ILLUSTRATIONS

OF

BRITISH ENTOMOLOGY;

OR, A

Synopsis of Indigenous Insects:

CONTAINING

THEIR GENERIC AND SPECIFIC DISTINCTIONS;

WITH

AN ACCOUNT OF THEIR METAMORPHOSES, TIMES OF APPEARANCE, LOCALITIES, FOOD, AND ECONOMY, AS FAR AS PRACTICABLE.

BY JAMES FRANCIS STEPHENS, F.L.S.

MEMBER OF THE ZOOLOGICAL SOCIETY, ETC.

EMBELLISHED WITH COLOURED FIGURES OF THE RARER AND MORE INTERESTING SPECIES.

MANDIBULATA.

VOL. III.

"In his tam parvis tamque ferè nullis quae ratio! quanta vis! quam inextricabilis perfectio!"—Plin.
"Finis Creationis Telluris est gloria Dei, ex opera Natura, per Hominem solum."—Linné.

LONDON:

PRINTED FOR THE AUTHOR;

AND

PUBLISHED BY BALDWIN AND CRADOCK.

1830.
LONDON:

PRINTED BY THOMAS DAVISON, WHITEFRIARS.
ILLUSTRATIONS
OF
BRITISH ENTOMOLOGY.

Subsectio 4.—Necrophaga, Mac Leay,

Includes such Rypophagous insects as have the

Mandibles generally exerted and elongate: the maxillary palpi with the basal joint minute or evanescent, thence appearing three-jointed: the maxillae with a double membranaceous process, the outer lobe often slender, sublinear; rarely articulated: the elytra frequently abbreviated; the body more or less elongate, depressed: the legs all gressorial: the tarsi with the number of articulations various, but most frequently pentamerous:

And the principal object of whose existence seems to be that of cleansing the surface of the earth from the remains of animal impurities, as that of the preceding section appears to be from vegetable remains; the conterminous genera in both sections subsisting upon putrid fungi or similar vegetable productions, while some few of the Silphidæ prey upon larvae and living terrestrial Mollusca.
MANDIBULATA.—COLEOPTERA.

Family XVII.—SCAPHIDIDÆ, Mac Leay.

Antennæ generally longer than the thorax, distinctly thickened towards their extremities or somewhat abruptly clavate, the clava consisting of five joints, the second of which, or the eighth from the base, is generally smaller and frequently minute. Palpi, maxillary considerably exserted, subclavate or subulated. Mandibles generally bidentate at the apex. Body thick, subelliptic, much arched. Head immersed up to the eyes in the thorax, inflexed. Thorax trapeziform, convex, immarginate. Legs elongated, posterior sometimes nearly as long as the body: tibia subcylindric, usually unarmed, but with two spurs at the apex; tarsi pentameres.

The insects of this family, although at first sight they appear very dissimilar, are evidently closely allied; they feed upon putrid or decaying animal and vegetable substances, and are very active: the following genera have occurred in Britain, and may be recognised by the subjoined external characters:

\[
\begin{align*}
\text{truncata. Scaphidium} & \quad \{ \text{distinctum:} \quad \text{nullum:} \quad \text{116. Scaphidium.} \\
Elytra & \quad \{ \text{117. Scaphisoma.} \\
\text{integra.} & \quad \{ \text{acutis. Antenna} \quad \{ \text{breves, arcuate:} \quad \text{118. Mylechus.} \\
\text{Thorax} & \quad \{ \text{angulis} \quad \text{119. Ptomaphagus.} \\
\text{posticis} & \quad \{ \text{120. Catops.} \\
\text{obtusis} & \quad \text{121. Choleva.} \\
\end{align*}
\]

Genus CXVI.—Scaphidium Auctorum.

Palpi filiform. Antennæ slender at the base, with an abrupt elongate club composed of five subhemispheric, nearly equal joints, the terminal one rounded at the tip: head produced anteriorly: thorax large, its sides margined: body stout, acuminated at each extremity: elytra margined, truncate: scutellum distinct: legs with elongate, subcylindric, smooth tibia.

There is but one indigenous species of this genus, which is readily known from Scaphisoma by the exserted scutellum, and its such as Triplax and its affinities, have the third joint of the tarsi dilated as in the Nitidulideæ, a gradual interchange of character usually observed on the confines of allied groups, where the series is tolerably perfect.
rufo-maculated elytra; exclusively of its greater bulk, and other comparative characters:—it devours agarics and fungi.


Glossy-black; thorax somewhat coarctate on each side behind, with a transverse series of large impressed dots behind, its disc thickly punctate: elytra coarsely punctured, with a single sutural stria, continued at the base past the scutellum to the shoulders; on each two large red spots, the one at the shoulder curved, the other towards the apex and rounded: legs black; tibiae striated; tarsi rufo-piceous.

β. Entirely black.

Not common near London, but more plentiful in the west of England; near Bristol it has occurred in considerable abundance; I have occasionally found a specimen or two at Coombe-wood in June. "Clingre, Glosters."—Rev. F. W. Hope. "Not uncommon (near Swansea) on a fungous-like excrescence, which spreads itself under the bark of decaying oaks."—L. W. Dillwyn, Esq.

Genus CXVII.—Scaphisoma*, Leach.

*Palpi* filiform. *Antennæ* pilose, the two basal joints robust, the rest very slender, with a slight club composed of five somewhat oval joints, the second smaller than the rest: *head* produced and narrowed anteriorly: *thorax* with its hinder margin produced into an angle in the middle: *scutellum* not visible: *body* robust, acuminated at each extremity: *elytra* truncate: *legs* very slender; *tibiae* simple.

Scaphisoma is distinguished from Scaphidium by the apparent absence of a scutellum, and by having the hinder margin of the thorax produced into a lobe in place thereof; by the pilose antennæ, the club of which is composed of slender, somewhat oval joints, the second of which is smallest, and by the minute size of the insects, which feed upon fungi:—from the following genera of the family, the truncate elytra and boat-shaped form readily distinguish them.


* I am unacquainted with the Scaphiosoma minuta, Curt.; it is probably a brachelytrous insect allied to Cypha.

Black, shining, very smooth, antennae, apex of the elytra and legs pale-brown or rufescent; elytra with a single stria near the suture, not produced anteriorly; apex of the body rufo-piceous.

Some specimens are of a paler hue than others.


Sp. 2. Boleti. Piceum lave glabrum, antennis pallidis, pedibus rufis. (Long. corp. \( \frac{3}{4} \) — \( \frac{5}{6} \) lin.)


Head, thorax, and elytra piceous, minutely punctured; the latter paler at the apex, with a single sutural stria: body beneath piceous; legs rufous; antenae pale.

I very much doubt whether this be distinct from the last described, or that more than one species of the genus is found in Britain; the dissimilarity in the colour of the antennae (which may arise from immaturity), and the paler general hue, being the chief points of distinction between the two.

Taken near London, and in other parts of the country. "With the preceding species."—Rev. F. W. Hope.

Genus CXVIII.—Myłæchus, Latreille.

Palpi, maxillary with the basal joint subulate; labial with the terminal joint obtuse. Antennæ incurved, rather shorter than the thorax, the two basal joints distinctly stouter than the following, cylindric; the third a little elongate, obconic, the three following least, the fourth being cylindric, the fifth and sixth somewhat transverse; the remainder forming a five-jointed club, with the articulations transverse, the eighth, ninth, and tenth, being nearly equal, and the eleventh largest, with its apex rounded: thorax subtrapeziform: tarsi in the male with the three first joints dilated; posterior femora of the male with a small triangular acute tooth beneath.

The subincurved antennae, with the two basal joints manifestly thicker than the three next, the eighth not in the slightest degree less than the other joints of the club, and the last obtuse at the apex, are the chief points of distinction between Myłæchus and the three following genera.


Castaneous-brown, clothed with short flavescent-griseous down, finely but irregularly punctulate; head black; thorax slightly compressed anteriorly, dilated and nearly as wide again, with a straight margin, posteriorly; elytra twice as long as the thorax, rather narrow, and perceptibly narrowed from the base to the apex, which is rounded; near the suture is a single stria, and another on the margin; legs pitchy-brown.

A rare species, which has been only three or four times met with in the north of England, whence I have recently obtained a specimen, among some minute insects taken at hazard by a friend.

Genus CXIX.—Ptomaphagus, Illiger.

Palpi, maxillary with the last joint subulate, conic; labial with the last joint obtuse; antennae straight, clavate, not longer than the thorax, with a five-jointed club; thorax with the hinder angles acute; elytra not striated; anterior femora in both sexes similar and short; the intermediate tarsi with the first joint rarely dilated.

This and the two following genera are perhaps rather too finely discriminated; but nevertheless, as there are several species of each, and their numbers are daily becoming augmented, it is far better to keep them separated than to reunite them notwithstanding their trifling distinctions, which are perhaps of equal value with those existing amongst several other groups of Coleoptera, especially amongst the Bembidiidae: the present genus may be known from the following by the absence of striae on the elytra, and from Choleva by the acute posterior angles of the thorax, and shorter and more distinctly thickened antennae.


Somewhat quadrato-oblong, rather broadest anteriorly, black, and clothed with a dense grisaeant down, upon the removal of which the surface appears transversely, but finely acuducted: antennae with the base ferrugineous, the eighth joint three times shorter and more slender than the adjoining ones, the terminal ovate-acute: elytra black or pitchy, sometimes luteous or reddish; the acuducted striae rather oblique, with a sutural and marginal stria; the apex obliquely truncate: legs black, the tibiae and tarsi generally blackish-brown or pitchy.

The parallel sided body, transversely acuducted surface and subtruncated elytra distinguish this variable species from its congener.

The most abundant species of the family; frequenting dry bones,


Body oval, the sides being a little rounded, above of a rusty-brown or cinnamon colour, beneath darker, with a yellow-grisescent down: head black: antennae ferrugineous, as long as the thorax, subclavate, the eighth joint scarcely differing either in length or breadth from the rest of the club, the terminal subovate: thorax with the disc sometimes black: elytra rounded at the apex: legs, labrum, and palpi ferrugineous.

The rounded apex of the elytra and body distinguish this from the foregoing species, and the scarcely clavate antennae with equal eighth joint from the following.

Rare: found in the metropolitan district; Norfolk, Devonshire, and Yorkshire.


Oblong-oval, black, clothed with a dense fusco-griseous down: antennae fuscos: with the two or three first joints rufo-ferrugineous, the eighth shorter than the adjoining: thorax transversely subquadrate: elytra obscure fusco-rufescent, the apex rounded; legs and palpi rufo-ferrugineous.


Oblong-oval, black, clothed with a slightly dense griseo-fulvescent down: labrum rusty-brown; palpi ferrugineous; antennae brown, with their three basal joints reddish-brown, the terminal pale; thorax black, the posterior angles reddish; elytra red-brown, the apex somewhat acute; legs red-brown, anterior, except the coxae, palest.
The shorter and thicker antennæ and more acute apex to the elytra distinguish this species from Ph. fumata.

Also an uncommon species: found near Hull, and in the metropolitan district. "Bottisham."—Rev. L. Jenyns.


Glossy, oval, pitchy-black, clothed with very short grisecent down; labrum and palpi ferruginous; antennæ pale flavescent, as long as the thorax, somewhat capitate-clavate, the eighth joint much less than the adjoining, the terminal large, subglobose and somewhat mucronate; thorax with the hinder margin generally palest, and straight: elytra ovate-convex; legs pale-ferruginous.

Sometimes entirely of a pale testaceous.

The great convexity of the body, and straightly truncate hinder margin of the thorax, distinguish this species from the rest of the genus.


Oblong or sublinear, pitchy-brown, clothed with very short grisecent down: palpi yellow ferruginous; antennæ the length of the thorax and of a yellow-ferruginous; thorax with the hinder margin straight: elytra oblong, the sides nearly straight, the apex rounded: legs yellow-ferruginous.

Resembles Pt. velox, but is "distinguished from that by its proportionably much larger and narrower body," which also well distinguishes it from the preceding (Pt. anisotomoides), with which it agrees in the structure of its antennæ and thorax.

Inhabits the county of Norfolk, and has been taken near London, and in other parts; but uncommon. "Salop."—C. Darwin, Esq.
base, near the suture is a single obscure stria; legs pitchy-brown, with the
tarsi paler: palpi and antennae rufo-testaceous, the latter with the basal joint
large, and the club very broad and distinct, the terminal joint obtuse.
The great bulk and convexity of the thorax of this species, with its acuminated
elytra and broad clava of the antennae, well distinguish it from its congeners.

I have seen one specimen only of this species, which was found
in moss, “from near Humby in Lincolnshire, in December last.”
—A. H. Davis, Esq.

Genus CXX.—Catops, Paykul.

Palpi, maxillary with the last joint subulate, conic; labial with the last joint
obtuse: antennae straight, clavate, not longer than the thorax, the club five-
jointed: thorax with the hinder angles acute: elytra more or less striated;
anterior femora in the males generally somewhat incrassated towards the
apex; the intermediate tarsi with the basal joint dilated.

Catops is known from Ptomaphagus by the greater width of
its body, the more or less evidently striated elytra, and other less
visible characters; and from Choleva by the abbreviated, more
incrassated, antennae, acute posterior angles of the thorax, &c.

A. Thorax with the hinder margin cut out near the angles.

Sp. 1. fornicatus. Oblongo-ovalis niger, antennis thorace longioribus, pedibusque
ferrugineis. (Long. corp. 2½ lin.)

Oblong-oval, black, clothed with a griseo-fulvescent down: palpi ferruginous:
antennae ferruginous, with the apex sometimes brownish, subclavate, rather
longer than the thorax, the eighth joint rather shorter and narrower than the
adjoining, the terminal more robust than the rest, globose-ovate, with the apex
obtusely mucronate: thorax transversely quadrate, the hinder margin a little
dilated in the middle, and distinctly cut out near the angles on each side:
elytra obsolete striated, the striae running from the base to the apex: legs
pitchy-ferruginous.

Var. β. Steph. Catal. l. c.—Of a pitchy-brown, with the labrum, antennae, and
legs ferruginous.

Var. γ. Yellow-luteous, with the head rather obscure.

Body more oblong than in the rest of the genus.

The most abundant species of the genus near London; and not
uncommon in other parts of the country. "Bottisham, several
specimens extracted from a decayed cheese."—Rev. L. Jenyns.
"Carfin, Scotland."—Rev. F. W. Hope.
Sp. 2. sericeus. *Ovatus, gibbos-convexus, fusco-piceus, antennis thorace paulo longioribus, pedibusque piceo-ferrugineis.* (Long. corp. 2\textsuperscript{1}/\textsubscript{2} lin.)


Ovate, gibbos-convexus, sparingly clothed with variable fulvescent, glaucous, or griseous down: palpi pitchy-ferruginous: antennae rather longer than the thorax, ferruginous, the base and apex paler: thorax quadrate-transverse, the basal excisions less evident than in the preceding insect: elytra very broad, obsoletely striated, the stria (beneath a lens) reaching from the base to the apex: legs pitchy-ferruginous.

Sometimes entirely of a yellow-testaceous hue.

Antennae rather shorter and more slender at the apex than in the preceding species: and the body much broader and more convex than in its congeners generally: the eighth joint of the antennæ not very evidently less than the following.


Sp. 3. clavicornis. *Oblongo-ovalis, niger, antennis basi, tibiis tarsiisque ferrugineis; capite antice abbreviato.* (Long. corp. 1\textsuperscript{4}/\textsubscript{2}—2 lin.)


Oblong-oval, black, clothed with a fulvescent down: head rather short between the antennæ: palpi ferruginous; antennæ ferruginous at the base, the apex fuscos-black; the eighth joint minute: thorax transversely subquadrate: elytra with very obsolete striae reaching from the base nearly to the apex, the latter rounded: legs rufo-ferruginous, sometimes pitchy-black; the tibiae and tarsi rufo-ferruginous.

Differs from Ca. sericeus by having the apex of the elytra more rounded than in that insect; and from the other species of the genus by the shortness of the fore part of the head.

Not uncommon near London, also found in Devonshire; near Bristol; the New Forest, &c. "Bottisham."—*Rev. L. Jenyns. Carfin, Scotland."—*Rev. F. W. Hope.*

Sp. 4. festinans. *Oblongo-ovatus, niger, antennis basi, labro, elytris, pedibusque rufo-testaceis, thorace antice angustiore.* (Long. corp. 2 lin.)


Oblong-ovate, clothed with a rather dense pubescence; labrum and palpi ferruginous: antennæ with the six basal joints ferruginous, the rest fuscos: thorax black-brown, fusco-testaceous at the edges; rather short, the hinder margin with the excisions somewhat obsolete: elytra reddish, or rufo-testaceous, obsoletely striated, the striae reaching from the base nearly to the apex.

"From the preceding species this differs in colour, in having the thorax shorter.
in proportion to its width, narrower before, and in the incisions at the angles more obsolete, and the elytra more densely clothed with pubescence."—Spence.

Not common: I have a pair in my collection captured by myself near London. "Netley."—Rev. F. W. Hope.

Sp. 5. affinis. Oblongo-ovatus, fuscus, elytris obsoletissimè striatis, striœ suturali profundiore, antennœ pedibusque fusco-ferruginœs. (Long. corp. 1½ lin.)

Oblong-ovate, fuscous, clothed with fuscous-yellow pubescence; head dusky; antennœ and palpi dusky-ferruginœs, with the apex of the former dusky; thorax deep fuscous-brown, with its lateral margins rather testaceous; elytra reddish-fuscous, with a deep stria near the suture, the rest of the surface with extremely obsolete striae, not reaching to the apex, the latter slightly rounded: legs fusco-ferruginœs.

More elongated than either of the foregoing, with the thorax considerably narrower than the coleoptera, the latter most obsolete striated, and the antennœ are rather stoutly clavate.

One of my specimens I received from the Marshamian cabinet, captured near Bristol; the other was taken by myself near London.


Elongate-ovate, depressed: pitchy-black, clothed with a fine grisescent pubescence: labrum and palpi black: antennœ longer than the thorax, dull ferruginœs at the base, dusky at the apex, the club rather slender, the eighth joint small, the terminal one short, acute: thorax rather small: elytra narrow, obsolete striated, the striae reaching from the base to the apex; the latter rounded: legs rufo-ferruginœs; the tibœ and tarsi palest.

The elongate depressed form of this species, with its slender antennœ, well distinguish it from its congeneres.

A single specimen of this insect I obtained from the neighbourhood of Bristol; and I have once captured it in the metropolitan district.

B. Thorax with the hinder margin straight near the angles.

a. With the sides of the thorax nearly straight at the hinder angle.

Sp. 7. chrysomeloides. Oblongo-ovalis, niger, antennœ basi, tibis tarsisque rufo-brunneis; antennœ foemineis fusiformi-clavatis, crassis, articulo extimo ovato, contiguis longiore. (Long. corp. 2½ lin.)
Oblong-oval, black, clothed with a dense velvety down, of a griseo-fulvescent hue; palpi rufous-brown; antennæ in the female subfusciform, stout, one-third shorter than the thorax, longer and more slender in the male, reddish-brown at the base, the eighth joint much shorter and smaller than the adjoining, the terminal twice as long as the tenth, ovate; thorax subquadrate, with the basal margin in the middle a little sinuated on each side; elytra oblong-ovate, slightly dilated in the middle, most obsolete—striæ not visible without removing the pubescence; legs black, with the apex of the anterior femora, the tibiae, and tarsi, reddish-brown.


Sp. 8. Leachii. Ovalis, niger, antennis basi, tibiis tarsisque rufo-brunneis; antennis clavatis; articulo extimo brevi, mucronato; capite antice abbreviato. (Long. corp. 2¼ lin.)


Very similar to the preceding, differing by having the antennæ more slender, the base rufo-brunnæus, the apex somewhat fuscescent, the six terminal joints turbinate; the terminal globosæ-ovata mucronate, subequal to the contiguous one; head less than in the preceding, shorter between the antennæ; elytra shorter than in the foregoing species.

Found in the north of England and near Bristol. “In a common between Crosby and Carlisle.”—Dr. Leach.


Obovate, fuscous; clothed with a grisescent down: labrum and palpi ferruginous; antennæ nearly as long as the thorax, with the five basal joints ferrugineous, the rest fuscescent; thorax quadrate-subtransverse, obscurely sinuated on each side in the middle of the hinder margin; elytra with very obsolete striæ, the apex somewhat acute; legs pale-fuscescent.

Var. s. Black, elytra reddish, with the base of the antennæ, the tibiae, and tarsi, ferrugineous.

Similar to the foregoing; differs therefrom in colour, size, in having the thorax more distinctly narrowed behind, the elytra in proportion to the thorax broader, and somewhat more acute at the apex.

Taken in plenty in a chalk-pit at Little Blakenham, in September, 1821. “Netley.”—Rev. F. W. Hope.

Sp. 10. Spencii. Obovatus postice subacuminatus, nigro-fuscus, elytris dilu-
tioribus, antennis palpis pedibusque rufo-brunneis, articulo ultimo antennarum conico. (Long. corp. 1½ lin.)


Rather less than the last; obovate, black-brown, with the elytra paler, clothed with a pale hoary fulvescent down; palpi rufo-brunneous; antennae rather slender, longer than the thorax, with the club not much thickened, the eighth joint very short and narrow, the terminal conic-acute; elytra dilated a little way from the base, and then somewhat suddenly acuminated to the apex, which is a little rounded, and distinctly striated; legs rufo-brunneous.

Shorter and comparatively broader than the preceding, which it most resembles, the thorax more narrowed behind, and the base of the elytra also very narrow, the middle dilated, and the apex acuminated; antennae more slender.

A single specimen taken by myself near London, some years since.

Sp. 11. caliginosus. Oblongo-ovalis, atro-niger, antennarum basi apiceque, femoribus anticus, tibis tarsiisque rufo-testaceis. (Long. corp. 2 lin.)


Oblong-ovate, deep black, clothed with fusco-grisescent down; labrum, palpi, base of the antennae, and the terminal joint of the latter, with the anterior femora, tibiae, and tarsi rufo-testaceous; elytra obsoletely striated, the apex rounded; antennae rather slender, longer than the thorax, the eighth joint not very much slighter, but shorter, than the adjoining.

In form somewhat resembling Ca. chrysomeloides, but more elongate, of a deeper black, smaller, the antennae more attenuated in proportion, and with the eighth joint larger.

Two specimens found near London.

b. With the sides of the thorax rounded from the base to the apex: the hinder margin without excision.


Oblong-oval, fuscous, clothed with a griseous-yellowish pubescence, labrum and palpi yellow-ferruginous, antennae the same, darker in the middle, sub-ovate, as long as or rather longer than the thorax, the eighth joint considerably less than the adjoining, the terminal ovate; thorax transversely-subquadrate; elytra very obsoletely striated towards the apex, the latter somewhat obtuse; legs yellow-ferruginous.

Var. β. Pitchy-black, with the antennae and legs ferruginous.

Longer, with the thorax less transverse, than the following species, which is the only one of the genus with which it can be confounded, if due attention be paid to the form of the thorax, which in this genus is essential.

I possess a pair of this insect: one from the Marshamian cabinet.
the specimen described by Mr. Spence; the other taken near London.

Sp. 13. dissimulator. *Ovalis, niger, antennis, thoracis longitudine, basi apiceque tibis tarsisque rufo-ferrugineis.* (Long. corp. 2 lin.)


Oblong-oval, black, clothed with a dense fulvescent-griseous down; palpi rufo-ferruginous: antennae as long as the thorax, fuscous, with the two basal joints and the terminal ferruginous: thorax subquadrate-transverse; elytra not striated, a single stria near the suture excepted: anterior legs rufo-ferruginous; posterior black, with the tibiae and tarsi rufo-ferruginous.

"This insect," says Mr. Spence, from whose valuable monograph of this and the kindred genera I have extracted the leading characters of the species therein described, "affords a striking example of the necessity of attending, in these obscure genera, to minute characters, such as those upon which the families (sections) are here separated. In colour and general appearance it so exactly resembles Ca. clavicorns, that an entomologist not versed in the genus would decidedly pronounce them the same." The form of the thorax, and other characters, render the distinction very evident.

One of my specimens was captured near London, the other I obtained from Bristol.

**Genus CXXI.—Choleva, Latreille**

*Palpi, maxillary* with the last joint subulate, conic; *labial* with the last joint obtuse: *antenna* straight subfiliform, longer than the thorax, the club five-jointed, the joints somewhat elongated: thorax with the hinder angles obtuse: *elytra* oblong, striated: *legs* rather long, posterior as long as the body; *anterior femora* of similar form in both sexes; *posterior trochanters* of the male with a curved tooth on the lower margin, simple in the female; the *intermediate tarsi* with the basal joint filiform in both sexes; the *anterior* with the three basal joints dilated in the male.

Choleva is distinguished externally from Catops by its more elongate form, and by the length and slenderness of its antennae and legs, the obtuse angles of the thorax, and in other less evident characters.


Cistela angustata. *Fabricius.—Steph. Catal. 74. No. 796.—Ch. oblonga. Samouelle, pl. 4. f. 9.*

Narrow-obleng, with an obscure fulvescent pubescence: head black, shining,
MANDIBULATA.—COLEOPTERA.

smooth: labrum and palpi pale-ferruginous: antennae ferruginous, the joints of nearly equal length, the second and eighth shortest: thorax piceous, with the sides and posterior angles paler, sometimes black, or pitchy-black; quadrate-orbicular, the base and apex of nearly equal width; the middle broader: elytra generally obscure-reddish, or black, or pitchy-black, or piceous, oblong, the apex obtusely rounded, each with seven obsolete stria: legs ferruginous: abdomen black, with the terminal segments rather pale at the apex.

Very variable in colour; when recently emerged from the pupa, it is entirely of a pale-testaceous or yellow.


Sp. 2. agilis. Oblongo-ovalis, nigra, supra piceo-brunnea, antennis pedibusque ferrugineis; thorace postici latiore. (Long. corp. 2¼ lin.)

Body shorter and broader than in the preceding; clothed with a denser griseo-fulvous pubescence: head pitchy-black, smooth: labrum, mandibles, and palpi yellow: antennae ferruginous, with the apex darker: thorax pitchy-brown, with the disc darker, subconvex, transverse-quadrate, the base rather broader than the apex, the hinder margin straight: elytra ovate-oblong, pitchy-brown, with seven very obsolete stria: body beneath pitchy-black; legs ferruginous.

Like the preceding, this species varies considerably in colour, and the immature specimens are of a testaceous-yellow.

Less common than the last, but occasionally found not only throughout the metropolitan district, but in other parts. "Moss from Humby, Dec. 1829."—A. H. Davis, Esq. "Netley."—Rev. F. W. Hope. "North Wales."—C. Darwin, Esq.

Sp. 3. gausapata. Oblongo-ovalis, piceo-nigra pube densiori vestito, antennis pedibusque piceo-ferrugineis, thorace postici latiore. (Long. corp. 2¼ lin.)

Size of the last; oblong-oval, above deep pitchy-black, clothed with a dense changeable fulvous pubescence: labrum and palpi pitchy-fulvous; thorax with its margins slightly testaceous, the disc pitchy-black; slightly convex,
transverse-quadrilateral, the hinder margin rather broader than the apex, the
sides gradually rounded: elytra oblong-ovate, with very obsolete striae: body
beneath pitchy-black; legs and antennae ferruginous.
Whether this be the true Ch. gausapata, Spence’s MSS. (inadvertently
called gomphosata in my Catalogue), I am unable to determine—the insect above
described is clearly distinct from either of its congeners, and may be known
by the greater density of the pubescence with which it is clothed, and its
darker hue.

Found near London; in Devonshire, and, I believe, in Yorkshire
and Norfolk.

Family XVIII.—SILPHIDÆ, Leach.

Antennæ about as long as the thorax, gradually thickening towards their ex-
tremities, or terminated by a perfoliate club, the latter generally 4 or 5-jointed,
rarely 3-jointed. Palpi filiform, the maxillary rather longer than the labial:
the terminal joint rather slender, cylindric: mandibles with their apex en-
tire: body ovate, depressed: head inflected, much narrower than the body,
contracted posteriorly, and forming a neck: thorax large, peltate, more or less
semicircular or orbicular: elytra covering the greater portion of the abdomen,
or truncated, with the outer margin generally channelled: abdomen with its
apex rather acute, especially in the female: legs not much elongated: tarsi
five-jointed, the anterior more or less dilated in the males.

The Silphidæ, which form the typical group of the Necrophaga,
delight in prowling amongst carrion, carcasses, or any putrefying
animal matter, upon which they subsist (whence they contract a
most disagreeable foetid odour), but some few attack living cater-
pillars or terrestrial mollusca; they are consequently of great utility
in the economy of nature, by thus removing those animal nuisances
which would otherwise tend to infect the atmosphere and render it
unwholesome.

The larvae inhabit the same materials, and are frequently observed
in company with the perfect insect: the body is elongate, very
much depressed, generally black, composed of twelve segments,
terminating on the sides in a sharp angle; the anterior segment is
largest: the head is small, furnished with two strong jaws; the
antennae short, filiform, triarticulate: the legs six in number, short,
three-jointed, the terminal one with a hook at its tip; the last seg-
ment of the body has two conical appendages: they are very active,
and change to pupa beneath the ground.
The genera which are reputed to inhabit Britain may be detected by the following concise characters:

\[
\begin{align*}
\text{Elytra} & \quad \text{An-} \\
\text{truncata} & \quad \text{capitulo subgloboso, 4-articulato:} & 122. \text{Necrophorus.} \\
\text{Antenna} & \quad \text{gradatim extrorsum crassiores:} & 123. \text{Necrodes.} \\
\text{crassior.} & \quad \text{Elytra gradatim extrorsum crassiores:} & 124. \text{Oiceoptoma.} \\
\text{Necbophorus.} & \quad \text{Antennae} & 125. \text{Silpha.} \\
\text{franciliore.} & \quad \text{I abrupte clavatae:} & 126. \text{Phosphuga.} \\
\text{Necrophorus.} & \quad \text{Antennae truncata.} & 127. \text{AGYRTES.} \\
\text{(gradatim clavatae, capitulo 4-articulato:} & \quad \text{5-articulato:} & 128. \text{PELTIS.} \\
\text{125.} & \quad \text{Phosphuga.} \\
\text{Silpha.} & \quad \text{Antennae} & 126. \text{Phosphuga.} \\
\text{Antennae} & \quad \text{gradatim clavatae, capitulo 4-articulato:} & 125. \text{Silpha.} \\
\text{5-articulato:} & \quad \text{5-articulato:} & 127. \text{AGYRTES.} \\
\text{3-articulato:} & \quad \text{3-articulato:} & 128. \text{PELTIS.}
\end{align*}
\]

**Genus CXXII.—Necrophorus, Fabricius.**

Antennae rather longer than the head, slender at the base, and terminating suddenly in a large ovate perfoliate club, composed of four coarctate joints, the last of which is acuminated: head with a distinct neck: thorax suborbiculate, rounded behind, transversely truncate anteriorly: elytra truncated in a slight line, with a marginal channel, not carinated: body oblong, much longer than broad: tibiae short, robust; posterior trochanters sometimes with a spine at the apex; anterior tarsi dilated and furnished with long cilia in the males.

This conspicuous genus may be readily known by the large subglobose quadriarticulate clava of the antennæ, combined with the truncate elytra, irregular suborbicular thorax, short robust legs, oblong body, and distinct neck:—their wings are exceedingly long, and during flight the insects carry their elytra erect, the upper surfaces being opposed to each other. The species frequent the same haunts as the rest of the family, but, unlike their allies, they bury the animals upon which they, or rather their progeny, subsist—whence the names of several of the species—three or four specimens sufficing for the interment of a small quadruped, bird, &c., which they will perform in an incredible short space of time, by digging away the earth around and under the animal till it falls into the prepared hollow, and covering the body with the displaced mould:—some of the species are found also in fungi: they are very subject to be infested with acari.

A. With the posterior tibiae straight; the trochanters simple.
   a. With the thorax very much dilated anteriorly.


Black, with a large triangular membranaceous testaceous-yellow spot on the forehead, and the outer margin of the elytra broadly rufo-ferruginous: the clava of the antennæ black.

Towards the apex of the elytra is sometimes a rufous spot; probably immature.

Known from Ne. Humator by the black club of the antennæ, the rufous margin to the elytra, the anteriorly dilated thorax, and by its superior size.


Black, head with a triangular luteous spot on the elytra: antennæ with the club orange: thorax densely clothed with a rich golden-yellow down, on its margin, especially anteriorly: elytra with two orange fasciae, varying considerably in different individuals; the anterior one generally broad, and continuous; the posterior narrow, interrupted at the suture, and very frequently divided into two very unequal parts by the black ground of the elytra, which leaves a small spot between the outer portion and the suture.

The width of the orange fasciae on the elytra varies considerably, as do also their form and integrity.

Ne. Vespillo is the only other species of the genus which has the anterior margin of the thorax pubescent, but the straight posterior tibiae of Ne. Sepultor at once distinguish it from the aforementioned species, in which the elytra also are pubescent.

Rare; found in Battersea-fields and on Hampstead-heath, and other parts of the metropolitan district. “Twice taken at Ealing; not uncommon at Netley.”—Rev. F. W. Hope. “In carrion, not uncommon (near Swansea).”—L. W. Dillwyn, Esq.

b. With the thorax not much dilated anteriorly.


 Entirely of a deep glossy-black, with the three terminal joints of the antennæ of an orange or testaceous-yellow, and the deflexed margin of the elytra
sometimes of a dusky or obscure brown; the cilia on the tarsi are also of an orange hue.

Var. β. Ne. bimaculatus. Entomological Transactions, i. 82. pl. 2. fig. sup.—Black, with a patch on the forehead, the outer margin of the elytra and two spots towards the apex ferruginous.

Very variable both in size and colour; in some examples the elytra are entirely brown, arising doubtless from immaturity.


Sp. 4. vestigator. Niger, antennarum capitulo elytrorumque fasciā duplīci aurantiacis, posteriore subinterruptō, thorace supra nudo. (Long. corp. 7 lin. —1 une.)


Black; the antennae with the three last joints orange; the elytra with two transverse fulvous-orange bands, the anterior of which is continuous and in general nearly of an uniform width, or slightly narrowed towards the suture, and its edges sinuate-dentate; the posterior one is abbreviated and irregularly sinuated towards the suture, and is connected to the anterior one by the luteous reflexed margin of the elytra; the tarsal cilia are also orange or flavescent; thorax naked.

Also very variable, with regard to size and the width of the orange fascia on the elytra, but of the latter the anterior one is generally much wider than the posterior.

The naked thorax and straight hinder tibiae distinguish this insect from Ne. Vespillo, and the former character from Ne. Sepultor; from the following the continuous anterior fascia on the elytra and their greater width distinguish it.


Sp. 5. interruptus. Plate xvi. f. 2. Niger, antennarum capitulo elytrorumque fasciis duplex interruptis aurantiacis, thorace supra nudo. (Long. corp. 8—9½ lin.)
Ne. Vespillo. Samouelle, pl. 2. f. 6.

Glossy-black; antennae with the terminal joints orange; the elytra with two irregular transverse bright fulvous-orange bands, interrupted at the suture, and united exteriorly by the luteo-fulvous margin of the elytra; thorax naked.

