

FAUNA  
BOREALI-AMERICANA  
OR THE  
ZOOLOGY  
OF THE  
NORTHERN PARTS  
OF  
BRITISH AMERICA

PART FOUR

INSECTS

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AND

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FAUNA  
BOREALI-AMERICANA;  
OR THE  
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NORTHERN PARTS  
OF  
BRITISH AMERICA:

CONTAINING

DESCRIPTIONS OF THE OBJECTS OF NATURAL HISTORY COLLECTED ON THE LATE NORTHERN LAND  
EXPEDITIONS, UNDER COMMAND OF CAPTAIN SIR JOHN FRANKLIN, R.N.

BY

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MDCCCXXXVII.

Having thus won our way to the Capricorn beetles, I shall now describe the species belonging to it taken in the Expedition.

iii. LONGICORNIA. Latr.

Family LAMIADÆ. *Lamiadans.*

LXXXVII. Genus MONOCHAMUS. De J.<sup>7</sup>

*Labrum* rounded at the apex and subemarginate.

*Labium* membranaceous, bipartite, with hairy lobes.

*Mandibles* subcompressed, trigonal, toothless, acute and incurved at the apex.

*Maxillæ* bilobed, lobes hairy at the apex and rounded, the upper lobe the longest.

*Palpi maxillary* four-jointed: first joint short subcylindrical; second longer than the third, gradually thicker towards the obliquely truncated apex; third shaped like the second but shorter and somewhat bent; fourth fusiform, subtruncated at the apex.

— *labial* three-jointed, first joint minute; second incrassated at the apex; third fusiform, subtruncated.

*Antennæ* subsetaceous, elongated, eleven-jointed; scape subcylindrical, rather thicker towards the apex, constricted at the base; pedicel very short, subturbinate; third joint longer than the rest, which are nearly equal in length and filiform.

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\* Elytra rough from wrinkles and punctures.

(221) 1. \* MONOCHAMUS RESUTOR. *Resutor Monochamus.*

*M. (resutor) niger; prothorace spinoso; elytris confluentur punctatis et rugosis, femineis cinereo maculatis; scutello pallido; antennis pedibusque rufescentibus, illis in masculis longioribus, in feminis mediocribus.*

Resutor Monochamus, black; prothorax spinose; elytra confluently punctured and wrinkled, those of the female spotted with cinereous; scutellum pale; antennæ and legs reddish; the former, in the males, longer than the body; in the females not exceeding it in length.

Length of the body  $10\frac{3}{4}$  lines.

Frequently taken in Lat. 65°.

<sup>7</sup> As neither De Jean nor Latreille have given characters of this genus I subjoin them.

## DESCRIPTION.

This insect resembles *M. sutor* in so many particulars, that it is not without considerable hesitation I describe it as distinct. It exhibits however some characters that seem to indicate more than a casual variety, produced by difference of climate, &c. The antennæ of the male of *M. resutor* are considerably shorter than those of the same sex of *M. sutor*; the labrum and rhinarium are shorter; the former is rufo-piceous; the first joint of the antennæ, the five or six of the last joints are rufescent, as are the legs more or less, and the tooth that arms the intermediate tibia is more prominent. The antennæ of the female are but little longer than the body, and not annulated with cinereous.

This species is intermediate between *M. sutor* and *M. sartor*.

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\*\* Elytra without wrinkles.

(222) 2. \* MONOCHAMUS CONFUSOR. *Confused Monochamus.*

*M. (confusor) nigro cinereoque nebulosus et variegatus: prothorace spinoso; elytris testaceis punctatis piloso cinereis, nigro maculosis: scutello pallido: antennis rufescentibus basi nigris.*

Confused Monochamus, clouded and variegated with black and cinereous: prothorax armed with spines: elytra testaceous, punctured, cinereous from hairs, spotted and dotted with black: scutellum pale; antennæ reddish, black at the base.

Length of the body 1 inch and  $\frac{1}{2}$  line.

Taken in Nova Scotia by Dr. Mac Culloch, in Canada by Dr. Bigsby, in Massachusetts by Mr. Drake.

## DESCRIPTION.

Body linear, elongate, black, covered with white or cinereous decumbent hairs, but so as to let the black appear in confused spots and reticulations. Labrum rather long, fringed anteriorly with ferruginous hairs; maxillary palpi long; rhinarium broad, rufous; antennæ testaceous with the redness obscured by decumbent cinereous hairs, but the scape and pedicel are black; the antennæ of the female are something longer than the body; those of the male are twice its length: the spines of the prothorax are stout, covered thickly with white hairs, and dotted posteriorly with black; in the disk is a central oblong impression: scutellum thickly covered with white decumbent hairs, with a black longitudinal line: the ground colour of the elytra is testaceous which is more or less obscured and clouded by white decumbent hairs, besides there are several black dots and oblong spots produced by erect hairs; at the base of the elytra, especially on the projecting shoulders, are numerous round elevated smooth little spaces, and their whole surface is covered with scattered minute punctures.

N.B. In the male the black spots and dots of the elytra are fainter, and sometimes nearly obliterated.

(223) 3. \* MONOCHAMUS MARMORATOR. *Marbled Monochamus.**M. (marmorator) niger, fulvo nebulosus; prothorace spinoso; elytris nigro, cinereo, fulvoque marmoratis.*

Marbled Monochamus, black, clouded with tawny; prothorax spinose; elytra marbled with black, cinereous, and tawny.

Length of the body 11 lines.

A single specimen taken in Lat. 54°.

## DESCRIPTION.

Body black, covered underneath, but so that the black appears in various places, with subcinereous, or somewhat tawny decumbent hairs. Head and prothorax covered in the same way but with redder hairs: spines of the prothorax very robust, rather long, sharpish: scutellum covered with a coat of cinereous hairs, divided by a black longitudinal line: elytra black, marbled variously with cinereous and reddish tawny hairs; the cinereous spots are dotted with black; the surface of the elytra when laid bare appears punctured, and at the base are several confluent smooth elevated spaces; suture and lateral margin testaceous; apex acute.

