius. Black; thorax bituberculate each side; elytra destitute of elevated lines.

Inhabits Upper Arkansa.

Body deep black, immaculate, punctured: *head* with a longitudinal, impressed line between the eyes; front transversely indented, and with one or two small, abbreviated, elevated, transverse lines; a slight tubercle at the inner base of the antennæ: *antennæ* long; basal joints a little hispid beneath: *labrum* piceous: *thorax*, with three very obtuse, hardly elevated tubercles behind, placed transversely; lateral edge with two tubercles, of which the anterior one is more obtuse, and the posterior one is slightly reflected: *scutel* acute: *elytra* destitute of any prominent line; punctured; punctures enclosed by minute, irregular, indented lines: *pectus*, punctures very minute: *venter*, posterior margins of the segments highly polished.

Length one inch and three-tenths.

Appears to be a rare insect. I found but one specimen on the Arkansa river near the Moun-

tains. The elytra to the eye have a smooth appearance, and, with the body, are totally black.

CALLIDIUM, Fabr.

1. *C. discoidum*. Rufous; head, postpectus, feet, and dilated sutural mark, black.

Inhabits Mississippi.

Body bright rufous, punctured: *head* black, confluent punctured; an elevated line between the antennæ: *antennæ* tinged with brownish, rather shorter than the body: *thorax* convex, rounded; punctures profound, equally disseminated; hairs erect: *scutel* small, black: *elytra* with approximate, regular punctures, and very short, obsolete hair; a large, sutural, black, common mark, occupying more than half the superficies; it is contracted near the base, and still more dilated at tip; tip rounded, entire: *postpectus* and *feet* black.

Length less than half an inch.

2. *C. suturale*. Rufo-sanguineous, hairy; antennæ, suture, postpectus and feet, black.

Inhabits Mississippi.

Body bright rufo-sanguineous, hairy, punctured: *antennæ* rather shorter than the body, and with the *orbits* black: *thorax* convex, with long black hairs; punctures sparse, obsolete on the disk: *scutel* small, black: *elytra* with long black hairs, which are erect at base, and prostrate at tip of the elytra; punctures rather distant, furnishing

hairs; suture with a black common line; tip rounded, entire: *postpectus* black: *feet* black; anterior and intermediate thighs black in the middle.

Length seven-twentieths of an inch.

This species very much resembles *C. discoidum*, but is much smaller; and besides other differences, the punctuations of the head and thorax are very distinct both in point of form and position, being crowded and rounded in *discoidum*, and comparatively distant in the present species.

3. *C. ignicolle*. Black; thorax bright-rufous.

Inhabits Missouri.

Body black, hairy, punctured: *antennæ* shorter than the body; the joints extending into a small angle on their anterior tips: *thorax* rounded, convex, bright rufous, with upright, prominent hair: *scutel* black: *elytra* punctured, hairy; the hairs upright at base, and prostrate near the tip of the *elytra*; tip entire.

Length rather more than nine-twentieths of an inch.

4. *C. pallidum*. Whitish; thoracic lineations and elytral fasciæ brown.

Inhabits Arkansas.

Body whitish, slightly tinged with yellow: *eyes* black: *vertex* brown: *antennæ*, joints tipped with brown: *thorax* contracted behind; anterior margin brown; an obsolete, abbreviated line in the middle, and a lateral one which is dilated before, or somewhat cruciate, brown; a very obtuse, hardly

elevated, lateral tubercle: *elytra* four banded, with brown; anterior band transverse, abbreviated; second very oblique and linear, third dilated and undulated, fourth linear and placed near the tip; thighs clavate.

Length more than one-fifth of an inch.

5. *C. amoenum*. Rufous; *elytra* violaceous, punctured.

Inhabits the United States.

C. bicolor. Melsh. Catal.

Body rufous, with short hair, punctured: *antennæ* black: *thorax* subinequal, polished; punctures very numerous each side; less numerous on the disk: *scutel* rufous: *elytra* violaceous, with confluent, excavated punctures, furnishing short, black hairs; tip rounded: *tibia* and *tarsi* black.

Length one-fourth of an inch.

Very much resembles *C. foenicum*, but is much smaller, and the *elytra* are very obviously punctured. We obtained specimens on the Arkansas river; it is also an inhabitant of Pennsylvania. The name *bicolor* is pre-occupied by an insect of South America.

6. *C. brevilineum*. Black; *thorax* bituberculate; *elytra* violaceous, with three abbreviated, white lines.

Inhabits the United States.

Body black, scabrous, with small, elevated points: *head* with an impressed, longitudinal line: *antennæ* nearly as long as the body: *palpi* pice-

ous: *thorax* with dense, minute hairs; two elevated, obtuse tubercles behind the middle, and an intermediate, elevated line obsolete before: *scutellum* hairy, rounded: *elytra* violaceous, scabrous, with minute, subequal, numerous tubercles; base dusky, with minute hairs; two or three longitudinal, elevated, white lines on the middle, nearly parallel, and placed in an obliquely transverse series; tip obtusely rounded: *thighs* clavate.

Length, male nine-twentieths; female seventenths of an inch nearly.

I found a specimen in Pennsylvania some time since, and recently an individual occurred on the Arkansa river. The white lines of the *elytra* are very short, and nearly parallel to each other; nearer to the base is sometimes another abbreviated white line.

7. *C. fulvipenne*. Deep black, hairy; *elytra* fulvous.

Inhabits Arkansa.

Body deep black, covered with dense black hair: *antennæ* rather longer than the body, somewhat hairy: *palpi* glabrous, deep reddish-brown: *thorax*, above with four obsolete tubercles, and an intermediate, abbreviated, glabrous, longitudinal line; a slightly prominent, lateral spine: *scutellum* hairy, black: *elytra* yellowish-fulvous, covered with dense, very short, prostrate hair; four longitudinal, slightly elevated lines.

Length three-fifths of an inch.

I obtained but a single specimen of this beautiful species. It occurred at the Cherokee settlement on the Arkansa river. It approaches the description of *CERAMBYX ebulinus* of Fab. but, according to Olivier, that insect, which he names *STENOCORUS testaceus*, has the antennæ only a little more than half the length of the body.

8. *C. 6-fasciatum*. Black, varied with short, dense, prostrate, yellow hair; margin of the thorax, scutel, and four elytral fasciæ, yellow.

Inhabits Missouri.

Body black, punctured, with a few long hairs: *head*, beneath rufous, above with yellow hair: *antennæ* ferruginous, nearly as long again as the body, and hairy beneath and towards the base; basal joint dilated, punctured: *mandibles* black at tip: *thorax* deeply margined, with dense yellow hair; transverse disk black, with two hardly elevated, obtuse tubercles, and an intermediate, longitudinal line, and a lateral, very obtuse, hardly elevated tubercle each side behind the middle; a transverse, anterior and posterior groove: *scutel* yellow: *elytra*, each 4-fasciate; fasciæ yellow, equidistant, subequal; two anterior ones bent obliquely forward from the suture; the two posterior ones retrofracted, the last one terminal; apex of each elytron emarginate: *pectus* and *postpectus* with yellow hair and black incisures: *feet* rufous: *thighs* dilated, compressed: *abdomen* fasciate, with yellow.

Length, male three-fourths; female seven-eighths of an inch.

Found under the bark of a decaying elm, on Loutre island, Missouri river.

LEPTURA, Latr.

1. *L. bivittata*. Elytra pale yellowish-white, with two black vitta on each.

Inhabits Missouri.

Head black, with much crowded punctures; an impressed line between the antennæ: *antennæ* as long as the body: *thorax* slightly punctured; two longitudinal, black spots, and an anterior and posterior submarginal, impressed line, and an obsolete, dorsal, longitudinal one; an obtuse, slightly elevated, lateral tubercle: *scutel* black: *elytra* densely punctured, rounded at tip, with two longitudinal, blued-black lines on the disk of each: *beneath* black; sides of the pectus; margins of the ventral incisures, and middle of the thighs, rufous.