The interrupted and clear fulvous-orange fasciae on the elytra, with the usually smaller size of the insect, at once distinguish this species from the foregoing, with which it has hitherto been confounded. My friend Professor Henslow first called my attention to the point of its distinction from Ne. vestigator; and from an attentive examination of a numerous series of examples, I am satisfied that it is not a variety of that insect, from which, exclusively of the above characters, it also differs in having the interrupted fasciae on the elytra either of a nearly similar width, or the posterior one the broadest, whereas the contrary is the case with the preceding species.

Much less abundant than the last: found in various places within the metropolitan district; in Norfolk, the New Forest, &c. “Found with the preceding, but occurs much less frequently.” —Rev. L. Jenyns and C. Darwin, Esq. “Once found at Ealing.” —Rev. F. W. Hope.


Black; the elytra with a broad crenulated orange fascia at the base, and a reniform or lunate spot at the apex, not connected to the anterior, as in the two last-mentioned species, by a luteous margin to the elytra, the base and middle of the reflexed margin alone being of that colour: antennae with the caputulum black.

The black club to the antenna, and the simple spot towards the apex of the elytra, are the most conspicuous marks of distinction between this and its fasciated congeners.

Not so abundant as Ne. Vespillo, but found throughout the metropolitan district. “Not yet observed by me in Cambridge-

* During the progress of the early portion of my Systematic Catalogue through the press, I obtained a hasty view of Gyllenhal’s fourth volume, previously to the receipt of my own copy, which did not arrive till nearly half the Catalogue was printed:—the references thereto are consequently less definite than they might otherwise have been; and in this, as in one or two other instances hereafter to be pointed out, appear to be erroneous.

B. With the posterior tibiae curved; the trochanters with an acute spine.


Black: head with an obscure triangular luteous spot on the clypeus; thorax with its anterior margin above clothed with a golden-yellow pubescence: elytra pubescent, with two broad continuous sinuated orange fasciae, the anterior usually broadest, connected by the orange margin of the elytra; posterior tibiae rather long and much incurved; the posterior trochanters with an elongate, subacuminated spine at the apex; antennae with the tip orange.

The incurved posterior tibiae and spinose hinder trochanters at once point out this species from its congeneres:—it varies much both in size and colour, and in some individuals the posterior fascia on the elytra is interrupted at the suture, and the elytra are glabrous:—probably a distinct species.


Genus CXXIII.—Necrodes, Wilkin.

Antennæ distinctly longer than the head, rather slender, terminating gradually in an elongate perfoliate club, composed of three joints, the terminal one obtuse: head oblong, with a distinct neck: eyes large, prominent: thorax orbicular, with a narrow border: elytra obliquely truncated at the apex, tricarinated: body elongate-oval, scarcely longer than the elytra: legs elongate: tibiae channelled, slightly spinose: posterior femora of the males more or less thickened and clavate, sometimes denticulated: anterior tarsi in the male more or less dilated.

Necrodes differs from Necrophorus, which it resembles by having the elytra truncate, in the form of the clava of the antennæ, which is elongate, not subglobose; the elytra are carinated, and the legs elongate; the head is rather small; eyes large; thorax orbicular; and in the males the posterior femora are frequently of great bulk.
and thickness: by which characters and its elongate body this genus may be known from the rest of the family.

Sp. 1. littoralis.  *Nigra, antennis apicè testaceis.* (Long. corp. 7—12 1/4 lin.)

Oblong, depressed, black: eyes glaucescent: antennæ black, with the three terminal joints testaceous-yellow; thorax large, slightly convex: elytra elongate, a little dilated in the middle, finely and thickly punctulate, with three smooth, elevated, lines, reaching to the apex, and a short one at the base between the two exterior ones, and towards the apex of the latter a transverse elevated tubercle: body deep glossy-black beneath.

In some males the posterior femora are remarkably thickened and denticulated beneath; while others have them very simple and unarmed; the posterior tibiae are also more or less arcuated; and the anterior tarsi dilated: in the females the legs are however always simple.

The size of this species varies greatly, some examples (given as distinct by Dr. Leach in the Edinburgh Encyclopaedia, under the name Ne. Curtisis) being only seven lines in length, while others exceed an inch. Again the elytra are sometimes of a livid brown or dull rufescent, but, in other points, similar to the above.


**Genus CXXIV.—Oiceoptoma, Leach.**

Antennæ nearly as long as the thorax, rather slender at the base, and terminating abruptly in a quadriarticulate club, the basal joint of which is small, and the terminal large, obconic: head small, inflected: eyes moderate: thorax nearly semicircular, transverse, emarginate anteriorly: elytra entire (of the females sometimes emarginated at the apex), carinated, with a deep marginal canal: body oval, depressed: legs rather short, slender: the anterior tarsi of the males slightly dilated.

Oiceoptoma may be known from the other genera of this family by the abrupt quadriarticulate club of the antennæ, united to the depressed oval body, covered to the apex with the elytra, which are
Mandibulata. — Coleoptera.

carinated, somewhat rugose and entire, or with the tip sometimes a little notched, but not abbreviated as in the two preceding genera. The species are very prone to monstrosity in the form of the thorax, which is sometimes deeply cut out on its lateral and posterior margins.

A. Both sexes with the elytra entire at the apex.

Sp. 2. thoracica. Nigra sericeo-nitens, thorace rubro-villoso, elytris lineis tribus elevatis flexuosis. (Long. corp. 6½—7½ lin.)

Se. thoracica. Linné.—Don. ii. pl. 63. f. 1.—Oi. thoracica. Steph. Catal. 76. No. 808.

Black: head punctured, clothed with pale sericeous down: thorax rufo-testaceous, with a silvery golden-fulvous pubescence, finely punctured: elytra ovate, black, of a satiny texture, finely punctured, with three slightly flexuous elevating lines, of which the two interior are slenderest and united at the apex, the exterior one more short, considerably abbreviated, and terminates in a transverse tubercle.

Var. β. Elytra with a rich fulvo-testaceous pubescence.

† Var. γ. Thorax with its lateral margins deeply excised.


Sp. 3. rugosa. Nigra pubescens, thorace tuberculato, elytris trilineatis, transversim rugosis. (Long. corp. 3¼—5 lin.)


Somewhat oblong-oval: black: head clothed with a dense griseous pubescence; antennae black, with the capitulum obscure-fuscous: thorax truncate anteriorly, sinuated posteriorly, the surface clothed with a very short ashy pu-

† Sp. 1. marginalis. Atra, thoracis margine pallido, elytris fuscis.


Head black, rugose: thorax black, with its margin sinuated and pale; elytra fuscous, with three elevated lines: legs black.

An injured specimen of this insect was obtained by Mr. Wilkin from the late Mr. Tuther's cabinet; but as it is unquestionably a native of North America, it is not likely to be indigenous to Britain.—See Note, vol. ii. p. 68.
bescence, with numerous elevated naked tubercles: elytra with three elevated flexuous longitudinal lines, with transverse slightly glossy wrinkles and tubercles between each, frequently united to the carine; towards the apex of the elytra on the extreme carina is a larger transverse elevation, or tubercle; the apex of the elytra is obsoletely sinuated: body beneath black, with cinereous pubescence, the apex rufescent. Extremely variable in size; and slightly so in form, some examples being more elongate than others.

Abundant throughout the metropolitan district, also found near Dover, Hastings, Brighton, Shoreham, the Isle of Wight, &c.


B. Elytra of the females emarginate at the apex.

Sp. 4. sinuata. *Nigra obscura, capite thoraceque pubescens, hoe subemarginato tuberculato; elytris glabris, trilincatis.* (Long. corp. 4—5 lin.)


Elongate-ovate; obscure black: head clothed with rufo-cinereous pubescence: thorax nearly as in the preceding, but the angles more rounded and the hinder margin less sinuated; the disc clothed with cinereous down, with numerous glabrous elevated spots; elytra glabrous, oblong-ovate, obscure black, finely punctured, with three acute elevated lines; the interior straight, the exterior arcuated beyond the ordinary tubercle towards the apex of the elytra: body beneath pubescent, with the apex piceous; legs black; tarsi piceous. In the male the elytra are subtruncate; and in the females they are produced at the apex of the suture into an elongated rounded lobe, exterior to which is a deep sinuated emargination.

†Var. β. With the lateral margins of the thorax deeply excised at the base, leaving an acute process, pointing backwards; the hinder margin also excised near the hinder angles, and sinuated in the middle.

Ham and Plaistow marshes, common."—A. Cooper, Esq. "In putrid birds (near Swansea)."—L. W. Dillwyn, Esq.

Sp. 5. dispar. *Fusca obscura, capite thoraceque pubescens, hoc subemarginato tuberculato, elytris trilineatis, pilosis.* (Long. corp. 4½ lin.)


Rather less than the last; obscure fuscous: head and thorax as in the preceding, but more densely pubescent; elytra of the same form, but throughout clothed with depressed cinereous pubescence, with three elevated lines, of which the exterior are scarcely arcuated; and the ordinary tubercle more elevated and larger than in *Oi. sinuata.*

The male has the apex of the elytra obtusely truncate: the female has it slightly emarginate.

The pubescent elytra (exclusively of other characters) at once discriminate this species from the preceding.

Gyllenhal refers the *Silpha opaca* of Marsham to this species; in which particular he has lately been followed by Mr. Dillwyn, but incorrectly; the Marshamian insect, which is in my possession, being evidently the female of the preceding species.

Rare: four or five specimens have been captured, I believe, in Norfolk.

**Genus CXXV.—Silpha Auctorum.**

*Antennae* as long as the thorax, gradually increasing from the base to the apex, forming a quadriarticulate club, composed of nearly equal joints, the terminal one being rather the largest, and conic obtuse: head small, inflexed: eyes rather prominent: thorax semicircular, generally truncate anteriorly; elytra entire, generally carinated, with a deep marginal canal: body oval, slightly convex: legs moderate, rather short; anterior tarsi dilated in the males.

The gradually thickened antennae with a quadriarticulate capitulum of nearly equal joints, with the slightly convex body, generally divested of pubescence above, usually truncate anterior margin of the thorax, and less rugose surface, are the principal external marks of distinction between this and the preceding genus; and from *Phosphuga* it is sufficiently distinguished by the quadriarticulate clava of the antennae.

A. With the thorax emarginated anteriorly.

Sp. 1. quadripunctata. *Ovata, nigra glabra, thoracis limbo elytrisque pallidis, puncto basico medioque nigris.* (Long. corp. 6—7 lin.)

Black; head thickly punctured: thorax with the sides rather flattened, pale testaceous, the disc somewhat convex, foveolated behind, glossy black, with a slender testaceous margin anteriorly, and a broader one posteriorly: scutellum black: elytra pale shining testaceous, thickly punctated; the margin rather flattened, the disc slightly convex, with three somewhat elevated lines, and each with two large glossy black spots, the anterior at the base of the elytra and ovate, the posterior towards the apex and orbicular.


B. With the thorax entire anteriorly.

a. Elytra with elevated lines (usually three).

Sp. 2. obscura. Nigra obscura, thorace anticè truncato, elytris profundius punctatis, lineis tribus elevatis obsolitis. (Long. corp 6—8 lin.)

Dull black; head thickly punctured, with an obsolete transverse carina between the eyes: thorax slightly convex, truncate anteriorly, closely and finely punctured: elytra oblong-ovate, a little convex, sparingly, but deeply punctured, with three obscure very obsolete elevated abbreviated lines, the central of which is longest: body thickly punctured beneath.


Sp. 3. tristis. Nigra subnitida, thorace anticè truncato, elytris subtilissimè punctulatis, lineis tribus elevatis nitidis. (Long. corp. 5½—8 lin.)

Oblong-ovate; deep, somewhat glossy black: thorax slightly convex, truncate anteriorly, obsoletely foveolated, with a rather distinct lunule on each side, the disc rather sparingly punctured; the punctures not very deep: elytra rather deeply punctured, with three elevated, glabrous, shining lines, reaching nearly to the apex, where they are slightly flexuous, and towards the extremity of the outer one is a conspicuous, but not very large, tubercle; body slightly glossy beneath, punctured.

Rarely, if ever, found near London: but far from uncommon

† Sp. 4. Griesbachiana. Nigra subnigida, punctata, elytris creberrimis punctatis lineis tribus elevatis nitidis, exteriores abbreviatis. (Long. corp. 8 lin.)


Slightly glossy black, head and thorax finely and thickly punctured; elytra coarsely punctured with three elevated glossy carinæ, the sutural and marginal ones abbreviated, the central one reaching to the apex and curved inwardly. Larger than Si. tristis; from which it chiefly differs by the abbreviation of the exterior elevated lines on the elytra, and the different position of the central one at the apex: it may be the Silpha granulata of Olivier.

"Winchester." — Mr. A. Griesbach. The only specimen I have yet seen: it is in the collection at the British Museum.

Sp. 5. nigrita. Atra subnigida, thorace antice truncato, elytris lineis tribus obsoletis abbreviatis, interstitionis punctulato-subrugosis. (Long. corp. 6—6½ lin.)


Deep, rather glossy black; thorax truncate anteriorly, very finely punctate; with a distinct dorsal channel, and two lunular impressions; elytra very slightly convex, with three very obsolete, abbreviated, lines, the interspaces irregularly but thickly punctate, the punctures more or less confluent, and forming a slight wrinkled appearance; body deep glossy black, very finely punctured.

Var. β. With the elytra of a dull ferruginous, or pitchy, hue.


Sp. 6. reticulata. Ovata, subconconvexa, nigra, opaca, thorace antice truncato, elytris trilincatis, interstitionis transversim rugosis. (Long. corp. 5½—6½ lin.)


Ovate; slightly convex, dull black, above glabrous, beneath pubescent; head thickly punctured, with a very obsolete transverse line between the eyes;
thorax slightly convex, truncate anteriorly, the disc thickly punctured; elytra ovate, rounded at the apex, rather convex, with three elevated lines, the two anterior of which are rather obsolete and irregular, the exterior more elevated and abbreviated posteriorly, and terminates in an irregular tubercular elevation; the surface thickly punctured, with somewhat glossy irregular confluent transverse wrinkles on the back.

Not very numerous in the vicinity of London; but found occasionally in some plenty in Epping-forest, near Layton and Walthamstow; also near Hertford, Ripley, Gravesend, &c.; and in Norfolk. "Longmont, Salop."—Rev. F. W. Hope. "Parley."—J. C. Dale, Esq. "On Crwmlyn Burrows, but rare."—L. W. Dillwyn, Esq.


Ovate, slightly depressed; brown-black; head broad, punctured, clothed with a dense-brown pubescence; thorax somewhat unequal, the disc anteriorly more convex than the sides and posterior edge, which are somewhat depressed; the disc finely punctured, clothed with a glossy depressed griseous down; elytra ovate, finely granulate-punctate, sparingly clothed with a depressed shining griseous down; the disc depressed, nearly flat, with three elevated lines, the middle longest, the interior more obsolete, the exterior abbreviated, more elevated, and scarcely extending beyond the lateral tubercle: body beneath shining punctate, the apex somewhat ferruginous; legs black; the joints with pale cilia, the claws red.

With the surface above clothed with a glossy golden-yellow pubescence.

Not very common in the vicinity of London; found near Coombe-wood and in Epping-forest. "Aldborough, Suffolk."—Rev. F. W. Hope. "Not uncommon on the sand hills (near Swansea)."—L. W. Dillwyn, Esq.

b. Elytra without elevated lines.

Sp. 8. laevigata. *Ovata, convexa, nigra, subnitida, punctatissima, thorace antice angustato-rotundato, elytris laevibus.* (Long. corp. 5—6½ lin.)

Ovate, convex, rather glossy black, thickly and finely punctured; head elongate, thorax anteriorly narrowed, and somewhat semicircular, posteriorly slightly rounded, above moderately convex, finely punctured; elytra large, oblong, the apex obtusely rounded, the disc thickly and somewhat deeply punctate, without elevated dorsal lines.

In some examples there are faint vestiges of dorsal carina.
MANDIBULATA.—COLEOPTERA.


Genus CXXVI.—Phosphuga, Leach.

Antennae longer than the thorax, slender, gradually increasing from the base to the apex, which terminates in a distinct triarticulate club, composed of nearly equal joints, the terminal one ovate: head narrow; eyes small: thorax semi-circular; abruptly truncate posteriorly: elytra entire; carinated, with a deep marginal canal: body oval or subrounded: legs rather slender, simple; the anterior tarsi dilated in the males.

The genus Phosphuga may be known from Silpha by the tenuity and length of the antennae, the capitulum of which is distinctly tri-articulate, and composed of nearly equal joints: the head is narrow: the thorax and elytra very deeply margined, the latter entire at the apex; the body rather broadly ovate, or nearly rounded; the legs somewhat slender.


Ovate, glossy black, head thickly punctate; thorax thickly punctate on the disc, which is slightly convex, and rugose-punctate on the sides, which are depressed: elytra throughout closely rugose-punctate, the disc slightly convex, with three abbreviated elevated shining lines, the interior of which, on each elytron, or that next the suture, is longest.

Var. 8. With the margins of the thorax and the elytra pale testaceous.

Var. 7. Entirely of a pale testaceous, with the apex of the antennae fuscous.

Extremely variable both in size and colour.

SILPHID.K.—PELTIS.

Sp. 2. subrotundata. Plate xvi. f. 3.—Subrotundata, nigra, elytris rugosopunctatis lineis tribus elevatis, mediis longiori. (Long. corp. 5½—7 lin.)

Ph. subrotundata. Leach.—Steph. Catal. 77. No. 821.

Somewhat rounded ovate, deep very glossy black: head deeply punctured: thorax more unequal than in the last, and more irregularly and deeply punctate: elytra broad, coarsely rugose-punctate, with three shining elevated lines on the disc, the middle one, or second from the margin, longest.

Var. & With the margins of the thorax and elytra of a deep glossy castaneous-brown.

Var. & Entirely of a pale glossy castaneous-brown.

Like the preceding, variable both in size and colour—the pale varieties of both are, however, probably immature.

Rare in Britain, but more abundant in Ireland. "Three specimens taken in the south of Ireland."—Dr. Leach. "Near Dublin."—Rev. J. Bulwer. "Taken sparingly about Penllergare in winter, under stones, moss, and the bark of oaks."—L. W. Dillwyn, Esq.

Genus CXXVII.—Agyrtes, Frölich.

Antennae rather longer than the thorax, the basal joints rather abbreviated, the four terminal ones rather stouter, perfoliated; the apical one being ovate. Palpi, maxillary with the terminal joint thicker than the preceding, ovate; labial filiform: body ovate, convex: thorax rather narrowed in front: legs stout; femora compressed; tibiae spinose and ciliated.

† Sp. 1. castaneus. Glaber, nigro-piceus, or antennis elytris pedibusque castaneis, elytris punctato-striatis. (Long. corp. 2½ lin.)


Shining smooth, mouth and feet alone villose: head and thorax black, smooth, widely and minutely punctulated: mouth, antennae, elytra, and legs deep castaneous: scutellum punctulated at the base, smooth at the apex; elytra striated, the striae ten in number, punctated: body beneath brown-black; apex of the abdomen paler.

Inadvertently stated by Dr. Leach to inhabit England, in the Edinburgh Encyclopaedia.

Genus CXXVIII.—Peltis, Kugellan.

Antennae as long as the thorax, the basal joint dilated, the three last joints large, perfoliated, remote: palpi subclavate: body ovate, deeply margined, flat beneath: elytra entire: back flat.

Family XIX.—Nitidulidae, MacLeay.

Antennae short, generally abruptly clavate, the capitulum frequently compressed, and mostly composed of two or three joints; which in one genus are soldered into one. Palpi usually filiform, short; rarely thickened towards the extremities; mandibles elongated, generally emarginate at the apex; body depressed, broad; head inserted in the thorax up to the eyes; thorax sub-quadrate, or subtrapeziform; tarsi pentamerous, with the second and third joints bifid and dilated, the fourth generally minute.

The Nitidulidae, as Mr. MacLeay observes, "are to be found in almost all substances, some inhabiting flowers and others carrion;"—while many are to be found beneath the bark of trees, in fungi, and in putrescent vegetable matter; upon which the larve—which, so far as known, possess considerable resemblance to those of the Silphidae—subsist. The indigenous genera differ externally by the following, amongst other characters:

**Elytra**
- Hand abbreviata. Thorax lateribus
- Hand depressis. Antennae articulo 3-tio
- 4-to equale: 129. Thymalus
- 4-to longiore: 130. Nitidula
- 4-to vix longiore: 132. Campta
- 4-to multo longiore: 131. Strongylus
- Corpus ovatum: 133. Meligethes
- Subquadratum: 134. Pria
- Hand porcata: breves, clava
- Antennae: ovata, coarctata: 135. Carpophilus
- Elongate, capitulooconeic: 136. Cateretes
- Longitudinaliter porcata: 137. Micropeplus

**Si. ferruginea. Linne.—Stewart (!).—Pe. ferruginea. Steph. Catal. 77. No. 823. note.**

Fuscous-castaneous, with a paler border; thorax with impressed punctures; elytra with six elevated lines on each, three of which are punctulate, the interstices with a double series of excavated punctures.

Stated by Stewart to inhabit Britain, but apparently without any authority;—it is usually found beneath the bark of trees on the continent.
Genus CXXIX.—Thymalus, Latreille.

Antennae rather short, the basal joint elongate, clavate, third and fourth joints equal, gradually thickened to the extremity, the three last joints forming an elongate, compressed, perfoliate club, with the terminal joint orbicular: palpi subclavate; terminal joint subovate: head very small, concealed by the anterior margin of the thorax; which is slightly emarginate, the posterior truncate, and the sides broadly margined and depressed: elytra large, entire, subovate, pubescent, deeply margined on the sides, covering the abdomen: body convex, subhemi-spheric: legs short, simple: tarsi pentameral, simple.

This genus serves beautifully to unite the Nitidulidæ with the preceding family, to the last genus of which it is so closely allied that most writers have hitherto included them under one name; but from Peltis, Thymalus differs by its convex, subhemi-spheric form, shorter antennae, with its club more coarctate, and dissimilar habit, which is so analogous to that of a Cassida, that several authors have placed the only known species in that genus.


Brassy-brown, pubescent; head ferruginous, punctured; eyes black; thorax rufo-ferruginous, finely and thickly punctate, with the disc somewhat convex behind, and glossed with areous; elytra broader than the thorax, very convex, deeply, coarsely, and somewhat irregularly punctate-striate, the margin obscure sanguineous, or rufo-ferruginous; body with legs and antennae ferruginous; the former punctured.

Discovered several years since in some abundance in the New-forest, by Mr. D. Bydder, and since observed in the same neighbourhood by others. "Near Westerham, in Kent, on a flower."—Mr. Ingpen. "Leeds, by Mr. Denny, who took several."—A. H. Davis, Esq. "Under the bark of an oak near Danygraig, by Mr. Millard, and also under bark in Clive-wood."—L. W. Dilwyn, Esq.

Genus CXXX.—Nitidula Auctorum.

Antennae very short, the basal joint orbicular, dilated, the third longer than the fourth, the apex terminating in a large, abrupt, broad, coarctate, perfoliate, three-jointed club: palpi nearly equal, short, filiform: head small, inserted up
to the eyes in the thorax, the latter more or less emarginate on its anterior edge, the sides depressed, deeply margined; elytra broad, entire, rarely truncate, subovate, glabrous, deeply margined, and in general concealing the extremity of the abdomen: body ovate, or elliptic, broad, obtuse, somewhat depressed: legs short; tibiae broad, the anterior elongate-triangular; tarsi pentamous, with the third joint dilated and bifid, the following minute, indistinct.

From Thymalus, this genus may be known by its more depressed peltate body, but more especially by the structure of its antennæ, of which the basal joint is generally orbicular and considerably dilated, the third joint longer than the fourth, and the capitulum is abrupt, and composed of three broad, coarctate, joints; the tarsi have the third joint dilated and bilobed, and the tibiae are broad. The species frequent putrid animal and vegetable substances, old bones, &c., and some few delight in revelling amongst flowers.

A. Thorax with the disc unequal, foveolated.
Sp. 1. marginata. Ovata, ferruginea, elytrorum disco conexo sulcato fusco, parce ferrugineo maculato. (Long. corp. 2—2½ lin.)
Ovate, ferruginous: head rather dull, finely punctured, eyes prominent, black, thorax with the disc very convex, not foveolated, dull fusco-ferruginous, thickly but very finely punctate; elytra ovate, subacuminated behind; the sides deeply margined and ferruginous, the disc convex, thickly punctured, with four sulci, of a dull fusco-ferruginous, with two small spots at the base, and a larger common, truncate, one in the middle, of a brighter ferruginous; body beneath and legs ferruginous.

Very rare: it has been once taken at Birchwood, and two or three times at Coombe. I once captured a single specimen in May, beneath the bark of an old birch, at the latter place, in company with the two following species, which were in plenty. "Netley, under injured bark of oaks."—Rev. F. W. Hope. "Bristol."—Dr. Leach.

Sp. 2. punctatissima. Ovata, subconvexa, obscurè ferruginea, creberrimè punctulata, thorace inæquali elytrisque nigro variegatis. (Long. corp. 3—3½ lin.)
Ovate, somewhat convex, dull ferruginous; head unequal, much punctured, obscure dusky between the antennæ posteriorly; eyes prominent, black; thorax deeply notched in front, broader and truncate behind; the sides obscure ferruginous, punctulata; the disc rather convex, unequal, foveolated, obsoletely variegated with black: elytra broad, ovate, rounded behind; the disc slightly convex, much punctured, of an obscure ferruginous, variegated with obsolete, irregular, confluent, black marks; and a little beyond
the middle an undated, abbreviated, paler fascia, somewhat variable in
different individuals, and on the disc are the rudiments of elevated stric;
body beneath ferruginous; legs rufo-ferruginous.

Much larger than the following species, from which it seems to differ in being
shorter and more convex, in proportion to its size.

Not very abundant; found beneath the bark and in holes of
decayed oaks, birches, &c., which have been perforated by Cossi,
Rev. F. W. Hope.

Sp. 3. grisea. Oblongo-ovata, grisco-ferruginea, thorace inequali, elytrisque
nigro lineatis maculatis. (Long. corp. 1\(\frac{1}{2}\)–2\(\frac{3}{4}\) lin.)

Si. grisea. Liné.—Linn. Trans. ii. 86. pl. 5. f. 6–11.—Ni. grisea. Steph.
Catal. 78. No. 827.

Oblong-ovate; head depressed, ferruginous, punctured; eyes prominent, black;
thorax with the disc elevated, unequal, foveolated, grisco-ferruginous, with
various, more or less confluent, black marks, elytra oblong-ovate, grisco-
testaceous, with obscure elevated costae, on which are interrupted black lines,
which become united and confluent behind the middle, forming a black lobe;
body beneath pitchy, with the apex paler; legs pale ferruginous.

Very variable in the colour of the upper surface, and in the extent of the con-
fluent black marks thereon, which are sometimes nearly evanescent; the
under side is occasionally of a pale griseous:—from the preceding insect, this
chiefly differs in being more oblong, less convex, and of smaller size.

Not uncommon beneath the bark of trees throughout the metropo-

tolian district; also found in Norfolk, Suffolk, &c. "Bottisham."—
Rev. L. Jenyns. "Under bark of willows, Plaistow-marshes."—
Mr. Ingpen. "Netley, Clinque, &c."—Rev. F. W. Hope. "Epping."—
"Walthamstow, common."—A. Cooper, Esq. "Glanvilles
Wootton and Hurne."—J. C. Dale, Esq. "In the Penllergare
woods."—L. W. Dillwyn, Esq.

Sp. 4. depressa. Ovata, depressa, brunneo-ferruginea, thoracis disco subfoveolato
utrinque notulo incluso, elytris obsolete nigro-maculatis. (Long. corp. 1\(\frac{1}{2}\)–2
lin.)


Ovate, depressed, ferruginous-brown, with the head of a dusky hue, punctured,
and with the mouth ferruginous: thorax with the sides much dilated, fer-
ruginous, a distinct curved impression on the disc, the latter dusky, with
two obsolete foveolae behind, the entire surface very thickly punctured;
elytra broad, ovate, slightly convex, deeply margined, thickly and finely
punctured, dull ferruginous, with obsolete black, oblong streaks, and a little
behind the middle a lunate paler mark; body beneath black-brown, punctate; legs pitchy-ferruginous; antennae with the club dusky.


Sp. 5. Colon. Ovata, depressa, nigro-fusca, thorace foveolis duabus impressis, margine elytrisque lituris apiceque ferrugineis. (Long. corp. 1—1½ lin.)


Ovate, depressed, head deeply punctured, pitchy black, mouth pitchy: thorax deeply emarginate in front, truncated behind, the disc thickly punctured, dusky, with two rounded equal foveoles a little behind the middle, the margins dull ferruginous: elytra ovate, a little convex, finely punctured, pitchy-black, with several minute spots at the base, and a large ovate duplex patch on the disc behind the middle testaceous; near the suture is a single abbreviated stria; body black and punctate beneath: legs dull ferruginous. Varies considerably in size and in the intensity of its colour: in some examples the posterior blotch on the elytra is interrupted with an undulated transverse dusky mark.


Sp. 6. discoidea. Ovata, depressa, nigra, thorace foveolis duabus impressis, margine elytrisque disco pallide testaceis. (Long. corp. 1½—2 lin.)


Ovate, depressed, black, finely and thickly punctured: head unequal: thorax with two impressed foveoles, and a narrow ferruginous margin: elytra ovate, griseo-pubescent, with a large pale-testaceous, somewhat orbicular patch at the base, the margins black, a little spotted with testaceous; legs dull ferruginous. In some examples, the patch on the disc is a little clouded with dusky or black; and in others—probably immature—the entire surface is of a pale, slightly clouded, griso-ferruginous.

B. Thorax with the disc equal, smooth.
Sp. 7. bipustulata. *Ovata, subdepressa, nigra subobscura, elytris puncto medio rubro, pedibus ferrugineis.* (Long. corp. 1\frac{1}{2}—2\frac{1}{2} lin.)


Ovate, slightly depressed, deep nearly obscure black, thickly punctulate: thorax slightly emarginate anteriorly, the disc convex, not foveolated: elytra a little convex, the apex very obtuse, or punctured; on each, rather behind the middle, is an ovate, small, rufous spot: legs rufo-ferruginous: antennae with a large black club.

The red spots are sometimes nearly obliterated.

Less common than either of the two last, and apparently more local: I have taken it in several places within the metropolitan district, in dead carcases, at Hornsey, Gravesend, Ripley, Hertford, &c. "Bottisham."—*Rev. L. Jenyns.* "Riverhead, Kent."—*Mr. Ingpen.* "Netley."—*Rev. F. W. Hope.* "Plaistow and East Ham marshes."—*A. Cooper, Esq.* "Glanvilles Wootton."—*J. C. Dale, Esq.*—"Common (near Swansea)."—*L. W. Dillwyn, Esq.*

Sp. 8. rufipes. *Ovata, subdepressa, nigra obscura, vis punctulata, antennarum basi, ore, pedibusque rufo-ferrugineis.* (Long. corp. 1—2 lin.)


Rather elongate-ovate, somewhat depressed: dull obscure black, faintly punctured: head depressed; mouth rufo-piceous: thorax slightly notched in front, the disc subconvex, the lateral margins rounded, and sometimes rufescent: elytra broad, rather convex, obscure immaculate black, clothed with a very short fuscosub pubescence: legs short, robust, rufo-ferruginous: antennae rufo-ferruginous, with a large black club.

Extremely variable in size, but known from all the rest of the genus by its uniform obscure dull black hue.

Rather abundant, occurring in dead carcases, putrid fungi, beneath dead leaves, in flowers, &c., throughout the metropolitan district; in Norfolk, Suffolk, Devonshire, &c. "Dead mice, Netley."—*Rev. F. W. Hope.*—"Glanvilles Wootton."—*J. C. Dale, Esq.*—"Near Swansea."—*L. W. Dillwyn, Esq.*

Sp. 9. quadripustulata. *Plate xvi. f. 4. Oblongo-ovata, nigro-fusca, elytris maculis duabus testaco-flavis.* (Long. corp. 1\frac{1}{2} lin.)


Oblong-ovate, dull fuscosub-black; thorax obscurely margined with rufescent; elytra with two testaceous-yellow spots, one on the disc a little behind the middle, the other towards the angle of the shoulder: legs and antennae ferruginous, the club of the latter obscure.

Rather variable in size and colour.
As Fabricius in his description says, "maculis duabus rubris," I am doubtful whether the above-described insect is the one mentioned by him.

Not common: the specimen whence the accompanying figure was designed, I obtained from the Marshamian cabinet. The insect has been lately captured near "Chelsea, in old bones."—Mr. G. Waterhouse.

Sp. 10. variata. Oblongo-ovata, subdepressa, nigra, pedibus rufescentibus, elytris testaceis, maculā communi nigra nebulisque duabus flavescentibus. (Long. corp. 1½ lin.)


Oblong-ovate, subdepressed, dull black: elytra testaceous, or ferruginous, with a subtriangular blacker spot at the base of the suture, and two flavescent ones on the disc: legs and antennae ferruginous, the latter with the club dusky.

Differs from the preceding by its paler hue, and in being more varied in its markings.

In this and the three foregoing species the apex of the abdomen is generally acute, and projects slightly beyond the tip of the elytra.

My own specimens (obtained from the Marshamian collection) are the only examples I have seen. "Taken in bones by Mr. Sheppard."—Marsham MSS.

Sp. 11. oblonga. Oblongo-ovata, depressa, fusco-testacea, creberrimè punctulata, antennarum clavi atrā, thorace emarginato, elytris truncatis. (Long. corp. 1½ lin.)


Oblong-ovate, much depressed; head somewhat dusky-ferruginous, eyes black: antennae ferruginous, with the club black; thorax thickly punctured, deeply emarginated anteriorly, fusco-testaceous, with the lateral margins rounded and of a pale testaceous: scutellum fuscosum: elytra linear-elongate, depressed, thickly punctured, slightly pubescent, fusco-testaceous, with a slender rather paler margin, the apex truncate: body pitchy-black beneath, with the apex paler: legs obscure testaceous.

Sometimes of a pale testaceous, thickly punctured, with a longitudinal band on the thorax, and the suture of the elytra dusky.

Found beneath the bark of trees; not uncommon in the metropolitan district. "Netley, abundant on flowers, in spring."—Rev. F. W. Hope. "Windsor."—Mr. Waterhouse.


Oblong-ovate, somewhat depressed; head deep ferruginous, thickly punctured; eyes black: antennae ferruginous, with an oblong acuminated club: thorax narrow before, the anterior margin deeply emarginate, the sides rounded, disc slightly convex, unequal, rather deeply punctured, rufo-ferruginous: scutellum concolorous: elytra broad, ovate, the disc moderately convex, the margin narrow, rufo-ferruginous, subpubescent, slightly punctured: body beneath rufo-ferruginous; legs pale testaceous.

The more expanded lateral margins of the thorax, less depressed body, concolorous scutellum and club of the antennae, distinguish this from the foregoing insect, which has also the elytra somewhat truncate.

Found in flowers, and beneath the bark of trees; not very abundantly. "Netley."—Rev. F. W. Hope.


Oblong-ovate, depressed, finely punctulate: head pale testaceous; eyes globose, black: thorax narrowed anteriorly, the anterior margin very slightly emarginated, the angles nearly straight, the sides but slightly margined, above rather convex, yellow-testaceous, somewhat pubescent: scutellum concolorous: elytra oblong-ovate, depressed, yellow-testaceous, the apex truncate, with the exterior angle rounded: body beneath flavo-testaceous, with the legs paler.