N. B. The antennæ in the specimen are broken off.

Family CERAMBYCIDÆ. *Cerambycidans.*

LXXXVIII. Genus ACANTHOCINUS. Meg.

xix. \* Subgenus GRAPHISURUS. Kirb.

*Anus* of the female with a long exerted ovipositor.

The type of this subgenus is *Cerambyx fasciatus* of De Geer.<sup>8</sup> It comes near to *Acanthocinus ædilis*, the female of which has an exerted ovipositor, but not so long, and the scape of the antennæ is of a different shape; so that they would, if considered as belonging to the same subgenus, form two divisions.

(224) 1. \* ACANTHOCINUS (*Graphisurus*) PUSILLUS. *Dwarf A. Graphisurus.**A. G. (pusillus) prothorace postice acute spinoso; cinereo-pilosus nigro punctatus; elytris fascia obliqua maculisque pluribus fuscis.*

Dwarf A. Graphisurus, prothorax towards the base armed with an acute spine; body with a coat of cinereous hairs dotted with black; elytra with an oblique brown band, and several spots of the same colour.

Length of the body 4½ lines.

A single specimen taken in the Journey from New York to Cumberland-house.

<sup>8</sup> De Geer v, 114, t. xiv, f. 7.

## DESCRIPTION.

This species is one of the most minute of the Capricorn tribes. Body linear, black but covered with a coat of whitish decumbent hairs, which appears more or less sprinkled with black dots. Head longitudinally channelled; antennæ mutilated in the specimen, but those joints that remain are white at the base: prothorax short, armed on each side, towards the base with a short sharp spine, punctured with scattered punctures; elytra punctured especially towards the base, mottled and speckled with brown, with an oblique brown band a little beyond the middle, apex of the elytra rounded: podex and hypopygium, or last dorsal and ventral segments of the abdomen elongated, so as to defend the base of the ovipositor which is exerted, causing the insect to appear as if it had a tail; the hypopygium is emarginate: thighs much incrassated at the apex.

## Family CALLIDIADÆ.

LXXXIX. Genus CALLIDIUM. Fab.

(225) 1. \* CALLIDIUM AGRESTE. *Country Callidium.*

*C. (agreste) fuscum, subobscurum, punctulatissimum; prothorace, trifoveato; elytris lineis tribus elevatis apice confluentibus: corpore subtus albido villosa; pectore longius.*

Country Callidium, brown, less obscure, very minutely and thickly punctured; prothorax with three impressions; elytra with three elevated lines confluent near the apex; body underneath coated with white hairs, those on the breast being longer than the rest.

Length of the body 11 lines.

Several specimens taken in the Expedition, and likewise in Nova Scotia by Dr. Mac Culloch and Capt. Hall.

## DESCRIPTION.

I at first took this for a variety of *C. rusticum*, but on a closer inspection I found it differed in the sculpture as well as colour; and having received a specimen of that insect from Dr. Harris, in which its characters were all preserved, I am induced to describe *C. agreste* as a distinct species.

It differs from *C. rusticum* in being smaller, of a darker brown, without a tint of red; and in having more gloss. The prothorax has three deep round impressions, while in the insect last named, the impressions are slight, and the two anterior ones oblong: the elevated lines of the elytra are more prominent and become visibly confluent towards the apex, where they form several reticulations: the underside of the body is much more thickly covered with hairs, which are hoary instead of yellowish, those on the breast being longer than those on the abdomen. In other respects these two insects resemble each other.

(226) 2. \* CALLIDIUM STRIATUM. *Striated Callidium.*

*Callidium striatum.* Fab. *Ent. Syst.* I, ii, 329, 48; *Syst. Eleuth.* ii, 343, 57. Oliv. *Ins.* 70, t. ii, f. 24. Herbst. *Arch.* t. xxvi, f. 13. Panz. *Fn. Germ.* lxx, 13. De Geer *Ins.* v, 90, 26. Payk. *Fn. Suec.* iii, 83, 4. Lai. *Tyr. Ins.* 74, 8. *Cerambyx striatus.* Linn. *Fn. Suec.* 668; *Syst. Nat.* ii, 635, 73.

Length of the body  $5\frac{1}{4}$  lines.

A single specimen taken in Lat. 65°.

## DESCRIPTION.

Body linear, black, thickly punctured, underneath with a few hairs, glossy; above without any hairs or gloss. Antennæ a little longer than the prothorax: prothorax suborbicular, covered thickly with minute granules, with an elevated tubercle in its disk: elytra most minutely and thickly granulated, with four longitudinal slight furrows occupying the half adjoining the suture, the alternate interstices being most elevated: tarsi rufo-piceous.

(227) 3. \* CALLIDIUM COLLARE. *Red-collared Callidium.*

*C. (collare) nigrum, supra obscurum, punctatissimum; prothorace leviusculo, nitido, rufo, lateribus subspinosis.*  
Red-collared Callidium, black, above obscure, very thickly punctured; prothorax smoother, glossy, rufous, with the sides subspinose.

Length of the body 5 lines.

A single specimen taken in Lat. 54°.

## DESCRIPTION.

Body linear, black, hairy with whitish scattered hairs. Head thickly punctured; antennæ shorter than the body, rather hairy, piceous, scape black: prothorax rufous, with a few scattered punctures, glossy, projecting on each side into an angle or short spine: elytra very thickly and confluent punctured: body underneath glossy, slightly punctured: anterior part of antepectus rufous: tarsi piceous, first joint of nearly equal length in all the legs.

This species seems to be nearly related to *C. sanguinicolle* of Germar,<sup>9</sup> but it differs in having the thorax less punctured than the rest of the upper surface of the body, and armed with rudiments of spines, and the first joint of the posterior tarsus is not more elongated than the rest.