Length two-fifths of an inch.

This insect, which is not very uncommon in the vicinity of Council Bluff and the Pawnee villages, bears some resemblance to the *vittata* of Swederus in Stockh. Trans. 1787, p. 198, and of Hellwig in Melsh. Catal. but in that insect there is but a single elytral vitta. In many other characters, it is widely distinct, and approaches somewhat in

character to the genus RHAGIUM. It varies in having an immaculate thorax, and rufous clypeus.

2. *L. cylindricollis*. Sericeous, rufous; elytra, tibia, and tarsi, blackish.

Inhabits the United States.

Rhagium cericeum. Knoch in Melsh. Catal.

Body sericeous, yellowish-rufous: *head* with a longitudinal, indented line, and a transverse, elevated one between the antennæ: *antennæ* rather longer than the body: *palpi* blackish: *thorax* long, subcylindric, with a longitudinal, dorsal, and anterior and posterior, impressed, submarginal lines: *elytra* blackish, attenuated rectilinearly or somewhat concavely from the prominent humerus to the obliquely emarginate or bidentate tip: *feet* rufous: *knees, tibia, and tarsi*, black.

Length, male, more than half an inch; female more than three-fifths.

In the male the head is often dusky, and the thorax, with the exception of the more elevated part, and the coxæ, are blackish.

In the general appearance of the head and thorax of this insect, it is closely allied to the genus RHAGIUM, and has been referred to that genus by Mr. Melsheimer in his *Catalogue*; but as the thorax is destitute of armature, and the antennæ are longer than the body, I prefer giving it a place in the present genus, agreeably to the generic characters of Latreille and Leach. I think it ought

to form a distinct genus, together with *RHAGIUM trivittatum*.

It is rather rare. The trivial name, applied by Mr. Knoch, is pre-occupied in this genus.

3. *L. bicolor*. Rufous, sericeous; elytra black. Inhabits the United States.

Leptura bicolor. Melsh. Catal.

Body elongated; pale rufous, sericeous: *head* with an obsolete, impressed line: *antennæ* as long as the body: *thorax* conical; posterior angles acute: *elytra* black, attenuated; with numerous short, prostrate, black hairs; tip very obliquely emarginate, appearing mucronate: *wings* black.

Length from half an inch to three-fifths.

This species is found in Pennsylvania, and on the Ohio and Mississippi rivers. It may be allied to the *L. bicolor* of Swederus in Stockholm Trans. 1787, p. 197, but his insect is said to be black on the upper part of the tail, a character which our insect does not possess. In Turton's translation of the *Syst. Nat.* the name *bicolor* of Swederus is changed to *bicolorata*, so that Mr. Melsheimer's designation may be retained for the species here described.

4. *L. rubrica*. Black; elytra and abdomen rufous.

Inhabits the United States.

Leptura rubrica. Knoch in Melsh. Catal.

Body black, punctured, with numerous short hairs above, and sericeous beneath: *head* obsoletely punctured: *antennæ* as long as the body;

six terminal joints fulvous at base: *thorax* confluent punctured; punctures dilated; a transverse groove on the hind margin: *scutel* small, black: *elytra* rufous or dull brick red; punctures numerous, becoming smaller to the tip, which is emarginate, mutic: *beneath* black: *abdomen* rufous; of the female, black.

Length about half an inch.

This insect occurs on the Missouri. It is found in Pennsylvania, but I have not frequently observed it.

5. *L. 8-notata*. Black, hairy; *elytra* each four-spotted.

Inhabits Mississippi.

Body deep black, with upright hairs: *head* rather large, with an impressed, longitudinal line: *antennæ* not longer than the body: *thorax* subcylindric: *elytra* polished; each elytron with four subtriangular, equidistant, yellow spots; the basal one at the base, and the terminal one near the tip; hair near the tip shorter, and nearly prostrate; tip truncate, mutic: *posterior feet*, with the base and tarsi, yellowish.

Length less than half an inch.

But a single specimen of this species was taken by Mr. Nuttall on the Mississippi.

6. *L. lugubris*. Black; sericeous beneath; *antennæ* shorter than the body.

Inhabits Lower Missouri.

L. scutellum-album? Knoch in Melsh. Catal.

Body deep black, immaculate, with short, prostrate hairs above, and yellowish-sericeous ones beneath: *head* with an elevated line between the antennæ: *antennæ* rather shorter than the body: *thorax* conical; posterior margin grooved; posterior angles acute: *scutel* with yellow hair: *elytra* attenuated; tip obliquely truncate, subemarginate; the external angle acute and prominent, the inner one rounded.

Length rather more than two-fifths of an inch.

Two specimens of this species were taken by Mr. T. Nuttall, on the banks of the lower part of the Missouri.

7. *L. proxima*. Black; elytra testaceous, with a black tip.

Inhabits Missouri.

Body deep black, hairy: *antennæ* nearly as long as the body: *thorax* rounded or subovate; a transverse groove on the posterior margin, and an impressed line on the anterior margin: *elytra* testaceous, with very short, yellowish hairs; tip black, truncate on the edge: *beneath*, with long hair on the pectus, and short hair a little sericeous on the postpectus and venter: *tail* entire.

Length less than three-fifths of an inch.

Var. a. Elytra testaceous, destitute of the black tip.

I have not seen this insect in Pennsylvania. It seems to be very closely allied to *L. tomentosa*, Fab. but is larger, more robust, and the tail is not

emarginate as that of *tomentosa*. The variety may prove to be a distinct species, bearing a similar relation to *proxima* that the *testacea* of Linne does to the *tomentosa*.

8. *L. lineola*. Black; elytra punctured; suture, margin, and vitta, black.

Inhabits the United States.

Leptura lineola. Knoch in Melsh. Catal.

Body black, sericeous: *antennæ*, excepting the three basal joints, annulate, with black and yellowish: *trophi* yellowish: *thorax*, posterior angles prominent, acute: *elytra* punctured; suture, exterior margin, tip, and an abbreviated vitta, black; tip truncato-emarginate: *feet* pale testaceous: *tarsi* blackish: *abdomen* dark reddish-brown, sericeous.

Length two-fifths to nine-twentieths of an inch.

This is an inhabitant of various parts of the United States. It is found in Pennsylvania, and on the Mississippi, though I have not observed it to be common any where.

9. *L. ruficollis*. Black; thorax rufous; labrum pale.

Inhabits Kentucky.

L. collaris. Melsh. Catal.

Body black, with very short hairs: *antennæ*, basal joint dull rufous: *labrum* and *mouth* pale rufous: *thorax* rufous, subglobose in the middle, and with a flattened, anterior, and posterior margin: *elytra* not tapering, confluent punctured.

black, entire at tip: *beneath* sericeous: *feet* varied with testaceous.

Length less than three-tenths of an inch.

In the distribution of colours it approaches *L. thoracica*, Fab. but is a much smaller species. It is also very different from the *collaris*, Linn. of Europe, in being smaller and of a more slender form.

RHAGIUM, *Fabr.*

1. *R. trivittatum*. Black; elytra with black suture, yellow vitta, black central line, and rufous margin.

Inhabits Mississippi.

Head black: *clypeus*, *mouth* and *antennæ* rufous: *thorax* uneven, very little narrowed before; an anterior and posterior impressed band, and a dorsal, impressed line: *scutel* black: *elytra* hardly emarginated; *humerus* prominent; suture black, broader near the base; a broad, yellowish vitta hardly reaching the tip; a black line from near the base separates the vitta from the rufous margin: *body*, beneath black, with golden pubescence: *feet* and *abdomen* rufous.

Length seven-tenths of an inch.

The body is sometimes rufous. In the disposition of colours on its elytra, this species probably bears some resemblance to *R. cursor*. It is certainly generically distinct from *R. lineatum*, which

is the only true RHAGIUM of this country that I have seen, though it is highly probable that there is another species.