I have followed Gyllenhal in considering this as the Silpha aestiva of Linne, and also in his description of the allied species, with the exception of such as appear to be distinct from any that he has described, from a conviction that it is far better to collate good descriptions with specimens, rather than to rewrite the same, when there is no discrepancy between the two, as in that case the insects intended by the original describer are with more certainty to be identified.

Near London, but not common; in flowers and beneath the bark of trees. "Netley."—Rev. F. W Hope.


Ovate, convex, thickly punctured; head ferruginous-testaceous, with the eyes black: thorax narrowed in front, with the anterior margin broadly and very deeply emarginated, above convex, slightly pubescent, testaceous, with the sides narrowly flattened, and the margin reflexed; scutellum deeply punctate: elytra broad, ovate, convex, slightly pubescent, pale testaceous, the apex somewhat truncate, with the outer angle rounded; body beneath ferrugineo-testaceous, punctured; legs pale testaceous; antennæ pale ferruginous, with the club concolorous.

The deeply emarginate anterior edge of the thorax, and the more convex ovate body, with subtruncate elytra, distinguish this species.
Not uncommon near London: also found in Norfolk, Suffolk, Devonshire, &c., in flowers. "Near Swansea."—L. W. Dillwyn, Esq.

Sp. 15. obsoleta. *Ovata, depressa, subpubescent, ferruginea, thorace profundo emarginato, lateribus rotundato, elytris apice truncatis.* (Long. corp. $1\frac{1}{2}$—$1\frac{3}{4}$ fin.)


Ovate, depressed, obtuse, slightly pubescent, ferrugineo-testaceous; eyes black: thorax with the anterior margin broadly and deeply emarginate, the sides greatly rounded, even to the hinder angle, rather convex above, the sides but slightly depressed: elytra broad, slightly convex, impressed about the middle of the back, the apex truncate, with the angles rounded; body beneath convex, finely punctured: legs short, stout, pale testaceous.

Var. α. With the body beneath and the disc of the thorax and elytra obscure fuscous-brown, the elytra with a paler somewhat rounded spot behind.

Var. β. Paler, with the disc of the elytra obscure, a round dot behind, and a streak anteriorly within the margin, paler.

Var. γ. Entirely pale testaceous, with the eyes black.

Var. δ. Ferruginous, with the body beneath, the disc of the thorax, and each elytron with a posterior blotch, narrowed anteriorly, dull fuscous.

Var. υ. The same, with the body ferruginous, and the disc of the thorax less clouded.


Sp. 16. variegata. *Convexior, ovata, rufo-ferruginea, thorace emarginato, lateribus explanato, elytris truncatis, puncto medio nigro.* (Long. corp. $1\frac{1}{4}$ fin.)


Smallar and more convex than the last-mentioned, with the markings different; ovate rufo-ferruginous, thickly and rather deeply punctured; head depressed, with black eyes: thorax with the anterior margin broadly and deeply emarginated, with the sides rounded, rufo-ferruginous, with the disc darker; the scutellum rufo-ferruginous: elytra ovate, deeply margined, the disc slightly convex, clothed with short, pale, shining hairs, with a round black spot in the middle of each elytron, and sometimes a larger fuscous transverse mark within the apex; body beneath glossy piceo-rufous: legs pale reddish.

Rather scarce: found near London, beneath bark, especially of firs and larches. "Near Swansea, not common."—L. W. Dillwyn, Esq.
Sp. 17. impressa. *Ovata, subconvexa, flavo-testacea, thorace antici emarginato, elytris subtruncatis, suturâ nigrá.* (Long. corp. 1½ lin.)


Ovate, slightly convex, testaceous-yellow, rather glossy, finely punctured: head with a deep impression between the eyes, the latter black; thorax with the anterior margin broadly, but not very deeply, emarginate, the sides rounded to the hinder angles: elytra rather broad, deeply margined, the disc slightly convex, the suture fuscous or black, the apex slightly truncate, with the angles rounded: body pale testaceous beneath, with the legs paler.

The short, ovate, subconvex form, with the subtruncate elytra and dark suture, are the chief characters of this species.

**Under bark, near London, and in Suffolk.**

Sp. 18. pusilla. *Oblongo-ovata, depressa, ferruginea, thorace subquadrato emarginato, elytris apice rotundatis.* (Long. corp. 1½ lin.)


Oblong-ovate, depressed, ferruginous: head thickly punctate; eyes globose, black; thorax subquadrate, with the sides nearly straight, the anterior margin broadly emarginate, the disc rather convex, thickly but very finely punctate, and slightly pubescent: elytra oblong-ovate, a little convex, thickly and finely punctured, pubescent, the apex rounded, and slightly gaping towards the suture: body beneath deep ferruginous; legs rufo-testaceous.

The broad form, with the subquadrate emarginate thorax and rounded apex to the elytra, serve to mark this insect.

**Under bark, throughout the metropolitan district, but not common; also in flowers.** "Netley, on flowers." *Rev. F. W. Hope.*


Ovate, somewhat depressed, rufo-brunneous, very much and thickly punctured head unequal, with the eyes globose, black; thorax with the anterior margins broadly emarginate, the sides nearly straight, the margins broadly flattened, and testaceous, the disc subconvex: elytra broad, ovate-convex, slightly pubescent, dull brown, with the margin narrowly pale testaceous, the apex obtuse, rounded: body beneath dusky-brown, much punctured; legs pale testaceous.

Differs from the foregoing in having the thorax more broadly emarginate, the surface deeply punctured, the colour deeper, with the margins pale.

Also found near London, beneath bark; not common.

Sp. 20. truncata. *Ovata, subconvexa, punctulatissima, testacea, capite thoraceque obscurioribus, elytris apice subtruncatis.* (Long. corp. 1 lin.)


**MANDIBULATA. Vol. III. 31st May, 1830.**
Ovate, subconvex, finely punctured: head dusky testaceous; eyes black; thorax subquadrate; narrowly emarginate anteriorly, the sides slightly rounded and but little margined; the disc rather convex, fuscescent, the margins paler: elytra ovate, pale testaceous, slightly pubescent, with the apex a little truncate, the angles rounded: body beneath fulvo-testaceous; legs pale testaceous.

The small size of this species, with its ovate form, obscure head and thorax, and subtruncate elytra, distinguish this from the foregoing; as the dark head and thorax do from the following.

Found in Suffolk, Norfolk, near London, and in the New-forest, beneath the bark of trees.


Short, ovate, subconvex, testaceous, villose: head fulvo-testaceous, with the eyes black; thorax rather glossy, fulvescent, the disc slightly convex, the sides but little margined, the margins pale testaceous; the anterior edge slightly emarginate: elytra short, ovate, immaculate pale testaceous, villose, the apex somewhat obliquely truncate, the angles slightly rounded; body beneath dusky piceous, legs testaceous.

The slightly margined thorax, which, with the head, is fulvescent, separates this from its allies.

From the Marshamian collection; I possess one specimen only: the insect has, I believe, been captured in Suffolk, and near London.

Sp. 22. melanocephala. *Brevis, ovata, subconvexa, rufo-nigra, antennis, elytris pedibusque sordide testaceis.* (Long. corp. 1 lin.)


Short, ovate, slightly convex: head and thorax of a dull rufous or pitchy-black, scutellum the same; antennæ and elytra testaceous, the latter obliquely subtruncate, with the angles somewhat acute; the body beneath pitchy-black; acute at the apex: legs pale testaceous.

Known by the dark head and thorax, obliquely truncate elytra, and acute somewhat-prominent abdomen.


Sp. 23. limbata. *Ovata, subconvexa, ferruginea, corpore subitus, thoracis elytro-rumque disco postico fuscis, elytris apice rotundatis.* (Long. corp. 1—1½ lin.)


Ovate, subconvex, ferruginous: head convex, thickly punctured, fusco-ferruginous, with the eyes black: antennæ ferruginous, with a large black club:
thorax short, broad, thickly punctured, deeply and broadly emarginate anteriorly, truncate posteriorly, with the sides rounded, the margins considerably expanded and rufo-ferruginous; the disc convex, dusky, with a transverse impression behind: scutellum short, ferruginous: elytra broad, ovate, the apex rounded, the margin broad, reflexed; the disc convex, punctured, fusco-black, with the limb broadly rufo-ferruginous: body pitchy-black beneath, with the apex rufo-ferruginous.

Variable: in some examples the disc of the thorax and of the elytra are nearly concolorous: others have the latter with a dusky cloud towards the apex only.

The great width of the insect, with its clouded and rounded apex to the elytra, distinguish this insect.

Rather uncommon; found in grassy banks near Hertford and elsewhere: also in Norfolk and Suffolk. “Netley, in moss during winter.”—Rev. F. W. Hope. “Taken by Mr. Spence, near Hull, in 1805.”—Marsham MSS. “North Wales.”—C. Darwin, Esq.

† Sp. 24. rufomarginata. Ovata, subconvexa, nigra, thoracis elytrorumque marginibus rufis. (Long. corp. 1 lin.)
Ni. rufomarginata. Davis MSS.

Ovate, subconvex, black, with the margins of the thorax and of the elytra rufo-ferruginous.

Closely allied to the last, but of a deeper hue and broader in proportion. I have had but a casual inspection of the only example that has hitherto occurred; but the above short characters will be sufficient to recognize the insect, which was kindly submitted to my notice by its active and zealous possessor, A. H. Davis, Esq.

A single example taken near “Seven Oaks.”—A. H. Davis, Esq.

Sp. 25. decemguttata. Oblongo-ovata, subconvexa, fusco-ferruginea, thoracis margine elytrorumque guttis decem pallidis. (Long. corp. 1—1½ lin.)

Oblong-ovate, somewhat convex, fusco-ferruginous: head deeply punctured: eyes black, prominent: thorax short, deeply emarginate anteriorly, truncate posteriorly, above thickly and rather deeply punctured, with the lateral margins and a dorsal line, the latter expanded posteriorly, pale griseo-ferruginous: elytra oblong-ovate, with the tip obtuse, rather obliquely truncate, the sutural angle rounded; the disc of each elytron with five pale spots, placed, one on the shoulder, the second large ovate, near the scutellum, the third, angulated, in the middle of the lateral margin, the fourth, slightly wedge-shaped, a little behind the middle near the suture, and the fifth, oblong, near the apex of the margin and frequently confluent with the third: body beneath fusco-testaceous: legs pale testaceous.

The male has the posterior femora slightly dentate.
Rather scarce; taken beneath the bark of birch trees in Coombe-wood, in company with Ni. punctatissima and grisea. "Under bark (near Swansea), not common."—L. W. Dillwyn, Esq.

Genus CXXXI.—Strongylus, Herbst.

Antennæ shorter than the thorax, the basal joint large, subcylindric; the second shorter, less robust; the third considerably longer than the fourth, the latter shorter than the fifth, the two following shorter, subtransverse; the eighth very short, transverse, rather broad, the remainder forming an abrupt co-actate compressed club; or with the basal joint very large, lenticular; the second shorter, less robust, subglobose; the third scarcely longer than the fourth, the latter and four following short, of nearly equal length; the remainder forming a dense abrupt, slightly compressed, somewhat globose club: palpı filiform: head rounded or angulate: thorax rather large, convex, the sides not depressed, slightly margined: elytra slightly convex, not depressed on the sides, margined, sometimes striated.

The insects of this genus, so far as I have observed, are found exclusively beneath the decaying bark of trees, subsisting upon the putrid sap, or in fungi, and not in or upon dead animals;—they differ chiefly from the Nitidulae in the structure of the antennæ, in having the thorax larger in proportion, and not depressed on its sides, the body more convex:—but from the great discrepancy in the former character amongst the species, I conceive the genus ought to be subdivided; the two last species differing from the preceding, not only by the diversity in the structure of the antennæ hereafter pointed out, but in their general habit.

Whether the name Strongylus ought to be retained, I am in doubt, having no means of ascertaining when it was first employed by Herbst, as there is a genus of Vermes thus called by Rudolphi, and which may have the priority; and in such case the present must receive a new appellation.

A. With the basal joint of the antennæ subcylindric, the third longer than the fourth, the latter and fifth longer than the two following, the club compressed.

Sp. 1. strigatus. Brevis, ovatus, convexus, nigro-fuscus, marginibus corporeque rufo-peccis, elytris fasciis labalis lobatis pallidis. (Long. corp. 1 1/2—2 lin.)


Short, ovate, convex, deep fuscous: head rounded, subemarginate anteriorly, the anterior portion ferruginous: thorax pitchy, with the lateral margins fer-
ruginous, the disc very glossy: elytra very convex, subacuminate at the apex, delicately and thickly punctate; with a slightly flexous, tricuspid, longitudinal pale mark in the middle of the base, and a little behind the middle of the disc an arcuated transverse pale fascia, not touching the suture; the latter with an impressed stria, abbreviated anteriorly: abdomen and legs pitchy.

Rather scarce: found in some plenty in July, 1825, beneath decayed bark of oaks in Clandon-common: also found in Coombe-wood. “Netley.”—Rev. F. W. Hope.

Sp. 2. imperialis Plate xvi. f. 5. Ovatus, convexus, nigro-fuscus, ferrugineo marginatus, elyrorum dorso plagâ magnâ communi lobatâ albidâ, nigro-maculâtâ. (Long. corp. 1½—1⅓ lin.)


Ovate, convex, deep fuscous; head sometimes ferruginous; thorax black or pitchy, with all the margins ferruginous: elytra with the margin and suture ferruginous, or testaceous; the disc varied with dusky and white, the ground being of the latter colour, with about four dusky or black spots on each elytrum, one small at the base, two in the middle subconfluent, and a fourth much larger, sublunate, and placed near the suture towards the apex: body pitchy-black: antennæ and legs testaceous.

Gyllenhal suspects that this may be the opposite sex of St. strigatus; justly so I think.

Taken in plenty with the preceding insect in Clandon-common, but in other places somewhat rare. I have found the insect at Coombe. “Taken in the Penllergare-woods, not common.”—L. W. Dillwyn, Esq.

B. With the basal joint of the antennæ broad lenticular, the third scarcely longer than the fourth, the latter and three following short, of nearly equal length, the club nearly globose, or slightly compressed.

a. The elytra punctate, naked, not striated.

Sp. 3. fervida. Oblongo-ovata, convexa, saturatâ ferrugineâ punctatissimâ, subpulescens, antennarum clavi coerectâ, elytris apice sape fuscis. (Long. corp. 2 lin.)


Oblong-ovate, convex, deep glossy-ferruginous, and thickly punctured: head with an impression in the front; eyes black; thorax rather narrow anteriorly, broadly and deeply emarginate in front, the sides rounded, the margin very narrow, above convex: elytra broad, above convex, deeply punctured, the apex obtuse: body beneath deep ferruginous: legs pale ferruginous: antennæ short, ferruginous, with the basal joint greatly dilated, orbiculate, the club large coarctate, somewhat globose and sometimes pitchy-brown.

The anterior and posterior edges of the thorax, with a slender margin to the suture and the apex of the elytra, are sometimes dusky or black.
MANDIBULATA.—COLEOPTERA.

Rare; I have, as yet, seen two specimens only, which are in my collection, and were captured near London in June: it inhabits fungi.

b. With the elytra striated, pilose.

Sp. 4. ferrugineus. Ovatus, fusco-ferrugineus, densi pubescens, elytris rudè punctato-striatis, pube seriata adspersis. (Long. corp. 12\(\frac{2}{3}\)–2\(\frac{1}{3}\) lin.)


Ovate, dusky-ferruginous, with the head rather darker: thorax stout, broad, deeply emarginate anteriorly, the disc slightly convex, coarsely and obsoletely punctured, densely pubescent, and dull ferruginous: elytra ovate, convex, the apex obtuse, rounded, coarsely punctate-striate, the punctures subocellated, the interstices pubescent, the pubescence disposed in rows: abdomen beneath pitchy-black: legs and antennae ferruginous.

The head, thorax, and abdomen are sometimes of a deep pitchy-brown.

Found in abundance, in August, 1819, in Lycoperdons, near Dover; also at Guildford, in September, 1821, and at Coombe-wood. "A large brood met with in Lycoperdons on Gogmagog hills, near Cambridge, in October."—Rev. L. Jenyns. "Epping."—Mr. Doubleday.

Genus CXXXII.—Campta, Kirby.

Antennæ as long as the thorax, the basal joint larger, subcylindric, the second smaller and shorter, subglobose, the three following of equal length, elongate, subclavate, the sixth to the eighth very short, subglobose, the remainder forming an abrupt, elongate, somewhat loosely perfoliate compressed club, with the terminal joint ovate. Palpi filiform: head angulated, tomentose: thorax large, broad, very convex, tomentose, the sides not depressed, slightly margined, and rounded: elytra broad, anteriorly convex, posteriorly a little deflexed, the apex rounded, scarcely concealing the extremity of the abdomen: body rounded ovate.

Campta differs chiefly in external characters from Strongylus by having the body shorter, thickly tomentose above, the third, fourth, and fifth joints of the antennæ of nearly equal length, somewhat elongate, with the club more loosely perfoliated.

Sp. 1. lutea. Flavo-testacea, tomentosa, thorace fornicato dilatato, elytris apice dilatatis. (Long. corp. 12\(\frac{2}{3}\)–2\(\frac{1}{3}\) lin.)


Rounded ovate, testaceous-yellow, with the eyes above black, the upper surface clothed with a close decumbent pale down; the lower glabrous; the thorax
very convex, the sides dilated, and slightly margined: antennae and legs testaceous: body beneath glossy, punctate.

Var. 5. Steph. Catal. l. c.—With the body beneath somewhat tomentose.

Abundant on flowers at Darent-wood in the beginning of June; less common in other places: I have taken a few specimens near Ripley, on the flowers of the Dogwood. "Occasionally taken among herbage (near Swansea)."—L. W. Dillwyn, Esq.

**Genus CXXXIII.—Meligethes, Kirby.**

Antennae as long as the thorax, the basal joint large, robust, the second short, less robust, subquadrate, the third as long as the first, subclavate, the two following united about the length of the third, the two next very short, transverse, the eighth still shorter, broad, the three terminal ones forming an abrupt compressed club. Palpi short, filiform: head small, angulated: thorax rather large, convex, the sides not depressed, rounded, slightly margined: elytra broad, ovate, convex, the apex sometimes rather truncate, the sides slightly margined: body subquadrate: tibiae sometimes spinulose.

The species of Meligethes, which require a more critical examination than I have leisure to devote to them, are amongst the smallest of the Nitidulidæ, from the other genera of which they principally differ, by having the antennæ with the third joint about as long as the two following united, the sixth and seventh joints very short, the eighth still shorter; exclusively of their habit: they are usually of dark, sometimes metallic, colours, and are generally found in flowers.


Oblong-ovate; fusco-olivaceous, slightly pubescent, with the head, scutellum, suture of the elytra, and abdomen deep fuscous or black; the thorax broad, with its anterior margin entire: legs pale testaceous.

Less common than several of the following species; taken in grassy banks, amongst flowers, near Hertford, Ripley, Coombe-wood, &c.; also in Norfolk and Suffolk. "Near Swansea."—L. W. Dillwyn, Esq.

Sp. 2. rufipes. *Brevis, ovatus, convexus, obscurè niger, subpubescens, thorace antice emarginato, pedibus rufo-testaceis.* (Long. corp. 11/4—1 1/2 lin.)


Short ovate, convex, obscure black, slightly pubescent, the pubescence of a rich
golden hue, in certain positions: mouth pitchy-red: antennae ferruginous, with the club black: thorax broad, slightly emarginate anteriorly, the sides rounded, the margin a little reflexed, ferruginous; the disc very convex: elytra thickly and distinctly punctured, slightly pubescent, the apex obtuse, subnuate: legs short, stout, rufo-testaceus.

Varies slightly in the colour of the legs, being sometimes pitchy-brown, with the tarsi and anterior tibie paler.


Sp. 3. flavimanus. Brevis ovatus, convexus, obscuri niger, subpubescens, thorace antice emarginato, pedibus antice rufo-testaceis. (Long. corp. 1½ lin.)


Short ovate, convex, dull black, slightly pubescent, the thorax anteriorly somewhat emarginate; the anterior legs rufo-testaceus. The rufo-testaceus anterior legs distinguish this from the preceding insect, of which I suspect that it is merely a variety; as that species is prone to vary, and the above is the only material character of distinction between the two.


Sp. 4. viridescens. Oblongo-ovatus, convexior, fere glaber, viridi-ceruleus nitidus, antennarum basi pedibusque rufo-testaceis, tibiis antice muticeis. (Long. corp. 1—1½ lin.)


Oblong-ovate, convex, nearly smooth, above of a brilliant glossy-green or black-blue; head thickly punctured; antennae with the base rufo-testaceus, the club large, fusco-ferruginous: thorax thickly punctate, with the disc glabrous and the margins slightly pilose: elytra rather deeply but sparingly punctate, glabrous: legs stout, rufo-testaceus, the joints sometimes dusky, the anterior tibie arcuated, not spinulose on the external edge, but with two or three minute denticulations sometimes at the apex.

Variable in the colour of its upper surface; from different shades of green to intense deep black-blue.


Sp. 5. ceruleus. Oblongo-ovatus, minus convexus, tenui pubescens, supra ant ceruleascendi niger, ant ceruleus, ant violaceus, pedibus nigricantibus. (Long. corp. 1—1½ lin.)

NITIDULIDÆ.—MELIGETHES.

Oblong-ovate, less convex than the last, slightly pubescent, above blue-black or blue, or violet: the legs dusky, with the anterior tibia paler. Probably a variety of the foregoing; from which it chiefly differs in the duskniness of its legs.


Oblong-ovate, dull greenish-brass, with the legs rufescent and the femora pitchy.

Very similar to the last, but with the upper surface of an æneous tinge, the femora pitchy, and the tibiae and tarsi rufescent:—I conceive it to be a mere variety of Me. viridescens or caeruleus.


Oblong-ovate, slightly convex and pubescent; above of a deep fuscous-black, with the antennæ and legs entirely dusky.

The dusky antennæ and legs, with the deep fuscous upper surface of the head, thorax, and elytra, distinguish this from all the foregoing species of this genus.

Taken in flowers near London; at Ripley, Hertford, &c.


Short, ovate, convex, glossy-black, punctate; antennæ dull-ferruginous at the base, the club obtuse, black; thorax very slightly emarginate anteriorly; elytra black, obscurely glossed with æneous; legs either pitchy or dull-testaceous, short, stout, compressed, the tibiae dilated towards the apex, outwardly ciliato-denticulate, the posterior in the middle obtusely angulated.

Common throughout the metropolitan district in flowers during May and June. "Bottisham."—Rev. L. Jenyns. "On flowers
common, particularly about Crwmlyn Burrows."—L. W. Dillwyn, Esq.

Sp. 9. xanthoceros. Oblong-ovatus, niger, punctulatus, subpubescens, thorace brevi, antice vix emarginato, antennis pedibusque flavo-testaceis. (Long. corp. \( \frac{2}{3} \)-1 lin.)


Oblong-ovate, black, punctured, slightly pubescent, the thorax very short, scarcely emarginate anteriorly; the antennae and legs testaceous-yellow, the anterior tibia denticulate externally. Allied to Ni. serripes of Gyllenhal, but the antennae are testaceous-yellow, whereas in his insect they are black, with the central joints piceous:—it may be a variety of that insect.

Found near London in flowers.

Sp. 10. nigricornis. Oblong-ovatus, viridi-niger, punctulatus, thorace antice subemarginato, antennae pedibusque nigris. (Long. corp. \( \frac{2}{3} \)-1 lin.)


Oblong-ovate, black, punctulated; the thorax slightly emarginate anteriorly, the legs entirely black, the anterior tibia denticulate, the antennae also black.

In the darkness of the antennae this somewhat agrees with Gyllenhal's Ni. serripes, but it differs in having the legs entirely black; whereas in Gyllenhal's insect they are pitchy-black, with the anterior paler.

Not found near London: my specimens I obtained from the Marshamian cabinet. "Occasionally found (near Swansea)."—L. W. Dillwyn, Esq.

Sp. 11. subrugosa. Brevis, ovatus, convexa, niger punctatissimus, elytris transversim subrugosis, antennarum clavi oblongi. (Long. corp. \( \frac{1}{2} \)-1 lin.)


Short, ovate, convex, black, thickly punctured; antennae black, with an oblong rather slender subacuminated club: thorax anteriorly very slightly emarginate: elytra very thickly punctured, the puncta transversely confluent, giving the appearance of being slightly wrinkled, the disc clothed with a delicate griseous pubescence: legs pitchy-black. The short ovate form, thickly punctate, transversely wrinkled surface of the elytra, distinguish this species from its allies.

Found in flowers, within the metropolitan district. "Netley."—Rev. F. W. Hope.

Sp. 12. nigrinus. Brevis, ovatus, ater, globerrimus nitidus, antennis pedibusque nigris, thorace antice vix emarginato. (Long. corp. \( \frac{1}{2} \)-1 lin.)

Short, ovate, black, very smooth and glossy, the thorax scarcely emarginate anteriorly, the antennae and legs black; elytra subtruncate.

The brevity and glossiness of this insect, with its dark antennae and legs, point out its distinction from its congeners.

Found near London, and in other parts: I have received it from Norfolk and Yorkshire.

Sp. 13. erythropus. *Brevis, ovatus, nigro-aneus, punctatissimus, thorace vix emarginato, antennis pedibusque rufis.* (Long. corp. $\frac{1}{2}$—1 lin.)


Short, ovate, convex, of a blackish-brass, or deep black, very much punctulate, with the anterior margin of the thorax scarcely emarginate; antennae dusky-ferruginous, or rufous; elytra ovate, black, slightly glossed with aeneous, the sides margined, the apex truncate: legs pale or dark ferruginous; tibiae ciliated.

The truncate apex to the elytra, rufous antennae and legs, and short, ovate form, are the chief characters of this small species.


**Genus CXXXIV.—Pria, Kirby.**

Antennae longer than the thorax, the basal joint very large and robust; the second smaller, less robust; the third rather longer than the second, which is of equal length with the fourth; fifth the same, obconic; sixth and seventh short, transverse, the latter rather turned; eighth also short, broad, with a process on the exterior edge; ninth and tenth gradually larger, each with a process on the outer edge; eleventh ovate; the four last-mentioned articulations forming the club. *Head* broad, rounded anteriorly: *thorax* short, not emarginate anteriorly, the sides gradually rounded, and slightly margined, the hinder angle rather acute: *body* pubescent above: *elytra* convex, punctured, slightly margined, truncate: *legs* short, stout: *tibiae* compressed, spinulose exteriorly.

This singular genus, of which the only species known bears considerable resemblance to Mel. Dulcamarae, may be distinguished from the foregoing, by having the club of the antennae—which is composed of four joints—serrated, the elytra subtruncate, the body slightly depressed, with its sides nearly parallel, and but little
mandibulated; the sixth and seventh joints of the antennae have a slight process towards their apex externally.

Sp. 1. truncatella. *Fusco-testacea, subpubescens, pedibus testaceis.* (Long. corp. 2 lin.)

**Si. truncatella.** Marsham.—Pr. truncatella. Steph. Catal. 81. No. 867.

Oblong-ovate, pale fusco-testaceous, slightly pubescent, with the margins of the thorax and of the elytra paler; the latter with a single stria near the suture, which is fuscescent: legs and antennae pale testaceous, the latter with the capitulum somewhat dusky: eyes black.

I possess a single specimen only of this insect from the Marshamian collection; a second found by myself near London; and in the collection of Mr. Kirby, I believe, there is a pair; which are the only individuals I have as yet observed: it inhabits flowers.

**Genus CXXXV.—Carpophilus, Leach.**

*Antennae* with the basal joint large, subcylindric; the second less robust, shorter; the third obconic, shorter than the second; the fourth to the eighth very short, transverse, indistinctly articulated; the eighth to the eleventh forming a large elongate-ovate club: *head* angulated: *thorax* somewhat rectangular, slightly margined on the sides and at the base: *body* glabrous, oblong-ovate: *elytra* nearly flat, about half the length of the abdomen, obliquely truncate: *abdomen* rather stout, obtuse and punctate at the apex: *legs* short, stout: *tibiae* dilated; spinulose exteriorly, and at the apex.

Whether this genus be truly indigenous is very doubtful; Linnaeus gives the first species as a native of Surinam, but Gyllenhal says of it, "habitat in frutetis et floribus apud nos rarius:"—it certainly is frequently taken at large in England, but more frequently occurs in brown sugar. De Jean obtained his specimens from Spain, and Fabricius says, "habitat in Galliá meridionali."

From the preceding genera of this family, the very short, obliquely truncate elytra, exclusively of the different structure of the antennae, the third joint of which is not larger than the second, at once remove this genus.

Sp. 1. hemipterus. *Oblongo-ovatus, supra nigro-fuscus, pubescens, elytris inaculis humerali apiceque lato flavis, pedibus ferrugineis.* (Long. corp. $1\frac{1}{2}$—2 lin.)

Oblong-ovate, above black-brown, pubescent; punctate: mouth ferruginous: antennæ with the club fuscous: thorax with the lateral margin sometimes dull-ferruginous: scutellum fusco-ferruginous; elytra obsolescently punctate, obscure black, with a spot on the shoulder, sometimes a larger sinuate one and a smaller punctiform one, and the apex broadly and wavedly yellow; the abdomen above, beyond the elytra, pitchy-black, punctate: body beneath fusco-ferruginous: legs rufescent.

Varieties: in some examples the yellow markings on the elytra are much larger, and there is frequently a flexuous black fascia above, beyond the middle, dilated towards the suture:—others are pale testaceous, with fuscescent markings.

See remarks under the genus, respecting the propriety of considering this as an indigenous species: it frequently occurs, as there mentioned, in brown sugar; and occasionally out of doors: it has been found in Suffolk, Norfolk, South Wales, &c.


Oblong-ovate, deep fuscous above, and slightly pubescent, with the elytra testaceous-brown, immaculate; the body beneath, legs, and antennæ rufo-testaceous.

Var. β. The elytra with a pale testaceous spot at the apex.

Considerably smaller than the preceding, and much less distinctly punctate on the head and thorax, the elytra of a darker hue, and nearly, or totally, immaculate.

Taken near London.

**Genus CXXXVI.—Cateretes, Herbst.**

Antennæ longer than the thorax, the two basal joints not very dissimilar in size; the third not longer than the following, the three last forming an elongate, somewhat obconic, compressed, club: Palpi, labial with the terminal joint incrassated: head large, angulated: thorax large, slightly margined, sometimes rounded at the angles, and in some cases rather narrowed behind: scutellum very distinct: body ovate: elytra truncate, much shorter than the abdomen.

The elongate antennæ, with a slender, elongate, obconic club, the truncate elytra and short ovate form of the insect, readily point out the peculiarities of this genus, which consists of small species, whose delight is in revelling amongst flowers.


Oblong-ovate, black, deeply punctured; head pitchy; mouth rufescent: antennae pale rufo-testaceous; thorax transversely ovate, black or piceous: elytra broad, slightly convex, the apex truncate, much shorter than the abdomen, thickly and deeply punctate, black, with a larger pale-rufous angulated spot in the middle: legs pale rufescent.

Var. β. Steph. Catal. l. c.—Ferruginous-black, with the elytra ferruginous, the margin, angle of the scutellum, and apex black.

Var. γ. Steph. Catal. l. c.—Ferruginous, with the abdomen fuscous.


Sp. 2. pedicularius. Oblongo-ovatus ferrugineo-testaceus, profundi punctatus, oculis atris, pectore brunneo. (Long. corp. 1—1¼ lin.)


Oblong-ovate, ferruginous-testaceous, deeply punctate: eyes black: antennae ferruginous, with the club dusky: thorax transversely ovate, subtruncate anteriorly, slightly convex: elytra broad, slightly convex, ferruginous, or pale testaceous, rather pubescent: body beneath brown, with the apex paler: legs short, stout, pale testaceous, the tibia slender at the base, much dilated at the apex.

Var. β. Rufo-testaceous, with the base of the abdomen fuscous or deep glossy-black, the scutellum and suture more or less fuscous.

Considerably smaller than the foregoing, which it closely resembles.


Sp. 3. Urtice. Oblongo-ovatus nigro-subaneus, profundi punctatus, antennis pedibusque rufo-pallidis. (Long. corp. ¾—1 lin.)


Oblong-ovate, somewhat brassy-black, slightly villose, deeply punctate; head black, thorax rather rounded in front, very convex, black, or glossed with aeneous: scutellum aeneous: elytra broad, convex, much shorter than the abdomen, black or aeneous: abdomen subacuminated, punctured, black: antennæ pale rufous, legs the same, stout.

Differs in having the body brown or dull-ferruginous; and in being of a deeper black, with the antennæ dusky, and legs piceous.

Abundant amongst nettles throughout the metropolitan district,
and in other parts of the country. "Netley."—Rev. F. W. Hope.
"On Urtica dioica, and among herbage, common (near Swansea)."
—L. W. Dillwyn, Esq.

Larger than Ca. Urtice, which it much resembles; oblong-ovate, deep black, slightly pubescent, finely punctate; thorax broad; elytra truncate; legs black or pitchy, with the anterior tarsi, and the antennae ferruginous-red.

Inhabits the flowers of Linaria, not uncommon: found near London and in Suffolk.

Sp. 5. nitidus. Oblongo-ovatus, convexus, piceo-ferrugineus, nitidus, antennis pedibusque pallide rufis. (Long. corp. 1 lin.)
Oblong-ovate, convex, pitchy-ferruginous, punctulated, glossy, with the antennae and legs pale rufous.
Distinguished from Ca. Linariae by its piceo-ferruginous colour, and pale legs and antennae.

Found in Suffolk; near London and Bristol, in damp hedges.

Oblong-ovate, convex, deep glossy-black, punctulated; with the antennae and legs rufous.
Resembles Ca. Linariae, but is considerably smaller, and has the legs anteriorly rufous: differs from the preceding species by its smaller size and black colour.


Sp. 7. pyrrhopus. Oblongo-ovatus, niger, punctatus, antennis pedibusque rufis. (Long. corp. 1 lin.)
Oblong-ovate, deep glossy-black, punctate; with the legs and antennae rufous.
Very similar to the last, but considerably larger, less convex, and more deeply punctate.

Taken amongst herbage in the vicinity of London. "Netley."—Rev. F. W. Hope.
MANDIBULATA.—COLEOPTERA


Ovate, glossy-black, coarsely and irregularly punctate, clothed with a griseous pubescence, with the last segment of the abdomen above nearly glabrous: the thorax transverse subquadrate, a little narrowed in front; the elytra somewhat rugulose, their hinder margin, the mouth, antennae, and legs rufous.

Taken in damp places, amongst carices and junci. "On carices in Crwmlyn Bog, and not unfrequently among herbage."—L. W. Dillwyn, Esq.


Black, much punctulate: with the head and thorax pitchy; the antennae, legs, and exposed portion of the abdomen above rufous; the latter at the base beneath black.

The piceous head and thorax, with the pale rufous antennae, legs, and anus, sufficiently characterize this species.

Found in damp places where rushes abound; near Bristol and Hull. "Netley."—Rev. F. W. Hope.

Sp. 10. Caricis. *Niger nitidus, punctulatissimus, antennis pedibusque rufis, ano piceo.* (Long. corp. $\frac{1}{2}$—$\frac{3}{4}$ lin.)


Deep glossy-black, very much punctulated, with the antennæ and legs rufous; the extremity of the abdomen pitchy-black.