<sup>9</sup> *Cdœopt. Spec. Nov.* i, 515, 687.

xx. \* Subgenus MERIUM. Kirb.

*Thighs* clubbed.

This subgenus differs from the genuine *Callidia*, in having all the thighs incrassated at the apex. *Cerambyx variabilis* Linn. may be considered as its type.

(228) 4. CALLIDIUM (*Merium*) PROTEUS. *Proteus C. Merium*.

*C. M. (Proteus) nigrum, punctulatum, pilosum; prothorace utrinque punctis confluentibus scabro; dytris violascentibus lineis longitudinalibus callosis pallidis; femoribus rufis.*

*Proteus C. Merium*, black, minutely punctured, hairy: prothorax on each side rough with confluent punctures; elytra tinted with violet, with longitudinal, callous, pale lines: thighs rufous.

PLATE V, FIG. 5.

Length of the body 5—8½ lines.

Taken abundantly especially in Lat. 65°.

DESCRIPTION.

Body black, minutely punctured, hairy with longish hoary hairs, especially underneath. Nose with a deeply ploughed transverse furrow; front behind the antennæ violet, confluent punctured; palpi black, maxillary rather long, last joint an obtusangular triangle; antennæ longer than the prothorax: sides of the prothorax very rough with deep confluent punctures: elytra wrinkled, violet, with three longitudinal, subinterrupted, callous, pale lines, of which the intermediate one is the longest, and the external one the shortest: legs piceous, with the incrassated part of the thighs testaceous.

This species varies extremely both in size and colour. The following are the principal varieties.

VARIETY B. Head and prothorax violet; elytra lurid with only two callous lines. Length 6¼ lines.

C. Head, except at the base of the antennæ, black; sides of the prothorax violet, disk bronzed: elytra as in the last. Length 5 lines.

D. Head and prothorax black: elytra lurid; lines faintly marked. Length 5½—7 lines.

E. Head and prothorax bronzed: elytra lurid bronzed, with two distinct lines. Length 6—7 lines.

F. Head violet; prothorax bronzed: elytra as in the last. Length 6 lines.

G. Like the last, but the callous lines of the elytra are obsolete. Length 5½—6½ lines.

H. Head and prothorax black: elytra lurid with three lines. Length 7½ lines.

I. Head and prothorax black-bronzed: elytra bronzed-lurid with two lines.



(229) 5. CALLIDIUM (*Merium*) SIMILE. *Similar C. Merium.*

*C. M. (simile) nigrum, punctulatum, pilosum; prothorace utrinque pulvinate, minutissime et confertissime confluent punctulatum; elytris æneo-luridis, lineis duabus elevatis callosis pallidis confluentibus, antennis apice femoribusque rufis.*

Similar *C. Merium*, black, minutely punctured, hairy, prothorax pillowed out on each side, and most minutely and thickly punctured with confluent punctures: elytra bronzed, lurid, with two elevated callous coalescing pale lines; antennæ at the apex, and thighs, rufous.

Length of the body 7 lines.

A single specimen taken with the preceding species.

## DESCRIPTION.

This species in most respects is so like *C. M. Proteus*, that I had set it by as another variety; but upon further consideration I am induced to give it as distinct, since it differs not only in colour but in the form and sculpture of the prothorax and other parts.

The apex of the palpi is more dilated, so that it is strictly securiform; the front behind the antennæ is elevated and gibbous, with few scattered punctures: the sides of the prothorax are more puffed out, and much more minutely and thickly punctured, and there is a pair of impressions in the disk: the antennæ also at the base are rufous: in other respects it does not differ from *M. Proteus*.

(230) 6. CALLIDIUM (*Merium*) DIMIDIATUM. *Halved C. Merium.*

*C. M. (dimidiatum) obscure rufum, supra nigrum; elytris antice rufis; prothorace granulato, postice canaliculato.*

Halved *C. Merium*, obscurely rufous; black above; elytra rufous at the base; prothorax granulated, channelled posteriorly.

Length of the body 4 lines.

Two specimens taken in Lat. 54°.

## DESCRIPTION.

Body not glossy; impunctured; hairy underneath; and except the forebreast, which is black, of a dull rufous. Head channelled between the eyes, behind them convex; antennæ rufous, shorter than the body: prothorax somewhat coarctate at the base; minutely granulated; obsolete channelled, more conspicuously behind: elytra rufous anteriorly.

This species comes very near to *C. (Merium) Alni*, but it is larger and has no white bands.

## xxi. \* Subgenus TETROPIUM. Kirb.

*Eyes* four, connected by an elevated line.<sup>1</sup>

*Antennæ* robust, short: scape much incrassated, subcylindrical, remaining joints subclavated.

*Prothorax* constricted anteriorly and posteriorly.

*Thighs* much incrassated, sometimes clubbed.

The type of this subgenus is *Callidium triste* Fabr. for those with clavated thighs, and *C. aulicum*, for those in which they are incrassated nearly their whole length. These insects will be found to have four distinct eyes, separated by the substance of the head elevated into a ridge, which at first sight appears a continuation of the eye, but which evidently has no lenses implanted in it—they are also distinguished by their robust and short antennæ.

(231) 7. CALLIDIUM (*Tetropium*) CINNAMOPTERUM. *Cinnamon-winged*  
*C. Tetropium.*

*C. T. (cinnamopterum) atrum, pilosum; antennis, pedibus, pectoris lateribus, elytrisque rufis; femoribus incrassatis; haud clavatis.*  
Cinnamon-winged *C. Tetropium*, very black, hairy; antennæ, legs, sides of the breast, and elytra rufous: thighs incrassated but not clubbed.

PLATE V, FIG. 8.

Length of the body  $3\frac{1}{4}$ —6 lines.

Several specimens taken in Lat. 65°.

DESCRIPTION.