2. *R. cyanipenne*. Black; antennæ and feet testaceous; elytra blue.

Inhabits the United States.

Body black, tinged with cupreous, punctured: *head* densely punctured; a longitudinal, obsolete, impressed line: *antennæ* rather shorter than the body, testaceous: *trophi* piceous-yellow: *thorax* impunctured; an obtuse tubercle each side: *scutel* black: *elytra* violaceous-blue; punctures numerous, small, profound; tip truncate; humerus rather prominent: *feet* testaceous.

Length two-fifths of an inch nearly.

A rare insect. I obtained a specimen several years since near Philadelphia, and recently Mr. Nuttall presented me with a specimen which he captured during his botanical expedition to the Arkansa river.

In form of body, it very much resembles *LEPTURA collaris* and *L. virginea*, as figured by Olivier, to which genus I would have referred it, but for the small thoracic tubercles.

CLYTUS, *Fab. Latr.*

1. *C. hamatus*. Black; thorax margined with yellow; scutel, two bands, and spot on the elytra, yellow.

Inhabits Illinois.

Body black: *antennæ* rufous, filiform, shorter than the body; terminal joints black: *palpi* piceous: *thorax* hairy; hairs cinereous; margin yellow, interrupted behind: *scutel* yellow: *elytra* slightly hairy at base; each with an oval, oblique spot near the basal middle; then a subsutural line, drawn from near the basal spots to the sutural middle, thence curved over the disk, and terminating in a small spot rather before the middle on the exterior margin; an oblique line behind the middle from the suture outward, yellow; disk near the tip obsolete, obscure, fuscous; tip rounded, mutic; beneath spotted, and banded with yellow: *feet* rufous: *thighs* at tip dilated, compressed, black.

Length of the body eleven-twentieths of an inch.

Bears some resemblance to *C. arietes*, but besides other differences, the elytra are not remarkably truncated as in that insect; it seems to be allied to *C. arvicola* and *ruricola* of Olivier, but particularly to the latter, from which, however, it is distinguished, agreeably to Olivier's figure, by being much larger, by having the thorax nearly surrounded by a yellow line, and by the obliquity of the terminal elytral band.

2. *C. caprea*. Fuscous; thorax, with the anterior edge, yellow; elytra with four bands and tip yellow.

Inhabits Arkansa.

Callidium caprea. Knoch in Melsh. Catal.

Body blackish, hairy: *head* immaculate: *antennæ* short, dull rufous: *thorax* very hairy; a longitudinal series of transverse, abbreviated, elevated lines, of which the anterior one is much more elevated; a yellow line on the anterior edge, interrupted upon the side: *scutel* small, black: *elytra* dark brown, blackish towards the base; four bands and tip yellow; first and second bands on each elytron united in the form of a circle, only interrupted by the prominent humerus; third band central, and representing a common M; fourth band drawn obliquely backward from the suture: *tip* emarginate; a prominent spine at the exterior angle: *abdomen and posterior portion of the postpectus* fasciate, with bright yellow, sericeous hair: *feet* hairy, rufous or blackish; posterior feet elongated: *thighs* dilated, mucronate at tip.

Length three-fifths of an inch.

This insect is readily recognizable by the rugous thoracic line, and by the O O at the base of the elytra. Mr. Nuttall found many specimens on the Arkansa. It varies in having the fascia white.

3. *C. supernotatus*. Reddish-brown; each elytron with a large white spot behind on a larger black one.

Inhabits Missouri.

Body cylindrical, reddish-brown, punctured, partially covered by very short, prostrate hair: *head* blackish: *antennæ* reddish-brown, shorter than the body: *thorax* in the middle blackish and

more prominent: *elytra* entire; each elytron with an elevated, obtuse tubercle near the scutel; a black, longitudinal spot from before the middle, where it is margined with a whitish line, to near the tip; before its posterior termination it is interrupted by a large white spot.

Length one-fourth of an inch.

Found by Mr. Thomas Nuttall on the Missouri.

STENOCORUS.

1. *S. longipes*. Black; thorax cylindrical, mutic, rufous; thighs clavate; *elytra* bidentate.

Inhabits Missouri Territory.

Body elongated, black, punctured, subglabrous: *head* between the antennæ concave: *antennæ* longer than the body: *thorax* rufo-sanguineous, cylindrical, slightly dilated into a very obtuse tubercle each side behind the middle; punctures obsolete: *scutel* impunctured: *elytra* with large, rounded, deeply impressed, numerous punctures; apex truncato-sinuate, bidentate: *thighs* clavate; posterior ones elongated: *postpectus* and *abdomen* covered with dense, short, incumbent, cinereous hair.

Length five-sixteenths of an inch.

Found at Fort Kennedy, on Barek Creek, Missouri Territory. It is an elongated insect, resembling a *NECYDALIS*. The posterior thighs are much elongated, and, like the others, are clavated at tip.

2. *S. mucronatus*. Brown, with cinereous hair; antennæ three or four spined; thighs mucronate; elytra bidentate.

Inhabits the United States.

Stenocorus marylandicus. Melsh. Catal.

Body reddish-brown, partially covered with short, prostrate, cinereous hair, inequally distributed: *trophi* pale rufous: *mandibles* black at tip: *antennæ* longer than the body; third, fourth, fifth and sixth joints terminated each by a spine, the first one largest, two-thirds the length of the next joint: *thorax* with two tubercles before the middle, two longitudinal ones at base, and a longitudinal line, glabrous: *scutel* white, with dense hair, divided into two lobes: *elytra* punctured; hair so disposed as to give the surface an irregularly maculated appearance; tip bispinose; intermediate and posterior thighs bimucronate; the inner spine longest.

Length seven-twentieths of an inch.

This species is not the *S. marylandicus* of Fabr. as described and figured by Olivier, which is a much larger and more dilated insect; the thighs not mucronate, and the joints of the antennæ spinous to the tip. It is, perhaps, more closely related to *S. spinicornis*, Fab. but that insect is described as having the joints of its antennæ bispinous at tip.

It is a common insect in many sections of the United States, and is by no means rare in Penn-

sylvania; we obtained specimens on the Missouri, Platte, and Arkansa rivers.

—MOLORCHUS, Fabr.

M. bimaculatus. Black, hairy; elytra testaceous on the disk.

Inhabits the United States.

Molorchus bimaculatus. Knoch in Melsh. Catal.

Antennæ, palpi and *feet* rufous: *thighs* clavate: *elytra* testaceous; basal, exterior, and posterior margins black.

Length nearly one-fourth of an inch.

The feet vary in being sometimes fuscous.

DONACIA.

D. æqualis. Brassy, with two dilated, indented, subsutural spots on the elytra, and an indented, humeral line; two elevated lines between the eyes.

Inhabits Missouri.

Body æneous, polished, punctured, glabrous: *head* with short, cinereous pubescence; an obsolete, indented line; two elevated tubercles between the eyes, extending in a depressed ridge to the base of the antennæ, where it is slightly more elevated: *eyes* black: *antennæ* clothed with cinereous pubescence; second and third joints equal: *palpi* and *mandibles* black: *thorax* densely punctured; punctures sometimes confluent; a longitudinal,

indented line; a lateral, dilated, hardly elevated tubercle before the middle: *scutel* minutely punctured and rugulose: *elytra* with regular series of punctures; surface slightly rugulose; two subsutural, dilated, obsolete, indented spots near the middle, and a subhumeral, impressed, dilated line at base: *beneath* argenteous-pruinose: *feet* cupreous, pubescent; a robust spine beneath the posterior thighs near the tip.

Length rather less than seven-twentieths of an inch.

Var. a. Body above cupreous, polished.

Found near Engineer Cantonment.

LEMA, *Fabr.*

1. *L. trivittata*. Rufous; *elytra* pale; suture and marginal vitta of the *elytra* black.

Inhabits the United States.

Crioceres trivittata. Knoch in Melsh. Catal.