Resembles Ca. Urticas in colour, but is rather smaller, more slender and convex, and has the extremity of the abdomen piceous.

Found in carices near Hull, and in Norfolk. "Netley."—Rev. F. W. Hope.

Sp. 11. Agarici. *Nigro-piceus, punctulatissimus, submitidus, antennis pedibusque piceo-rufis.* (Long. corp. $\frac{3}{4}$—$\frac{3}{4}$ lin.)


Pitchy-black, very much punctulated; slightly glossy; with the antennæ and legs pitchy-red; the elytra somewhat pubescent.

Very small, and known by its pitchy-black or brown hue, with the legs and antennæ paler.

Taken but rarely near Bristol and in Suffolk.
Genus CXXXVII.—Micropeplus, Latreille.

Antennae shorter than the thorax, received during repose in a groove on the under side of the margin of the latter, the two basal joints larger than the following, the first subovate, the second pear-shaped, the six following decreasing in length, the rest forming a large solid globose pubescent club. Palpi, maxillary small, incrassated in the middle and attenuated to the apex; labial minute: head subtrigionate, inserted up to the eyes, which are small, into the thorax, the latter narrowed anteriorly, with the angles acute: elytra quadrate, margined, very much abbreviated, with three elevated lines on each; abdomen acuminated at the tip: legs slender; tibia simple; tarsi four-jointed.

The singular genus Micropeplus may be readily known from the other genera of this family, by the abbreviated, longitudinally porcate, elytra, and by the solid capitulum of the antennæ; which latter are placed during repose in a cavity on the under surface of the sides of the thorax.

Sp. 1. porcatus. Niger, obscurus, antennarum basi pedibusque rufo-testaceus, thoracis lateribus undulatis. (Long. corp. $\frac{3}{4}$—1 lin.)

Dull black; minutely and thickly punctured: head depressed: thorax very unequal, the sides flat and prominent, with a minute denticulation in the middle, the disc deeply foveolated, with two larger impressions at the hinder angles: scutellum punctulated: the elytra with the exterior angles obtusely rounded; the disc convex, a little depressed near the tip; each elytron with three elevated smooth lines, exclusively of the suture and margin, the interstices thickly and deeply punctate: abdomen above with transverse and longitudinal elevated lines, giving it a latticed appearance, the interstices being somewhat deep: antennæ at the base and the legs rufo-testaceous, or ferruginous.

Var. 8. With thorax and elytra dusky reddish-brown.

Found in various places within the metropolitan district; also in Norfolk, Suffolk, Devonshire, &c., from April to November, and hybernates beneath moss. "Moss, Netley."—Rev. F. W. Hope. "Hurne."—J. C. Dale, Esq. "Among grass on Crwmlyn Burrows, not common."—L. W. Dilkyn, Esq. "Petworth, Sussex, in August, and under hay placed on barked trunks of felled trees in damp situations in Kensington Gardens, 20th May, 1830, in company with Atomaric. Motion very slow."—Mr. Westwood.

Sp. 2. staphylinoides.—Plate xvi. f. 6.—Niger, submititidus, antennis pedibusque rufo-ferrugineis, thoracis lateribus integris rufo. (Long. corp. $\frac{3}{4}$ lin.)


Rather glossy-black, punctulate: head flat, with two oblique sulci on the forehead: thorax unequal, with the sides expanded, rufous, not denticulated; the disc pitchy-black, impunctate, with a rather deep fovea anteriorly, and three more obsolete parallel oblong ones posteriorly: scutellum smooth: elytra not dilated towards the apex, with the exterior angle obliquely subangulated, the disc glossy-black, with three elevated smooth lines, the interstices very smooth and shining: abdomen as in the preceding insect, but the longitudinal costae less elevated, and the foveae less profound: antennae totally, and legs rufous-ferruginous.

Less common than the last: found about London; in Devonshire; near Bristol; and in Ireland. "Bottisham, common under stones."—Rev. L. Jenyns. "Under the splinters of timber recently cut up by the sawyers, Netley."—Rev. F. W. Hope. "Among herbage on Crwmlyn Burrows."—L. W. Dillwyn, Esq.

†Sp. 3. Tesserula. Picco-niger, nitidus, antennarum basi? pedibusque ferrugineis, thoracis lateribus dilatatis ferrugineis. (Long. corp. 3/4 lin.?)


"Pitchy-black, shining, very minutely and thickly punctured: head depressed and hollowed, with three ridges at the base: thorax with the sides flat, dilated, and ferruginous, the angles acute, a broad channel down the centre, a little narrowed beyond the middle, close to which on each side is a fovea: elytra with three elevated lines on each, one being close to the external margin, the interstices being perfectly smooth, but very minutely punctured: abdomen with five joints uncovered, sides reflexed: slightly carinated down the back, with an interrupted elevated line on each side: legs ferruginous."—Curtis, l. c.

"Taken out of a pond in a marsh near Belfast, in the county Down, early in February, 1827, by Mr. Haliday."—Curtis, l. c.

Family XX.—Engidae, Mac Leay.

Antennae rather short, gradually thickening to the apex, and forming a more or less distinct rarely abrupt club, the clava generally of two or three joints, in some of the true fungivorous genera four, or five: palpi generally very short, filiform or slightly clavate: mandibles usually emarginate at the apex: head ovate or triangular, deeply inserted into the anterior margin of the thorax, which is transverse, and varies in form: body generally elongate, linear, more or less depressed: tarsi pentameres, or tetrameres, rarely heteromeres,
the articulations generally entire; in some genera the third joint slightly dilated and bilobed.

The more elongate, sometimes linear, form of the body of the Engidae, combined with the generally simple joints of the tarsi, and less abruptly elavate antennæ, distinguish them from the Nitidulidae. The family evidently requires subdivision, although in habit and economy, so far as known, there is great similarity, which probably only arises from the juxtaposition of the genera of which it is at present composed: the species usually subsist on decaying vegetable matter, either fungi, agaries, the putrid sap of decaying trees, or upon flowers; they are found at the roots of grass, beneath bark, in fungi, flowers, and but rarely, if ever, in putrid animal substances.

It is perhaps needless to observe, that in uniting the various Latreilleian groups of Nitidulariae, Ipsides, Xylophagi, and Erotylenæ, or portions thereof, under the term Engidae, I have in some degree followed the views hastily sketched out by Mr. Mac Leay, in the Annulosa Javanica, assisted by the natural habit of the species, rather than by an analytical examination of all the genera, which although unquestionably the most satisfactory method of procedure, cannot at all times be resorted to, from the impracticability of obtaining the requisite specimens for dissection, &c. from their great rarity.

The following artificial tabular view may serve to discriminate the reputed indigenous genera.

A. Tarsi quattuor antici articulis quinque; postici articulis quatuor*.

* One sex of the Cryptophagi, and of some of the kindred genera, has four joints only to the posterior tarsi; and the males of the Mycetophagi three joints only to the anterior ones; in Rhyzophagus, the four anterior tarsi appear five-jointed:—other anomalies likewise occur; the insects of the second division of Cryptophagus having the third joint of the tarsi bilobed, &c.
B. Tarsi omnes plerumque articulis quinque; articulo 4-to sæpè minuto, aut fere obsoletō.

<table>
<thead>
<tr>
<th>Articulis</th>
<th>Articulis</th>
<th>Articulis</th>
<th>Articulis</th>
</tr>
</thead>
<tbody>
<tr>
<td>plerumque</td>
<td>integris.</td>
<td>duobus</td>
<td>basalis</td>
</tr>
<tr>
<td>articulis</td>
<td>magnis.</td>
<td>magnis.</td>
<td>magnis.</td>
</tr>
</tbody>
</table>

Tarsi crenulatis: 143. Cryptophagus.

<table>
<thead>
<tr>
<th>Tarsi</th>
<th>Crenulatis</th>
<th>Elongatis</th>
<th>9 sub-</th>
</tr>
</thead>
<tbody>
<tr>
<td>omnis</td>
<td>magnis.</td>
<td>secundum</td>
<td>aequale</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thoracis</th>
<th>Articulis</th>
<th>Articulis</th>
<th>Articulis</th>
</tr>
</thead>
<tbody>
<tr>
<td>lateribus</td>
<td>integris.</td>
<td>duobus</td>
<td>subglobo</td>
</tr>
<tr>
<td>Antennarum</td>
<td>magnis.</td>
<td>magnis.</td>
<td>magnis.</td>
</tr>
</tbody>
</table>

Antennarum subglobo: 146. Philoophilus.

<table>
<thead>
<tr>
<th>Articulis</th>
<th>Articulis</th>
</tr>
</thead>
<tbody>
<tr>
<td>articulis</td>
<td>omnibus</td>
</tr>
<tr>
<td>integris.</td>
<td>integris.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Articulis</th>
<th>Articulis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-mo</td>
<td>crasso.</td>
</tr>
<tr>
<td>2 noir</td>
<td>subgraecile</td>
</tr>
</tbody>
</table>

Articulo 1-mo crasso: 140. Atomaria.

<table>
<thead>
<tr>
<th>Articulis</th>
<th>Articulis</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-tio</td>
<td>lineã</td>
</tr>
<tr>
<td>4-tio</td>
<td>nullã</td>
</tr>
</tbody>
</table>

Articulo 3-tio lineã: 141. Typhlea.

<table>
<thead>
<tr>
<th>Articulis</th>
<th>Articulis</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-tio</td>
<td>breviore</td>
</tr>
<tr>
<td>4-tio</td>
<td>transversis</td>
</tr>
</tbody>
</table>

Articulo 3-tio breviore: 147. Triphyllus.

<table>
<thead>
<tr>
<th>Articulis</th>
<th>Articulis</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-tio</td>
<td>filiformes</td>
</tr>
<tr>
<td>5-tio</td>
<td>articolis</td>
</tr>
</tbody>
</table>

Articulo 4-tio filiformes: 144. Byturus.

<table>
<thead>
<tr>
<th>Articulis</th>
<th>Articulis</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-tio</td>
<td>secundum</td>
</tr>
<tr>
<td>6-tio</td>
<td>rectum</td>
</tr>
</tbody>
</table>


C. Tarsi omnes plerumque articulis quatuor.

<table>
<thead>
<tr>
<th>Articulis</th>
<th>Articulis</th>
</tr>
</thead>
<tbody>
<tr>
<td>triarticulata:</td>
<td>hand</td>
</tr>
<tr>
<td>10, clava</td>
<td>undique ele-</td>
</tr>
<tr>
<td>articulis</td>
<td>vato margi-</td>
</tr>
<tr>
<td>lateralis</td>
<td>nate</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Articulis</th>
<th>Articulis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-articulata</td>
<td>hand</td>
</tr>
<tr>
<td>apice</td>
<td>undique ele-</td>
</tr>
<tr>
<td>Elytra</td>
<td>vato margi-</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Articulis</th>
<th>Articulis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-articulata</td>
<td>truncata.</td>
</tr>
<tr>
<td>Thoracis</td>
<td>integris</td>
</tr>
<tr>
<td>lateralis</td>
<td>crenulatis</td>
</tr>
</tbody>
</table>

1-articulata, apice: 159. Rhyzophagus.

<table>
<thead>
<tr>
<th>Articulis</th>
<th>Articulis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-articulata</td>
<td>truncata.</td>
</tr>
<tr>
<td>Thoracis</td>
<td>crenulatis</td>
</tr>
<tr>
<td>lateralis</td>
<td>magnis.</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Articulis</th>
<th>Articulis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-articulata</td>
<td>crenulatis</td>
</tr>
<tr>
<td>Thoracis</td>
<td>integris</td>
</tr>
<tr>
<td>lateralis</td>
<td>magnis.</td>
</tr>
</tbody>
</table>

1-articulata, apice: 158. Cicones.
Antennæ about half as long as the body, the two basal joints large, robust, cylindric, the six following very slender, filiform, the articulations of nearly equal length, the three last stouter, forming an elongate nodose club, and furnished with long hairs. *Palpi* filiform, minute: head convex, large, triangular: thorax large, broad, convex, the sides rounded and somewhat dilated: scutellum large, triangular: body slightly convex; the breast on each side with a broad quadrate laminated process: wings with the apex produced into several bundles of hairs, or capillaceous: elytra rather broad, slightly truncate at the apex.

The singularly fasciculated capillaceous wings of this curious genus at once point out its difference from the kindred minute genera of Anisarthria and Atomaria; insects in general of such atomic dimensions that it is nearly impossible to give an adequate idea of their distinctions, though to an experienced eye they may appear to differ considerably: and in the present state of our knowledge of such minute genera the attempt "to unite each sex to its legitimate partner" is in many cases impossible, neither can we always "with certainty distinguish the species from the variety;" it is therefore not without considerable hesitation that I venture to separate the following apparent species in this and the two succeeding genera.


Deep black-brown, very delicately pubescent, and finely punctured: head black, acuminated anteriorly: thorax thickly punctulated, large, convex, with the lateral margins rounded and the hinder angles somewhat produced: scutellum large: elytra broad, slightly convex, with the apex obtuse, somewhat obliquely truncate: body pitchy-black: legs and antennae pale rufous, the latter dusky towards the apex.

Not uncommon throughout the metropolitan district, frequenting damp hedges, gardens, &c., under dung-heaps, rotten garden stuff, or in gravel and sand pits, during the summer. "Taken in the garden at the Willows (near Swansea)."—L. W. Dillwyn, Esq.

Sp. 2. minima. *Nigra, nitida, elytris apicè pallidis, pedibus rufis.* (Long. corp. 1/3 lin.)


Depressed, head and thorax deep glossy black, obscurely punctured; the elytra rather paler, with the apex still more dilute; antennæ ferruginous; legs pale rufous. Differs from the foregoing in being smaller, of a deeper and glossy black, with the apex of the elytra more paler, than from the following by the latter characters:—from Tr. minuta it differs in being larger, of a deeper hue, and in being more depressed.

Found near London, extremely minute.

Sp. 3. pusilla. *Nigra, nitida, antennis pedibusque pallidis.* (Long. corp. 1/3 lin.)


Rather convex, deep glossy black, very finely punctured, the elytra concolorous to the apex: antennæ and legs very pale testaceous. The size of the foregoing, from which it chiefly differs in having the apex of the elytra concolorous with the base, with the antennæ and legs very pale.

Taken near London and in other parts, not uncommon.

Sp. 4. nana. *Brevis, ovata, nigro-picea, punctulata, tenué pubescens, antennis nigro-piceis, pedibus pallidis.* (Long. corp. 1/3 lin.)


Very short, ovate, pitchy-black, punctulate, and slightly pubescent, the elytra concolorous at the apex, antennæ pitchy-black, the legs pale. The deep pitchy-black antennæ of this minute insect, with its short ovate form, well discriminate it from its congener.
The most minute Coleopterous insect with which I am acquainted, scarcely exceeding in dimensions the period which closes this sentence: it is found near London, but apparently not very common.

Sp. 5. minuta. Oblongo-ovata, nigro picea, elytris apicë dilatioribus, antennis pedibusque pallidë rufis. (Long. corp. ½ lin.)

Oblong-ovate, pitchy-black, slightly pubescent, and finely punctured, the elytra paler at the apex, the antennae and legs pale rufescent.

More oblong and somewhat larger than the preceding, from which it also differs in having the antennae and legs pale rufescent, and the apex of the elytra rather pitchy.

Slightly larger than the foregoing, but yet truly atomical;—it occurs near London.


Minute, oblong-ovate, deep pitchy-black, punctulate, the thorax with three very obscure sulci, the legs pale, the antennæ deep black.

Like Tr. nana this species has the antennæ black, but it is of a more oblong form, and has the thorax very obscurely trisulcate.

Also a most minute insect, appearing but as a mere speck upon paper; found near London, in Yorkshire, and I believe likewise in Norfolk.

Genus CXXXIX.—Anisarthria*. Waterhouse.

Antennæ very pilose, rather longer than the thorax, the basal joint stout, elongate, slightly bent, the second rather stout, the six following very slender subclavate, the ninth large obconic, the following minute subquadrate, the terminal one large ovate. Palpi small, the terminal joint ovate, subacute: head broad, slightly emarginate anteriorly: thorax suborbicular, truncate posteriorly: scutellum minute: body convex: elytra entire, broad, dilated laterally.

Amongst the species of this, the preceding, and the following genera are some of the most minute coleopterous insects, their atom forms scarcely exceeding, as remarked by Kirby and Spence, the bulk of an ordinary period: "but," as Latreille observes, "to the

* Anis égaqualis, Ἀργευς ἀρτικός.
eye of the naturalist the mass or volume of an object is a matter of little consequence. The wisdom of the Creator never appears with more effect than in the structure of those minute beings, which seem to conceal themselves from observation; and Almighty Power is never more strikingly exhibited than in the concentration of organs in such an atom. In giving life to this atom, and constructing in dimensions so minute so many organs susceptible of different sensations, my admiration of the Supreme Intelligence is much more heightened than by the contemplation of the structure of the most gigantic animals. And unenvied must be the mind of him who can contemplate such wonders, and reflect upon the prodigious numbers of created beings which enliven the face of the globe, at least a quarter of a million distinct species, each of which is endowed with its own peculiar instincts, feelings, and propensities, without being excited to meditate upon their First Great Cause!

From Trichopteryx, and in fact from all the remaining genera of this family, the minute tenth joint of the antenna, the central one of the club, at once separates it, exclusively of its other characters: the species are all exceedingly minute, and appear to be unknown to the continental entomologists.

Sp. 1. punctulata. Suboblongo-ovata, nigra nitida, subpubescens, obsoletissimé punctulata, antennis pedibusque pallidis. (Long. corp. \( \frac{1}{2} \) lin.)


Somewhat elongate-ovate, shining black, slightly pubescent, and very obsoletely punctulate; with the antenna and legs very pale. The very minute size of this species, coupled with its deep glossy colours and pale legs, distinguish it from its congeners; the following is the only one resembling it in bulk; but that insect is of a paler hue above and smaller.

Taken near London, and I believe in Cambridgeshire.

Sp. 2. minutissima. Ovata, nigro-fusca, tenuè pubescens, punctulata, elytris dilatioribus, antennis pedibusque ochraceo-pallidis. (Long. corp. \( \frac{1}{4} \) lin.)


Rather less than the preceding: ovate, fuscous-black, very slightly pubescent, the elytra rather paler or reddish-brown. Differ from the foregoing in its more ovate form, paler hue, and smaller size.

Found near London, in Norfolk, Bristol, &c.

Sp. 3. perpusilla. Suboblongo-ovata, atra, nitiida, elytris posticè piceis, antennis testaceis, pedibus piceis. (Long. corp. \( \frac{1}{2} \) lin.)

Somewhat oblong-ovate, deep glossy black, very obscurely punctured, and absolutely pubescent; thorax very convex anteriorly and considerably dilated; elytra less convex, piceous posteriorly; antennae testaceous; legs pale.

From the foregoing this differs in being more convex, of a deep glossy black, with the apex of the elytra above piceous, the antennae luteous, and the size larger.

Inhabits the metropolitan district and Norfolk. "In the neighbourhood of Swansea."—L. W. Dillwyn, Esq.


Oblong-ovate, slightly convex, deep shining black, obscurely punctured, somewhat pubescent, the elytra concolorous at the apex; antennae and legs testaceous.

More oblong in form, and less convex than An. perpusilla, of an uniform colour above, and with the legs as well as the antennae testaceous.


Sp. 5. nitida. Brevis, ovata, nigra nitidissima, antennis pedibusque pallide testaceis. (Long. corp. vix ¼ lin.)


Short, ovate, slightly convex, very glossy black, with the apex of the elytra concolorous; the antennae and legs pale testaceous.

The short ovate form, and the slight convexity of the insect, combined with its very glossy surface, are its chief characters.

Found in Norfolk, and occasionally near London.

Sp. 6. pilosella. Ovata, castanea, nitida, pilosa, capite atro, antennis pedibusque ferrugineis. (Long. corp. ¼ lin.)


Ovate, castaneous, shining, with the head dusky or deep black; the thorax and elytra pilose; the body beneath, legs, and antennæ ferruginous.

This species differs slightly from the others of the genus by having the sides of the thorax less dilated, and the elytra somewhat attenuated towards the apex;—from all the foregoing it may be known by its castaneous hue, and black head, exclusively of its dissimilarity in form.

Found occasionally near London; the pair I obtained from the Marshamian cabinet were taken in a rotten alder.

Sp. 7. nitidula. Ovata, convexa, nigro-picea, pubescens, antennis pedibusque rufis. (Long. corp. ¼ lin.)

MANDIBULATA.—COLEOPTERA.

Ovate, convex, pitchy-black, pubescent, shining, the elytra paler at the apex, the body beneath, legs, and antennæ rufous.
Like the foregoing species this wants the dilated sides to the thorax; the insect is however smaller, and apparently broader behind:—it may be the opposite sex.

A pair in my collection from the Marshamian cabinet.

Sp. 8. brunnea. Oblonga, brunnea nitida, antennis pedibusque testaceis, capite negro. (Long. corp. \(\frac{1}{2}\) lin.)
Oblong, slightly pubescent, reddish-brown, shining, the head black, the antennæ and legs testaceous.
Also with the margins of the thorax scarcely dilated; but the insect is rather larger, of a more oblong form, and more rufescent in colour, with the body less pubescent and less convex.

From the Marshamian cabinet.

Genus CXL.—Atomaria, Kirby.

Antennæ as long as the thorax, with the three last joints forming an elongate club, the basal joint robust, slightly curved, the second more slender and longer than the third, which is slightly clavate, and longer than the fourth; the latter, sixth, and eighth, equal; the fifth about as long as the third; the seventh short, subglobose, resembling the fifth; the remainder forming the club, which is obtuse at the apex. Palpi short, obtusely subulated: head rather broad, triangular; eyes slightly prominent: thorax convex, margined, depressed behind: scutellum small: elytra convex, entire: body ovate-linear.

Atomaria differs from the two preceding genera in the structure of the antennæ; the second joint being small; the fourth, sixth, and eighth shorter than the intermediate ones, and the club formed of three larger subequal joints, and not clothed with elongate hairs: from Cryptophagus it differs also by having the margins of the thorax entire.

A. With the antennæ somewhat remote at the base.

Sp. 1. fulvicollis. Oblongo-ovata, castanea nitida, tenuè pubescens, thorace fulvo, antennis pedibusque rufo-fulvis. (Long. corp. \(\frac{1}{2}\) lin.)
At. fulvicollis. Steph. Catal. 84. No. 897.
Oblong-ovate, slightly convex, shining castaneous, slightly pubescent, with the thorax fulvous, the eyes dusky, the antennæ and legs rufo-fulvous.
The smallest species of this genus, except the following, which it somewhat
resembles, but differs in its broader, more convex, and ovate form, and the dissimilarity of its colouring.

Taken at Dover;—near Bristol, in Norfolk, &c.


Rather slender, elongate-linear, slightly depressed, glossy reddish-chestnut, with the thorax paler, the antennae and legs fulvo-castaneous. Smaller than the preceding insect, from which it may be known by its elongate depressed form, and by its paler but more brilliant hue;—it may be the opposite sex.

Taken near London; not uncommon in gardens at Ripley in June.


Oblong pitchy-black, shining, with the elytra paler at the apex, the antennae and legs pale-ferruginous. About the size of the last, from which it is distinguished by its darker hue and pale-ferruginous antennae and legs, exclusively of its slight dissimilarity in form.

Found near London, and in Norfolk and Suffolk.


Oblong-ovate, shining rufous, with the eyes black, the base of the elytra and the abdomenfuscous, the latter glabrous and shining; legs rufous; antennae testaceous.

The fuscous base of the elytra, and abdomen, with the black eyes, and more ovate form of this insect, are its chief points of distinction from its congeners.

Not uncommon in Battersea-fields, and in other places near London.


Elongate, slightly depressed, of a shining testaceous-red, with the base of the elytra fuscous-black, the antennae and legs rufescent.

More elongate than the preceding insect, from which it differs in being of a
brighter hue, with the base of the elytra of a deeper black, and the abdomen rufous.

Found in Suffolk, near Barham, by the Rev. W. Kirby;—I possess specimens which I believe were captured near London.

Sp. 6. atricapilla. Oblongo-ovata, pallidè rufo-testacea, capite fusco aut nigro, antennis pedibusque pallidè testaceis. (Long. corp. ½ lin.)

Oblong-ovate, of a pale shining testaceous-red, with the head fuscous or black, the antennae and legs pale testaceous; the scutellum chestnut.

The pale testaceous colour and dark head sufficiently characterize this minute insect.

Not uncommon in the metropolitan district; also found in other parts, as Norfolk, Suffolk, Salop, &c.


Oblong-ovate, convex, rufo-ferruginous, pilose, the elytra deeply punctured; the antennae and legs pale ferruginous.

Larger than any of the foregoing, from all of which it also differs in being more convex and shorter, more pilose, and the elytra being somewhat deeply, though distantly, punctate.

Common throughout the metropolitan district: also found in Norfolk, Suffolk, Devonshire, &c. "Netley."—Rev. F. W. Hope. "On the flowers of Heraclium Spondylium (near Swansea)."—L. W. Dillwyn, Esq.

At. testacea. Kirby MSS.—Steph. Catal. 84. No. 904.

Elongate, rufo-testaceous, glabrous, with the thorax paler, with an impressed punctate stria behind, eyes fuscous.

Smaller than the last, from which it is distinguished by its more elongate form, paler colour, glabrous impunctate elytra, and by the punctured stria on the hinder margin of the thorax.

Found in Suffolk.


Oblong-ovate, castaneous, shining, glabrous, the antennae and legs paler: eyes fuscous.
The glossy castaneous hue of this species, with its oblong-ovate, and convex form, distinguish it from its congener.

Not uncommon near London; also found in Norfolk, Suffolk, Devonshire, &c.

Sp. 10. nigripennis. *Ovata, convexa, rufo-testacea, nitida, glabra, elytris punctatis nigris, abdomen rufo-piceo.* (Long. corp. 1 lin.)


Ovate, convex, shining rufo-testaceous, glabrous, the elytra punctate and black, the abdomen pitchy-red; legs and antennae ferruginous.

The deep-black elytra and bright rufo-testaceous thorax serve at once to distinguish this pretty species.

Not common: taken occasionally within the metropolitan district, and in Norfolk and Suffolk.

Sp. 11. mesomelas. *Ovata, convexa, nigra, pubescens, elytris testaceis basi determinatè nigris, antennarum basi pedibusque rufo-testaceis.* (Long. corp. \( \frac{3}{4} \) lin.)


Ovate convex, black, pubescent, the elytra testaceous, with the base distinctly black for about one-third of their length; the antennæ and legs pale rufo-testaceous, the club of the former dusky.

Slightly variable: in some examples the anterior margin of the thorax is rufescent; others have the black at the base of the elytra extending considerably towards the apex, and the latter is sometimes fusaceous.

This and the following differ from their congener in having the elytra more or less testaceous, or yellow, at the apex, the base being black; and the capitulum of the antennæ dusky.

Found in damp situations near London: not very common.

Sp. 12. dimidiata. *Oblungo-ovata, subconvexa, punctulatissima, nigro-fusca, elytris dimidiato-flavis.* (Long. corp. \( \frac{3}{4} - 1 \) lin.)


Oblong-ovate, slightly convex, very thickly punctured, of a deep fusaceous-black, with the apical half of the elytra yellow, or ochraceous: legs testaceous; antennæ with the club fusaceous.

More elongate than the foregoing, of which I suspect it may be only a variety, or the opposite sex:—it is in general rather larger.

Inhabits the metropolitan district. I have also obtained it from the neighbourhood of Bristol.

Sp. 13. atra. *Ovata, convexa, nigra, pubescens, elytrorum apice antennis pedibusque rufo-ferrugineis, thorace postice latiore.* (Long. corp. \( \frac{2}{9} - \frac{3}{9} \) lin.)

Ovate, convex, black, pubescent, with the elytra rufo-ferruginous at the apex, the latter rather acute, the base broad, the middle dilated: the thorax broad behind, the anterior angles greatly deflexed: antennae and legs rufo-ferruginous; the latter darkest: body piceous beneath.

Diffsers from the foregoing by its more convex form, and from the following by its rufous antennae.

Not uncommon in the metropolitan district, at the roots of grass, &c., in damp meadows and fields.


Subovate, convex, deep glossy-black, slightly pubescent; the elytra very thickly and finely punctulate, the apex rather acute and fuscescent: antennae and legs deep fuscos.

The deep fuscos, or nearly black antennae of this insect distinguish it from all its congeneres excepting the following, of which it may be the opposite sex, differing in being of a less oblong form and more convex.

Found in Norfolk and near London, but not common.

Sp. 15. fuscipes. Oblongo-ovata, nigra, pubescens, antennis pedibusque concoloribus. (Long. corp. 4—3/ in.)

Oblong-ovate, black, pubescent, finely punctured; thorax very convex, broadly margined behind; elytra also deep black, dilated in the middle, slightly acute at the apex; the antennae rather stout, deep black: legs also black.

The black antennae and legs of this insect at once distinguish it from all but the preceding species, from which it differs in being rather more elongate and less convex.

Not common: found at the roots of grass in Battersea-fields.


Oblong-ovate, rather depressed, pitchy-black, very slightly pubescent; the elytra a little dilated in the middle, and somewhat fulvescent at the apex: the antennae and legs bright rufo-ferruginous.

Of a more elongate form than the following, from which it also differs in being of a darker colour, with the apex of the elytra rather fulvescent.

Taken near London: in Norfolk, Devonshire, &c.

Sp. 17. ruficornis. Oblongo-ovata, subconvexa, nigra nitida, thorace fusco, antennis pedibusque rufo-ferrugineis. (Long. corp. 1/ in.)
Oblong-ovate, slightly convex, glossy-black, with the thorax fuscous, the antennae and legs rufo-ferruginous.

From the preceding this differs in having the thorax fuscous and the apex of the elytra concolorous with the base, and the body somewhat convex.

Inhabits the metropolitan district, as well as the counties of Suffolk and Norfolk.

Sp. 18. dorsalis. *Brevis ovata, subconvexa, picea, antennis pedibusque rufo-ferrugineis, elytrorum dorso nigro.* (Long. corp. ½ lin.)


Short, ovate, slightly convex, piceous, with the antennae and legs rufo-ferruginous; the base of the elytra on the back black.

The deep black dorsal patch at the base of the elytra, combined with the short slightly convex form of the insect, and pale pitchy colour, at once distinguish this species from its congeners.

Inhabits the neighbourhood of London, and the vicinity of Ipswich.

B. Antennae approximating at the base*.


Oblong, depressed, pitchy-red, with the head black, the antennae and legs rufo-ferruginous.

This species differs from the following by having the head alone black, and from At. linearis by being less linear, and of a pitchy-red colour.

Not uncommon in the neighbourhood of the metropolis; found also in other parts of the country. "Roots of grass, Battersea-fields."—*Mr. Ingpen.*

Sp. 20. nigrienturis. *Oblonga, testacea, thorace abdomineque nigro-fuscis, antennis pedibusque fulvis.* (Long. corp. ¾— ⅔ lin.)


Oblong, slightly depressed, testaceous, with the thorax and abdomen fuscous-black: the antenna and legs fulvous, or rufo-testaceous.

The deep fuscous thorax of this species, and testaceous head, distinguish it from

* Although some of the species of the preceding section have the antennae somewhat approximating at the base, they are, compared with those of this section, remote; the contour of the insects of the two sections is widely different: those of the present being more or less linear, and but slightly convex, thereby approaching in form to the Typhaeae.
At. nigrirostris, and its testaceous hue from At. linearis, the only two species of the genus with which it can be confounded.

Found in Suffolk, and occasionally in the metropolitan district: not common.

Sp. 21. linearis. *Elongata, depressa, nigra pubescens, antennis pedibusque castaneis.* (Long. corp. $\frac{1}{2}$—$\frac{3}{4}$ lin.)


Elongate, depressed, slightly pubescent, black, the antennae and legs castaneous. The linear and very elongate form of this species, combined with its black hue, sufficiently characterize this species.

Not uncommon in the metropolitan district.

**Genus CXLl.—Typhæa, Kirby.**

Antennæ somewhat remote at the base, slender, the basal joint rather stout, subglobose; the second smaller, subcylindric, as long as the third, both elongate; fourth short, subglobose: fifth elongate, clavate; three following short, subglobose; the remainder forming the club, each joint large, the two first somewhat globose, truncate, the last larger ovate, obtuse. Palpi short, subfiliform, the terminal joint elongate ovate, subacute: head subtriangular; eyes globose: thorax transverse, the lateral margins entire: scutellum small, triangular: body elongate, more or less depressed: elytra elongate, sublinear: tarsi simple, five-jointed; the posterior pair in one sex four-jointed only.

There is considerable resemblance in form between the insects of this genus and of the last section of the preceding, but they may readily be distinguished by the difference in the structure of their antennæ, which have the basal joint alone incrassated; the second rather slender, subcylindric, and equal in length with the third, which is elongate, clavate; the capitulum somewhat larger, and the joints not alternately longer and shorter.

Sp. 1. Sparganii. *Oblongo-ovata, ferrugineo-ochracea, subpubescens, elytrorum basi margine suturâque fusco-nigris.* (Long. corp. 1$\frac{1}{4}$ lin.)


Oblong-ovate, rusty-ochraceous, slightly pubescent; head obscurely punctate: thorax subquadrate, rather convex anteriorly, rufescent: elytra somewhat deeply punctate, broader than the thorax at the base, the margins slightly dilated, the shoulders with an elevated tubercle: the base, region of the scutellum, suture, and margin of a fuscous-black: antennæ and legs ochraceous: abdomen pitchy-red.
Known from the other species of the genus by having the margins of the elytra, the suture, and the base fuscous or black, with the abdomen pitchy-red.

Not common; but found in the metropolitan district. "On Sparganium erectum, at Cobham."—Dr. Leach.

Sp. 2. ferruginea. Oblongo-ovata, subconvexa, ferruginea, tenuè pubescens, thorace elytrisque punctulatissimis. (Long. corp. 1 1/4 lin.)


Oblong-ovate, rather convex, entirely ferruginous, and very slightly pubescent, with the thorax and elytra thickly punctulated; the antennæ and legs rather pale.

Some examples are of a castaneous hue, with the base of the elytra paler.

The absence of the dark border to the elytra serves to discriminate this insect from the foregoing; and its more convex and simple elytra, from the following.

Found in fungi and beneath bark throughout the metropolitan district:—taken also near Bristol. "Netley, Gloucesstershire, and North Wales."—Rev. F. W. Hope.

Sp. 3. testacea. Oblonga, sub-depressa, ferruginea, tomentosa, oculis nigris, elytris obsoletè striatis interstitiis rugulosis. (Long. corp. 1—1 1/4 lin.)


Oblong, slightly depressed, ferruginous, clothed with a pale down, the eyes black: head sparingly punctate; thorax the same, slightly convex, with a minute impression at the base on each side: elytra very little convex, most obscurely striated, the interstices a little transversely rugose: body beneath, antennæ, and legs, pale ferruginous.

From the preceding, this insect—which is probably the true Dermestes fumatus of Linné—(See remarks under Mycetæa fumata)—differs in having the elytra obscurely punctate-striate, as well as in colour and form.

Not uncommon in various parts of the metropolitan district; frequenting flowers, rotten wood, fungi, &c.

Sp. 4. tomentosa. Oblonga, depressa, rufo-testacea, tomentosa, oculis nigris, elytris obsoletissimè striatis. (Long. corp. 1 lin.)