At first sight this species seems the exact counterpart of *Callidium triste*, which it resembles in almost every respect; but upon examination it will be found that the thighs of these two insects are of a very different shape, those of *C. T. triste* being much attenuated at the base, while those of *C. T. cinnamopterum* are not at all. In the latter also the sides of the fore-breast are red, and the elytra are considerably darker, very near the colour of cinnamon.

The American specimens vary much in size, but all agree in the shape of the thighs.

<sup>1</sup> Plate V, Fig. 8, a.

## XC. Genus CLYTUS. Fab.

\* *Prothorax* subglobose unarmed.

a. Yellow-banded.

(232) 1. \* CLYTUS UNDATUS. *Wavy Clytus*.*C. (undatus) niger, holosericeus; prothorace basi et apice interrupte; elytris lineola transversa, fasciis duabus undatis, apiceque, pallide flavis; antennis, pedibusque rufis.*

Wavy Clytus, black velvety; base and apex of the prothorax interruptedly; transverse linelet, two wavy bands, and apex of the elytra, pale-yellow; antennæ and legs rufous.

## PLATE VII, FIG. 5.

Clytus undulatus. Say. *Am. Ent.* iii, 53. Long. *Second Exp.* ii, 291, var.  $\beta$ , mihi.

Length of the body 8 lines.

Two specimens taken in Lat. 54°. 65°.

## DESCRIPTION.

Body black, underneath hoary from decumbent hairs, above velvety. Head anteriorly hairy with whitish hairs, behind the antennæ very thickly punctured; palpi, labrum, tip of the nose and cheeks, eyes, antennæ, and subface rufous; prothorax rough with very minute and numerous granules, the base and apex have an interrupted band of yellow hairs, and a hoary spot on each side produced by hairs: scutellum dark brown: elytra with an oblique linelet adjoining the scutellum, another in the disk near the base, two wavy bands, the extremities of the anterior one pointing towards the base, and of the posterior one towards the apex; the apex and suture, all pale yellow, produced by decumbent hairs: underneath on each side of the breast are three spots of the same colour, as likewise is the tip of the ventral segments of the abdomen; the legs are rufous, sprinkled with hoary hairs.

This species is intermediate between *C. arietis* and *C. arcuatus*, but perfectly distinct from both.

b. White-banded.

(233) 2. \* CLYTUS LUNULATUS. *Lunulated Clytus*.*C. (lunulatus) niger, capite lævi, occipite punctato: prothoracis margine antico; elytris lunula antica, fasciis duabus, intermedia juxta suturam reflexa, postica interrupta, abdomine segmentis ventralibus apice, albis: antennis pedibusque obscure rufis.*

Lunulated Clytus, black: head smooth, occiput punctured: anterior margin of the prothorax, anterior lunulet, two bands, the intermediate one running back along the suture, the posterior one interrupted, and apex of the ventral segments of the abdomen, all white: antennæ and legs obscurely rufous.

Length of the body  $7\frac{1}{4}$  lines.

One specimen taken in Lat. 54°. Taken also in Canada by Dr. Bigsby, and in Nova Scotia by Capt. Hall.

## DESCRIPTION.

This species is extremely similar to the preceding, but its bands and spots are quite white without any tint of yellow: the prothorax has no posterior interrupted band, the anterior spot of the elytra is crescent or kidney-shaped, the thighs are dusky; and the eyes are black; but the most striking distinction is exhibited by the head, which is perfectly smooth and without punctures, but when the occiput is disengaged from the prothorax, as it is when the head is inclined forwards, the front will be found to be separated from it by a bilobed line, behind which the head is thickly and confluent punctured.

(234) 3. CLYTUS FUSCUS. *Brown Clytus.*

*C. (fuscus) nigro-fuscus, prothoracis basi et apice interrupte, elytris sutura, puncto baseos, fasciis duobus interruptis, abdominisque segmentis ventralibus apice, albis: antennis, oculis, pedibusque, rufis.*

Brown Clytus, black-brown, base and apex of the prothorax interruptedly, suture, dot near the base, and two interrupted bands of the elytra, and the apex of the ventral segments of the abdomen, all white: antennæ, eyes, and legs rufous.

Length of the body  $5\frac{1}{2}$  lines.

A single specimen taken in Lat.  $54^{\circ}$ .

## DESCRIPTION.

This species resembles the last in having the occiput similarly punctured, and the markings of the elytra are similar, except that instead of the white streak at the base there is only a dot: but it is of a brown colour, with the head and prothorax nearly black: the former is distinctly granulated; the palpi, labrum, eyes, and antennæ are rufous, as in *C. undatus*, and like that the prothorax has both an anterior and posterior interrupted band of white hairs; the elytra and underside of the body are reddish-brown: the legs rufous, posterior ones very long.

\*\* Prothorace magis oblongo, muricato.

(235) 4. CLYTUS LONGIPES. *Long-legged Clytus.*

*C. (longipes) subtus, elytrisque, fuscus: prothorace oblongo disco carinato et muricato; elytris puncto, fasciisque tribus sublunatis piloso albis; pedibus rufis: posticis longissimis.*

Long-legged Clytus, body underneath and elytra brown; prothorax oblong with the disk carinated and muricated; dot and three sublunar bands of the elytra, white from hairs: legs rufous: the posterior pair very long.

Length of the body  $5\frac{1}{2}$  lines.

A single specimen taken in Lat.  $54^{\circ}$ .

## DESCRIPTION.

Body reddish brown, underneath hairy, with white decumbent hairs. Head black, minutely and thickly punctured, with a longitudinal slight channel, transversely elevated between the antennæ; vertex elevated; palpi, labrum, antennæ and extremity of the nose, rufous: prothorax black, rather oblong, elevated longitudinally in the disk with an anterior bowed transverse ridge, followed by several minute acute tubercles, next in the middle is another shorter ridge, which is also succeeded by similar tubercles: the sides of the prothorax are granulated; between the granulated portion and elevated disk, it is minutely reticulated, with a pore in the centre of each reticulation: elytra brown, subacute, with three bands formed of decumbent white hairs; the first forming a crescent at the scutellum, which runs along the base and down the suture; the second in the middle first running transversely, then turning upwards towards the base and again turning down so as to form a hook next the suture; the third near the apex, running transversely from the external margin to the suture and then turning upwards so as to form another crescent; there is also a dot between the two first bands near the lateral margin; there is a large hairy white spot on the sides of the breast, and the anterior ventral segments have a white hairy band at the apex: the legs are rufous, the hinder pair remarkably long.