Body rufous, impunctured: *antennæ* black; first joint rufous: *thorax* contracted each side on the middle; two black spots above, placed one on each side rather before the middle; sometimes obsolete: *scutel* black: *elytra* pale yellow; suture and exterior submarginal line black; punctures arranged in series: *tibia*, at tip, and *tarsi*, black.

Length less than three-tenths of an inch.

Var. a. Thorax entirely rufous, immaculate.

I obtained specimens of this species from the vicinity of the Rocky Mountains.

2. *L. collaris*. Black; thorax rufous; elytra green, striate with punctures.

Inhabits Missouri.

Body black: *head* rugose, with an impressed, longitudinal line; a slight tubercle above each antennâ: *thorax* bright rufous, impunctured; contracted each side behind the middle, and with an impressed, transverse line near the base above: *scutel* minute: *elytra* bright bluish-green, with nine series of longitudinal punctures: *beneath* black, polished, impunctured.

Length more than one-fifth of an inch.

Found on the *Tradescantia Virginica*.

ORSODACHNA, Latr.

O. vittata. Black, punctured; elytra pale testaceous; suture and outer margin black; feet rufous.

Inhabits Missouri.

Body black, punctured: *basal joints of the antennæ, labrum* and *palpi* obscure reddish-yellow: *thorax* with dilated, confluent punctures: *elytra* with dilated, confluent, dense punctures, pale yellowish-white; suture and exterior margin black: *feet* pale rufous: *tarsi* dusky.

Length nearly one-fourth of an inch.

Found in Missouri.

HISPA, *Lin. Latr.*

1. *H. lateralis*. Black; thorax, each side, and humerus yellowish.

Inhabits Illinois and Missouri.

Body black, punctured: *head* impunctured, rugose above between the eyes: *front* with a prominent tubercle beneath the antennæ: *antennæ* more robust towards the tip: *thorax* with a dilated, reddish-yellow margin confluent before: *pectus* yellowish; each side behind black: *postpectus* posterior to the intermediate feet, impunctured, polished: *feet* punctured; anterior thighs annulate, with yellowish at base; intermediate and posterior ones with a large yellowish spot near the base: *elytra* serrate, each with three double and one quadruple series of large, rounded, profoundly impressed punctures, separated by three elevated lines, and a common sutural one; a humeral, reddish-yellow spot attenuated behind, and terminated over the origin of the posterior feet: *abdomen* impunctured, polished.

Length three-tenths of an inch.

Obtained on the bank of the Mississippi, above the confluence of the Ohio river, and also near the Rocky Mountains. It is destitute of the frontal dot of *humeralis*, but is probably more closely allied to *sanguinicollis*, and may prove to the *sea-*

pularis, Oliv. the description of which I have not seen.

2. *H. pallida*. Yellowish-white; elytra with punctured striæ, elevated lines, and blackish, linear spots towards the tip.

Inhabits the United States.

Body pale testaceous, densely punctured: *head* with a longitudinal, impressed line, and indented point each side near the eyes: *thorax* quadrilinate, with black: *elytra* serrate; each elytron with three obtuse, elevated lines, and a common one; a blackish spot before the tip of the common line, one or two black spots behind the middle of the second line, and one before the middle; two upon the next line, of which one is upon the middle of it; two upon the next line, and two corresponding ones upon the lateral edge; between each two of the elevated lines are double series of profoundly impressed, large, transverse punctures: *feet* pale testaceous: *beneath* black or pale yellowish, varied with black: *venter* black or pale yellow, with four series of brown spots.

Length about three-twentieths of an inch.

3. *H. obsoleta*. Blackish; thorax with punctured striæ, elevated lines, and obsolete, yellowish spots.

Inhabits the United States.

Head dull rufous, black at base, and with a black line impressed in the middle: *antennæ* black: *thorax* dull yellowish, with four equidis-

tant black lines: *elytra* black, serrate, each with three elevated lines, and a common sutural one, separated by double series of large, profoundly impressed, transverse punctures; several small dull yellowish or rufous spots on the elevated lines, (placed similarly to the black elytral spots of the preceding species) and a larger spot at tip; *beneath* black; *feet* pale testaceous.

Length three-twentieths of an inch.

Very similar to the preceding species, than which it is much more common; as in that insect the spots on each elytron are arranged in two oblique bands, of which the anterior one is much more oblique than the posterior one; but as several of these spots are often obsolete or wanting, the bands are not always to be traced.

4. *H. cyanea*. Bluish-violaceous; beneath black; vertex rugose.

Inhabits Missouri.

Body above bluish-violaceous: *head* dusky: *vertex* with three longitudinal grooves, which attain the base of the antennæ: *antennæ* black: *thorax* with confluent, dilated, excavated punctures: *elytra* with regular series of large, dilated punctures; interstitial lines slightly elevated; serratures of the margin and tip obsolete: *beneath* black.

Length less than one-fourth of an inch; male much smaller.

5. *H. collaris*. Thorax red; elytra blue; beneath black.

Inhabits Arkansa.

Head black: *antennæ*, five terminal joints clothed with minute, cinereous hairs: *thorax* bright rufous, indented on the middle of the base; punctures much dilated, profound: *elytra* blue, with regular series of large, dilated punctures; interstitial lines slightly elevated; edge distinctly serrated: *beneath* black.

Length less than one-fourth of an inch.

I found but a single specimen near the Rocky Mountains.

CASSIDA.

C. unipunctata. Yellow; margin whitish; thorax with a black spot.

Inhabits Missouri.

Body oval, yellow: *head* whitish: *antennæ* black at tip: *labrum* black: *thorax*, anterior and lateral margin white; an abbreviated, black line on the middle: *elytra* irregularly punctured; margin pale or whitish: *beneath* black, varied with whitish: *feet* whitish.

Length two-fifths, breadth about one-fourth of an inch.

The form of this species is more oblong than any other of its American congeners; it is also of a larger size than either of them that I have seen.

IMATIDIUM, *Fabr.*

1. *I. 17-punctatum*. Yellowish; thorax four-spotted; elytra twelve-spotted.

Inhabits Arkansa.

Body pale yellowish, punctured: *antennæ* black at tip: *front* with an impressed line: *mouth* dusky: *thorax* four-spotted in a transverse series; the two intermediate spots most distant: *scutel* black: *elytra* each six-spotted; spots subequal, placed obliquely 2, 2, 2, and an obsolete common one near the suture: *beneath* yellow, or yellow varied with black: *tarsi* black.

Length two-fifths, breadth one-fourth of an inch.

The position of the black spots is as in *13-punctata*, but their number differs; the general colour is different, and *17-punctata* is of a more slender form than its congener. Found near the Rocky Mountains.

2. *I. cyaneum*. Suborbicular, blue, with dilated punctures; *antennæ* pale.

Inhabits Georgia.

Body deep blue, suborbicular, with profound, excavated punctures: *head* slightly punctured; a longitudinal, impressed line: *antennæ*, excepting the basal joint, pale yellow: *thorax*, posterior edge forming nearly a semicircle, lobate at the scutel; lateral edge almost transverse; anterior margin very profoundly emarginate; punctures, each side

dilated, on the middle obsolete: *scutell* purple, truncate at tip: *elytra*, humeral angle advanced, subacute; punctures arranged in series, and each with a minute, central, purplish tubercle: *tergum* sanguineous: *beneath* black, impunctured.

Length one-fifth of an inch.

A very beautiful species, common on the sea islands of Georgia, and in East Florida.

CLYTHRA, *Laich. Latr.*

C. 4-guttata. Black; elytra with a large, red, humeral spot, and an orbicular, terminal one.

Inhabits the United States.

Cryptocephalus 4-guttatus. Oliv. in Melsh. Cat.

Body deep black, polished, punctured: *head* and *thorax*, punctures minute, profound: *elytra*, punctures obsolete or very slightly impressed; a large red spot on the humerus, and another orbicular one at the tip of each.