Rather less than the last: oblong, depressed, of a bright, but pale reddish-testaceous: tomentose, with the eyes black; the elytra very obscurely striated, the interstices not rugulose.

More depressed and smaller than the foregoing; of a paler colour, and the elytra less distinctly striated:—probably the opposite sex.

Found near London, and in Yorkshire.

MANDIBULATA. VOL. III. 30th JUNE, 1830.
Genus CXLII.—Antherophagus, Megerle.

Antennae scarcely the length of the thorax, rather stout, the basal joint large, subglobose; the second to the eighth short, transverse, coarctate, of nearly equal length and size, considerably more slender than the basal one or the club, which latter is composed of three large joints, the two first of which are cup-shaped, the apical oval, acute. Palpi filiform, with the terminal joint obtusely subulate: head suborbicular; eyes small, globose: thorax with the lateral margins entire; body oblong-ovate, slightly convex: elytra ovate, entire: legs moderate; tibiae slender at the base; tarsi simple, five-jointed; the posterior in one sex quadriarticulate.

The short transverse coarctate articulations of the antennae, the second to the eighth being of nearly equal length, form, and bulk, at once point out the distinction of this genus from the preceding, as the entire lateral margins to the thorax do from Cryptophagus:—the species are most commonly found upon flowers, whence the name of the genus.*

Sp. 1. pallens. Ferrugineus subpubescens, thorace transverso rectangulo convexiore, capiteque profundius punctatis. (Long. corp. 2—2½ lin.)

Ferruginous, somewhat pubescent: head rather coarsely punctate: thorax transverse rectangular, rather convex and deeply punctate: elytra rather pale than the thorax: body beneath deep ferruginous: legs rather pale testaceous, with the base of the tibiae fuscous. The opposite sex has the antennae shorter and black, with the base and apex pale, the tibiae black, and the base and the posterior tarsi quadriarticulate.

This species differs from the following in having the head and thorax more deeply punctured, and the disc of the latter more convex:—the insect is also somewhat less.

Not common: found occasionally on umbelliferous flowers throughout the metropolitan district:—in a lane at the back of Caen-wood, Hampstead, and at Ripley, I have frequently taken it. "On the

* Silpha castanea Marsham, erroneously placed in this genus by Mr. Curtis, by copying Gyllenhal's synonyms, is a true Triplax, according to the original specimen contained in the Marshamian collection:—Vide Triplax castanea, subtus.
flowers of umbelliferous plants, and occasionally under logs of wood on the sea-shore (near Swansea).” — L. W. Dillwyn, Esq.

Sp. 2. silaceus. Flavo-testaceus, subpubescent, elytris abdomenque saturei-toribus, thorace transverso rectangulo. (Long. corp. 2\frac{1}{2} — 3 lin.)


Testaceous-yellow, slightly pubescent: head rather porrect, rounded anteriorly, very finely punctured; eyes black; thorax transverse, rectangular, slightly convex, faintly punctulate, pale ochraceous: elytra very obscurely punctulate, deep testaceous, with a single obsolete abbreviated stria near the suture: body beneath glossy ferruginous, punctate: legs pale yellow, with the base of the tibiae rather obscure. The opposite sex has the intermediate joints of the antennæ of dusky-brown, the base and apex being pale; the base of the tibiae black, and the tarsi quadriarticulate.

Larger, with the head and thorax less distinctly punctate and of a paler hue than the preceding species.

Less abundant than the last, like which it frequents flowers in various places throughout the metropolitan district.

Sp. 3. glaber? Rufo-testaceus, glaber, subdepressus, thorace transverso, antice sub-emarginato. (Long. corp. 1\frac{1}{2} lin.)


Rufo-testaceous, glabrous, slightly depressed: head smooth rufo-ferruginous; eyes black: thorax somewhat emarginate anteriorly, truncate posteriorly, the lateral margins rounded and slightly waved, the disc convex, smooth, glossy rufo-ferruginous: elytra moderately convex, impunctate.

Differs from its congeners by having the surface glabrous, and scarcely punctured; and the anterior margin of the thorax somewhat emarginate.

Whether this be the An. similis or castanea of Curtis, or what those species are, I am not aware.

Rare: found within the metropolitan district.

**Genus CXLIII.**—Cryptophagus, Herbst.

*Antenne* somewhat approximating, stout, as long as the thorax; the basal joint large, globose; second smaller, also globose; third longer than either of the others, clavate; the five following smaller than the second, subglobose; the remaining three forming the club, the two first joints of which are cup-shaped, the third conical. *Palpi* short, filiform; the terminal joint elongate, ovate: *head* trigonate, inserted up to the *eyes*, which are small: *thorax* transverse, truncate behind, the lateral margins more or less dentate or crenate: *scutellum* broad, short, transverse: *body* ovate, convex: *elytra* elongate-ovate: *tarsi* simple, five-jointed, the posterior pair in one sex four-jointed only.
The insects of this genus may be known from those of the preceding genera of this family, by having the lateral margins of the thorax more or less denticulated, and by the slightly different structure of the antennae.

A. With the lateral margins of the thorax rather strongly denticulated.


Oblong-ovate, ferruginous-brown, thickly punctate, pubescent; head porrect, rather deeply punctate: eyes globose, black: thorax truncate anteriorly and posteriorly, the disc convex, much punctured and pubescent; the lateral margins with a minute denticulation; the anterior angles and base slightly produced, the hinder angle being very acute: elytra ovate, piceous, minutely punctured, the margin ferruginous or pale castaneous, pubescence ochraceous: body beneath and legs pale ferruginous: antennae fuscous, with the club somewhat ferruginous.

It varies considerably in colour; some examples being without the piceous or fuscous hue: probably immature.

Not a common insect: taken sometimes, however, in considerable plenty in old poplars and willows. In July, 1822, I found several specimens in an old felled willow in Walsham-meadows, near Ripley. The insect has been taken near Norwich.

Sp. 2. bituberculatus. *Oblongo-ovatus, rufo-ferrugineus, nitidiusculus, thoracis lateribus bidenticulatis, disco punctis duabus elevatis.* (Long. corp. 1—1½ lin.)

Oblong-ovate; rufo-ferruginous, rather glossy, pubescent, thickly and coarsely punctulated: thorax with the anterior angle produced laterally into an obsolete prominent tooth or hook, and about the middle of the margin furnished with a minute denticulation: its disc with two distinct elevated smooth tubercular dots: antennae rather stout.

The two elevated tubercles on the disc of the thorax, and the coarsely punctate upper surface of this species, combined with its light hue, serve to discriminate it from its congener.

Not uncommon in fungi, &c. throughout the metropolitan district; and in other parts of the country. “North Wales and Netley.”—*Rev. F. W. Hope.*

Sp. 3. humeralis. *Oblongo-ovatus, subconvexus, piceo-ferrugineus, punctulatus, elytrorum basi pallide testaceo, antennis pedibusque pallido-testaceus.* (Long. corp. 1—1½ lin.)
Oblong-ovate, slightly convex, pitchy-ferruginous, thickly but finely punctulated; somewhat pubescent; head pitchy: eyes black; thorax with the lateral margins finely denticulate, the disc very convex, pitchy testaceous: elytra pitchy-ferruginous, with the base pale testaceous, clothed with a short, golden pubescence: antennae and legs pale testaceous.

Var. β. With the upper surface entirely of a pale ochraceous:—probably immature.

The deep pitchy colour of the type of this species, with the paler base of the elytra, and more convex form, are its chief characters.

Found near London.

Sp. 4. uncinatus. Oblongo-ovatus, rufus, elytris pedibusque testaceis, thorace angulis anticus recurvis. (Long. corp. 1¼ lin.)

Oblong-ovate, rufous, slightly pubescent, finely punctured; head with a transverse impressed line behind: thorax with the anterior angle produced into a small hook, and the lateral margin furnished with a minute denticulation about the middle; the elytra and legs testaceous.

Somewhat resembling Cr. Lituberculatus, but the thorax is destitute of the tubercular elevations, so conspicuous in that species.

This is probably the Cryptophagus acutangulus of Gyllenhal—and not the following species, as referred to in my Systematic Catalogue.

From the Marshamian Collection; but taken within the metropolitian district, and near Ipswich.


Oblong-ovate, rufo-ferruginous, slightly pubescent, and very finely punctulate: the thorax with the disc slightly convex, thickly punctured, the lateral margins sinuato-dentate, the anterior angle being produced into a small recurved denticulation, and the middle into an angular projection; the legs and antennae are deep rufo-ferruginous, the latter rather stout.

This species differs from its congeners, by having the lateral margins of the thorax less distinctly toothed, the margin itself forming a kind of gradual undulation, of which the apex is nearly in the centre.

From the Marshamian collection: it has been captured near London, and I believe in other places.

Closely resembling Cr. Populi, but smaller, and more deeply and coarsely punctate; of a deep fusco-ferruginous, clothed with rather long hairs; head dull ferruginous: eyes black: thorax with the margins blackish, with the anterior angle obliquely acuminated, and a minute denticulation in the middle of the lateral margin, the disc slightly convex: elytra with the suture rather obscure, punctate, the impressions less distinct than on the thorax, and towards the suture somewhat disposed in lines: body pale ferruginous beneath, scarcely pubescent: legs pale testaceous: antennae brownish, with the club paler. More deeply punctate, and clothed with a longer pubescence than the following species.


Sp. 7. fumatus. Oblongo-ovatus testaceus, tenuis punctatus, pubescens, thorace subquadrate, lateribus obtuse bidentatis. (Long. corp. 1 lin.)


Oblong-ovate, testaceous, slightly but thickly punctate, and finely pubescent: head and antennae as in the last: thorax subquadrate, rather elongate, the lateral margins nearly straight, with an obtuse tooth at the anterior angle, and a minute slightly prominent one in the middle, the disc slightly convex: elytra ovate, but little convex, clothed with a delicate pale pubescence: body obscurely testaceous beneath: legs paler. Differs from the last in being much less deeply punctate, of a paler colour, and clothed with a much shorter pubescence; as well as in the form of the thorax, by which characters it chiefly differs from the two or three following species.

Far from uncommon near London, frequenting the vicinity of houses, stables, &c. "Taken at the Willows (near Swansea), not common."—L. W. Dillwyn, Esq.


Less than the last: oblong-ovate, rufo-testaceous, slightly pubescent: head and thorax rather brighter rufous than the elytra, which are somewhat ochraceous, and acute at the tip, clothed with a very short, pale down, and obsolesently punctulated throughout, the puncta towards the suture disposed in lines: the thorax is short, broader anteriorly than behind, the disc somewhat convex, the lateral margins with the anterior angle forming an obtuse recurved tooth, and
an obsolete denticulation towards the middle; the space from thence to the base finely crenulated; legs and antennæ pale rufo-ferruginous.

Smaller than either of the foregoing; less distinctly punctate; the sides of the thorax less denticulated and somewhat crenulated.

Frequently taken in the metropolitan district; also in Suffolk.


Rather oblong, of a deep rufo-ferruginous, thickly punctate, pubescent: antennæ ferruginous, rather slender, with the tip paler: thorax subquadrate, rather broader anteriorly than its length, and narrower posteriorly, the disc rather convex, finely punctulate and slightly pubescent; the lateral margin with the anterior angle somewhat reflexed and produced into an obtuse tooth, from thence to the hinder angle finely serrated; elytra elongate: body rufo-testaceus: legs paler.

The crenulated bidentate margin to the thorax, as well as the greater length and convexity of the insect, although of smaller size, distinguish this species from the preceding.

Not very abundant; found chiefly on the spruce fir, and also in houses, &c., near London, at Bristol, &c. "Near Swansea."—L. W. Dillwyn, Esq.

Sp. 10. cellaris. Oblongo-ovatus, fusco-ferrugineus, pubescens, elytris nigro-fusci, thorace brevi lateribus bidentatis, posticis crenatis. (Long. corp. 1—1¼ lin.)


Oblong-ovate, fusco-ferruginous, slightly punctate and pubescent; thorax short, the disc slightly convex, thickly and somewhat faintly punctured, the margin, especially the posterior, dusky, the lateral ones produced at the anterior angle into an oblique acuminated tooth, and in the middle into an acute prominent one; from thence to the posterior angle very finely crenulated; scutellum black; elytra acute, clothed with a pale pubescence, sometimes entirely black, at others with the base dull ferruginous, or entirely pale testaceus; body beneath pitchy-ferruginous; the apex paler; legs pale testaceus.

Very variable; in some instances the entire surface is rufo-testaceus.

The posteriorly crenulated and bidentate lateral margins of the thorax, and usually deep fuscous or black elytra, with the base more or less ferruginous, are the most evident characters.

In certain years this insect is far from uncommon in particular situations: in the autumn of 1815 I found a considerable quantity of specimens in an old house that was undergoing repair, at Hert-
ford, and a few in the following spring:—it also occurs beneath the bark of trees, in dunghills, &c. "Ensham, Oxon."—Mr. Westwood.

Sp. 11. serratus. Oblongo-ovatus, fusco-ferrugineus, pubescens, thorace subrotundato postice scrobiculato, lateribus serrulatis, elytris punctulatis. (Long. corp. 1 lin.)


Oblong-ovate, fusco-ferruginous, pubescent, deeply punctate; thorax subquadrate, with the margins a little rounded and serrated, the disc glossy, black, convex; elytra oblong, slightly convex, a little punctulate: clothed with rather long pubescence; pitchy-brown, with the apex somewhat paler: body pitchy-black, with the tip paler: antennae and legs pale rufo-ferruginous.

Some examples are of a paler colour;—probably immature.

The rounded margins to the thorax, giving that part a rounded appearance, combined with their crenulations and the absence of a denticle towards their middle, at once point out the characters of this species.

Common throughout the metropolitan district, especially in the autumn and spring. "Not uncommon under bark (near Swansea), and Mr. Jeffreys has found it rather plentiful in the decaying flowers of Ilex europaeus in May."—L. W. Dillwyn, Esq.

Sp. 12. ruficornis. Oblongo-ovatus, rufo-piceus, crebrè punctatus, subpubescens, capite elytrorumque apicibus dilutioribus, antennis rufis. (Long. corp. 1 lin.)


Oblong-ovate, deep rufo-piceous, with the head and apex of the elytra pale, the latter especially: the thorax short, subquadrate, with the lateral margins produced into a sharp denticle at the anterior angle, and a second about the middle, less distinct and somewhat obtuse: the elytra are rather deeply and very distinctly punctate throughout, the punctures disposed in lines, especially near the suture: the head and thorax are both rather coarsely punctate: legs pale ferruginous: antennæ rufous.

The bright rufous antennae of this species, with the deep colour of the elytra, and the coarsely punctate surface, distinguish this small species from its congener.

Taken within the metropolitan district.

B. With the lateral margins of the thorax very obsoletely crenulated: the tarsi with the second and third joints bilobed*.

* The two insects which belong to this section of Cryptophagus differ in several points from the type of that genus, and will probably hereafter be formed into a genus;—in the structure of the tarsi they closely resemble the insects of the following genus, with which Latreille unites one of the species, but in other points they disagree.


Oblong, black, thickly clothed with an ashy-greenish silken pubescence: head triangular, thickly punctured; thorax rather long, the base and apex truncate, the posterior angles slightly acuminate; the lateral margins regularly dilated and rounded, and rather obsolescetely crenulated; the disc very convex, black, finely punctured, and densely pubescent: elytra rather long, the apex rounded, very convex, thickly but irregularly punctate: body pitchy-black beneath, punctulate, the apex pale testaceous: legs short, pale rufo-testaceous; tarsi fuscescent.

From the following this is distinguished by having the tarsi and legs concolorous, the thorax more elongate, the antennae rather shorter; and by its smaller size.

Found in marshy places, but not common. “Taken by Dr. Leach on Crwmlyn Burrows.”—L. W. Dillwyn, Esq.


Oblong, black, clothed with a silken down, with the antennae, legs and tarsi of a pale testaceous; the thorax short, transverse, anteriorly truncate, posteriorly subinuated; the angles slightly prominent: elytra fuscous-black, clothed with cinereous down: body beneath pitchy-testaceous, with the apex paler.

Distinguished from the foregoing by having the thorax shorter, the antennae rather longer and more slender, the elytra clothed with a cinereous down, and the legs and tarsi of one colour, pale testaceous.

Found in marshy places throughout the metropolitan district, but not very abundant. “On the flowers of Caltha palustris, and on other aquatic plants, not uncommon, particularly about Crwmlyn Bog.”—L. W. Dillwyn, Esq. “Aquatic plants, Copenhagen-fields, June.”—Mr. Ingpen. “Cambridgeshire and North Wales.”—C. Darwin, Esq.

Genus CXLIV.—Byturus, Latreille.

Antennae shorter than the thorax, the two first joints robust, the first slightly elongate, the second ovate, the three following short, obconic, of equal length, the three next shorter, slightly stouter, the remainder forming an elongate club, the two first joints of which are transverse-trigonate, the last larger and subacuminate. Palpi filiform: head trigonate, narrowed anteriorly: eyes large, globose: thorax subtrapeziform, broader behind, with the angles distinct,
MANDIBULATA.—COLEOPTERA.

acute: elytra elongate, narrow, attenuated behind, and covering the abdomen: body oval: tibiae slender; tarsi with the basal joint small, the second and third joint bilobed, the fourth minute, concealed within the lobes of the preceding; claws long, bent.

Byturus agrees with the insects of the last section of Cryptophagus in having the third joint of the tarsi bilobed, but it differs from them in the structure of the antennæ and in the form of body; from Mycetaea and the other kindred genera it differs also by the same characters:—the only indigenous species frequents flowers.


Piceous-brown or testaceous, densely clothed with a short griseous pubescence: head narrowed anteriorly, forehead depressed, punctate; mouth testaceous; eyes large, globose, black: thorax truncate anteriorly, subsinuated posteriorly, and rather wide; the disc convex, punctate: scutellum small, rounded, obtuse: elytra oblong convex, attenuated posteriorly, thickly punctate, and densely pubescent: body beneath fusco-piceous, pubescent, the apex paler: legs anteriorly pale testaceous.

The colour of this species varies greatly; occurring of various shades of testaceous, yellowish, piceous, and brown; sometimes rufescens: the thorax is occasionally fuscosus or rufous, and the elytra testaceous or piceous.

Extremely common in flowers, not only throughout the metropolitan district, but also in other parts of the country. "Near Swansea."—L. W. Dillwyn, Esq.

**Genus CXLV.—Mycetœa, Kirby.**

Antenne about as long as the thorax, the basal joint large, robust, subcylindric, the second small, slightly elongate cylindric; the third to the eighth shorter, more slender, and of uniform length; the ninth rather larger, transverse, cup-shaped; the tenth still larger, subglobose; the eleventh very large, ovate obtuse. Palpi short, minute, the terminal joint subulated: head subquadrate, convex; eyes small, nearly prominent: thorax short, transverse, emarginate anteriorly, the lateral margins slightly rounded, entire, with a distinct elevated line parallel thereto on the disc: elytra ovate, convex, punctate-striated, entire, acute at the apex: body convex: legs rather short: tibia simple: tarsi, anterior with an appendage at the base.

The singular genus Mycetœa may be known from Byturus, by the different structure of its antennæ, its short, convex form, subulated palpi, the elevated line on the thorax, and other less
evident characters; from Cryptophagus it differs by the integrity of the margin of the thorax, and from Phloiophilus by the form of its antennae:—it feeds on fungi.

Sp. 1. fumata.—Plate xvii. f. 1.—Oblongo-ovatus, subconvexus, ochraceo-testaceus, pilis brevioribus tectus. (Long. corp. 1½ lin.)
Oblong-ovate, slightly convex, pale ochraceous-testaceous, the head and thorax somewhat ferruginous, impunctate: elytra finely punctate-striated, clothed with minute pale hairs: legs and antennae pale testaceous.
The synonyma given in my Systematic Catalogue, as above quoted, with the exception of the above reference to Marsham, I suspect belong rather to Typhaea tomentosa than to the present insect, which so far as I can ascertain appears to be unknown to the continental writers.

Four examples only of this singular insect have come under my inspection: one in the cabinet of the Rev. W. Kirby, a pair in that of J. Scales, Esq. of Beachanwell, and one in my own: of their localities I am ignorant.

Genus CXLVI.—Phloiophilus, Waterhouse MSS.

Antennae rather longer than the thorax, the two basal joints incrassated, subglobose; the third to the eighth gradually shortened, the last being shortest, and the fifth nearly as long as the third; the three terminal ones nearly of equal bulk, forming a distinct club. Palpi with the terminal joint conieacute: head subtriangular, rounded anteriorly: thorax very short, elliptic-transverse, the lateral margins gradually rounded, the anterior and posterior angles being obsolete, the hinder margin sinuated: body elongate-ovate: elytra entire, slightly convex: legs rather slender, tibiae and tarsi slender.

This genus is distinguished by having the two basal joints of the antennae, as well as the three terminal ones, considerably incrassated; by the former of which characters it differs from all the genera of this family, excepting the two first—Trichopteryx and Anisarthria—in which the articulations in question are elongate, while in Phloiophilus they are subglobose: and the insects are giants compared with their pygmy brethren belonging to the two genera above mentioned.

†Sp. 1. Edwardsii. Plate xviii. f. 1.—Ater, tennē pubescens, elytris pallide-testaceo variegatis, antennarum basi tarsiisque piceo-rufis. (Long. corp. 1½ lin.)
Ph. Edwardsii. Waterhouse MSS.

Deep black, clothed with a short pale griseous or golden pubescence; head thickly and coarsely punctate; mouth piceous: thorax also very coarsely and
thickly punctate, the disc slightly convex, with a large, somewhat indistinct, fovea on each side, and towards the base of the lateral margin a deep impressed space: elytra rather deeply and somewhat coarsely punctate, black, the disc variegated with irregular pale testaceous patches and marks: legs black, with the joints slightly piceous, and the tarsi rufescent: antennae black, with the base rufescent.

I have seen one example only, which was captured last spring in “Kensington-gardens, in a decayed elm.”—T. W. Edwards, Esq.


Rather short, rufo-testaceus, clothed with very short pale down; head somewhat dusky, rather large, finely punctured; thorax rather bright, also finely punctured, with an obsolete fovea on the disc on each side, and an irregular impressed transverse line towards the posterior margin: elytra pale testaceous, rather deeply punctured, with some irregular obsolete black spots and markings; two of which, placed one behind the other near the suture, are more distinct, as well as an elongate oblique one on the shoulder: legs and antennae pale testaceous: abdomen somewhat piceous in the middle beneath.

Of this insect I have also seen but one specimen, which was found—“Near Cobham, Surry, in September last.”—A. Cooper, Esq.

† Sp. 3. bimaculatus. Testaceus, elytris maculâ rotundâtâ nigrâ. (Long. corp. 1? lin.) Ph. bimaculatus mihi.

Testaceous; each elytron with a large rounded black spot in the middle.

A single example of this insect, which I caught in the spring of 1811, near Barnet, and gave to the British museum collection in 1816 is the only one I have seen; but as the insect has not yet been placed in the Cabinet, and so many years have elapsed since I saw it, I may be mistaken in referring it to the present genus, though I have but little doubt of being correct in my opinion.

Genus CXLVII.—Triphyllus, Megner.

Antennæ scarcely as long as the thorax, the basal joint slightly incrassated, sub-globose, the second more slender, shorter than the third, which is elongate subclavate, the fourth to the sixth short, slender, the two following rather larger, truncate, the three terminal ones much stouter, the two first truncate, the terminal one ovate. Palpi with the terminal joint ovate-truncate; head subtriangular, small: thorax transverse, the lateral margins obscurely crenulated or entire, the disc slightly convex: elytra ovate, convex, punctate: legs
rather slender, tarsi elongated, the first and fourth joints much longer than the intermediate.

Triphylus is with facility known from Mycetophagus by the three last joints alone of the antennæ forming the club, which is somewhat abrupt; from Phloiophilus it differs in having but one of the basal joints incassated, and the thorax angulated posteriorly.

Sp. 1. punctatus. Plate xvii. f. 2.—Pilosus, ferrugineus, elytris crebre, vagèque punctatis, fusco-castaneis, basi punctoque intra apicem ferrugineis. (Long. corp. 1½ lin.)


Pilose, rather convex: head dull ferruginous, thickly and deeply punctate, with a transverse impressed stria above the eyes, which are dusky: thorax with the margin obscurely crenulated, the base somewhat sinuated, the disc convex, deep ferruginous, thickly and deeply punctured: elytra as broad as the thorax at the base, convex, subemarginated anteriorly, thickly, coarsely and irregularly punctate, castaneous-black, or pale fuscous-brown, the base transversely ferruginous, and a small, more or less distinct, ovate spot of the same colour towards the apex: body beneath ferruginous, pubescent, the breast rather dusky and scarcely punctate: legs and antennæ ferruginous.

Not very abundant; sometimes beaten out of the thick herbage in the lane leading to Darent-wood from the house, and occasionally near Coombe: it also inhabits Norfolk, Suffolk, &c. "Netley and North Wales."—Rev. F. W. Hope.

Sp. 2. bifasciatus. Niger, pubescens, antennarum basi pedibusque ferrugineis, elytris vagi; punctatis, fasciis duabus apiceque pallidi; testaceis. (Long. corp. 1—1½ lin.)


Black, pubescent; head opaque, thickly and finely punctate, mouth rufo-piceous: thorax scarcely emarginated, the sides rounded, immarginated, the base a little waved; the disc convex, thickly rugose-punctate; the posterior angles and lateral margin from the middle pellucid; elytra slightly convex and glossy, thickly, finely and irregularly rugose-punctate, and clothed with a delicate depressed pubescence; the outer margin and apex generally testaceous, with a rather large, quadrangular, testaceous spot near the shoulders, and a smaller one of similar hue, frequently united to the former, and forming an irregular arcuated fascia; a little behind the middle is another transverse bent fascia of similar colour: body piceous and slightly glossy beneath, finely punctured, pubescent: legs ferruginous: antennæ the same, with the three terminal joints black.

Somewhat rare: I once took a specimen in Copenhagen-fields,
MANDIBULATA.—COLEOPTERA.

and another in Epping Forest; it has also occurred in the New Forest, and in Norfolk. "Henault Forest."—Messrs. Chant and Bentley.

Genus CXLVIII.—Mycetophagus, Fabricius.

Antennae scarcely as long as the thorax, gradually incrassated to the apex, the five last joints forming an indistinct perfoliated club, the four basal joints of which are cup-shaped, the last more or less elongate-ovate. Palpi with the last joint rather incrassated, subtruncate: head small, triangular: eyes slightly prominent: thorax transverse, rather convex, broadest posteriorly, and closely applied to the base of the elytra, which are subovate: body ovate, slightly convex: tarsi filliform, simple, four-jointed; the males with the anterior three-jointed only.

The pretty genus Mycetophagus may be known by having the capitulum of the antennae rather indistinct, and composed of five joints; the body oval, with the thorax as broad posteriorly as the base of the elytra to which it is closely applied:—the species are found in fungi during the spring and summer months, and occasionally in the autumn; most of them are local.

Sp. 1. quadripustulatus. Ferrugineus, antennarum medio, thorace elytrisque nigris, his striato-punctatis, singulo maculis duabus flavescenti-ferrugineis. (Long. corp. 2\(\frac{1}{2}\)—3\(\frac{1}{2}\) lin.)

Chr. quadripustulata. Linne.—My. 4-maculatus. Don. vi. pl. 185. f. 5.—My. 4-punctulatus. Steph. Catal. 87. No. 943.

Ferruginous: with the antennae black in the middle, the apex testaceous: head with a deep impressed striga between the antennae: eyes blackish-brown: thorax black, narrow anteriorly, the base broad, the angles acuminated; the disc convex, finely punctured, with a deep rounded fovea on each side towards the base; elytra closely applied to the base of the thorax, as in the genus Amara; slightly convex, black, or piceous, rather obsolesly punctate- striated, each elytron with two testaceous-yellow spots, one large irregular at the base, and a small truncate one towards the apex: legs pale testaceous.

It varies a little: in some examples, the apical spot on the elytra is obliterated, and in others the two spots are more or less united by a longitudinal flavescent streak.

Common in many places throughout the metropolitan district, frequenting rotten trees, fungi, &c., in the beginning of summer. "Sometimes (near Swansea)."—L. W. Dillwyn, Esq. "In profusion at Kimpton."—Rev. G. T. Rudd. Under bark of elms and fungi at Hyde-park and Kensington-gardens, Wandsworth,
Eltham, &c., May and June."—Mr. Ingpen. "Netley, abundant."
—Rev. F. W. Hope.

Sp. 2. atomarius. Fusco-ferrugineus, supra nigre, elytris maculâ humerali, fasciâ posticâ arcuâ, punctisque disci testaceis, antennarum articulo ultimo brevi ovato. (Long. corp. 2—2½ lin.)


Ferruginous-brown; head piceous-brown, punctate; mouth testaceous, with an impression on the forehead: thorax short, truncate, the base bisinuated, the disc convex, black or piceous, finely pubescent and punctate, with a deep fovea on each side towards the base, and three obscure impressions, two on the disc, the third on the middle of the hinder margin: scutellum black: elytra black, punctate- striate, with a large quadrate pale testaceous spot on the shoulder, a little beneath, towards the suture, a small rounded one, then from three to five or six small scattered ones on the disc, afterwards a transverse arcuated abbreviated fascia, and lastly, an ovate or rounded spot towards the apex, all of the same colour: body beneath fusco-ferrugineus, with the abdomen paler: legs the same, or pale testaceous.

Rather variable in the form and colour of the spots, the latter being sometimes ferruginous:—and also in the colour of the elytra, which are occasionally pale rusty-brown, with paler markings.

Rather scarce; found occasionally near London, at Bristol, and in the New Forest. "Netley."—Rev. F. W. Hope.

Sp. 3. multipunctatus. Oblongus, ferrugineo-piceus, subpubescens, antennis pedibusque dilutioribus, thorace punctato, elytris punctato-striatis, maculis punctisque plurimis testaceis. (Long. corp. 2—2½ lin.)


Oblong: pitchy-ferruginous; slightly pubescent; with the antennæ and legs paler: the thorax punctate, with a longitudinal central stria; the elytra delicately punctate-striated; with several testaceous spots and markings, as if varied with ferruginous and black, a quadrate spot being placed on the shoulder, a rounded one near the suture, ten or twelve more or less distinct or confluent on the disc, and a larger rounded one at the apex: the body beneath pitchy-brown, or dull ferruginous.

The number and size of the spots on the elytra vary considerably, and the insect is frequently testaceous, with the elytra paler, and the markings more or less obsolete.

Not common in the metropolitan district; found at Coombe,
also near Bristol, in Norfolk, Devonshire, &c. "Near Swansea, not common."—L. W. Dillwyn, Esq. "Netley."—Rev. F. W. Hope.

Sp. 4. variabilis. Piceo-ferrugineus, elytris nigro-piceis, basi maculisque ferrugineis, antennarum articulo ultimo longiori, pallido. (Long. corp. 2—2½ lin.)


Pitchy-ferruginous or black, the antennae dusky-ferruginous, with the last joint large and pale ochraceous: elytra pitchy-black, faintly punctate-striate, and slightly pubescent, the base with a broad ferruginous belt, in which is a sub-quadrate dusky or black spot; surrounding the scutellum, behind the middle, is a variable, abbreviated testaceous fascia, sometimes simple, at others arcuated or truncate, with a minute adjoining spot; and near the apex is a rounded spot of variable dimensions and similar colour: body pale ferruginous beneath: legs slender, ferruginous, or pale testaceous.

Extremely variable; especially in the form and markings of the spots on the elytra, scarcely two individuals agreeing precisely with each other: the spots and fasciae being more or less confluent, and variable from testaceous to light ferruginous; the ground colour is also frequently black, and sometimes pale ferruginous.

Occasionally taken within the metropolitan district, also in Devonshire, near Bristol; in Norfolk, Suffolk, &c. "In the neighbourhood of Swansea."—L. W. Dillwyn, Esq. "Netley."—Rev. F. W. Hope.


Rufo-ferruginous, slightly pubescent; thorax very obscurely punctate: elytra pale, very delicately punctulate, faintly punctate-striate; with an obscure fascia in the middle, and a patch at the apex, fuscous: the latter with an obsolete pale spot: body beneath rufo-testaceous: legs pale rufo-testaceous, or ferruginous.

The insect answering to the above description in my cabinet is the Boletaria rufa of Marsham, but it seems too closely allied to My. variabilis to be really distinct from that species; its chief distinction consisting in the disposition of the colouring on the elytra, and some trifling variation in form.

One of my specimens was taken near London, the other I obtained from the Marshamian cabinet: the insect has occurred in Norfolk.
Genus CXLIX.—Biphyllus, De Jean.

Antennæ shorter than the thorax, the basal joint large, robust, obconic, the second rather less, also obconic: the seven following somewhat slender, very short, slightly increasing to the end: the tenth very large, perfoliate, obconic, truncate: the last scarcely so broad as the tenth, rounded. Palpi short; the last joint slightly attenuated, truncate: head small, depressed: eyes small, slightly prominent: thorax rather narrowed anteriorly, subsinuated on the hinder margin, the lateral margins slightly rounded, subcrenate, ciliated, with a longitudinal elevated line on each side parallel with the edge: scutellum rounded: body oblong-ovate, slightly convex: elytra entire: legs rather short; tarsi quadriarticulate?

Biphyllus is distinguished from all the preceding genera of this family and all the following, excepting Bitoma, Lyctus, and Xylotragus, by the biarticulate club of the antennæ, but from the latter it may be known by the brevity and convexity of the body, combined with the elevated costa parallel with the lateral margin of the thorax.


Pitchy, or deep, black; slightly pubescent: head finely punctate, with the mouth pale testaceous: eyes brownish: thorax slightly emarginate anteriorly, a little convex, and shining and somewhat thickly punctate: scutellum piceous: Mandibulata. Vol. III. 31st July, 1830.
elytra scarcely broader than the thorax at the base, dilated in the middle, the apex obtusely rounded, slightly convex, pitchy-black, and rather glossy, somewhat deeply punctate-striate, the interstices a little rugose; near the suture on each elytron is a lunate patch, composed of a dense cinereous pubescence, and at the apex a minute round one of similar character: body pale nigro-piceus beneath: legs and antennæ ferruginous.

Rare near London; specimens have been captured in Coombe-wood and other places within the metropolitan district. "Under the bark of ash (near Swansea)."—L. W. Dillwyn, Esq. "In plenty on an old ash at Kimpton."—Rev. G. T. Rudd. "Netley, &c."—Rev. F. W. Hope.

Genus CL.—Triplax, Paykull.

Antennæ rather short, stout, the basal joint a little incrassated; the second to the seventh short, of nearly equal length and bulk; the eighth slightly larger, somewhat cup-shaped; the three following form an elongate obtuse club, the two basal joints of which are transverse, the terminal ovate, obtuse. Palpi unequal, short, the terminal joint secundiform: head triangular, slightly convex: eyes a little prominent: thorax convex, the lateral margins entire, the base nearly as broad as that of the elytra, the latter oblong-ovate, entire: body elongate-ovate: legs rather short, simple: tarsi obscurely four-jointed, the third joint bilobed, the fourth hidden within the lobe of the third.

Notwithstanding the species of this genus possess but four articulations to the tarsi, the present is doubtless the natural situation of the genus, as in several of the allied genera the fourth joint is more or less obsolete and occasionally completely wanting, while the insects, in common with many others of the family, are found almost exclusively in fungi and similar vegetable productions.