(236) 5. *CLYTUS MURICATULUS. Muricated Clytus.*

*C. (muricatus) subtus elytrisq; fuscus; prothorace oblongo muricato; elytris puncto, lunula, fasciisque duabus obliquis, piloso-albis; pedibus rufis.*

Muricated Clytus, body underneath, and elytra, brown; prothorax oblong, muricated: dot, crescent, and two oblique bands of the elytra hairy-white: legs rufous.

Length of the body 5 lines.

Many specimens taken in Lat. 54°.

## DESCRIPTION.

This comes extremely near to the preceding species, but is smaller, the discoidal ridges of the prothorax are nearly obsolete, that part has four white hairy spots, the bands of the elytra are differently shaped, and the posterior legs are considerably shorter: the breast and base of the abdomen underneath are hoary with white hairs, but not always spotted and banded.

Family RHAGIADÆ. *Rhagiadans*.

XCI. Genus HARGIUM. Leach.

(237) 1. HARGIUM LINEATUM. *Stripe-necked Hargium*.Stenochorus lineatus. Oliv. *Ent.* iv, 69, 13, 6, t. iii, f. 22.Rhagium lineatum. Schön. *Syn.* iii, 414, 5.Length of the body  $5\frac{1}{4}$  lines.

Taken more than once in Lat. 54°. and also by Mr. Drake in the province of Massachusetts.

## DESCRIPTION.

Body black, rather glossy, hoary from longish cinereous hairs. Head constricted behind into a neck, punctured with large scattered punctures; antennæ shorter than the prothorax, robust, last joint ovate; pedicel testaceous: prothorax constricted anteriorly and posteriorly, armed on each side by a stout rather sharp spine, punctured like the head, and hairy, but there are three longitudinal stripes without hairs, and the intermediate one without punctures, the lateral ones pass over the spines: elytra mottled with whitish or cinereous hairs, with three longitudinal ridges, the two external ones confluent near the apex, and a little higher up including between them a short abbreviated ridge; the interstices are punctured like the head and prothorax; at the base and lateral margin the elytra are reddish, and on the ridge next the suture there are two yellowish spots: coxæ, trochanters, and base of the thighs reddish: abdomen carinated underneath.

Family LEPTURIDÆ. *Lepturidans*.

XCII. Genus PACHYTA. Meg.

(238) 1. PACHYTA LITURATA. *Blotched Pachyta*.*P. (liturata) atra, viloso-incana; elytris nudis, luridis, lituris tribus nigris, anticis duabus subparallelis.*

Blotched Pachyta, very black, hairy with hoary hairs; elytra naked, lurid, with three black blotches, the two anterior ones nearly parallel.

Length of the body 7—9 lines.

Several specimens taken in Lat. 54°. and 65°:



## DESCRIPTION.

This is the American representative of *P. quadrimaculata*, from which it differs principally in being not so hairy, with hoary instead of yellow-tinted hairs: the punctures of the prothorax and elytra are more minute; the antennæ are rather shorter, and the elytra, instead of two subquadrangular black spots, have three less black linear ones, the two anterior ones being partly parallel, and in some specimens confluent.

## XCIII. Genus LEPTURA. Linn.

This genus may be thus subdivided with respect to the species about to be described.

- \* Eyes emarginate, or kidney-shaped.
- † Elytra triangular.
  - a ——— truncated ..... } at the apex.
  - b ——— premorse, or with a sinus taken out } at the apex.
  - 1 ——— prothorax anteriorly constricted without posterior angles.
  - 2 ——— not constricted, posterior angles acute.
  - c ——— rounded..... at the apex.
- †† Elytra linear.
  - a ——— truncated } at the apex.
  - b ——— rounded } at the apex.
- \*\* Eyes entire.

\* † a.

(239) 1. \* LEPTURA CHRYSOCOMA. *Goldy-locks Leptura.*

*L. (chrysocoma) holosericea, lanugine aurea; elytris testaceis, apice extus obscurioribus; antennis pedibusque nigris.*  
Goldy-locks Leptura, velvety with golden pile: elytra testaceous, at the apex externally dusky; antennæ and legs black.

## PLATE V, FIG. 1.

Length of the body  $5\frac{1}{2}$ — $6\frac{1}{4}$  lines.

Several specimens taken; the largest, in the Journey from New York; the smaller, near Cumberland-house. Taken likewise by Dr. Mac Culloch and Capt. Hall, in Nova Scotia.

## DESCRIPTION.

This beautiful insect, is related to *L. virens*, but perfectly distinct. The body appears to be black, but that colour is, in most parts, nearly concealed by a thick and mostly long coat of brilliant golden hairs with a very slight tint of green, where the coat is thin the body appears minutely punctured. Head subelongated, the neck exerted, subtriangular; nose with only a few scattered whitish hairs; antennæ black, third, fourth, and fifth joints rather slenderer and longer than the succeeding ones: prothorax between globose and bell-shaped, constricted anteriorly, channelled, grossly punctured: substance of the elytra pale testaceous, towards the apex externally they are dusky; the golden down on them is shorter and decumbent; apex diverging and obliquely truncated: underside of the abdomen particularly brilliant from decumbent hairs: legs less hairy than the rest of the body.

(240) 2. \* LEPTURA SUBPUBESCENS. *Subpubescent Leptura.*

*L. (subpubescens) nigra, flavo-subpubescens: prothorace punctis confluentibus scabro; elytris pallide testaceis, apice divergentibus, fastigiatis, nigris.*

Subpubescent *Leptura*, black, red with thin yellow down: prothorax rough with confluent punctures; elytra pale testaceous, diverging, fastigiated and black at the apex.