Length three-twentieths of an inch.

Very much resembles *CRYPTOCEPHALUS 4-maculatus*.

CRYPTOCEPHALUS.

1. *C. nigricornis*. Black; thorax and elytra obscurely margined with rufous.

Inhabits Missouri.

Body black, punctured: *labrum* and basal joints

of the *antennæ*, beneath rufous : *thorax*, lateral margin rufous ; edge black : *elytra* with regular series of punctures ; exterior margin, tip, base, and subsutural line obscure rufous ; edge black ; an obsolete, rufous spot each side of the tail.

Length less than three-twentieths of an inch.

One or two of the interstitial lines of the *elytra* are sometimes very obsoletely rufous, particularly in the larger females. In some of the males the rufous margin is hardly perceptible.

2. *C. abdominalis*. Gray-brown ; the punctures black ; beneath black ; feet and margin of the abdomen pale.

Inhabits Missouri.

Body gray-brown, punctured : *head* and *thorax* irregularly clouded with markings composed of blackish, impressed punctures : *elytra* striate with black punctures : *beneath* black : *feet* pale, with a black femoral spot ; edge of the venter pale : *tail* whitish, with small, blackish dots.

Length less than three-twentieths of an inch.

3. *C. fasciatus*. Yellowish, varied with rufous ; *elytra* with three bands ; beneath rufous.

Inhabits Missouri.

Body yellowish, punctured : *head* rufous ; orbits yellowish ; punctures crowded, irregular : *eyes* black, transverse : *antennæ* dusky at tip : *labrum* dusky at base : *thorax* varied with yellowish and rufous ; punctures sometimes confluent ; posterior angles a little produced backwards and acute :

scutel rounded at tip: *elytra* striate, with large, deeply impressed punctures; punctures at tip irregularly disposed; three dilated, somewhat undulated, rufous fascia: *beneath* rufous: *feet* somewhat paler.

Length about three-twentieths of an inch.

Found near the Konza river. At first sight it might be taken for a variety of *C. congestus*, of which the spots had become confluent into bands, but the much punctured thorax is a distinguishing character that cannot in this instance be mistaken.

4. *C. punctipes*. Black; front two-spotted; thorax with three spots, and margin rufous; *elytra* varied with whitish spots.

Inhabits Arkansa.

Body black, punctured: *labrum* each side, base of the antennæ, three or four small obsolete spots between the antennæ, and two larger ones between the eyes, dull rufous: *thorax*, anterior and lateral margins, two oblique, dilated, abbreviated lines at base, and one at tip, dull rufous: *elytra* with punctured striæ; basal edge, three large marginal spots, of which one is terminal; a smaller one on the middle near the suture, and two or three smaller ones near the base, yellowish: *thighs* with a white oblong spot near the anterior tip: *tail* with two dull rufous dots, and a smaller one each side on the terminal ventral segment.

Length less than one-fifth of an inch.

Corresponds in some respects with Olivier's

description of his *C. brunnipes*, but, besides some other differences, the antennæ are shorter than the body. It may possibly, however, be the same.

5. *C. femoratus*. Black; labrum white; thorax with three rufous spots; elytra with a whitish, basal edge.

Inhabits Arkansa.

Body black, punctured: *antennæ* pale rufous at base: *eyes* approaching above: *labrum* white: *thorax* with a dilated, longitudinal, red spot on the lateral margin, and a line in the middle much dilated on the basal margin and edge: *elytra*, punctures irregularly disposed, and approximate at base, becoming in regular series towards the tip; basal edge white: *anterior thighs* more robust than the others.

Size of the preceding.

The form of this species is very like that of *punctipes*. Varies in having the thorax entirely red, slightly shaded with black; with a few small whitish points on the posterior part of the elytra, and obsolete white spots on the anterior femora.

6. *C. recurvus*. Black; margins of the thorax and elytra yellowish.

Inhabits the United States.

Body black: *head* impunctured: *labrum* dark piceous: *thorax* yellowish-rufous, impunctured; a large, dorsal, black spot which attains the posterior but not the anterior edge; a small round dot each side sometimes obsolete or wanting: *elytra* with

punctured striæ; exterior and terminal margins yellow; edge black: *beneath* all black.

Length about one-ninth of an inch.

A pretty little species, and bears some resemblance to *CHRYSOMELA marginella* of Donovan, and, as in that species, the yellow of the terminal margin is recurved for a short distance upon the sutural margin. It is probably allied to the *C. lituratus*, Fab.

7. *C. confluentus*. Rufous; elytra yellow, trilineate, with black; the inner line confluent, with the suture beyond the middle.

Inhabits Arkansa.

Body yellowish-rufous: *head* impunctured, yellow; a rufous, dilated line on the vertex: *antennæ* black, pale at base: *thorax* impunctured, polished; anterior and lateral margins more yellowish; lateral submargin with a deeper rufous spot sometimes obsolete: *scutel* black: *elytra* yellow, with punctured striæ; three longitudinal, nearly parallel, black lines, of which the interior one is confluent, with the suture near the tip; basal and sutural edges black: *beneath* rufous, varied with yellow.

Length from three-twentieths to less than one-fifth of an inch.

Somewhat like *C. venustus*, but has one more vitta on the elytra than that insect has. It was found near the Rocky Mountains.

8. *C. bivittatus*. Yellowish-rufous, punctured:

elytra yellow, with two vitta, and sutural edge black.

Inhabits Arkansa.

Body yellowish-rufous, punctured: *orbits* yellow: *thorax* more yellow each side, and on an obsolete, abbreviated, longitudinal, dorsal line: *scutel* black: *elytra* yellow, irregularly punctured; one or two regular series of punctures on the exterior margin; a black vitta abbreviated near the tip, and another originating upon the humerus, and often interrupted into three oblong spots; sutural and posterior half of the lateral edge black: *postpectus* dusky.

Length one-fifth of an inch.

I obtained this species near the Rocky Mountains.

9. *C. 4-maculatus*. Black; elytra with a large red spot on the humeral base, and an orbicular terminal one.

Inhabits the United States.

Cryptocephalus 4-maculatus. Knoch in Melsh. Catal.

Body deep black, polished, obsoletely punctured: *labrum* at tip, and *antennæ* at base, pale: *elytra* with striæ of large profound punctures; a large, red, humeral spot extending along the base to the scutel, and along the exterior margin nearly to the middle; a large, orbicular, red spot near the tip of each elytron.

Var. a. Humeral spot not extending along the base, but oblong-oval.

Var. b. Humeral and terminal spots elongated so as to unite on the margin.

Length one-fifth of an inch.

Very similar in colour and appearance to *CLYTURA 4-guttata*.

COLASPIS, *Fabr. Latr.*

1. *C. pretexta*. Metallic; thorax and elytra edged with green; antennæ and feet pale.

Inhabits the United States.

Eumolpus metallicus. Knoch in Melsh. Catal.

Body dull reddish or dusky, tinged with cupreous; polished, punctured; *head*, punctures remote; a profoundly impressed, frontal line: *antennæ* and *palpi* pale, whitish; *labrum* and tip of the *clypeus* somewhat piceous: *thorax*, punctures profound, subequally distributed; lateral, reflected edge green: *scutel*, punctures obsolete: *elytra*, punctures rather large, scattered irregularly at base; near the tip smaller, and approaching regular series; beneath piceous: *feet* pale.

Length more than one-fifth of an inch.

It is not uncommon on the myrtle. The name *metallicus* is pre-occupied.

2. *C. ovata*. Blackish-coppery, convex; antennæ and feet pale rufous.

Inhabits the United States.

Eumolpus ovatus. Knoch in Melsh. Catal.

Body blackish, with a cupreous tinge, punctured: *head* densely punctured: *antennæ* and *palpi* entirely pale rufous or yellowish: *labrum* piceous: *thorax* with dense, somewhat equally distributed punctures: *elytra*, punctures larger, and irregularly disposed at base; near the tip smaller, and approaching regular series; beneath blackish: *feet* pale rufous.