Oblong-ovate; glabrous, shining: head rufous, punctate: eyes black: thorax bright rufous, slightly punctate: scutellum black: elytra glossy black, faintly punctate-striated, the interstices smooth: breast blue-black, shining, punctate: abdomen glossy rufo-ferruginous: legs rufo-ferruginous, with the base of the femora dusky: antennæ black.

Considerably larger than either of the other species of this genus, with the breast black.

Not very abundant near London: I have once or twice captured it at Coombe-wood, and in hedges near Darenth. "Occasionally taken on fungi (near Swansea), and by Mr. Millard near Bristol,

Sp. 2. castanea. Oblongo-ovata, elytris castaneis, capite thoraceque flavis. (Long. corp. 2 lin.)


Oblongo-ovate, shining, glabrous: head and thorax ochraceous-yellow: eyes brown: elytra pale castaneous, very obsolely striated; antennae castaneous brown: body beneath yellowish: legs pale reddish-yellow.

I suspect that this insect—of which I possess the original specimen, described by Marsham—is a small immature variety of the preceding; it is decidedly not the Antherophagus pallens as referred to by Gyllenhal, and recently given as a second species of that genus as above referred to.

Found near London, and in Gloucestershire.

Sp. 3. aenea. Oblongo-ovata, rufo-ferruginea nitida, antennis nigris, elytris ceruleo-virescentibus, thorace postice marginato. (Long. corp. 2 lin.)


Oblongo-ovate: shining rusty-red: head punctate; eyes and antennae black: thorax punctured, its lateral and posterior edges margined: elytra bluish-green, very glossy, punctate- striate, the interstices finely punctulated: scutellum rufous: body punctulated beneath: legs reddish.

Distinguished from the two preceding by having the breast rufo-ferruginous, and from the two following by the antennae being entirely black: the scutellum rufous, and the thorax margined behind.

Not common: I once found a pair in Coombe-wood.

Sp. 4. bicolor.—Plate xvii. f. 4.—Oblongo-ovata, rufo-ferruginea, nitida, elytris nigris, antennis fusco-piceis, basi ferrugineis. (Long. corp. 2 lin.)


Oblongo-ovate, rusty-red, shining; head as in the last; eyes black: antennae ferruginous at the base, the rest pitchy-brown, with the terminal joint somewhat testaceous: thorax punctate, the disc convex; the lateral edge alone margined: scutellum rufous: elytra glossy black, rather deeply punctate- striate, the interstices irregularly punctate: body punctate: legs rusty-red.

The black elytra, with the ferruginous base of the antennae, the absence of a margin to the posterior edge of the thorax, and the greater bulk of this species, distinguish it from the former; from rufipes it may be known by the rufous scutellum, more slender form, the deeper striae on the elytra, and the rufous under surface of the body.

Rare: I possess a pair from the Marshamian collection, and I once beat a single example from a birch-tree in Coombe-wood in June.
Sp. 5. rufipes. **Plate xvii. f. 5.**—*Ovata, atra, nitida, capite thorace pedibusque pallide rufis, antenarum clavā fuscā.* (Long. corp. 1½ lin.)


Short, ovate, glossy black; with the head, thorax, and legs pale rufous; antennae the same, with the club fuscous: the head much rounded in front; the thorax very short, convex, punctate, with the lateral edges margined, the posterior one slightly waved, and bearing a delicate transverse impressed line: scutellum black: elytra glossy black, rather obscurely punctate-striate, with the interstices thickly punctulate: legs shining black beneath: the abdomen is sometimes slightly ferruginous.

Known from all the preceding by its black body; and from the following by its rufous head.

Also rare: found near Windsor.

Sp. 6. ruficollis. **Plate xvii. f. 6.**—*Oblonga, nigra, thorace pedibusque rufis, antennis castaneo-ferrugineis.* (Long. corp. 2½ lin.)


Oblong, black, shining: head broad, black: thorax bright rufous, convex, punctured; the lateral edges alone margined: scutellum and elytra deep black, glossy; the latter distinctly punctate-striate, with the interstices punctured: body beneath black, with its apex piceous; legs red: antennae rusty-chestnut.

The black head at once distinguishes this species from its congeneres.

Apparently very rare: as yet I have seen but one example, which is in my own cabinet; it was taken, I believe, near Windsor.

**Genus CII.**—**Tetratoma, Herbst.**

Antennae as long as the thorax, the basal joint large, stout, elongate; the second also robust, short, subglobose; the third long, obconic, slender; the four following very short; the remainder forming an elongate quadriarticular club, the three first joints of which are cup-shaped, the terminal one large, ovate. Palpi elongate, the last joint obconic, with the apex obliquely truncate: head small, deflexed: eyes prominent, reniform: thorax transverse, margined: body oblong, convex: legs moderate, or slightly elongate; tarsi, four anterior 5-jointed, posterior 4-jointed.

Tetratoma is readily known by having the club of the antennae composed of four joints, a structure that does not elsewhere obtain in this family: the four anterior tarsi are distinctly pentamerous, and the two posterior ones tetramerous:—the known species subsist upon fungi, or beneath the bark of trees.

Shining testaceous-red: head pitchy-black, thickly rugose-punctate: mouth prominent, with the labrum and palpi testaceous: thorax rather narrowed anteriorly, the base a little waved, all the angles and the lateral margins rounded, the disc convex, thickly punctate; pale glossy testaceous-red: scutellum pitchy: elytra shining blue-black, thickly and irregularly punctate; body beneath and legs rufo-testaceous.


† Sp. 2. Ancora. *Capite, thorace pedibusque testaceis, elytris nigris, plagâ magnâ communi lobâtâ maculisque pallidis.* (Long. corp. 1 1/2 lin.)

Head and thorax testaceous, thickly punctate: eyes black: scutellum pale testaceous: elytra rather broader than the thorax, thickly and deeply punctate, of a deep brown-black, shining, with a large common lobate pale spot on the disc, and several small ones at the base, and on the margins, variable in form and size: body pitchy-testaceous beneath, punctulate: legs testaceous: antennae testaceous-red, with the club fuscous.

Whether the Te. pallida of Curtis be an immature specimen of this species, I am not aware.

Rare; or at least very local: specimens have been taken in Henhault Forest, the woods near Highgate, Colney-hatch, and in some plenty near Southgate.

**Genus CLII.—Engis, Latreille.**

*Antennæ* short, stout, moniliform, the three terminal joints forming a large coarctate, obtuse, compressed, perfoliated club. *Palpi* with the last joint obtuse, subulated: *head* small, triangular, deeply immersed in the *thorax*, the latter short, convex, margined: *body* oblong-ovate, glabrous, shining, convex: *legs* short, robust; *tarsi* all pentamerous, the fourth joint smaller than the rest.

The short, abrupt, compressed, perfoliated, triarticulate club of the *antennæ*, with the obtuse, subulated terminal joint of the *palpi*; oblong-ovate, glabrous, convex *body*; short robust *legs*, and pentamerous *tarsi*, at once point out the peculiarities of this genus, the species of which frequent Boleti, Agarics, &c., during the spring and summer months.
Shining pitchy-black: head thickly punctulate, dull rufous; with the mouth fuscous: thorax subsinuated behind, the disc punctate: scutellum black: elytra oblong-ovate, convex, slightly punctate-striate, with an ovate rufoferruginous spot at the base, and a patch of the same hue at the apex: body with the apex ferruginous: legs and antennae rufo-testaceous, the club of the latter rather pale.

This species varies considerably in colour, apparently from immaturity: some examples being entirely of an immaculate pale testaceous, and others more or less pitchy or brown, with all intermediate shades.

Frequently met with in fungi, boleti, &c., within the metropolitan district: also found in Devonshire, Norfolk, Suffolk, &c. “Not unfrequently found among grass in woods (near Swansea).”


Glossy-black: head rufous, thickly punctate: eyes black: thorax shining rufous, the base subsinuated, and slightly margined; the disc very convex, closely punctulate: scutellum black: elytra oblong-ovate, slightly margined, thickly and finely punctate-striate, shining black, with a small ovate rufous spot on the shoulder: body beneath punctate, black, shining, with the apex reddish: legs and antennæ rufous.

Also variable in colour, dependent upon its state of maturity.

The rufous thorax, and want of the rufous patch at the apex of the elytra, distinguish this insect from the foregoing.

Not common; found within the metropolitan district; and also in Suffolk and Norfolk.
Genus CLIII.—Ips, Herbst.

Antennæ shorter than the thorax, the basal joint longest, stout, subovate or globose; the second shorter than the third, which is slightly elongate; the five following short, more or less cup-shaped; the remainder forming an ovate, compressed, coarctate, perforated club. Palpi filiform, subequal, the terminal joint subovate, truncate: head large, exserted, broad posteriorly: eyes small: thorax transverse, or subquadrate: elytra slightly truncate, leaving the apex of the abdomen exposed: body oblong-ovate, convex: legs short; femora stout; tibia dilated and compressed at the apex; the intermediate ones serrated exteriorly: tarsi five-jointed, the fourth joint minute.

The typical species of Ips, by the width of the body, resemble those of the genus Nitidula; but from that genus they differ in several characters, as above indicated: all the species subsist upon the sap of decaying trees, and are usually found beneath loose bark, where there is an exudation of sap: they are mostly rare in this country. Ips ferrugineus differs from the other species in form, and seems admirably to connect the group of this family, to which the present genus belongs, with Nemosoma and its cognate genera.

A. Body somewhat depressed, rather broad.

Sp. 1. quadriguttata. Subconvexa nigra, nitida, elytris maculis duabus flavesc-centibus, pedibus piceo-castaneis. (Long. corp. 1\textfrac{2}{3}—2\textfrac{1}{2} lin.)


Black, shining; head slightly punctate; thorax quadrangular, with the lateral and posterior edges margined: elytra ovate, convex, each with a trilobed yellowish, or whitish, spot at the base, and another towards the apex, a little behind the middle, transverse-ovate, nearly divided in the centre; legs and antennæ pitchy-chestnut, with the club of the latter dusky: body beneath black, or pitchy-red.

This species differs from the two following by its usually smaller size, and by the spots on the elytra being flavescent, ochraceous or whitish, and of dissimilar form, as above pointed out.

Taken in abundance, beneath the loose bark of felled oaks in the New Forest, by Mr. D. Bydder, in May: it has also been found near Windsor.

Sp. 2. quadripustulata. Linearis-elongata, subdepressa nigra, elytris maculis duabus rubris, anteriori sinuata. (Long. corp. 2\textfrac{1}{3} lin.)


Linear-elongate, slightly depressed, black, finely punctured: thorax transverse-quadrate, the disc rather flat, the lateral edges broadly, the posterior nar-
rowly margined: elytra each with two red spots, one at the middle of the base situated, trilobed, the other a little behind the middle transverse-ovate: legs black; tarsi piceous: antennæ black.

Larger than the foregoing, but smaller than the following, from which it differs in having the spots on the elytra of a brighter red, and the posterior one nearly divided in its centre.

Found beneath the bark of birch and sallows, in various places within the metropolitan districts, as Bexley, Coombe, Windsor, Hertford, &c.; but not common. "Near West Farley, in Kent, by Rev. W. Kirby."—Marsh. MSS. "In rotten wood, Bottisham, rare."—Rev. L. Jenyns.

Sp. 3. quadripunctata. Nigra nitida, elytris maculis duabus rubris ovatis simplicibus remotioribus. (Long. corp. 2½—3 lin.)


Subovate, glossy-black, finely punctured, rather convex: thorax with the disc convex, the lateral edges broadly and the posterior narrowly margined, the base nearly as broad as that of the elytra; the latter, ovate, with the apex rounded, each with two ovate pale reddish spots, the anterior in the middle of the base, the other, rather behind the middle, transverse: legs pitchy-castaneous, with the tarsi paler.

The remote, ovate, entire reddish or orange spots on the elytra of this insect, which is the largest in the genus, at once point out its distinction from its congeners.

Rare: found near Windsor; in the New Forest, &c., beneath the bark of the birch.

B. Body elongate cylindrical.

Sp. 4. ferruginea. Lineari-elongata, subcylindrica, convexa, punctatissima ferruginea, capite obscuriori. (Long. corp. 2½ lin.)


Linear-elongate, subcylindric, pale ferruginous, shining, thickly and rather deeply punctate; head rather fuscescent, eyes black: antennæ ferruginous, with the club dusky: thorax quadrate, convex, slightly margined: elytra linear, the apex truncate, with a single stria at the suture.

Found beneath the bark of dead pine-trees: it has occurred near Norwich, and in other parts of Norfolk; also in the vicinity of Manchester.

Genus CLIV.—Nemosoma, Latreille.

Antennæ rather longer than the head, the basal joint stout, ovate; the second less robust, short; the five following very short, gradually incrassated; the
eighth and ninth large, truncate perfoliate; the tenth also very large, ovate, and with the eighth and ninth forming a triarticulate club. **Palpi subequal**

filiform, the terminal joint much longer than the others, subcylindric, and slightly acute at the apex: **mandibles stout**; **head** very large, elongate, sulcate anteriorly, as broad as the **thorax**, the latter subcylindric, as long as the head: **eyes** small, lateral, somewhat immersed: **body** linear-elongate, cylindric: **legs** rather short, stout.

The very elongate slender form of this genus, combined with the magnitude of its head, which has a deep frontal sulcus, and the dissimilar structure of its antennae and palpi, are the most evident points of distinction between it and its allies.

Sp. 1. elongatum. **Glabrum, nigrum nitidum, antennis pedibusque rufis, elytris vage punctatis, basi maculato intra apicem testaceis, fronte profunde sulcato.**

(Long. corp. 2½—3 lin.)

**Der. elongatus.** **Linné.—Ne. elongatum.** **Steph. Catal. 90. No. 965.**

Shining black, glabrous, punctate; **head** convex, with a deep longitudinal channel on the forehead: thorax truncate at the base and apex, as broad as the head anteriorly, somewhat narrower posteriorly, the sides and base slightly margined: scutellum piceous: elytra somewhat remote from the thorax, than which they are rather broader; the base is rufo-testaceous, the apex glossy black, with an ovate rufo-testaceous spot towards the tip: **legs** rufo-testaceous; antennae ferruginous, with the club dusky.

It varies slightly in the proportion of the colour on the elytra; in some examples the anterior space is about equal to a third of their length, in others to about half; the apical spot is also larger or smaller in different individuals.

A single specimen caught by myself near Darenth-wood in June, 1815, and given to the British Museum. "In plenty during March and April last, in an old elm rail near Sydenham-wood."—**Mr. T. Ingall**, who kindly presented me with a series of the insect, and informs me that a single example has been recently captured by Dr. Howitt, out of a hawthorn bush near Nottingham.

**Genus CLV.—Synchita, Hellwig.**

**Antennae** much shorter than the thorax, rather stout, the two basal joints robust, obconic; the seven following very short, coarctate, and gradually incrasated; the tenth very large, rounded, with an obsolete, small appendage at the apex. **Palpi** filiform: **mandibles** slender, much bent: **head** small, short: **eyes** rather large and prominent: **thorax** transverse-quadrangular, the angles obtuse, the sides margined, the lateral ones crenated: **body** oblong-ovate: **elytra** with the apex rounded: **legs** short; **femora** subclavate.

**Synchita** differs from **Cerylon** in having the two basal joints of the antennae large, the head rather small, thorax transverse-qua-
drangular, the edges distinctly margined, with the angles obtuse, and
the base somewhat remote from that of the elytra.

rufo-testaceis, elytris crenato-striatis, seriâti hirsidis.* (Long. corp. 2 lin.)

Obscure dull fuscous, scabrous: head nigro-fuscous, finely punctured; mouth
and labrum testaceous: eyes black: thorax slightly convex, obsolescely punctate,
clothed with depressed griscous hairs, fuscous with the anterior margin testaceous:
elytra somewhat remote from the thorax and rather broader at the base, dilute fuscous,
with an indistinct, indeterminate obscure testaceous spot at the base; the disk rather deeply crenate-striated, with alternate rows of some-
what erect, short, pale cinereous hairs: legs and antennae ferruginous.

Found within the metropolitan district.

**Genus CLVI.—Cerylon, Latreille.**

*Antennae* shorter than the thorax, rather stout, the basal joint rather large; the
second somewhat smaller, both obconic; the seven following very short,
granular, slightly increasing in size; the tenth very large, globose, with a slight
acuminated appendage at the apex. *Palpi* filiform, unequal: *maxillary* twice
as long as the *labial*, with the last joint elongate, rather attenuated towards
the apex, truncate: *mandibles* arcuated: head broad, exerted: *eyes* globose,
prominent: *thorax quadrato*: *body* oblong-ovate: *legs* rather short; *femora*
slightly clavate; *tibiae* rather broad at the apex.

From Synchita this genus may be distinguished by having the
basal joint of the antennae considerably larger than the following,
the head broad, deeply inserted in the thorax, the latter immarginate,
quadrate, with its hinder margin closely applied to the base of the
elytra, the body oblong-ovate, and in other less evident characters.

Sp. 1. hysteroides. *Depressum, nigrum, nitidum, glabrum, antennis pedibusque
rufo-testaceis, elytris obsolesè punctato-striatis.* (Long. corp. 1 ¼—1 ¾ lin.)

Depressed, black, shining, glabrous: head finely punctured: eyes black: mouth
and labrum ferruginous: thorax deeply punctate, immarginate; the base ob-
solescely bisinuated; closely applied to that of the elytra, the latter as broad as
the thorax anteriorly, the sides slightly dilated, the disc a little convex, ob-
solescely punctate-striated; the apex rounded: body pitchy-black beneath:
legs testaceous or obscure rufo-piceous.

Varies a little in colour, according to its state of maturity; being sometimes en-
tirely of a chestnut hue, or ferruginous, or testaceous.
Found occasionally within the metropolitan district beneath the bark of trees: also in Devonshire, Somersetshire, Norfolk, Suffolk, the New Forest, &c. "Not uncommon under the bark of decaying trees (near Swansea)."—L. W. Dillwyn, Esq. "Windsor."—Mr. Westwood.

Sp. 2. pilicorne. 
Oblongum, piceum, antennarum apice pallido piloso. (Long. corp. 1½ lin.)


Oblong, depressed, piceous, head and thorax punctured, the latter rather broad: elytra striated, the striae somewhat obsolete: legs rufous: antennae ferruginous, with the apex pale and slightly pilose.

Probably a variety of the foregoing, from which it chiefly differs in being rather more elongate, of a paler hue, with the apex of the antennae distinctly paler, and very considerably pilose:—probably the Ce. deplanatum of Gyllenhal.

Found beneath the bark of the oak, within the metropolitan district.

Sp. 3. picipes.

Nigrum, nitidum, antennis pedibusque piceis, elytris substriatis. (Long. corp. 1—1¼ lin.)

Ips picipes. Olivier.?—Steph. Catal. 91. No. 969.

Black, shining: head punctured: thorax smooth, obscurely punctulate: elytra obsoletely striated: antennae and legs pitchy and dull ferruginous.

Genus CLVII.—Tribolium, Mac Leay.

Antennae with the eight basal joints nearly equal, subglobose; scarcely incrassated towards the apex, the three terminal ones forming a loose perfoliated club, the two first joints of which are somewhat bowl-shaped, the terminal one transverse, oval. Thorax transverse-quadrat, slightly margined: body sublinear, rather depressed: tarsi pentamerous, the fourth joint being minute.

†Sp. 1. castaneum. Ferrugineum, capite thoraceque subtilissime punctatis; elytris punctato-striatis. (Long. corp. 2 lin.)


Ferruginous, with the head and thorax finely punctured, the elytra punctate-striate: body beneath dull piceous: antennae with the apex pale: legs rufous.

Mac Leay, in the Annulosa Javanica, says, "Tribolium castaneum is often to be found in collections as an English insect, but is only, as I suspect, a visiter of our island." Which last remark is probably correct, as the insect is a native of India and Java.
The smooth obscurely punctured thorax, and dull ferruginous legs and antennae of this insect, are its chief characters of distinction.

Found near London; in Suffolk, Norfolk, and in other parts of the kingdom, beneath bark; not very common. "Near Swansea, under bark."—L. W. Dillwyn, Esq.

Sp. 4. ferrugineum. Elongatum, ferrugineum, subopacum, antennis pedibusque testaceis, thorace oblongo, postice subbifoveolato, elytris substriatis. (Long. corp. 1 lin.)


Elongate, ferruginous, rather opaque, with the antennae and legs testaceous, the thorax oblong, with two obscure foveae towards the hinder margin, the disc slightly convex and finely punctured; elytra rounded at the apex, the disc a little convex, rather faintly striate, the interstices rugose, and clothed with very short fine cinereous hairs: eyes dusky.

This species differs from the foregoing by having the thorax elongate, and the body more linear, and slightly in its sculpture.

Found near London. "Gardens, Chelsea, May."—Mr. Ingpen.

Sp. 5. obsoletum. Oblongum, rufum, nitidissimum, glabrum, fortius punctulatum, thoracis lateribus dilatatis. (Long. corp. $\frac{3}{4}$—1 lin.)


Oblong, rufous or ferrugineo-castaneous, very glossy, glabrous, deeply punctured, especially on the elytra; the lateral margins of the thorax dilated: legs and antennae pale ferruginous.

The dilated sides of the thorax at once distinguish this from all the preceding species.

I doubt whether this species be truly indigenous; it is usually found in rice or flour that has been long kept; though occasionally taken at large, but in somewhat suspicious places.

Found in and about London; also in Suffolk, and near Hull: in June, 1826, I caught several specimens flying in a garden at Hertford.

**Genus CLVIII.—Cicones, Curtis.**

Antennae with the two first joints globose, stout, the second least: the seven following more slender, gradually increasing in diameter; the tenth very large, orbicular, pubescent, without a conical appendage. Palpi with the terminal joint ovate, subacute: head inserted up to the eyes in the thorax, which is gibbous, subquadrature, margined, and rather remote from the base of the elytra,
which latter are ovate: legs moderate; femora slightly elongate, subclavate; tibiae simple; tarsi distinctly four-jointed.

It appears to me far more natural to place this genus near Cerylon than amongst the Bostricidae, to which family it has hitherto been referred; the structure of its antennæ, &c., and the form of its body, with its general habit, being more intimately allied to the genus above alluded to than to any of the Bostricidae. From the other species of Engidae with the club of the antennæ uniarticate, Cicones may be readily known by the terminal (or tenth) joint wanting a pointed appendage.

†Sp. I. Carpini. Castaneo-niger, subpubescens, punctatus, elytris maculis aliquot obscurè aurantiacis, pedibus ferrugineis, antennis ochraceis. (Long. corp. 2 lin.)

"Castaneous-black, sparingly covered with stiff yellow bristles: head minutely and thickly punctured: thorax with two obtuse elevations near the middle, behind rugosely punctured: elytra very convex, with three elevated longitudinal lines and a punctured stria on each, more castaneous than the thorax, having an oblique spot near the anterior angle, three near the middle, a transverse lunulated mark, and another near the apex, dull orange: antennæ ochraceous: legs pilose, ferruginous."—Curtis, l. c.

Taken beneath the bark of the hornbeam in Epping Forest, in March, 1826.

Genus CLIX.—Rhyzophagus, Herbst.

Antennæ much shorter than the thorax, the basal joint large, clavate; the second much less, truncate; the third obconic, with the base narrower; the six following very short, coarctate, rather thickening exteriorly; the tenth very large, rounded, pilose, with an obscure rudiment of another joint at the tip. Palpi very short, filiform: head exserted, suddenly contracted before the insertion of the antennæ: eyes small, globosè: thorax subquadrate, its lateral margins entire: body linear-elongate: elytra truncate: legs rather short; tibiae broad at the apex: tarsi, four anterior apparently pentamerous, the two posterior tetramerous.

Rhyzophagus is distinguished from Monotoma by having the lateral margins of the thorax entire, as well as by less evident characters, and from Cerylon and Synchita by the distinctly abbreviated, truncate, elytra; the filiform palpi; elongate-linear body, the dissimilarity in the form of the head, &c.:—the species are found.
beneath the bark of decaying or dead trees, and are usually found in the spring.


Shining *rufo-ferruginous,* or piccous, glabrous; head finely punctured, with a fovea on each side: eyes dusky: thorax coarsely punctured, the disc rather convex: elytra slightly convex, deeply punctate-striate: body beneath *rufo-ferruginous,* rather finely punctate: legs pale testaceous: antennae with the base and apex ferruginous, the middle pitchy-brown.

Larger than the other species of the genus: differs from the three following in having the thorax more convex and very coarsely punctate, the elytra also more convex and rather deeply punctate-striate, the antennae dusky in the middle.

Not uncommon in the neighbourhood of London: found in Battersea-fields, near Wandsworth, South Lambeth, &c.; also at Hertford and Ripley. "Among grass in woods, not common (near Swansea)."—*L. W. Dillwyn, Esq.*

Sp. 2. cylindricus. *Cylindricus, ferrugineus, thorace subpunctato, elytris profundis punctato-striatis.* (Long. corp. 2½ lin.)


Cylindric, ferruginous, shining, glabrous: head rather smooth: thorax slightly elongate-quadrate, rather sparingly punctate: elytra deeply punctate-striate: body beneath, antennae and legs ferruginous, the latter rather palest.

From the preceding this species differs in being more cylindric, less punctate on the head and thorax, and smaller. If Panzer's figure be correct, it cannot represent an insect of this genus; the club of the antenne being triarticulate, the apex of the elytra not truncate, the fovea dissimilar, &c.: though as he gives a magnified figure of the former it is doubtless given from nature: but notwithstanding these discrepancies, my reference has been explicitly followed in a work professing to be original.

Found near London.

Sp. 3. rufus. *Augustus, rufo-ferrugineus, nitidus, glaber, thorace tenui punctato, elytris subtilissimi punctato-striatis.* (Long. corp. 2 lin.)


Rather slender, *rufo-ferruginous,* shining, glabrous; the thorax very finely punctate, the disc slightly convex: elytra a little convex, faintly punctate-striate, the punctures somewhat distinct.

In some respects this insect appears to resemble Rhy. *cribratus* of Gyllenhal, but
it differs in not having the second interstice between the striae on the elytra wider than the others, and punctate throughout its basal half. Rh. rufus is distinguished from the preceding by having the punctures on the thorax very minute, and the striae on the elytra rather remotely punctate.

Found within the metropolitan district, and, I believe, in other parts. "Bottisham, on timber."—Rev. L. Jenyns.

Sp. 4. dispar. *Linearis, nitidus, thorace suboblongo, subtiliter punctulato, posticé angustiori, elytris punctato- striatis.* (Long. corp. 1—1½ lin.)

Linear, shining, colour variable: the thorax rather elongate, very finely punctured, and slightly narrowed at the base: the elytra punctate-striate, slightly convex, the base and apex more or less rufo-ferruginous, the centre with a black or piceous fascia: antennæ and legs ferruginous.

In some examples the thorax above, the breast and base of the abdomen are pitchy-black: others are entirely rufo-ferruginous, with the exception of the fascia on the elytra.

Found near London, but not common. "Occasionally found beneath the bark of oaks (near Swansea)."—L. W. Dillwyn, Esq.

Sp. 5. bipustulatus. *Niger aut nigro-piceus, nitidus, glaber, antennis pedibusque ferrugineis, elytris maculâ ferrugineâ ante apicem.* (Long. corp. 1½ lin.)

Black or pitchy-black, shining, glabrous: head punctate, with the mouth ferruginous: thorax transverse, rather narrowed posteriorly, punctate: elytra punctate-striate, with a ferruginous spot near the apex, and sometimes a second at the base: antennæ and legs ferruginous, the club of the former palest.

Some examples are entirely testaceous, or very pale ferruginous; arising probably from immaturity.

Not uncommon in Battersea-fields beneath the bark of decaying trees, and at the roots of grass. "Under bark of decayed elms, in Kensington Gardens, in the winter."—Mr. Ingpen.

Sp. 6. parvulus. *Nigro-piceus, nitidus, subdepressus, antennis pedibusque ferrugineis, thorace subquadrato, subtiliter punctato, elytris testaceis punctato-striatis.* (Long. corp. 1 lin.)

Shining pitchy-black, somewhat depressed; head piceous, anteriorly testaceous, very finely punctured: eyes black: thorax subquadrato, slightly depressed, and finely punctate: elytra glossy testaceous, sometimes a little clouded with fuscous; slightly convex, punctate-striate, the striae distinct: body beneath pitchy, with the apex rufous; antennæ and legs ferruginous.
The small size of this insect, with its somewhat depressed body, finely punctured thorax and pale elytra distinguish it from its allies.

Found near London.

Genus CLX.—Monotoma, Herbst.

Antennæ shorter than the thorax, rather stout, the basal joint obconic, very large: the second smaller, the seven following very short, granular; the tenth large, globose, with an acute appendage at the tip. Palpi unequal, sub-filiform; the maxillary with the last joint elongate, attenuated to the apex, truncate: head large, porrect, triangular: eyes globose, prominent: the vertex with an angular prominence: thorax oblong-quadrate, truncate anteriorly, with the angles acuminated, prominent, the lateral margins crenulated: body oblong-ovate, depressed; elytra broader than the thorax at the base; the apex truncate; the abdomen exposed at the tip: legs short; femora clavate.

Monotoma differs from Rhyzophagus by having the sides of the thorax crenulated; the thorax itself oblong-quadrate, and considerably narrower than the base of the elytra, which latter are very distinctly truncate: the palpi are less filiform, and the femora manifestly clavate: the head is not so suddenly narrowed before the eyes, and the body is more depressed:—from the following genera its truncate elytra distinguish it with facility.


Dull obscure black: slightly hispid, with the antennæ and legs rusty-red, the thorax oblong-quadrate, with its lateral margins finely crenated, the disc slightly convex, rather deeply punctured, with two oblong, rather oblique, foveolæ near the base: elytra broader than the thorax, with the apex truncate; the disc slightly convex crenate-striate, with the interstices transversely rugulose and clothed with very short cinereous hairs. Slightly variable in colour:—arising from immaturity.

Taken beneath the bark of trees; in putrid wood; also in houses and windows, but not very abundantly. Found in Norfolk, Devonshire, Battersea-fields, and other parts of the metropolitan district. "Petworth, Sussex, September."—Mr. Westwood.

Sp. 2. angustata. Angustata piceo-nigra, antennis pedibusque ferrugineis, thorace posticè impresso. (Long. corp. 3 lin.)

Allied to the foregoing, but narrower and more glossy; pitchy-black, punctuated, the punctures rather shallow; the thorax rather oblong, with two approximating deeply impressed fovee behind: elytra very obsoletely striated: antennae and legs ferruginous.

Found near London. "Taken in Suffolk in May, by Mr. Kirby."—Marsham MSS.

Sp. 3. pallida. Angustata, pallide testacea, capite piceo, antennis pedibusque pallidis. (Long. corp. $\frac{3}{4}$—1 lin.)


Narrow, pale testaceous, slightly glossy: the head pitchy, the antennae and legs pale.

The form of the preceding, but somewhat larger: it may however be an immature state thereof; its principal difference consisting in the pale colour.

Found near London, and in Norfolk.

Genus CLXI.—Crypta, Kirby MSS.

Antennae considerably longer than the head and thorax combined, the basal joint robust, large, cylindric; second short, subglobose; the third to the tenth nearly of equal length and very slightly increasing in bulk towards the apex; the eleventh rather larger ovate-acuminate. Palpi with the terminal joint securiform: mandibles rather prominent: head broad, correct and attenuated in front: eyes large, prominent: thorax subcylindric, slightly margined on the sides: elytra entire, rounded at the apex: body slightly convex, elongate-ovate: legs rather short, stout; femora slightly incrassated; tarsi somewhat dilated.

The securiform palpi of this genus at once distinguishes it from all the other genera of the present section of the family; and its gradually thickened and scarcely clavate antennae also form a peculiarity.

Sp. 1. bipunctata. Testacea, capite abdomen punctoque versus apicem elytrorum nigris. (Long. corp. 2—$2\frac{1}{2}$ lin.)


Testacea: head black or pitchy: thorax rather finely punctured, immaculate: elytra rather obsoletely striated, the interstices transversely punctulated, with a round black spot on the disc a little behind the middle and towards the outer margin; the portion of the suture between which is also black: abdomen black: legs and antennae testaceous, the tip of the latter dusky or black. The thorax is frequently reddish or rufo-ferruginous.

Not very abundant; found in Devonshire, Somersetshire; I believe in Norfolk, and within the metropolitan district, having taken Mandibulata. Vol. III. 15th August, 1830.
it several times at Hertford in the month of June. "Near Cambridge."—C. Darwin, Esq.

Genus CLXII.—Sylvanus, Latreille.

Antennae as long as the thorax, rather stout, eleven-jointed, the basal joint large, clavate, the two next smaller, obconic, the five following very short, subturbinate; the ninth and tenth stout, truncate, perfoliate; the eleventh equally stout, rounded. Palpi very short, unequall, subfiliform; the terminal joint larger and subcylindric: head prominent and narrowed anteriorly: eyes slightly prominent: thorax elongate, its sides more or less dentate, somewhat remote from the elytra, which are rounded at the apex: body elongate, narrow, sublinear, depressed: legs short; femora stout; tarsi four-jointed.

Sylvanus has the club of the antennae triarticulate, and by that character, united to the equal length of the second and third joints of the antennae, filiform palpi, and elongate more or less crenate or denticulate thorax, it may be distinguished from the other genera of this group.

A. With the sides of the thorax considerably denticulate.


Fusco-testaceus, pubescent, the thorax with three longitudinal elevated lines, the lateral margins with six stout denticulations: elytra punctate-striate, the alternate interstices elevated: legs testaceus.

Found not uncommonly in brown sugar, whence I infer that it is merely an imported species; its native country, according to the Linnean name, being Surinam.

Sp. 2. dentatus. Rufescens, elytris lineis elevatis tribus obsoletis, thorace punctis duobus impressis, lateribus dentatis. (Long. corp. 2 lin.)


Obscure reddish: antenna, head, and thorax, dusky; elytra brighter, with three elevated obsolete striae, between which are other slender ones: thorax with the lateral margins crenate-dentate, and two impressed foveae near the base: posterior femora with a strong tooth.

Taken in similar situations with the last; consequently a doubtful native.
B. With the sides of the thorax unidentate.

Sp. 3. unidentatus. *Tetrame-ferrugineus, punctulatus, aculis nigris, thorace elongato, postice angustato, angulis anticus acuminato-productis, elytris punctato-striatis.* (Long. corp. \(1\frac{1}{4}-1\frac{1}{4}\) lin.)


*Tetrame-ferruginus*, punctate, glabrous; eyes black; thorax elongated, narrowed posteriorly, with the anterior angles acutely produced, the elytra delicately punctate-striate: legs and antennae ferruginous.

Not common; specimens have occurred in Henault Forest, beneath the bark of the elm, and in the New Forest, near Brocken-hurst, beneath that of the oak, in June and July.

**Genus CLXIII.—Bitoma, Herbst.**

*Antennae* shorter than the thorax, with the two basal joints large, subglobose, the seven following small, coarctate, gradually increasing in diameter; the ninth rather larger, truncate; the tenth broad, perfoliate, truncate; the terminal one large, rounded. *Palpi* short, filiform, with the last joint cylindric, obtuse: *mandibles* not exserted: *head* short, obtuse: *eyes* rather prominent: *thorax* subquadrate, nearly as broad behind as the base of the *elytra*; the latter depressed, rounded at the apex: *body* depressed, oblong: *legs* short; *femora* rather stout; *tarsi* four-jointed.