Length of the body not noticed.

Taken in Canada by Dr. Bigsby.

## DESCRIPTION.

Body black, thinly coated with yellow hairs. Head and neck grossly punctured; antennæ longer than the prothorax, black, downy, intermediate joints rather slenderer than the others, fourth shorter than the fifth: prothorax shaped as in *C. chrysocoma*, widely but obsoletely channelled; rough and reticulated, as it were, with numerous confluent punctures, sides more hairy than the disk: elytra thickly punctured, pale testaceous, black at the apex, where the suture curves outwards so that they diverge from each other, extremity nearly transversely truncated: abdomen underneath minutely, breast rather grossly, punctured: podex subemarginate.

\* † b l.

(241) 3. \* LEPTURA ERYTHROPTERA. *Red-winged Leptura.*

*L. (erythroptera) atra, subpubescens, punctata; prothorace punctis rugoso, antennis pallido annulatis; elytris grosse punctatis, rubris, apice summo nigro, præmorsis.*

Red-winged *Leptura*, very black, subpubescent, punctured; prothorax wrinkled with punctures; antennæ annulated with pale: elytra grossly punctured, deep red, extremity black, premorse.

Length of the body 8 lines.

Taken in Nova Scotia by Capt. Hall.



## DESCRIPTION.

Body very black, slightly downy, underneath minutely punctured. Head shorter than in the last section, as well as the neck obsoletely channelled; thickly but not minutely punctured; antennæ rather longer than the prothorax; third and fourth joints a little slenderer than the others, and pale red at the base; the sixth is pale with a black spot on each side at the apex; and the whole of the eighth is of the same colour; the last joint is acuminate: the prothorax is constricted anteriorly, and the constricted part is perfectly smooth, the rest is thickly and confluentely punctured and wrinkled; at the base the prothorax is depressed and obsoletely trilobed: scutellum black, representing an isosceles triangle: elytra of a dull red, grossly and deeply punctured; extremity scooped out with the external angle longer than the internal and acuminate: mesosternum emarginate posteriorly.

(242) 4. LEPTURA CANADENSIS. (Olivier.) *Canada Leptura.*

*Leptura canadensis.* Fab. *Syst. Eleuth.* ii, 357, 15. Oliv. *Ent.* iv, 73, 8, 6, t. iii, f. 27. Illig. *Mag.* iv, 122, 15.

Length of the body  $6\frac{3}{4}$ —8 lines.

Taken in Nova Scotia by Dr. Mac Culloch.

## DESCRIPTION.

Body very black, slightly downy, minutely punctured. Head as in the last species, but the neck is not channelled; antennæ with base of the fifth joint, the whole of the sixth and eighth, except the black apex of the former, pale or pale rufous: prothorax as in *L. erythroptera*, only deeply and confluentely punctured but not wrinkled: elytra black, sanguineous at the base. In other respects this species resembles that insect; the external angle of the apex of the elytra is however shorter.

\* † b 2.

(243) 5. \* LEPTURA TENUIOR. *Slenderer Leptura.*

*L. (tenuior) nigra, pube flava; elytris flavo quadrifasciatis; pedibus abdomineque testaceis.*

Slenderer *Leptura*, black, with yellow down; elytra with four yellow bands; legs, and abdomen testaceous.

Length of the body  $5\frac{3}{4}$  lines.

Taken in Canada by Dr. Bigsby.

## DESCRIPTION.

Body black, rather slender, slightly punctured, thinly coated with decumbent yellow hairs. Antennæ shorter than the body, fifth joint scarcely longer than the fourth: prothorax between bell-shaped and a truncated cone, a little constricted in the middle, fringed with yellow hairs anteriorly and posteriorly: scutellum triangular: elytra testaceous, yellow at the base, and with three yellow bands, the first interrupted; oblique sinus at the apex not so deep as in the two preceding species: legs testaceous; abdomen of a deeper colour; and segments scarcely emarginate.

This species differs in habit from the two preceding ones, it is narrower in proportion, and comes nearer to *L. quadrifasciata*, but the posterior angles of the prothorax, though acute, are not so prominent, it belongs however to the same subdivision, with the last mentioned insect.

\* † c.

(244) 6. \* LEPTURA BREVIS. *Short Leptura.*

*L. (brevis) nigra, brevis, pubescens; antennis articulis ultimis sex basi pallidis; elytris grosse punctatis vitta laterali lutea.*

Short *Leptura*, black, short, pubescent; six last joints of the antennæ pale at the base; elytra grossly punctured with a luteous lateral band.

Length of the body 5 lines.

Taken in Canada by Dr. Bigsby.

## DESCRIPTION.

Body shorter than usual in proportion to its width; black, underneath minutely punctured and thinly covered with rather silvery decumbent hairs. Head thickly and confluent punctured, rather downy with erect hoary hairs; antennæ shorter than the body; fourth, fifth, and sixth joints long and slenderer than the rest; six last short and pale at the base: prothorax between bell-shaped and globose, deeply and confluent punctured; downy with some erect hoary hairs; anteriorly constricted, posteriorly depressed: scutellum linear covered with pale decumbent hairs: elytra very grossly and deeply punctured, shorter than the abdomen and rounded at the apex, with a lateral band bent a little inwards towards the base, which it does not reach, of the colour of the yolk of an egg; anus entire: down on the legs yellow.

(245) 7. LEPTURA SEXMACULATA. (Linné.) *Six-spotted Leptura.*

*Leptura sexmaculata.* Linn. *Fn. Suec.* 686; *Syst. Nat.* ii, 638, 11. Fab. *Syst. Ent.* 197, 11; *Ent. Syst.* I, ii, 346, 37. *Syst. Eleuth.* ii, 362, 47. Oliv. *Ent.* iv, 73, 26, 35, t. 4, f. 43. Payk. *Fn. Suec.* iii, 123, 25. Gyll. *Ins. Suec.* iv, 14, 13. Panz. *Fn. Germ.* lxxix, 21? Müll. *Zool. Dan.* Pr. 94, 1058.