Length more than one-tenth of an inch.

A much smaller and much more convex species than the preceding one. In the form of the terminal joint of the maxillary palpi, this species closely approaches the genus *EUMOLPUS*.

3. *C. convexa*. Blackish; *labrum* and base of the *antennæ* rufous; an indented line on the vertex.

Inhabits Missouri.

Body convex, blackish, tinged with greenish or dull cupreous, punctured: *head* minutely punctured; an indented, abbreviated line near the vertex, which does not extend below a line drawn between the middle of the eyes; space between the *antennæ* plain: *antennæ* black; six basal joints pale rufous: *labrum* piceous: *palpi* pale at base; tip black: *thorax* densely and minutely punctured: *elytra* with larger and more distant punctures, some of which become almost regular series near the tip: *beneath* black, sometimes tinged with brassy: *feet* piceous-black: *thighs* subclavate.

Length less than one-fifth of an inch.

4. *C. striata*. Black; labrum, palpi, and base of the antennæ, dull rufous; elytra striate, with punctures.

Inhabits Missouri.

Body black, punctured, immaculate: *head* with obsolete, small punctures; an obsolete, indented, abbreviated line near the vertex, hardly attaining a line drawn between the middle of the eyes: *antennæ*, five or six basal joints dusky rufous: *labrum* piceous: *palpi* pale at base: *thorax*, punctures minute, not deeply impressed: *elytra* with regular series of large, profound punctures: *thighs* dilated in the middle.

Length three-twentieths of an inch.

5. *C. puncticollis*. Greenish or cupreous; thoracic punctures oval; labrum and antennæ at base rufous.

Inhabits Missouri.

Head and *thorax* with crowded, longitudinally oval, profound punctures: *antennæ* black-brown; six basal joints pale: *labrum* and *mandibles* piceous: *palpi* pale at base: *elytra*, punctures scattered, near the tip placed in obsolete series: *feet* dark piceous: *thighs* black.

Length three-twentieths of an inch.

Very similar to *C. convexa*, but is smaller, and the thoracic punctures are larger. The feet are sometimes entirely rufous.

6. *C. 10-notata*. Rufous-brown, hairy; elytra each with about six obsolete, black spots.

Inhabits the United States.

Body dark reddish-brown, punctured, clothed with short, cinereous hair: *labrum* and base of the *antennæ* yellowish: *thorax* immarginate: *elytra* with dilated, confluent punctures: *humerus* prominent; each with a black spot on the middle of the base, one on the humerus, a linear, dorsal one near the suture, a fourth near the margin, sometimes double, and a double one before the tip: *thighs* with a projecting angle beneath.

Length less than three-twentieths of an inch.

A very distinct species; it may perhaps, with almost equal propriety, be referred to the genus *EUMOLPUS*.

7. *C. 6-notata*. Pale; each elytron with three black spots.

Inhabits the United States.

Body pale, punctured: *front* with an obsolete black spot: *elytra* with regular series of punctures, which disappear towards the tip; a black, linear spot near the base, and two others on the middle, which are parallel and approximate, and of which the interior one is placed rather further backward: *beneath* black: *pectus*, *feet*, and *posterior portion of the venter*, pale: *thighs* with a slight angle beneath.

Length about three-twentieths of an inch.

I have found this specimen in considerable numbers on the common Juniper in July.

8. *C. 4-notata*. Black; head rufous; elytra testaceous, with two black spots.

Inhabits the United States.

Body black, punctured: *head* obscure rufous: *antennæ* paler at base: *thorax* black, immaculate; punctures sparse, not profound: *scutel.* pale reddish brown: *elytra* pale testaceous, with striæ of punctures, which become obsolete before the tip; a black, oblique spot near the base of each, and a larger obliquely, quadrate one on the middle; exterior edge black: *feet* pale: *thighs* with a minute angle beneath.

Length about three-twentieths of an inch.

It has considerable resemblance to the preceding.

9. *C. pallida*. Pale rufous; elytra pale testaceous, immaculate.

Inhabits Missouri.

Body very pale rufous; *head* obsoletely punctured; an indented, abbreviated line or spot on the vertex: *thorax*, punctures small, sometimes obsolete: *elytra* pale testaceous, with striæ of punctures which become obsolete before the tip: *beneath* pale.

Length three-twentieths of an inch.

Very similar to *C. 6-notata*, but is always destitute of spots on the elytra.

10. *C. dubiosa*. Pale rufous; elytra pale testaceous, with a black suture dilated at base.

Inhabits Arkansa.

This species seems to differ from the preceding, only by having a black suture dilated at base, a black lateral edge on the anterior half, sometimes obsolete, and a black, basal, ventral segment; the thorax is sometimes obsoletely dotted with black, and in one specimen is a small black spot anterior to the middle of each elytron; the *6-notata*, *4-notata*, *pallida*, and *dubiosa* may possibly prove to be the same species, exhibiting remarkably distinct variations in the distribution of its colours. Found near the Rocky Mountains. I think it possible that *dubiosa* may prove to be a variety of *CRYPTOCEPHALUS cancellus*, Fabr.

11. *C. favosa*. Greenish, with dilated, profound punctures: antennæ black, testaceous at base.

Inhabits Arkansa.

Body greenish, with a coppery tinge, with numerous, approximate, irregularly disposed, confluent, profound, dilated punctures: *eyes* brown: *antennæ* black, dark testaceous at base: *labrum* piceous, impunctured: edge of the thorax and elytra more exclusively bluish or violaceous; punctures of the elytra larger than the thoracic ones; humeral prominence impunctured: *pectus* with smaller punctures: *postpectus* with a few minute punctures furnishing minute hairs, and with

the *venter*, which is impunctured, bluish-violaceous: *feet* dark violaceous.

Length one-fourth of an inch.

12. *C. denticollis*. Lateral thoracic edge three-toothed; *elytra* serrate.

Inhabits Missouri.

Body black, slightly bronzed, covered with dense, robust, cinereous hairs: *antennæ* dull rufous at base: *thorax* with three equal, equidistant teeth on the lateral edge: *elytra*, lateral edge minutely dentated; tip simple: *anterior tibia* and *posterior thighs* one-toothed.

Length nearly one-fifth of an inch.

13. *C. interrupta*. Rufous; *thorax* with two spots; *elytra*, suture, exterior edge, and abbreviated vitta, black.

Inhabits Arkansas.

Body rufous, punctured: *antennæ* black; five basal joints pale rufous: *thorax* with a large black spot on each side: *scutel* piceous: *elytra* rather paler, with regular punctured striae, which are nearly obsolete at tip; a black, sutural line, exterior edge, and oblique vitta, which originates upon the humerus, is interrupted at the middle, and terminates before the tip: *beneath* blackish: *feet* pale rufous.

Length one-fourth of an inch.

Found near the Rocky Mountains.

EUMOLPUS, *Fabr. Latr.*

E. crypticus. Entirely covered with short, cinereous hair; elytra very acute at tip.

Inhabits Missouri.

Body densely covered with short, robust, cinereous hair, beneath which the surface is dull reddish, inclining to cupreous; punctured: *scutel* dusky, sparsely hairy: *elytra* with very small, profound punctures, which are more distant from each other than the length of their diameters; tip attenuated equally from the suture and exterior edge; a little produced, and terminating acutely.

Length less than two-fifths of an inch.

Very similar to a smaller species which Mr. F. V. Melsheimer, in his catalogue, names *pilosus*; but the elytral punctures of that insect are much more crowded.

CHRYSOMELA, *of Authors.*

1. *C. hybrida.* Ferruginous; elytra pale yellow; suture and three lines on each ferruginous.

Inhabits Missouri.

Body oval, punctured, ferruginous: *thorax* irregularly punctured, and with larger, confluent punctures each side: *scutel* impunctured, rounded at tip: *elytra*, with the suture and three lines, rufous; the intermediate line undulated, and united

to the exterior one at base, and abbreviated at tip: *wings* pink red.