The more prominent distinguishing characters of the genus Bitoma consist of the biarticulate club of the *antennae*, combined with the concealed mandibles, depressed body, and bicarinated sides of the thorax.

**Sp. 1. crenata. Nigra, subopaca, antennis pedibusque rufo-piceis, elytris punctato-striatis rufis, cruce nigris, intersticiis alternis elevatis.** (Long. corp. \(1\frac{1}{4}-2\) lin.)


Black, slightly opaque; head obsoletely punctate, with the mouth ferruginous: thorax with the lateral edges nearly straight, deeply margined, and parallel thereto two elevated lines; the disc rather flat, with two obsolete fovee towards the hinder margin, opposite the scutellum: elytra a little wider at the base than the thorax, punctate-striated; with the alternate interstices elevated; the disc red, with a black cross: body beneath pitchly-black, rather finely punctured: legs and antennae ferruginous; *femora* dull pitchly-red.

Variable: in some instances the elytra are black, with a small humeral and apical red spot only;—in others the insect is ferruginous, with a brownish obscure cross on the elytra.

Not very common within the metropolitan district: it has however occurred at Little Chelsea, where it was first observed by Mr. Haworth:—it has also been taken abundantly in the New Forest,
between May and August, beneath the bark of various trees. "Windsor Forest, under bark of rotten oak, 17th July, 1830."—Mr. Westwood.

Genus CLXIV.—Corticaria, Marsham.

Antennae rather longer than the thorax, the basal joint large, globose; the second smaller, elongate, obconic; the third to the fifth more slender, elongate; the three following shorter, gradually increasing; the ninth and tenth large, somewhat distant, cup-shaped; the terminal one still larger, subglobose. Palpi robust; maxillary with the terminal joint conic, acuminate: head transverse, narrowed before the eyes, which are lateral and prominent: thorax subcordate, not angulated, immarginate: body oblong, slightly convex: elytra entire, more or less ovate: legs short: femora incrassated; tibiae simple, slender at the base; tarsi elongate, slender, tetramerous?

Corticaria appears to be distinguished from Latridius principally by the form of the antennae and thorax, the first having the third joint not distinctly smaller than the following; and the second more elongate, the club stouter, with its terminal joint ovate; the thorax is not subquadrated, and is not margined; the body is more elongate and convex, and more or less pubescent.


(Long. corp. 1—1¼ lin.)


Ferruginous-brown, or dusky-piceous, or pale testaceous, rather densely pubescent; head obsoletely punctate: thorax subcordate, rather elongate, with the lateral margins slightly rounded and obsoletely crenated, the disc rather convex, thickly rugose-punctate, with a large rounded impressed fovea behind the middle towards the base: elytra slightly convex, thickly punctate-striate, the interstices also with a series of impressions, and in certain positions appearing transversely rugulose; especially towards the base: body beneath entirely pitchy-black or rufo-ferruginous, with the breast and base of the abdomen dusky: legs and antennae ferruginous.

Differs from the following in being larger, and by having the thorax more elongate, with its sides more crenate, and the sculpture more deeply excised.

Found in grassy places within the metropolitan district; also beneath the bark of trees, in dunghills, &c. not uncommon.


(Long. corp. 1 lin.)

Colour variable, pitchy or ferruginous-brown, or black, or testaceous; dusky-pubescent: thorax rather short, rounded, truncate at the base and apex, the lateral margins equally rounded, and scarcely narrowed posteriorly, very obliquely crenated; the disc slightly convex, rather thickly punctate, with a more or less distinct fovea at the base, behind the middle; elytra as in the last species, but less transversely rugose.

Smaller than the foregoing, with the thorax shorter in proportion; its sides more regularly rounded, less crenate, and the elytra less evidently transversely rugose.

Also found within the metropolitan district; in Battersea-fields, and at Hertford I have frequently taken it. "In dry fungus, Wallam Green." — *Mr. Waterhouse.*

Sp. 3. denticulata. *Fusco-picea, brevius pubescens, thorace breviore rotundato, lateribus obsoletiis crenato, elytris simpliciter punctato-striatis, interstitionibus vix rugulosis.* (Long. corp. 1 lin.)


Fusco-piceous, or variable in colour, like the two foregoing; rather shortly pubescent, with the thorax as in the last, the sides being obliquely crenate; the elytra also of similar form, slightly convex, very sparingly pubescent, each with eight distinct striae, with the interstices impunctate and very obscurely rugose: legs rufo-testaceous.

Closely resembling the preceding, but less pubescent, and the interstices on the elytra destitute of punctures.

Found near London, less abundantly than the foregoing.

Sp. 4. longicornis. *Nigra, submitida, tenuè pubescens, antennis pedibusque rufo-centibus, thorace longiore, cordato, lateribus mutico, elytris simpliciter punctato-striatis.* (Long. corp. 1 lin.)


Black, rather shining, slightly pubescent: thorax rather elongate, with the lateral margins considerably dilated and rounded before the middle, smooth, not crenate, towards the base slightly narrowed; the disc moderately convex, thickly punctured, with an obsolete slightly impressed fovea behind the middle at the base: elytra with the shoulders and apex rounded, each with eight punctate striae, the interstices impunctate, but finely rugulose transversely: body beneath glossy black, with the breast punctate: legs rufo-testaceous, with the femora sometimes dusky: antennæ with the basal half rufescent, the rest dusky.

This species is distinguished by being nearly as large as Co. pubescens, and by having the sides of the thorax entire, smooth, the interstices on the elytra impunctate, &c.

Found within the metropolitan district.
Sp. 5. linearis. Elongata, fusco-ferruginea, subpubescens, thorace cordato, foveolâ mediocri impresso, elytris convexis punctato-striatis, transversim rugulosis, interstítiis impunctatis. (Long. corp. ½ lin.)


Elongate, dusky-ferruginous, slightly pubescent, with the thorax cordate, the base very narrow, and having a moderately impressed fovea behind the middle, the lateral margins very finely and obsolescetely crenulated, the disc slightly convex and punctured; elytra anteriorly half as wide as the base of the thorax, the shoulders rectangular, the lateral margins slightly dilated, the disc a little convex, each with eight striae, the interstices impunctate, but obsolescetely rugulose transversely; body punctulate beneath; legs pale testaceae; antennae ferruginous, with the apex sometimes obscure.

Shorter, but more elongate and convex than the foregoing, with the margins of the thorax crenulated, &c.

Also found within the metropolitan district.

Sp. 6. ferruginea. Sublinearis castanea, glabra, capite nigricante, thorace quadrangulo punctatissimo, elytrorum latitudine, elytris pallidioribus simpliciter punctato-striatis. (Long. corp. 1 lin.)


Sublinear, castaneous, glabrous: head dusky or piceous, with the forehead subconvex, punctulate; eyes black; thorax nearly quadrangular, slightly narrower than the thorax, a little convex, finely punctured, with a small impressed foveola behind the middle near the base: elytra with the shoulders rectangular, moderately convex, pale testaceae, regularly punctate-striate, the interstices impunctate: body beneath rufo-brunneus, scarcely punctulate; legs pale rufous: antennae pale.

The comparative width of the thorax of this species distinguishes it from all its congeners but the following, from which it may be known by its more elongate and distinctly punctuated thorax, glabrous body, and different colour.

A very abundant species throughout the metropolitan district, frequenting houses, windows, &c. "Kensington Gardens, Coombe-wood, &c."—Mr. Ingpen.

Sp. 7. elongata. Sublinearis, depressa, testacea, longis pubescens, thorace transverso elytrorum latitudine, elytris pallidioribus punctato-striatis. (Long. corp. 1 lin.)


Sublinear, depressed, clothed with elongate pubescence: head testaceus, forehead flat, punctured: eyes black: thorax transverse, the sides nearly straight, with two or three minute denticles towards the hinder angle, the disc nearly flat, rufo-testaceus, opaque, scarcely punctulate, with a rounded fovea behind the middle at the base: elytra rather wider than the thorax, the shoulders rectangular, the disc a little convex, pale, regularly punctate-striated; the
interstices impunctate: body rufo-testaceous beneath, absolutely punctured: legs and antennae pale.

Thorax shorter, the body more depressed and pubescent, but less evidently punctate, than in the preceding insect.

Not common; found within the metropolitan district.


(Long. corp. $\frac{1}{2}$—$\frac{2}{3}$ lin.)


Short, convex, rusty-brown, or dull fuscous, slightly glossy; head with the front thickly punctured: thorax scarcely broader than the head, the sides and base rounded, the disc with a transverse arcuated fovea a little behind the middle: elytra large, anteriorly as broad again as the thorax, the shoulders elevated, those beyond the middle somewhat dilated, with the tip obtusely rounded; the disc convex, punctate-striate and transversely rugulose; the interstices each with a row of short, cinereous, inclined hairs: body pitchy-black beneath: legs and antennae testaceous; the club of the fovea dusky or black.

Known by its short, convex form, the curved fovea on the thorax, &c.

Not uncommon in many parts of the kingdom; occurring at the roots of grass, in damp hedges, dunghills, windows, &c. "Coombe-wood, Battersea, and Copenhagen-fields, &c."—Mr. Ingpen.

Sp. 9. transversalis. *Brevis, convexa, fusco-ferruginea, thorace postice rotundato, foveâ rectâ transversâ impresso, elytris texatis, seriatis pilosis.*

(Long. corp. $\frac{3}{4}$—1 lin.)


Short, convex, rusty-brown, slightly shining: head anteriorly punctulate: thorax with the base rounded, slightly convex anteriorly, the disc picceous, finely punctulate and pubescent, with a somewhat interrupted transverse straight fovea a little behind the middle near the base: elytra as in the last, with the disc convex, pale fusco-ferruginous, and clothed with rows of hairs between the striae, the interstices being elevated, narrow, and thickly plaited with transverse wrinkles: body, legs, and antennae, as in the last.

Rather larger than the last, with the transverse fovea on the thorax straight, and the sculpture on the elytra dissimilar.

Not very uncommon throughout the metropolitan district, beneath the bark of dead trees, &c.

Sp. 10. pallida. *Brevis, convexa, fusco-ferruginea, pubescens, elytris testaceis, obsolete striatis, thorace unifoveolato.*

(Long. corp. $\frac{1}{2}$—$\frac{2}{3}$ lin.)


Short, convex, rusty-brown, testaceous, or pale pubescent: thorax short, transverse, with the sides rounded, the base truncate, the disc slightly convex,
thickly punctulate, with a somewhat deep, transverse-ovate fovea behind the middle at the base: elytra slightly convex, testaceous, rather obscurely striated, the interstices slightly elevated: body beneath piceous: antennae and legs pale.

Diffs from the two preceding by the truncated base of the thorax, as well as in colour, sculpture, &c.

From the Marshamian cabinet.


Short, convex, rusty-brown, pubescent, with the thorax transverse, the angles acute, the disc with three foveae, rounded or oblong, and moderately deep: elytra slightly convex, testaceous-brown, shining, with rows of hairs, punctate-striate, the interstices narrow, elevated, with transverse wrinkles.

The three foveae on the thorax, and dissimilarity of the sculpture on the elytra, and its smaller size, distinguish this species.

Found, though rarely, near London.

Genus CLXV.—Latridius, Herbst.

Antennæ scarcely longer than the thorax, the basal joint very large, globose; the second ovate, larger than the third, which is very short, and, with the five following slender, the third, seventh, and eighth being ovate; the ninth and tenth are large, cup-shaped; the eleventh still larger, subglobose, acuminated. Palpi short, robust; maxillary with the terminal joint ovate, small: head subovate, slightly narrowed anteriorly: eyes lateral, prominent: thorax subquadrate-cordate, slightly angulated and distinctly margined, narrower than the elytra, which are suboval: body slightly depressed: legs rather elongate: femora incrassated; tibiae simple, subclavate; tarsi tetramerous?

Latridius may perhaps be most readily detected from Corticaria, by the structure of the thorax, which is generally more or less angulated and very distinctly margined: but there are other obvious characters, such as the dissimilarity in the structure of the antennæ, form of body, &c. The species are minute, though, notwithstanding, their characters are sufficiently evident; but, like most genera composed of minute species, the present has been much neglected, as may be instanced from the circumstance of its not having received any augmentation beyond the mere list of species contained in my Systematic Catalogue, in two separate publications, professing to be drawn up from original materials, whereas twice the number
there given I have since detected, although scarcely two months have elapsed since the genus was illustrated. The larvae feed upon mucor.


Elongate, testaceous-red, glabrous; head irregularly punctate; eyes black: thorax oblong-quadrate, above depressed, unequal, with two longitudinal parallel costae, reaching from the base to the apex, and at the base a deep fovea, divided into three parts by the elevated costae, the anterior angles rounded, elevated: elytra large, a little dilated before the middle, towards the apex attenuated, the latter acuminated; the disc moderately convex, pale testaceous, shining, regularly and deeply punctate-striate: legs pale testaceous, with the joints dusky: antennae pale.

The largest species of the genus, and distinguished by the acute apex of the elytra from the following insect, to which it is most allied.

Not uncommon in various places throughout the metropolitan district, occurring in trees and herbage, or near dunghills, in rotten fruits, &c. "Marton Lodge."—Rev. G. T. Rudd.

Sp. 2. angusticollis. *Elongatus, brunneo-testaceus, thorace oblongo-quadrate, bicostato, posticè angustiore, elytris profundè punctato-striatis, apice obtusis.* (Long. corp. 1 lin.)


Elongate, testaceous-brown, or castaneous; with the thorax oblong-quadrate, more slender posteriorly than in the preceding species, the lateral margins irregularly elevated, the disc unequal, punctate, with two elevated costae and a transverse interrupted fovea, as in the foregoing: elytra twice as broad at the base as the thorax, the shoulders much elevated, the sides a little expanded, the apex obtusely rounded; disc convex, rather deeply punctate-striated, with the base transversely impressed.

The smaller size of this species, with the more attenuated thorax, obtuse elytra, and dissimilarity of colour, distinguish this from the foregoing insect.

Taken near London.

Sp. 3. rugicollis. *Brevior, brunneo-testaceus, thorace quadrate, dorso bicostato, elytris punctato-striatis, apice obtusi, interstitii alternis costato-elevatis.* (Long. corp. 2—1 lin.)

Ips rugicollis. *Olivier. E. ii. pl. 3. f. 19. a. b.*

Rather short, testaceous-brown; with the thorax quadrate, the anterior angles laterally produced, rounded, not elevated, the sides straight and base truncate; the disc punctate, unequal, with two elevated costae, as in the foregoing species: elytra anteriorly twice as broad as the thorax, the shoulders elevated, the sides rather expanded towards the base, the apex rounded, disc very
convex, testaceous-brown, punctate-striate, the suture and alternate interstices elevated: antennae and legs testaceous; the club of the former dusky. The short, quadrate thorax, smaller size, and elevated alternate interstices on the elytra, distinguish this species.

Inhabits the metropolitan district and Norfolk.

Sp. 4. carinatus. *Elongatus, angustus, fuscus, opacus, antennis pedibusque testaceis, thorace subcordato, obsolete bicostato, elytris punctato-striatis, interstitiis alternis elevatis.* (Long. corp. 3/4 lin.)


Elongate, narrow, fuscous, opaque, with the thorax subcordate, the sides a little expanded before the middle, the margins slightly elevated, narrowed towards the base, the latter truncate; disc anteriorly convex, unequal, with rudiments of two longitudinal costae, vanishing posteriorly; towards the base a transverse continuous channel: elytra as wide again at the base as the thorax, the shoulders elevated, the apex rounded, the disc slightly convex, regularly punctate-striate, with the suture and the alternate interstices elevated: legs and antennae testaceous.

Less than either of the foregoing, from which it also differs in its elongate, slender form, subcordate thorax, opaque fuscous colour, &c.

Found occasionally beneath the bark of dead trees near London.

Sp. 5. hirtus. *Oblongus, niger, punctatissimus, antennis pedibusque picco-testaceis, thorace subquadrato, profundi canaliculato foveolatoque, elytris punctato-striatis, pilis albidis adpersis.* (Long. corp. 1 lin.)


Oblong, black, slightly opaque, very much punctulate: head somewhat depressed, oblong-quadrate, with an impressed line on the forehead: thorax subquadrate, rather broad anteriorly, with the lateral margins nearly straight, considerably reflexed and elevated, pilose; disc unequal, with a deep central channel, rather expanded anteriorly, and terminating near the base in a large deep fovea: elytra rounded at the apex, the disc rather convex posteriorly, and towards the base transversely impressed, punctate-striate, clothed with erect, rigid, cinereous hairs: legs rufo-piceous, with the hair of the tibiae and the tarsi pale testaceous: antennæ nearly the same, with a ferruginous cast.

Distinguished by its deep, slightly shining, black colour, combined with its strongly punctulate surface, subquadrate, deeply sulcated thorax, and pilose elytra.

Taken near London, and in Suffolk. "Pettyward-wood." —

Mr. Waterhouse.

Sp. 6. transversus. *Oblongus, ferrugineus, thorace brevi, lato, antice subangustiori, postice transversim profundi impresso, collari denudato, elytris profundiis punctato-striatis.* (Long. corp. 3/4—1 lin.)

Oblong, ferruginous, somewhat thickly punctulated: head with an impressed frontal channel; eyes black; neck exposed, punctulated; thorax very short, transverse, slightly emarginated anteriorly, the lateral margins a little rounded and expanded; the base truncate, with the angles straight, the disc convex anteriorly, obsolescently channelled; with a broad, deep, transverse fovea near the base: elytra anteriorly rather broader than the thorax, with the shoulders slightly rounded, the disc convex, regularly punctate-striate, the punctures rather large: legs testaceous: antennae ferruginous.


The deep transverse impression at the base of the thorax, with the comparatively greater width of the latter to the elytra, and the exposed neck, sufficiently characterize this species.

Abundant beneath the bark of trees, the roots of grass, in dung-hills, cellars, &c., from August to May, throughout the metropolitan district.


Oblong, pitchy-black, punctulated: head opaque; mouth reddish: eyes black, very prominent: thorax subcordate, emarginated, waved anteriorly, the angles rounded and ample, the sides oblique, deeply margined: the disc opaque, convex, with an abbreviated rudimentary channel, and a transverse impression towards the base: elytra as broad again at the base as the thorax, with the shoulders elevated, the sides towards the middle ample, the apex rounded, the disc moderately convex, transversely impressed anteriorly, shining, regularly and deeply punctate-striate: body piceous beneath: legs and antennae ferruginous.


This variety differs in being entirely of a ferruginous hue: it also occurs of a testaceous or pale colour, with the head more or less obscure:—in some of the piceous examples the suture and margins of the elytra are often ferruginous.

Kybes has given a long history of the metamorphoses of this species in the second volume of Germans' Magazine, accompanied by figures, whence we learn satisfactorily that the present genus belongs to the Necrophaga; a point however previously ascertained by De Geers' observations on La. lardarius.

Also very common throughout the metropolitan district, frequenting the same haunts as the last.

Sp. 8. rugosus. *Oblongus, niger, ore antennis pedibusque ferrugineis, thorace lato, brevi, antici subangustiore, postici transversè profunde impresso, elytris obsoletis punctato-striatis.* (Long. corp. 1 lin.)

Lat. rugosus. *Herbst. Col. v. 6. pl. 44. f. 3. Cc. :—teste Gyllenhals.*
Oblong, black; head punctulate, with the mouth and labrum rufo-ferruginous; eyes black: thorax rather broad, truncate in front, somewhat more narrow anteriorly than at the base, which is truncate, with the angles nearly straight, the disc moderately convex anteriorly, with an obsolete rudiment of a longitudinal groove, and towards the base a deep transverse broad fovea: elytra anteriorly rather broader than the base of the thorax, with the shoulders slightly rounded, the sides a little dilated towards the middle, and the apex rounded; the disc moderately convex, punctate-striate, the punctures small and rather distant: legs and antennae ferruginous.

Differs from the last by its deeper hue, the brevity of its thorax, which is slightly narrowed anteriorly, and by the faint stria on the elytra.

Found, though rarely, within the metropolitan district.

Sp. 9. testaceus. Plate xviii. f. 3.—Brevis, subconvexus, testaceus, thorace lato, antici bisinuato, postici transversim impresso, elytris tenui punctato striatis. (Long. corp. ⅕ lin.)

Lat. testaceus.—Waterhouse MSS.

Short, subconvex, testaceous, slightly glossy: head small, with a slight frontal impression: eyes black: thorax very short, broad; the anterior margin bisinuated, the sides considerably dilated in the middle, the disc slightly convex, with an obsolete longitudinal interrupted channel, and towards the base a deep somewhat trilobed transverse fovea, elytra rather broader at the base than that of the thorax, with the shoulders rounded, the lateral margin a little expanded, the apex slightly acute; the disc somewhat convex, and rather obsolescently punctate-striate: antennae and legs pale testaceous.

The broad subcordate thorax of this species, the faintly punctate striae on the elytra, and its pale testaceous hue, sufficiently distinguish it from its congeners.

Taken near London. “Old Brompton, in May.”—Mr. G. Waterhouse.

Sp. 10. ruficollis. Elongatus, pallidus testaceus, nitidus, glaber, thorace oblongo, pone medium constricto, elytris fuscis profundè punctato-striatis. (Long. corp. ⅘ lin.)


Elongate, pale testaceous, shining, glabrous; eyes black: thorax oblong, triangulated towards the middle, the anterior portion broadest, with an abbreviated longitudinal channel; the posterior with a transverse impressed line; elytra fuscous, as broad again as the base of the thorax, with the shoulders slightly prominent, the sides at the base towards the middle expanded; the apex slightly acuminated; the disc moderately convex, regularly and deeply punctate-striated, with the alternate interstices somewhat elevated: antennae and legs pale testaceous.

Var. ². With the elytra pale testaceous.

In some examples one elytron is frequently testaceous, the other fuscous.
Not very uncommon in the neighbourhood of London, and in Suffolk; in July, 1827, I found it flying abundantly in a garden at Ripley, during the afternoon: I have also received it from Bristol. "Under bark of elm trees, Kensington Gardens."—Mr. Waterhouse. "Taken in the neighbourhood of Swansea."—L. W. Dillwyn, Esq.

Sp. 11. elongatus. Angustus, pallidé castaneus, aut testaceus thorace oblongo, pone medium consticto, elytris profundiis punctato-striatis. (Long. corp. \( \frac{3}{4} - \frac{11}{12} \) lin.)


Elongate, narrow, pale-chestnut, or testaceous; head oblong, coarsely punctured: eyes black: thorax oblong, strangulated near the base, the disc coarsely punctured, the sides margined and slightly recurved: elytra very long, and twice as broad as the thorax, elliptical and depressed, each with six rows of very large and strongly impressed punctures; the space between the fourth and fifth forming a sharp ridge: antennae and legs sometimes paler, and tinged with ochre.

Larger than the foregoing, with the thorax more elongated, and narrower anteriorly, and the punctures on the elytra deeper and larger.

Found in various places throughout the metropolitan district; in abundance near Southgate: also found near Bristol, in the New Forest, Devonshire, &c.

**Genus CLXVI.—Eutheia**, Waterhouse.

Antennæ larger than the head and thorax, the eight first joints rather slender, short; the basal one more robust than the two following, subcylindric; the fourth larger than the adjoining, subglobose; the three terminal ones much more robust than the rest, and forming a distinct club, the two basal joints of which are transverse-quadrature; the terminal one triangular, acute. Palpi very minute: head small, convex: thorax convex, the anterior angles rounded, the posterior acute, the base truncate, with a row of impressed dots: elytra slightly convex, pilose, plicate at the base, truncate at the apex, and shorter than the abdomen, which has the apex exposed: legs short; femora incrassated; tibia simple.

Eutheia is apparently closely allied to Scydmaenus, from which it differs in having the elytra truncate, the palpi shorter, and the general habit that of an Atomaria:—it perhaps, with Cryptophagus

* Eutheia, recus, in allusion to the straight apex of the elytra.*
plicatus of Gyllenhal, may form a natural transition from the Seydmanidae to the Pselophidæ; to the former of which families I should have referred it, were it not that the engraving of the species was in too far advanced a state to permit its omission in the present volume.

Sp. 1. Seydmanoides. Plate xviii. f. 2.—Picco-nigra, pubescens, thorace pulvinato, postice lineè punctorum impressorum, elytris basi plicatis, antennis pedibusque rufo-ferrugineis. (Long. corp. $\frac{4}{3}$ lin.)

Eu. Seydmanoides mihi.

Pitchy or castaneous-black, slightly glossy, clothed with a golden pubescence: head punctured: thorax punctured, with five impressed foveæ placed transversely near the base: elytra very finely and faintly punctured, the base with two abbreviated impressed lines, giving that part a plicate appearance; the apex sometimes castaneous; legs and antennæ rufo-ferruginous, the club of the latter sometimes fusceous.

Of this remarkable insect I found a single specimen in June, 1827, flying in a garden at Ripley. “Pettyward-wood, near Wimbledon.”—Mr. Waterhouse, to whom I am indebted for the drawing, whence the accompanying figure was engraved. “Moss, Highgate.”—A. Cooper, Esq.

Genus CLXVII.—Xylotrogus * mihi.

Antennæ about as long as the thorax, with the two basal joints more robust than the following; the first being cylindric, the second subglobose, the third to the ninth slightly increasing in diameter, the third being longest and the ninth shortest and subglobose; the eighth shorter than the seventh, and the two apical joints forming an abrupt biarticulate club, the first joint of which is subquadratæ, the terminal ovate obtuse. Palpi very short: mandibulæ exsertæ: head broad: eyes large, prominent: thorax cordate; the anterior margins produced in front, the lateral margins entire, produced anteriorly into an obtuse angular projection, and rounded from a little beyond the middle to the base, producing a waved outline; the base truncate: elytra elongate, entire: body elongate-cylindric: legs short: femora robust: tibiae slender, simple: tarsi slender, abbreviated, quadriarticulate.

The distinctly cordate thorax of this genus, of which the anterior angles are produced into an obtuse projection, while the posterior ones are gradually rounded off, and the margins not crenate, united to the elongate-cylindric body, dissimilarity in the structure

* Ξυλος, lignum; Τρογος, rodo.
of the antennæ, and other less evident characters, point out its chief distinctions from Lyctus.


Elongate, brown, glabrous; bead piceous-brown, very delicately punctured, with a transverse impression between the eyes, the latter black: thorax truncate-cordate, pitchy-brown, thickly punctured, with a broad, shallow, longitudinal fovea on the disc: elytra elongate, bright castaneous brown, delicately striate; the interstices thickly, but finely, punctured: legs and antennæ pitchy-ferruginous.

Averse as I am to the changing of a name once given, without powerful reasons, I am induced to do so in this instance, from a firm conviction of the impropriety of the one I originally applied.

The only example I have seen was taken in July, 1826, out of a wasp’s nest at Dulwich.

**Genus CLXVIII.—Lyctus, Fabricius.**

Antennæ nearly as long as the thorax, rather stout, pilose, the basal joint robust, cylindric, the second rounded, somewhat thickened, the third to the ninth short, nearly equal, the tenth very large, truncate; the eleventh also large, conic. *Palpi* short, filiform, with the last joint arcuated: *mandibles* exsored, with the apex bifid: *head* porrect, anteriorly narrow: *eyes* large, globose: *thorax* subquadrate, with the lateral margins crenated, rather narrower behind than the *elytra*; the latter linear, entire: *body* sublinear, elongate: *legs* short, slender: *femora* rather incrassate: *tibie* simple.

Lyctus may be known from Xylotrogus by the subquadrate thorax, the lateral margins of which are finely crenulated, and the disc rather deeply channelled; the body is broader and more depressed, with the elytra pilose:—the intermediate joints of the antennæ are shorter and subglobose, and the terminal one acute:—the species frequent dry oak wood, and delight especially in new palings.


Opaque, deep fusceous-brown, but variable in colour; pubescent; head thickly rugose punctate: *eyes* black: *thorax* above moderately convex, fuscous,
opaque, thickly rugose punctate, clothed with a dense cinereous-yellow down, with a deep, broad, oblong, abbreviated fovea in the middle of the disc: elytra with the shoulders prominent, slightly convex, rather obsolescently striate, the striae thickly but faintly punctate, each interstice with a distinct row of depressed, cinereous-yellow, hairs, giving a lineated appearance: body beneath pale testaceous, slightly pubescent: legs pale testaceous: antennae brunneous.


Very common in the neighbourhood of London, and I believe throughout the country:—it abounds on palings, beneath bark, &c., especially of the oak. “Under the bark of decaying oaks (near Swansea), not uncommon.”—L. W. Dillwyn, Esq.

**Family XXI.—DERMESTIDÆ, Leach.**

Antennæ slender, longer than the head, and terminated by a distinct ovoid compressed mass or club, consisting of three or four joints. Palpi short, but little exerted, subfiliform, with the terminal joint rounded: mandibles very short, slightly denticulate within the apex: body subovate or suboval, rounded at both extremities, robust, slightly convex: head inflexed, inserted up to the eyes in the thorax, which is short, convex anteriorly: legs short, robust, the posterior shorter than the body; tibiae spinulose; tarsi short, pentamerous.

The Dermestidæ may be known by their ovate equal-ended form, with the body slightly convex, the mandibles very short, stout, and a tooth before the apex; the antennæ rather short, and having an abrupt, compressed, ovoid club, or an elongate capitulum, generally consisting of three or four joints:—the species are usually found in dry or decaying animal substances, such as leather, skins, &c.

The larvae of the Dermestidæ have the body elongate, gradually diminishing to the tail, which terminates in a truncate cone; the skin is coriaceous, and furnished with long hairs: head scaly, rounded; antennæ triarticulate; mandibles robust and dentate; eyes six: body composed of twelve segments, each with a coriaceous plate, and furnished with two rows of hairs, of which the anterior is directed forwards and the posterior backwards; the three first segments bear each a pair of scaly legs, which are (as usual) divided into three parts, terminated by a slightly curved hook or claw; on the last segment of the body are two kinds of scaly
horns, pointed and directed backwards, and at the tip of the same ring is a truncate fleshy wart, serving as a seventh leg to the animal when in motion:—they change their skin many times; and when about to change into pupae they construct a cocoon of the refuse of the materials upon which they have been feeding:—they are extremely destructive to collections of natural history and to the stores of furriers, &c., their voracity being very great; and, in feeding, they not only devour the skins of animals, but totally divest them of hair: they also attack the dead bodies of animals of all kinds, consuming all the fleshy and tendinous parts, and leaving nothing but the mere skeleton remaining: they occur every where, and are extremely difficult to guard against by reason of their comparative minuteness; they are, however, of great importance in the economy of nature, by assisting so extensively in the destruction of animal remains, in destroying those portions that are left untouched by the larvae of the Scatophage, &c., which do not touch the skin or tendons: they are usually concealed within the substance of the animal, rarely appearing upon the surface; and when disturbed they quit their retreat with apparent fear, and walk timidly and irregularly, and if touched instantly remain quiet, retracting their antennae and legs.

The indigenous genera of this family may be thus characterized:

\[
\begin{align*}
\text{Genus CLXIX.—Throscus, Latreille.} \\
\text{Antennae pilose, as long as the thorax, during repose concealed in grooves beneath the sides of the latter, the basal joint robust, subovate; the second less robust, elongate-quadrat; the six following smaller, subglobose; the remainder forming an elongate, perfoliate club, dilated on the inner edge, the basal joint of which is subovate-truncate, the second transverse, the terminal conical, with its apex acute. Pulpi short, clavate, the terminal joint somewhat securiform: head obtuse, deflexed, inserted up to the eyes in the thorax, the latter subtrapeziform, broadest at the base, which is lobate, with the hinder angles produced.}
\end{align*}
\]
into an acute process: elytra elongate, slender; body elliptic, depressed: sternum produced into a somewhat cylindrical ridge, obtuse posteriorly and received into a cavity: legs small, compressed, contractile; femora broad; tibiae linear, with a groove on the external edge to receive the tarsi, which are slender, and have the penultimate joint bifid.

The location of this genus is perhaps objectionable: Linnaeus placed it with Elater, and Latreille in his Histoire Naturelle followed his views; but in the Genera Crustaceorum he removed it to the Byrrhii, a situation whence he again ejected it in his Familles Naturelles, and restored to its former position, placing it in a section by itself: how far that situation may be natural must be left for future observations: there is some agreement in the trophi, but the antennae are very dissimilar to those of any of the Elateridae, and not widely unlike those of Megatoma serra in the present family:—the larvae are supposed to be lignivorous, and the perfect insect is generally found beneath bark or in similar places, like several of the insects in the foregoing family, which has induced me to place it here. The genus may be known from Dermestes by the greater length of the antennae, by the last joint of the palpi being remarkably large and somewhat securiform, and by the bifid penultimate joint of the tarsi.

Sp. 1. dermestoides. Oblongo-ovatus, fusco-piceus, pubescens, elytris punctato-striatis; interstitiis seriatim punctatis; fronte lineis duabus elevatis. (Long. corp. 1—1½ lin.)


Oblong-ovate, pitchy-fuscous, slightly pubescent: head obtuse, with the forehead convex, punctate, with two elevated lines: eyes black: thorax emarginate anteriorly, the base trilobed, the disc convex, coarsely and finely punctulated, with a faint ridge before the scutellum: elytra slightly convex, punctate-striate, with a series of large punctures between each stria: body beneath and legs pale rufo-piceous: antennae fuscescent.

Frequently taken near London from May to August: in June, 1815, I found a considerable number of specimens on some old oak wainscoting at Coombe-wood; and I have since found some in similar situations at Hertford and Ripley. "On white thorn and umbelliferous plants near Bexley."—Mr. Bainbridge. "Gravel pit, Coombe-wood, abundantly, in June."—Messrs. Ingpen and Westwood.

Sp. 2. obtusus. Ovatus, sordidè castaneus, pubescens, elytris striatis, interstitiis punctulatis, fronte immune. (Long. corp. ¾—1 lin.)

Ovate, dull castaneous, shining, clothed with short decumbent yellowish hairs: head rounded, coarsely punctured: eyes black: thorax anteriorly entire, coarsely punctured, the base trilobed, the disc rather convex, slightly elevated before the scutellum: elytra slightly convex, striated, the interstices minutely punctured: antennae and legs ferruginous; tarsi paler.

In June, 1827, I captured a single example of this species in a lane near Ripley: the insect had been previously taken in other parts of the metropolitan district, and it has also been found subsequently. “Several specimens taken from a pollard oak in Plaistow Marshes, in 1827 and 1828”—A. Cooper, Esq. “Two specimens beaten out of an oak near Ensham, in Oxford, in September.”—Mr. Westwood. “Moss, Highgate-wood, in the winter.”—Mr. Ingpen.

**Genus CLXX.—Dermestes Auctorum.**

Antennæ shorter than the thorax, the basal joint large, ovate; the seven following joints rather slender, short; the remainder forming a large, ovate, triarticulate compressed club, dilated interiorly, the basal joints of which are somewhat transverse, the terminal short suborbiculate. Palpi filiform, stout; the maxillary shorter than the maxilla: head small, retractile: thorax rather broader than long, sinuated behind: body oblong-ovate, convex, pubescent: elytra elongate, inclined laterally and slightly margined: legs short; femora slightly incrassated; tibiae spinulose; tarsi entire, the first joint shorter than the second.