— testaceo-fasciata. De Geer *Ins.* v, 133, 9.

*Pachyta sexmaculata.* Steph. *Illustr. Mandib.* iv, 265, 5†?

Length of the body 5½ lines.

Two specimens taken in Lat. 65°.

## DESCRIPTION.

Body rather short, black, downy, minutely punctured. Head very thickly and minutely punctured, obsoletely channelled; antennæ slender, shorter than the body, fifth joint considerably longer than the fourth: prothorax shaped as in the preceding species but less depressed posteriorly; very thickly as well as minutely punctured: scutellum triangular: elytra pale-yellow, with an arched black spot at the base, then follows an interrupted band consisting of three acute black spots placed in a triangle, beyond the middle is a dentated black band which reaches neither the suture nor the lateral margin; the apex also, the suture, and the lateral margin towards the apex, are all black.

VARIETY B. Head not channelled: spot at the base of the elytra coalescing with the intermediate and lateral ones of the anterior band, and reaching the lateral margin; interior spot reaching the suture so as to form the half of a spot common to both elytra; the intermediate band is broader and reaches both the suture and lateral margin.

\* †† a.

(246) 8. \* LEPTURA SEMIVITTATA. *Half-striped Leptura.*

*L. (semivittata) linearis, nigra, supra nitida, subtus argenteo-sericea: elytris vitta dimidiata, flexuosa, lutea, apice truncatis.*  
Half-striped Leptura, linear, black, above glossy, underneath silvery from silky hairs; elytra with a luteous flexuose stripe reaching half their length; truncated at the tip.

Length of the body 6 lines.

Taken in Canada by Dr. Bigsby.

## DESCRIPTION.

Body long and narrow, black, underneath slightly and minutely punctured, with the sides of the breast and abdomen brilliant with a silvery lustre from decumbent silky hairs, above glossy and almost naked. Head thickly punctured, but behind each eye there is a levigated space; antennæ longer than the prothorax, intermediate joints not slenderer than the others, the fourth as long as the fifth; neck short and levigated: prothorax bell-shaped, not constricted anteriorly, depressed posteriorly; thinly punctured, especially in the disk: scutellum triangular: elytra punctured but not thickly, punctures almost arranged in rows, towards the apex they are very slight; a reddish-yellow subflexuose stripe runs from the middle of the base of the elytra a little more than half way towards the apex, which is diverging and truncated: the ventral segments of the abdomen terminate in a reddish membrane.

(247) 9. \* *LEPTURA GULOSA*. *Red-throated Leptura*.

*L. (gulosa) linearis, nigra, supra nitida, subtus sericeo-argentea; gula rufescenti; elytris vitta postice abbreviata lutea; apice truncatis.*

Red-throated *Leptura*, linear, black above glossy, underneath silvery from silky hairs; throat reddish; elytra with a luteous stripe abbreviated posteriorly; truncated at the apex.

Length of the body 5 lines.

Taken in Nova Scotia by Dr. Mac Culloch.

## DESCRIPTION.

Very nearly related to the preceding species, from which it differs chiefly in being much smaller, in having the underside of the body more thickly covered with hairs glittering like silver; in having the throat pale-red; the fifth joint of the antennæ longer than the fourth; the punctures of the elytra more numerous and scattered; the yellow stripe running nearer to the apex of the elytra, dilated at the base and not flexuose: the fore-breast also in the disk, the after-breast on each side, and the base of the thighs are obscurely red: the tibiæ are piceous.

\* †† b.

(248) 10. \* *LEPTURA SUBARGENTATA*. *Subargent Leptura*.

*L. (subargentata) linearis, nigra, punctulatissima; corpore subtus, prothoracisque angulis posticis ex pube subargenteis: elytris apice rotundatis.*

Subargent *Leptura*, linear, black, very minutely and thickly punctured, with the body underneath, and the posterior angles of the prothorax rather silvery from down; elytra rounded at the apex.

Length of the body 4 lines.

Taken in Lat. 65°.

## DESCRIPTION.

Body narrow, entirely black, very minutely and thickly punctured, underneath glittering, but less conspicuously with silver pile: antennæ shorter than the body, nearly filiform, fourth and fifth joints of equal length: prothorax perfectly bell-shaped, anteriorly not constricted, posterior angles acute, diverging and covered with silver pile: elytra rounded at the apex.

(249) 11. \* LEPTURA SIMILIS. *Similar Leptura.*

*L. (similis) linearis, nigra, punctulatissima, corpore subtus ex pube subargenteo; elytris apice rotundatis; antennis scapo femoribusque rufis.*

Similar Leptura, linear, black, very minutely and thickly punctured, body underneath, rather silvery from down; elytra rounded at the apex; scape of the antennæ and thighs rufous.

Length of the body  $3\frac{1}{2}$  lines.

A single specimen taken in Lat. 65°.

## DESCRIPTION.

This may possibly be the other sex of the preceding species which it resembles in every respect, except that the antennæ are rather longer, the scape or first joint, all but the base on the upper side, is rufous, as are likewise the thighs and four anterior tibiæ; the posterior thighs are however black at the apex.

(250) 12. \* LEPTURA LONGICORNIS. *Long-horned Leptura.*

*L. (longicornis) nigra, elongata; elytris grosse punctatis, vitta pedibusque basi, testaceis; antennis mediocribus.*

Long-horned Leptura, black, elongated, stripe of the grossly punctured elytra, and base of the legs, testaceous; antennæ as long as the body.

Length of the body 5 lines.

A single specimen taken in Lat. 65°.