Length more than three-tenths of an inch.

Very much resembles *C. exclamationis*, Fab. but, besides other differences, the exterior elytral line is not interrupted; in the colour of the thorax it approaches Fabricius' description of that species. Brought from the Missouri by Mr. T. Nuttall.

2. *C. multipunctata*. Ferruginous; thorax yellow, with a ferruginous curve; elytra yellow, with numerous green spots.

Inhabits Missouri.

Head and all beneath ferruginous: *thorax* yellow, with a ferruginous, irregular, arquated line and basal edge, including an obsolete dot: *elytra* with a sutural line, and numerous, irregular, green dots and abbreviated lines, and immaculate, exterior margin: *wings* rosaceous.

Var. a. Suture with a common, ferruginous fillet.

Size of *C. philadelphica*, which it closely resembles; but, although it varies much, it may always be distinguished from that species by the colours of the head and thorax, which, in the *philadelphica*, are always green, immaculate. Numerous specimens were brought from Missouri by Mr. T. Nuttall.

3. *C. dissimilis*. Dark purple or greenish; antennæ black; beneath blue-black.

Inhabits Missouri.

Body dark purple, violaceous or greenish, punctured; punctures profound, subequally distributed: *head* impressed between the antennæ: *antennæ* and *palpi* black: *thorax* regularly convex; lateral edges regularly arquated: *scutel* impunctured: *elytra* destitute of striæ: *beneath* blued-black: *venter*, punctures sparse.

Length more than one-fifth of an inch.

Varies in its colours. It is sometimes of a very dark purple colour, and sometimes of a bright green, more or less tinged, however, with violaceous, particularly about the suture.

4. *C. formosa*. Green-gold, brilliant; antennæ black; suture of the elytra purple; beneath violaceous.

Inhabits Missouri.

Body golden-green, brilliant, punctured: *antennæ* and *palpi* black: *labrum* purplish: *thorax* somewhat inequal; edges bluish: *scutel* purple, impunctured: *elytra* slightly and irregularly rugose, punctured; suture purple; exterior edge blue: *beneath* violaceous: *tibia* black.

Length more than three-twentieths of an inch.

A brilliant little insect.

5. *C. basilaris*. Green; antennæ black; basal joint rufous; thorax with a thickened margin.

Inhabits Arkansa.

Body green, very slightly glossed with violaceous, punctured: *vertex* with an impressed line:

antennæ black; basal joint rufous: *thorax* indistinctly punctured; punctures distant; lateral margin much thickened: *elytra* with irregularly scattered punctures: *venter* dusky, with a greenish gloss.

Length less than one-fourth of an inch.

I obtained this species near the Rocky Mountains.

6. *C. auripennis*. Violaceous; margin of the thorax thickened; *elytra* golden.

Inhabits Arkansa.

Body violaceous: *antennæ* black, dark violaceous at base: *thorax* with slight, distant punctures; lateral margin much thickened: *scutel* violaceous, rounded: *elytra* golden-cupreous, brilliant; exterior edge green, punctured; punctures placed in somewhat regular series.

Length more than one-fourth of an inch.

A very beautiful insect, of which I obtained but a single specimen near the Rocky Mountains.

7. *C. flavo-marginata*. Black; thoracic margin thickened; *elytra* margined with yellowish.

Inhabits Missouri.

Body black, punctured: *thorax*, punctures each side larger; lateral margin thickened: *elytra* with regular series of punctures, and smaller, irregularly disposed punctures: exterior margin and tip yellowish; beneath black.

Length more than one-fourth of an inch.

Collected in Missouri by Mr. T. Nuttall.

HELODES, *Payk.*

H. obsoleta. Blackish; thorax and elytra margined with yellowish.

Inhabits Missouri.

Body blackish, punctured: *head* and *thorax* tinged with green; margin of the latter yellowish, thickened, with a black, insulated point: *elytra* tinged with violaceous, irregularly punctured; margin, tip, and obsolete lines before and behind the middle, yellowish: *beneath* black, immaculate.

Length three-tenths of an inch.

Var. a. Obsolete lines none.

DORYPHORA, *Illig.*

1. *D. 10-lineata.* Yellow; thorax litterate, with black; elytra each with five black lines.

Inhabits Missouri and Arkansa.

Body yellow: *head* with a triangular, black, frontal spot: *thorax*, two abbreviated, black, approximated lines, divergent before; about six black dots on each side: *elytra*, suture, and five lines on each, black; the interior line is confluent with the suture behind; exterior line marginal; three intermediate ones joined or approximated at tip: *beneath*, incisures and three or four series of ventral spots black.

Length two-fifths of an inch.

Var. a. Elytra white: the two outer, intermediate lines are united at base and tip.

This species seems to be not uncommon on the Upper Missouri; where it was obtained by Mr. Nuttall and by myself. The variety I found on the Arkansa.

2. *D. 3-maculata*. Bluish-green; elytra yellow, with a common band, and each with a triangular, black spot near the tip; feet purplish.

Inhabits the United States.

Chrysomela maculata. Melsh. Catal.

trimaculata? Fab. Syst. Eleut.

Bluish-green, punctured: *antennæ* and *palpi* black: *elytra* punctured in double lines, which become confused near the tip; a dilated, black band extending in breadth from near the base to the middle, not attaining the lateral edge, and often interrupted in the middle of each elytron; a large, triangular spot near the tip of each elytron: *beneath* black-blue: *feet* purplish.

Length two-fifths of an inch.

A common insect. Mr. Nuttall captured a specimen with the band interrupted into small spots, and the triangular spot near the tip entirely wanting.

This species is no doubt closely related to *CHRYSOMELE trimaculata* of Fabr. if not the same, which I believe it to be, although that insect is said to be a native of South America, and the tarsi are not rufous as those of that insect are described

to be. The terminal joint of the maxillary palpi is very short and transverse; in this respect, corresponding in character with the palpi of the genus *DORYPHORA*, as defined by Mr. Latreille, and, although, as in the preceding species, the poststernum is not remarkably advanced, I prefer arranging it here.

GALLERUCA, Geoff. Leach.

1. *G. coryli*. Pale yellowish, testaceous; elytra bifasciate with blue.

Inhabits the United States. Illinois.

Galleruca coryli. J. F. Melsheimer's letter to me.

Body pale yellowish-testaceous; *head* with an impressed line between the antennæ: *antennæ* blackish: *labrum* hirsute: *mandibles* black at tip: *thorax* transversely concave in the middle; anterior angles subacute; posterior ones rounded: *scutel* rounded at tip: *elytra* somewhat dilated behind the middle, with numerous, minute punctures, a much dilated blue band at base, and a still larger one at tip: *wings* black.

Var. a. Pale yellowish-testaceous, immaculate. Length more than half an inch.

A very large species; it is considerably dilated behind, and has probably considerable affinity with the genus *ADORIUM*, but the terminal joint of the palpi is not truncated. It occurs in Maryland

and Virginia, on the banks of the Missouri, and J. F. Melsheimer informs me that it is so numerous in some parts of Virginia, that it completely defoliates, in a short time, the Hazel, (*Corylus Americanus*) upon which it feeds.

2. *G. tuberculata*. Dull reddish-brown; a slight tubercle at the anterior and posterior angles.

Inhabits Missouri.

Body dull reddish-brown, immaculate, with prostrate hairs: *antennæ* black, rufous at the three basal incisures: *thorax* with a much dilated, slightly indented spot each side, and an inconspicuous, central line; edge slightly emarginated each side of the posterior angles, which, with the anterior angles, are somewhat elevated, and resemble slight tubercles: *elytra* irregularly punctured: *knees*, *tibia*, and *tarsi* black.

Length one-fourth of an inch.