## DESCRIPTION.

At first sight this species a good deal resembles *L. semivittata* and *gulosa* of the former section, but its eyes are entire, and its antennæ much slenderer and of a different type, more nearly resembling those of *L. argentata* and *similis*. Body black, minutely punctured, downy, especially underneath, with silvery hairs. Head minutely, thickly, and confluent punctured; labrum and base of the mandibles rufous; last joint of the palpi securiform; antennæ very slender nearly as long as the body; scape incrassated, rufous, black at the base; prothorax a little constricted anteriorly, very thickly punctured with a longitudinal dorsal impunctured line or channel: scutellum longitudinally concave, rounded at the apex; elytra nearly linear, grossly punctured, glossy, nearly black, with a pale stripe extending from the middle of the base to near the apex, and gradually approaching the suture; apex subtruncated: legs rufous at the base.



\* \*

(251) 13. \* LEPTURA PROTEUS. *Proteus Leptura.*

*L. (Proteus) nigra, subpubescens, nitidiuscula; oculis integris subauratis; antennis elytris pedibusque colore variantibus; prothorace canaliculato postice bigibbere.*

*Proteus Leptura*, black, subpubescent, rather glossy; eyes entire, inclining to a golden lustre; antennæ, elytra, and legs varying in colour; prothorax channelled, posteriorly with a gibbosity on each side.

Length of the body  $3\frac{1}{4}$ — $5\frac{1}{2}$  lines.

Taken abundantly in Lat. 54°. and 65°.

## DESCRIPTION.

Body narrow, black, punctured, somewhat glossy, rather hairy, especially underneath, with decumbent hairs, those on the elytra have somewhat of a golden lustre, the rest are silvery. Nose more grossly punctured than the rest of the head; vertex convex; eyes subovate, pale with a slight golden lustre; antennæ filiform, longer than the prothorax, obscurely rufous, with the four first joints black, fifth joint longer than the fourth: prothorax campanulate, anteriorly constricted, posterior angles a little diverging; thinly punctured; channelled, the channel running between two dorsal gibbosities: scutellum triangular: elytra rather widest at the base, and punctured there more grossly next the suture; diverging and truncated at the apex: tibiæ piceous or rufo-piceous; four posterior thighs rufous at the base.

- VARIETY B. In this variety only the base of the six last joints of the antennæ is rufous; all the thighs are rufous at the base, and the tibiæ of a clearer red, but they are dusky at the apex; tarsi rufous at the base. Length of the body  $3\frac{3}{4}$  lines.
- C. Elytra with a stripe at the base, tips and lateral margin rufous: antennæ entirely black: legs as in variety B. Length of the body  $4\frac{3}{4}$  lines.
- D. Elytra with a longitudinal rufous stripe dilated at the base and apex; bead of the lateral margin also rufous: antennæ and legs nearly as in B, but the whole of the tarsi is obscurely rufous. Length of the body 3—4 lines.
- E. Elytra rufous with the suture and a stripe near the margin abbreviated at both ends, dusky: antennæ as in A; legs as in B. Length of the body 4—5 lines.
- F. Elytra rufous, with a dusky suture; antennæ as in A; legs as in D.
- G. Like F, but elytra luteous; antennæ all black. Length of the body 4 lines.
- H. Like F and G, but legs and antennæ black. Length of the body  $3\frac{3}{4}$  lines.

This species is the American representative of *L. femorata* of Paykull and Gyllenhal, which is not clearly synonymous with that of Fabricius and Olivier, it differs, without mentioning colour, in having much shorter antennæ, and in being glossy. Mr. Marsham's *L. femorata* has reniform eyes, and therefore belongs to another section, it may be that of Olivier.

*L. Proteus* seems to vary ad infinitum in the colour of the elytra, antennæ, and legs, but as all the varieties agree in every respect except colour and size, and the elytra advance so gradually from pale rufous to black, or vice versa, there can be little doubt of the identity of the different varieties.

(252) 14. \* LEPTURA LONGICEPS. *Long-headed Leptura.*

*L. (longiceps) nigra, punctulata, ex pube alba subincana; capite elongato; prothorace canaliculato; elytris luridis litura antica, sutura, apiceque, nigris.*

Long-headed Leptura, black, minutely punctured, somewhat hoary from white down; head elongated; prothorax channelled; elytra lurid with an anterior blotch, the suture, and apex black.

Length of the body 4 lines,

Several specimens taken in Lat. 54°. and 65°.

## DESCRIPTION.

Like the preceding species but shorter in proportion with a longer head. Body black, punctured, hoary with rather silvery down: head as long or longer than the prothorax; eyes pale, subtriangular; antennæ with the second, third, and fourth joints slenderer than the rest: prothorax shaped as in *L. Proteus*, constricted before, depressed behind, but without diverging angles, channelled but with no gibbosity on each side the channel: elytra nearly linear, very thickly punctured, dirty-yellow, with a dusky lateral blotch extending from the base beyond the middle of the elytrum, suture and subtruncated apex black; down yellowish.

Having now described all the Capricorn beetles and other *Longicornia* of Latreille taken in the Expedition, and being arrived at a spot whence there is a direct path to his *Eupoda*, I shall again retrace my steps, and call back the reader's attention to the last family of Mr. W. S. Mac Leay's *Rectocera*, the *Passalidæ*, from which, as was before observed,<sup>2</sup> we may get an approach, by the *Scolytidæ*, &c. to the great tribe of Rhynchoporous beetles, or those the anterior part of whose head terminates in a rostrum or snout.

A most remarkable insect, taken by Edward Bennett, Esq. in Choco, in Colombia, and a specimen of which may also be seen in the collection of the British Museum, may be here noticed, as supplying the first stage in the route now indicated. Its general figure is that of a *Passalus*, only more convex and cylindrical; it has the same description of mandibles but rather straighter; a similar upper-lip; the vertex is crowned with an incurved horn as in *Passalus cornutus*, &c.; the

<sup>2</sup> See above, p. 163.