This species is remarkable by its dull, and, with the exception of the *antennæ* and feet, uniform reddish-brown colour; the two emarginations near the posterior thoracic angles are so obtuse as to be little more than truncations; the lateral one of which produces an angle at its anterior termination on the middle of the edge.

3. *G. dorsata*. Pale yellowish; *elytra* blue, with a yellow outer margin and tip.

Inhabits Arkansa.

Body pale yellowish: *head* black on the vertex: *antennæ* black-brown: *thorax* immaculate; punc-

tures obsolete : *scutel* blackish-bronze : *elytra* irregularly punctured, greenish-blue ; exterior margin and tip yellow ; an indented, abbreviated line on the basal middle : *feet* with a blackish line above.

Length one-fourth of an inch.

Found on the banks of the Arkansa above the Verdigris.

4. *G. circumdata*. Yellowish ; antennæ black ; *elytra* purplish-black, with a yellow border and suture.

Inhabits Arkansa and Missouri.

Body yellowish : *head* impunctured : *antennæ* black : *thorax* impunctured, transversely-quadrate ; edges nearly rectilinear ; *scutel* yellow : *elytra* with minute, distant punctures, blackish-purple ; suture, exterior margin, and tip, yellow : *beneath* pale yellow.

Length less than one-fourth of an inch.

The basal joint of the antennæ is sometimes yellowish.

5. *G. tricineta*. Yellowish ; head, three *elytral* bands, and terminal dot, black.

Inhabits Arkansa.

Head black : *thorax* yellowish, subquadrate : *scutel* black : *elytra* yellowish-white, with three equidistant, dilated, black bands, the first of which is uninterrupted and basal, not attaining the lateral edge, and at the suture extending in a common line near to the second band ; second band nearly central, and with the third, not attaining the exte-

rior edge, and interrupted at the suture; a small black dot on each elytron at tip; striæ none; punctures numerous, obsolete: *postpectus* black: *knees*, *tibia*, and *tarsi* black.

Length one-fourth of an inch.

Observed near the Mountains on the bank of the Arkansa river.

6. *G. externa*. Blackish-brown, confluent punctured; margin of the elytra yellowish.

Inhabits Arkansa.

Body blackish-brown, with dense, dilated, confluent punctures: *head* with a longitudinal, indented line: *thorax* somewhat unequal, with a longitudinal, indented line, and lateral, irregular ones: *scutel* rounded at tip: *elytra* confluent punctured, with three or four elevated, impunctured lines; lateral margin and tip slightly dilated, yellow: *beneath* black.

Length more than seven-twentieths of an inch.

It is much more robust than *G. baccharidus*.

7. *G. puncticollis*. Dull yellowish-brown; *thorax* confluent punctured, unequal; antennæ and two fillets on each elytron black.

Inhabits Mississippi and Arkansa.

Body with minute hairs: *head*, above confluent punctured: *clypeus* and *labrum* glabrous: *antennæ* black: *thorax* rough, with excavated, confluent punctures; immaculate, unequal: *elytra* with minute punctures; fillets obsolete, often wanting

or hardly visible: *thighs* with a black spot: *tibia* and *tarsi* black.

Length three-twentieths of an inch.

Captured by Mr. T. Nuttall on the Mississippi. I also found specimens on the Arkansa near the Mountains. It considerably resembles *G. baccharidis*, Fab. but, besides its different markings, its thorax is very much punctured.

8. *G. attenuata*. Yellowish-brown; thorax with three black spots; elytra greenish-blue, polished; margin and abbreviated fillet yellowish.

Inhabits Mississippi.

Body yellowish-brown: *head* with an impressed line on the front: *antennæ* and *vertex* black: *thorax*, with a dorsal spot and lateral one each side, black: *elytra* greenish-blue, with very minute, crowded, and confluent punctures; fillet attenuated, arising from the middle of the base, and terminating beyond the middle of the elytron, and with the exterior margin and tip yellowish-brown.

Length three-tenths of an inch.

The fillet varies in length, and its breadth sometimes continues undiminished to the tip. Captured by Mr. T. Nuttall.

9. *G. decorata*. Yellowish; *antennæ*, *vertex*, and two spots on each elytron, black.

Inhabits Missouri.

Body yellowish, immaculate, glabrous: *vertex* and *antennæ*, excepting the three basal joints, black: edges linear; the posterior one slightly

sinuate: *scutel* black at base; *elytra* obsoletely punctured, rounded at tip; each with an oval, black spot at base, and a larger, oblong one extending from the middle to near the tip: *pectus* and *postpectus* black.

Length less than three-tenths of an inch.

The second and third joints of the antennæ are subequal, and taken together are hardly longer than the fourth, as in the genus *ADIMONIA* of Schrank.

10. *G. longicornis*. Green, oblong; thorax with two impressed spots; *elytra* with a black fillet and suture.

Inhabits Arkansa.

Body pale greenish: *eyes* blackish: *antennæ* as long as the body; second and third joints conjoined, shorter than the fourth: *thorax* subquadrate; two dilated, oval, impressed spots placed rather behind the middle: *elytra* irregularly punctured; three or four obsolete, elevated lines, of which the exterior one is largest, and coloured by a brown fillet which does not attain the tip; a brown common sutural line.

Var. a. Destitute of the fillet and sutural line.

Length less than one-fifth of an inch.

I obtained specimens near the Rocky Mountains. The length of the antennæ of some specimens would authorize the placing of it in the genus *LUPERUS*, whilst the abbreviation of the third and fourth joints resembles those of the genus *ADIMO-*

NIA of Schrank. This insect varies in being more robust, with the antennæ shorter than the body, and the elytra, at first view, are entirely olive-green; but, on inspection, vestiges of the fillet and sutural line sometimes are visible near the base. It is very similar to *CRIOCERES vittata* of Fab.

11. *G. atripennis*. Black; thorax rufous, with two impressed spots; venter pale yellowish-rufous. Inhabits Missouri.

Black, impunctured: *head*, an indented, frontal spot, and a carinate line between the antennæ: *thorax* pale rufous; two dilated, indented spots: *elytra* irregularly and confluent punctured; an elevated line from the humerus parallel with the edge: *pectus* and *venter* pale rufous.

Length nearly one-fifth of an inch.

The second and third joints of the antennæ are abbreviated and equal, as in the preceding species.

12. *G. atriventris*. Pale rufous; antennæ, elytra, and abdomen, black.

Inhabits Missouri.

Body pale rufous: *eyes* black: *antennæ*, ten-jointed, black: *thorax* with a dilated, black margin; interrupted before the scutel: *scutel* pale rufous: *elytra* black, glabrous, immaculate: *wings* black: *feet*, line above the femora, tibia and tarsi black: *abdomen* deep black.

Var. a. Thorax destitute of the black margin.

Length more than one-fifth of an inch.

On the *AMMORPHA fruticosa*, the leaves of which

it feeds upon. The antennæ are as long as the body, as in the genus *LUPERUS*, and have but ten distinct articulations.

LANGURIA Latr.

1. *L. puncticollis*: Rufous; antennæ, thoracic spot, elytra, and feet, black.

Inhabits Mississippi.

Body rufous: *antennæ* and *palpi* black: *thorax* with a small, rounded, black spot on the middle, and an abbreviated, indented line upon the basal margin each side of the middle: *elytra* with striæ of impressed points, black: *feet* black: *venter*, terminal segment black.

Length two-fifths of an inch.

A more robust species than *L. bicolor*, which it somewhat resembles.

2. *L. 3-fasciata*. Rufous; head black; elytra bifasciate with violaceous.

Inhabits Mississippi.

Body rufous, punctured: *head* black: *antennæ*, third, fourth, fifth and sixth joints dull rufous: *thorax* immaculate: *elytra* with a violaceous base and tip; each band occupying about one-third of the entire length; punctured striæ: *feet* pale: *venter* at tip, and obsoletely at base, black.

Length one-fourth of an inch.

About the size of *L. mozardi*, but very distinct.

[TO BE CONTINUED IN VOL. IV.]