Dermestes differs from Throscus in having the antennæ shorter than the thorax, with the capitulum ovate and not elongate, the tarsi entire, with the first joint shorter than the second, and the palpi filiform; from Megatoma and Attagenus it differs by having the latter shorter than the maxillæ, and the club of the antennæ more distinct, as well as in other less evident characters.

The species are very destructive in museums, larders, repositories of skins, and similar places, especially in the larva state as above mentioned.

Sp. 1. lardarius. Oblongus, niger, elytris antice fasciis latā cinereo-pubescentis, punctis tribus nigris. (Long. corp. 3—4 lin.)


Oblong, black; head thickly punctulated: with the mouth rufous: thorax
pubescent, sprinkled with small tufts of cinereous hairs: elytra finely and thickly punctured, with very obsolete rudiments of striae, the base with a broad pale fascia, composed of a dense cinereous pubescence, in which are three brownish or black denuded spots, and on the posterior margin is a somewhat flexuous cinereous patch: body beneath pitchy-black, with the breast densely and the abdomen sparingly clothed with a shining cinereous down: legs pitchy-black: antennae rusty-piceous, with the club dusky.

When the pubescence is removed, the anterior portion of the elytra is rufescent.

The larva is of a whitish-brown above, white below, furnished with long hairs, and two scaly hairs on the last segment:—it infests skins, &c.

Extremely abundant in houses, larders, &c. throughout the metropolitan district; and not unfrequently found in neglected boxes of insects: also in dead bodies, dunghills, and amongst heaps of dried bones. "Under garbage at Swansea, not uncommon."—L. W. Dillwyn, Esq. "Bottisham, common."—Rev. L. Jenyns.

Sp. 2. murinus. Oblongus, niger, supra cinereo marmoratus, scutello fulvescente, subitus niveus, antennis nigris. (Long. corp. 3–4 lin.)


Oblong, black, pubescent, marbled above with cinereous; the head with a few griscous hairs intermixed: thorax very convex, thickly ornamented with transverse undulated bluish-ash characters and two distinct remote fulvescent spots behind the middle: scutellum fulvescent: elytra obsolescently punctated and very obscurely striae, pubescent, marbled like the thorax with bluish-ash: breast and abdomen snowy-white: antennae and legs black, the femora with a snowy ring.

The fulvescent scutellum, and the bluish-ash pubescence of the thorax and elytra, distinguish this species.

Not uncommon throughout the metropolitan district, frequenting the same haunts as the last: found also in Glamorganshire, Norfolk, Devonshire, &c. "Common (near Swansea) in dead animals, and particularly in half-dried hawks and vermin which have been nailed up by gamekeepers."—L. W. Dillwyn, Esq. "In carcases, common, at Bottisham, appearing early in the spring."—Rev. L. Jenyns.

Sp. 3. laniarius. Brevis, convexus, ater, glaber, subitus albido-sericeus, antennis rufis-piceis. (Long. corp. 3½ lin.)


Short, convex, black, glabrous: head punctate: thorax large, convex, thickly punctured: scutellum black: elytra thickly and finely punctured, immaculate: breast and abdomen clothed with a dense silken whitish pubescence, the
sides of the latter with denuded black spots: legs black; antennæ rusty-fuscous.
The short form of this insect, and its totally immaculate upper surface and 
black scutellum, distinguish this from the foregoing insect.

One example I obtained from the Marshamian cabinet: I am not 
aware of its locality.

Sp. 5. tessellatus. Oblongo-ovatus, niger, pubescens, capite thoraceque ferrugineo-variis, subitus niveis nigro punctatus, antennis brunneis. (Long. corp. 2½—3 lin.)

Oblong-ovate, black, pubescent: the head and thorax varied with ferruginous, 
the latter slightly convex and thickly punctured: scutellum pale ferruginous: 
elytra clothed with a black pubescence, with a few cinereous hairs inter-
mixed: breast and abdomen dotted with depressed rigid snowy hairs, with 
large denuded lateral spots, and other smaller ones on the disc, forming three 
series: legs black, thick, with an obsolete whitish fascia beneath: antennæ 
rusty-brown.
The ferruginous pubescence on the head and thorax, and the three rows of 
denuded spots on the lower surface of the abdomen, at once distinguish this 
pretty species from its congener.

In August, 1814, I found a considerable number of specimens of 
this insect, both in the larva and imago states, in an oyster on the 
beach off Shoreham in Sussex; the only locality I am aware of.

Sp. 4. vulpinus. Oblongus, niger, cinereo subpubescens, subitus niveus, thoracis 
lateribus densis cinereo-villosis. (Long. corp. 3—4½ lin.)

Oblong, black, with the sides of the thorax having a narrow border of griseo-
cinereous down; the breast and abdomen beneath snowy, with some black 
denuded marginal spots: head pitchy-black, with a griscous pubescence; and 
rufous mouth: thorax with its disc having a few scattered cinereous hairs; 
the margins, as above stated, densely pubescent: elytra with a few cinereous 
hairs: scutellum cinereous: antennæ rufo-piceous: legs piceous, with a white 
pilose ring on the femora.

Not uncommon in the metropolis, and throughout its immediate vicinity; in 
large provision-warehouses, kitchens, &c.; but I very much doubt its claim 
to be placed among the indigenous species, having witnessed ship-loads of 
hides from the Brazils direct, infested with this species.
Genus CLXXI.—Ctesias mihi.

Antennae as long as the thorax, with the two basal joints robust, subglobose; the six following extremely short, slender and coarctate; the remainder forming an elongate, compressed, triarticulate, serrated club, the basal joint of which is very large, obconic, with the apex truncate and dilated interiorly; the second short, triangular, acute interiorly; the terminal elongate, rather dilated within, and rather attenuated to the apex, which is obtuse. Palpi, maxillary, with the third joint longer than the second, the terminal obliquely truncate: head small, deflexed, slightly produced anteriorly: thorax trilobate behind, the central lobe obtuse, the angles acute: body ovate: legs short and slender; femora rather attenuated; tibiae simple; tarsi with the intermediate joints shortest.

Latreille remarks upon the insects included in this and the following genera—and a third species not hitherto detected in Britain—which he has placed as so many sections of the genus Megatoma, "Hujus generis sectione forsan totidem genera constituant:"—and if the structure of the antennae is to be our guide in the formation of genera, which is allowed to be the case, doubtless the present genus must be detached from Megatoma, and the latter from Attagenus, the dissimilarity not only of those organs, but of the palpi and of the external form, justifying such a measure:—the serrated club of the antennae, which resembles that of the genus Throscus, at once points out the present genus from Megatoma, from which the dissimilar proportions of the joints of the palpi, the different lobations of the thorax posteriorly, the broader and stouter body, &c., also remove it.


Black, or piceous, or somewhat castaneous, shining, thickly punctured, and clothed with a short dusky pubescence: thorax above convex, with an impression on each side at the base, the lateral margins rusty-piceous: elytra thickly rugose-punctate: legs pale ferruginous or rufescent, with the femora piceous; antennae testaceous yellow.

"The larva," says the Rev. J. Burrell in the Entomological Transactions, "of D. Serra is a curious ferruginous one, living
under the bark of elms and oaks, where it may be found almost all
the year, particularly in the early spring months."

Taken in several places within the metropolitan district, in Nor-
folk, &c., beneath the bark of trees, especially of elms and oaks, in
June:—also found upon palings, and in old wood, and in Boleti.
"Gardens at Chelsea."—Mr. Ingpen. "Kew."—Rev. T. T.
Haverfield.

**Genus CLXXII.—Megatoma, Herbst.**

*Antenna* shorter than the thorax; the basal joint very stout, oval; the second
less robust, subglobose; the four following very slender, subovate; the
seventh and eighth rather larger, cup-shaped; the remainder forming a
triarticulate, pubescent, club, having the terminal joint elongate-ovate, and
twice as long as the others, in the male; subconic, and scarcely elongated,
in the female; the penultimate joint short, transverse, in both sexes. *Palpi*
*maxillaries* robust; the basal joint minute; the two following short, broad,
nearly equal in length; the terminal large, ovate-truncate: *head* small, de-
flexed: *thorax* slightly trilobate; the central lobe nearly obsolete: *antepectus*
produced over the mouth like a neckcloth: *body* narrow-oval: *legs* short,
slender; *tibia* linear, simple; *tarsi* with the three intermediate joints
shortest.

In the structure of the antennae and palpi, this genus differs con-
siderably from the foregoing, as well as from the following; the
former not having the club serrated as in the preceding genus,
nor the terminal joint remarkably large, as in *Attagenus*; the
maxillary palpi having the two intermediate joints nearly of equal
length, and the terminal one ovate-truncate; not elongate and
attenuated, as in *Attagenus*, nor obliquely truncate, as in the pre-
ceding genus.

Sp. 1. undatus. *Nigra, pubescens, thoracis angulis, elytrorumque fasciis duabus
remotis undulatis albidis.* (Long. corp. 1\(\frac{3}{4}\)—3 lin.)

Black, pubescent, minutely punctured, shining: thorax with the posterior
angles and a small spot before the scutellum clothed with white pubescence:
elytra slightly convex, with two undulated fasciae, composed of white scales,
the former before the middle interrupted, the other behind the middle towards
the apex: legs and antennae black; *tarsi* piceous.

This species varies considerably in size, as above indicated.

Not very uncommon in the neighbourhood of London, through-
out which it appears to be pretty generally distributed, inhabiting

**Genus CLXXIII.—**Attagenus, Latreille.

*Antennae* shorter than the thorax, with the basal joint robust, ovate; the second less robust, shorter, subglobose; the three following slender, subquadrate; the sixth to the eighth gradually increasing, cup-shaped; the remainder forming an elongate triarticulate club, the two basal joints of which are short, ovate, or cup-shaped, and the terminal one extremely long and subcylindric-ovate in the male, and ovate subattenuated in the female. *Palpi maxillary* longer than the *maxilla*; the basal joint minute; the second robust, as long again as the third, which is obovate, the terminal elongate-ovate, attenuated to the apex: *head* small, deflexed, produced anteriorly: *thorax* trilobate behind, the posterior angles and central lobe acute: *body* oval: *legs* short: *femora* and *tibiae* compressed; the latter spinose externally; *tarsi* with the basal joint minute, the second in the four posterior legs elongate.

Attagenus has the terminal joint of the maxillary palpi considerably elongate and attenuated to the apex, with the second joint much longer than the third; the club of the antennae is very dissimilar in the sexes, the apical joint being elongate in both, and remarkably long in the male.

**Sp. 1. Pellio.** *Ovatus, niger, pubescens, antennarum basi rufescente, elytris puncto medio albo.* (Long. corp. 1½—2 lin.)


Ovate, black, shining, thickly and minutely punctured, pubescent: thorax with three white pubescent spots at the base, one at each angle, and the other in the lobe before the scutellum: elytra somewhat piceous or slightly castaneous, with a snowy-white pubescent spot on the back, near the suture: body beneath pitchy-black, clothed with a yellowish pubescence: legs rufopiceous, with the tarsi paler.

The elytra are slightly variable in colour, being more or less piceous, castaneous or testaceous; and they have frequently an obscure streak of whitish pubescence on the margin, near the base.
DERMESTIDÆ.—ATTAGENUS.

Very abundant in houses, larders, &c., within the metropolitan district: it also abounds in other parts of the country: I have taken it at Shoreham, Brighton, Dover, in the Isle of Wight, &c.:—its larva is particularly destructive to neglected collections of natural history. "Found occasionally at Swansea."—L. W. Dillwyn, Esq. "In houses, common."—Rev. L. Jenyns. "Newcastle and York."—W. C. Hewitson, Esq.

†Sp. 2. trifasciatus. Ovatus, nigro-fuscus, pubescens, elytris fasciis tribus undatis, puncto que apicis cinereo-albidis. (Long. corp. 1 ½—2 lin.)

Ovate, fuscous-black, glossy, minutely punctured and clothed with decumbent hairs: thorax with the posterior margin clothed with a dense ashy-white, or flavescent, down, interrupted before the scutellum; elytra with three flexuous transverse strigæ, composed of a pale grisæous pubescence, interrupted by the suture; a patch at the apex of similar hue, and also a minute round spot on each side of the scutellum: beneath picceous, with yellowish pubescence: legs testaceæous, with the tarsi castaneous: antennæ black, with the base testaceæous.

The only examples I have seen of this species are contained in the collections of the British Museum, and in that of Mr. Haworth: the former specimens were taken by Dr. Leach near Edinburgh, and the latter, according to the Doctor's MSS., "near Chelsea."

SECTION III.

Contains insects of very dissimilar aspect and habits, but all of which possess four palpi only: the head is not produced into a rostrum anteriorly, the tarsi are almost universally pentamerous, but the antennæ are considerably diversified.

From the heterogeneous structure of the insects included in this division, the latter requires to be thrown into subsections, of which the one more immediately connected with the foregoing insects, or

SUBSECTION 1.

Includes such insects as have the antennæ more or less clavate, with the apex sometimes rather abruptly slender, the articulations unequal, the basal joint being occasionally nearly half the entire length, the thorax frequently with a groove beneath to receive the antennæ, and the legs with their parts more or less compressed, and capable of being closely applied to the body, the latter having usually excavations for receiving them: the sternum is mostly produced anteriorly, so as nearly to conceal the mouth, and the body is either more or less globose and convex, or quadrate and depressed.
This subsection includes the two following indigenous families, which may be readily known by the subjoined concise definitions:

1. **Antenna** (haust: mandibulae non exsertae: 22. *Byrrhidae*.

**Family XXII.—Byrrhidae, Leach.**

*Pulpi* subclavate or filiform, equal: *maxilla* bifid: mandibles not exserted: *antenna* thickened towards their extremities, the articulations of not very dissimilar length, the club composed of from three to five joints: head small, very convex, deeply inserted into the anterior margin of the *thorax*; the latter very short, much narrowed anteriorly, with the lateral margins considerably deflexed: *sternum* anteriorly produced: *body* ovoid, very convex, more or less pubescent: *elytra* entirely covering the abdomen: *legs* contractile; *tibiae* more or less compressed, with an external groove to receive the *tarsi*, which are distinctly pentamorous.

The Byrrhidae are so intimately allied to the Dermestidae, that Latreille includes Megatoma and its allies in the former family in his *Genera*, and in the latter in the *Regne Animal*: and there is very great similarity between the larvae of the genus last mentioned and those of the genus Anthrenus:—in the perfect state, some of these insects are found in sandy or gravelly situations, in fields, roads, &c.: others occur in flowers, beneath the bark of trees, or by the coast, in chalk-pits, &c.: the larvae of the Anthreni are destructive to animal substances, but those of the typical genus Byrrhus are unknown.

The following is a tabular view of the indigenous genera, which may be distinguished by the subjoined, chiefly external, characters:

<table>
<thead>
<tr>
<th>Antennae capituli</th>
<th>Thorax posticus</th>
<th>Corpus</th>
<th>Elytra</th>
<th>Genus</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-articulato</td>
<td>rotundatus</td>
<td>densi pilosum</td>
<td>punctata:</td>
<td>174. <em>Anthrenus</em>.</td>
</tr>
<tr>
<td>5-articulato</td>
<td><em>Pulpi</em> articulo ultimo</td>
<td>truncato:</td>
<td></td>
<td>177. <em>Syncalypta</em>.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>acuto:</td>
<td></td>
<td>178. <em>Nosodendron</em>.</td>
</tr>
</tbody>
</table>

**Genus CLXXIV.—Anthrenus, Geoffrey.**

*Antennae* very short, concealed during repose in a groove beneath the sides of the *thorax*, terminated by a solid triarticulate club, the last joint of which is larger
and obtuse, or rounded. *Palpi* filiform, short, the terminal joint elongate, truncate; *head* small, deflexed, retractile; *thorax* trilobed behind; *body* orbicular-ovate or subovate, depressed, rather flat above, convex beneath, coloured with deciduous scales: *legs* short, compressed, closely applied to the body during repose; the *tarsi* exposed.

The Anthreni may be at once distinguished from the insects of the two following genera by having the surface adorned with coloured scales, exclusively of the difference in the structure of the antennæ, &c., which are capable of being concealed in grooves, formed for their reception, beneath the sides of the thorax, which is considerably produced in the centre before the scutellum: the larvae infest animal substances, dunghills, &c., and the imago is usually found on flowers.


Brown-black: head clothed with luteo-testaceous scales on the forehead: the thorax entirely covered with scales, which are luteous on the disc, with a central streak anteriorly, a spot before the scutellum, and the lateral margins broadly white: elytra nearly covered with luteous scales, irroration with black, with three white fasciae, the first interrupted reaching obliquely from the scutellum to the margin; the second flexuous in the middle; and the third, lunate, towards the apex: the body clothed beneath with ashy-white scales, with the margin of the abdomen spotted with black: legs black, with the tarsi somewhat fusose: antennæ black.

Not common in Britain; found occasionally within the metropolitan district, having taken two specimens only during the period which I have collected. I suspect, therefore, that the following localities refer to *An. Museum.* which species has been generally confounded with the present in the London cabinets. "Bottisham." —*Rev. L. Jenyns.* "On the flowers of umbelliferous plants, not common (near Swansea)."—*L. W. Dillwyn,* Esq. "Near York." —*W. C. Hewitson,* Esq. "Epping."—*Mr. Doubleday.*


Fuscous-black, irroration with ferruginous scales; thorax with the disc sparingly dusted with testaceous scales, the posterior angles and the central lobe densely
clothed with whitish ones: elytra with three fasciae, composed of whitish and lutescent scales, the basal one arising at the base of the elytra, passing down the sides of the scutellum, and bending outwards, when it becomes rather obsolete and irregularly flexuous: the second is a little behind the middle, transverse and flexuous; and the third near the apex rather oblique, and frequently united to the second on the suture or on the margin: body beneath cinereous, with naked black marginal spots: femora black; tibiae and tarsi rufescent: antennae ferruginous, with the club obscure.

Variable in size and in the appearance of the transverse fasciae on the elytra, arising from the latter being more or less denuded: the ferruginous tibiae distinguish it with facility from the preceding species.

Very abundant in umbelliferous flowers throughout the metropolis, and I suspect equally common in other parts—this insect being usually confounded with the foregoing, from which it is obviously distinct. "Norfolk."—Dr. Leach.

Sp. 3. varius. Cinereus, thorace elytrisque fusco cinereoque variis, corpore subtus immaculato. (Long. corp. 1 lin.)

Cinereus, with the thorax and elytra varied with fuscous and cinereous: the body beneath cinereous, immaculate.

Probably a variety of the preceding species, from which it chiefly differs in being smaller, and in having the body immaculate beneath, and rather more clouded above.

Found with the foregoing insect. "Among herbage on Crwmlyn Burrows."—L. W. Dillwyn, Esq.

Sp. 4. Seraphulariae. Supra niger, thoracis lateribus elytrorumque fasciis squamoso-albidis, suturâ rubrâ. (Long. corp. 1.1/2—1.2 lin.)

Above black; head with a white squamose spot on the front: thorax black, with a slender dorsal line, and a waved subtriangular patch at the hinder angles, densely clothed with whitish scales: elytra with three irregular flexuous white fasciae, with the suture densely covered with bright rufous scales, expanding towards the apex, in which is a minute black patch, and more or less branching off towards the white fasciae: body beneath thickly clothed with whitish scales, with the sides of the abdomen spotted with black: femora black, tibiae and tarsi rufescent: antennae testaceous, with the club black.

The red suture at once characterizes this beautiful species from its congeners.

Rare in England: it has been captured within the metropolitan district and in other parts; but I know not its exact locality.

Sp. 5. Pimpinelle. Supra niger, rufo alboque variis, elytris fasciâ anticeâ latâ, punctoque apicis albissimis. (Long. corp. 1.5 lin.)
BYKKHIDÆ.—ASPIDIPHORUS.


Black, varied above with rufous and white scales: thorax with some ferruginous scales intermixed: elytra densely clothed with black scales, with a broad angulated snowy-white fascia before the middle, having a black spot near the suture, and a white spot near the apex, which last with the suture behind is marbled with rufo-ferruginous and whitish scales: body clothed beneath with snowy scales, with the sides of the abdomen spotted with black: femora black, with white scales; tibie and tarsi rufescent: antennæ rusty-brown.

The bright broad subcentral fascia on the elytra at once distinguishes this elegant species.

Also very rare in Britain; I have taken it in the vicinity of London, and I believe it has been captured in Suffolk and in Devonshire.

Genus CLXXV.—Aspidiphorus, Ziegler.

Antennæ about as long as the thorax, the basal joint very large, bent, dilated externally, the club triarticulate, considerably elongated and cylindric: head large, angulated, convex: eyes rather prominent: thorax short, a little emarginate anteriorly, sinuated posteriorly, being slightly produced in the middle: the lateral margins rounded and slightly margined: scutellum small, rounded: elytra large, slightly emarginated, rounded at the apex: body suborbiculate, convex: legs slender: tarsi elongate, with the four anterior articulations subequal.

Aspidiphorus—not Arpidiphorus, as it has been erroneously called—may be known from Anthrenus and Trinodes by the length of the basal joint of the antennæ, which is elongate and subclavate, as in most of the Histeridae, to which family it may probably serve to unite the present; but as I have not an opportunity of examining the insect, I cannot be positive upon that point; the description, both generic and specific, being drawn up from Gyllenhal’s valuable labours.


Black, shining, somewhat pubescent: head minutely punctured: thorax above convex, minutely punctured: scutellum punctate: elytra broader than the thorax, with the sides dilated, the disc very convex, regularly and rather deeply punctate-striate, and clothed with a delicate cinerascent down: body beneath shining pitchy-black, with the breast deeply punctate: legs slender, pale reddish.

While on a visit at Barham, during which period I was engaged
in collecting notes for this work and for my Catalogue, the Rev. W. Kirby informed me that this singular insect had been captured in England by his colleague W. Spence, Esq.; but of its locality he was not aware.

Genus CLXXVI.—Trinodes, Megerle.

Antennæ longer than the thorax, beneath which are no grooves for their reception, the two basal joints very robust, subglobose; the six following slender, gradually diminishing in length, the eighth being shortest and transverse, the remainder forming a triarticulate club, of which the basal joint is smallest, the terminal very large, trigonate. Palpi very short, filiform: head obtuse, deflexed: eyes small: thorax short, anteriorly truncate, and narrowed; the base as broad again and distinctly trilobed: scutellum moderate, triangular: elytra large, ovate, slightly convex; the shoulders gibbous, and, with the head and thorax above, clothed with erect elongate hairs, without any intermixture of scales: legs slender, pilose: tarsi elongate; the four basal joints equal.

Trinodes, a genus whose characters have not hitherto been defined, was established by Megerle for the reception of the Anthrenus hirtus of Fabricius; an insect differing so considerably from the type of the genus last mentioned as to justify its separation: its densely pilose body, the hairs of which are erect and comparatively very long; and the length of its antennæ, which have no grooves beneath the sides of the thorax for their reception; sufficiently discriminate it, without descending to other less obvious characters:—the insect, moreover, inhabits decayed wood.


Black or griseo-testaceous, shining, with a translucent appearance: head punctate: thorax with the disc anteriorly convex, with an impression between the base and sides: elytra faintly punctate, shining pitchy-black, very pilose: body beneath rufo-piceous, slightly pubescent: legs luteo-testaceous: antennæ pale luteous.

Sometimes rather paler in colour.

The only examples I have seen of this insect were captured, I believe, near Exeter, by W. Spence, Esq., who kindly forwarded a pair for my cabinet.
Genus CLXXVII.—Syncalypta, Dillwyn.

Antennae shorter than the thorax, the two basal joints stout, rather elongate, subcylindric, the six following more slender, gradually increasing in diameter, and terminating abruptly in an ovate triarticulate club, the apical joint of which is very large truncate. Palpi very short: head small, deflexed: thorax short, sinuated posteriorly: elytra ovate, entire, distinctly striated: body very convex, the upper surface furnished with rigid erect capitate setæ, which are disposed in lines on the elytra; the breast and abdomen also slightly setose: scutellum minute, triangular: femora compressed, ciliated; tibia more or less compressed and slightly bent, in some species ciliated externally: tarsi elongated, rather slender.

The rigid erect capitate setae with which the upper surface of the Syncalyptæ is furnished, combined with their striated elytra, abruptly clavate antennæ, and minute size, not only distinguish them from Nosodendron, but, the latter character excepted, from the other genera of this family,—the species are usually found in sandy or chalky situations; but their food and habits, I believe, remain unknown.

Sp. 1. arenaria. Subglobosa, nigra, setis albidis ornatis, elytris substriatis. (Long. corp. \(\frac{1}{2}-\frac{3}{4}\) lin.)


Black, slightly glossy, elytra faintly striate, the striae simple; the thorax and elytra clothed with short rigid erect whitish capitate setae, somewhat regularly placed on the latter: the body beneath and legs also black.

Found occasionally in chalk and sand pits within the metropolitan district, but not common. "Not unfrequently found about the roots of moss on Crwmlyn Burrows."—L. W. Dillwyn, Esq. "Norfolk."—Dr. Leach.

Sp. 2. cretifera. Subglobosa, atra, setosa, elytris sublaevibus. (Long. corp. \(\frac{1}{3}\) lin.)


Black, subglobose, slightly glossy; the surface adorned with distant erect white setæ, the elytra nearly smooth.

The nearly smooth elytra of this insect, and its smaller size, appear the chief points of distinction between it and the preceding, of which I suspect it to be a mere variety.

In September, 1821, I found several specimens in a small chalk-pit at Little Blakenham in Suffolke, the locality indicated
MANDIBULATA.—COLEOPTERA.

below. "Taken in a chalk-pit at Blakenham, near Ipswich, by the Rev. W. Kirby."—Marsham MSS.

Sp. 3. maritima. Subovata, atra, obscura, setosa, elytris distinctè striatis, os ferrugineo. (Long. corp. 1½ lin.)


Subovate, black or piceous, obscure; clothed with dusky setae; elytra rather deeply striated; mouth ferruginous: antennae and legs black.

Rare; taken on the coasts of Norfolk and Suffolk by the Rev. W. Kirby. "Southend, in June last."—Rev. F. W. Hope.

"Taken by Mr. Millard on Crwmlyn Burrows."—L. W. Dillwyn, Esq.

† Sp. 4. setiger. Brevis, ovata, nigricans, setis rigidis erectis adpersis, elytris fasciis tribus obsoletis griseis. (Long. corp. 1½ lin.)


Short, ovate, dusky or dull black: head, thorax, and elytra above thickly sprinkled with stout erect, capitate, rigid griseous setae, disposed in lines on the latter, which are rather distinctly striated, and have three flexuous waved griseous-white transverse fasciae: body beneath and legs dusky-ferruginous; femora and tibiae exteriorly ciliated: breast and abdomen also with distinct setae.

Of this pretty insect I have hitherto seen one specimen only, which is in the British Museum, and respecting which an erroneous locality has been given. "A single specimen taken in a bank near Woodland, Devon."—Dr. Leach.

Genus CLXXVIII.—Nosodendron, Latreille.

Antennæ longer than the thorax, concealed beneath its sides, the two basal joints robust, subovate: the third much elongate, subclavate; the four following very short, submoniliform; eighth broader, cup-shaped; the three following much incrassated, and forming an abrupt, subovate, compressed, perfoliate club, the apical joint being trigonate. Palpi very short, the terminal joint largest, cylindric, obtuse: head trigonate: eyes small: thorax scarcely margined, transverse, rounded at the base: scutellum triangular, elongate: elytra convex, suborbicular, scarcely margined: body subhemispheric-ovate: breast broad: legs short, compressed, semicontractile; tibiae broad, serrated a little exteriorly; tarsi short.

The distinct triarticulate club of the antennæ, and fasciolated elytra, remove this genus from Byrrhus, to which genus it is evidently closely allied; and its comparatively large bulk, deeply
punctate—but not striate—elytra, dissimilar structure of the capitulum of the antennae, expanded tibiae, and absence of rigid capitate setae on the surface, point out its distinction from Syncalypta, to which on the other hand it is allied.


Somewhat elongate-globose, black, shining, finely punctate on the head and thorax, rather deeply so on the elytra, on which are little elevated distinct tufts of obscure brown hairs, especially towards the apex and the outer margin, and disposed somewhat in rows: antennae and legs brown-castaneous, the latter of the deepest cast, and the club of the former dusky: tibiae broad, finely denticulate, with some few tufts on the margin, similar to those on the elytra.

Taken, about May, 1823, near Ashburton, in Devonshire, by Dr. Leach; and subsequently, "rather plentifully under the bark of some old elm-trees, which were placed in the sand to arrest the incursions of the tide, at Southend."—Rev. F. W. Hope.

Genus CLXXIX.—Byrrhus Auctorum.

Antennæ shorter than the thorax, compressed; basal joint large; second small, globose; third long and slender; fourth similar in form, but shorter; fifth rather stouter; sixth globose; the remainder gradually incrassate, and forming an elongate club, the four basal joints of which are transverse-ovate; the terminal one ovate. Palpi somewhat equal, subclavate: head small, deflexed: thorax a little sinuated behind: body globose-ovate, above very convex, densely pubescent: breast and abdomen with impressed foveae for the reception of the legs, which are short: femora and tibiae compressed, dilated, the latter slightly serrated, and with a groove on the outer edge to receive the tarsi, which are pentamerous.

The insects of this genus when touched, or during repose, contract their antennæ and legs so firmly and compactly to their body, which has excavated grooves formed for their reception, as to appear like a round inanimate ball or lump of earth, the resemblance to which is heightened by their pubescent sombre clothing; they are generally found in gravel and sand pits, beneath turf by the sides of roads, in the spring and early summer months, &c.—from Nosodendron their five-jointed antennæ at once distinguish them,

MANDIBULATA.—COLEOPTERA.

and from Simplocaria their deciduous tomentose body and subelavate palpi.


By. pilula. Linne.—Samouelle, pl. 2. f. 3.—Steph. Catal. 97. No. 1029.

Oblong-ovate; head clothed with a fuscous pubescence: thorax fuscous-black, variegated with an ashy-red pubescence: elytra very obsoletely striated, clothed with an ashy-brown down, the alternate interstices adorned with interrupted black silken stripes: body beneath deep shining black, thickly and deeply punctulate: legs and antennae black.

Var. α. Steph. Catal. l. c.—Black, with the pubescence worn off, leaving the darker stripes on the elytra alone remaining; the thorax obscurely clouded.

Var. γ. Steph. Catal. l. c.—Rather less, with the stripes on the elytra ferruginous, and the pubescence more glossy.

Some examples are almost totally black, and others have the interrupted black stripes distinctly spotted with white.


Oblong-ovate; black, clothed with a pale golden-pubescence: thorax with two large round black spots in front, and two irregular angulated ones behind: elytra with four longitudinal interrupted black stripes, and a broad sinuated, abbreviated, black, transverse fascia in the middle of the back; the margin dusky: body beneath dull black: legs and antennae dull pitchy-black.

Slightly variable: the markings being less evident in some examples than in others.

Rare: twice taken on Hampstead-heath, and once found, in the spring of 1821, in a chalk pit at Barham, by Mr. Denny; it may be only a variety of the foregoing: its chief distinction consisting in the disposition of the coloured patches of the pubescence.
Sp. 3. fasciatus. *Brevior, ovatus, niger, tomentosus, elytris vittis interruptis, fasciisque mediâ arcuâtâ abbreviâte rufo-ferrugineâ.* (Long. corp. 3½—4 lin.)


Short, ovate, black, tomentose: thorax clouded with aureous; elytra with interrupted black stripes, and a duplex, arcuated, abbreviated, rufo-ferruginous fascia in the middle, somewhat resembling the figure of a crown.

Var. 6. *Steph. Catal. l. c.—Fuscous or black, elytra in the middle with a common duplex abbreviated fascia, composed of confluent whitish dots.*

Var. 7. *Steph. Catal. l. c.—Head with a fuscous pubescence, with three black streaks; elytra with four longitudinally interrupted black streaks, a common subannular whitish spot, and some dots of the same.*

Very variable in colour; sometimes nearly black, immaculate.

Differs from the two preceding in being shorter, but not narrower, with the pubescence more glossy and brilliant, especially towards the sides and apex of the elytra.

Less common than By. pilula, though far from uncommon throughout the metropolitan district; in Suffolk, Norfolk, Devonshire, &c. "On the sand-hills (near Swansea), not common."—L. W. Dillwyn, Esq. "Newby Cross."—T. C. Heysham, Esq.

Sp. 4. oblongus. *Oblongo-ovatus, piceo-ater, thorace immaculato, elytris vittis tribus interruptis abris, maculisque aliquot albís.* (Long. corp. 4 lin.)


Oblong-ovate, pitchy-black, clothed with a fuscous-brown pubescence; the thorax immaculate: elytra with three interrupted black streaks and several distinct white spots, forming two transverse waved fascia: body beneath and legs black or brownish.

This differs from By. fasciatus in being more oblong, and in having the thorax immaculate, the elytra less distinctly striped, and having larger and more evident white spots, which are differently disposed, the rows of spots being subparallel with each other, which is not the case in the insect last named.

Found occasionally within the metropolitan district: on Hampstead-heath, Wimbledon-common, &c.

Sp. 5. dorsalis. *Brevior, ovalis, ater, thorace litteris elytrisque maculâ communâ mediâ ferrugineis.* (Long. corp. 3—3½ lin.)


Short, oval, black, the thorax with ferruginous patches: elytra striated, with the alternate interstices clothed with a black pubescence; and in the middle of the back an unequal short transverse ferruginous fascia common to both elytra, edged on each side with whitish or ashy: body deeply punctured beneath.

Var. 6. *Steph. Catal. l. c.—Black, the elytra with a double transverse series of*
whitish spots, more or less obsolete: the thorax immaculate:—excepting in size, and the presence of the transverse ferruginous dorsal fascia on the elytra, this variety somewhat resembles the preceding species. The transverse dorsal stripe on the elytra at once distinguishes this species.

Not uncommon in sandy and gravelly places near London: also found in other parts. "Martlesham-heath, in June."—Marsham MSS. "On the sand-hills (near Swansea), not common."—L. W. Dilkeyn, Esq.


Ovate, black, above bronzed or greenish; clothed with a rusty-brown pubescence, which is slightly variegated on the thorax: elytra striated, green or bright bronze, the alternate interstices more brilliant and tessellated with black: legs and antennae black.

Var. β. *Steph. Catal. l. c.*—With the head, thorax, and elytra of a dull obscure blackish-bronze, immaculate; body piceous beneath.

Var. γ. *Steph. Catal. l. c.*—With the abdomen and base of the femora rufous.


Sp. 7. fuscus. *Ovatus, niger, elytris striatis fuscis obscuris, maculis obscurioribus.* (Long. corp. 2½ lin.)


Ovate, black, or dull fuscous: the thorax shining and thickly punctulated: the elytra striated, obscure fuscous, with very obscure spots on the alternate interstices: antennae and legs fuscous.

Closely allied to the following, of which it may be a variety, and from which it chiefly differs in colour.

Once taken near London by myself; and according to Marsham near Holt, in Norfolk, by Mr. Skrimshire.


Oval, fuscous, clothed with a griscous pubescence: thorax varied with griscous: elytra very faintly striate, punctate, rusty-fuscous, with three black silken
abbreviated stripes on each, and a double series of white spots in the middle of the back, forming a transverse waved striga: body beneath and legs dusky-black, sprinkled with rigid cinereous hairs.

The colour varies slightly, some examples being of a brighter or ferruginous hue.

The smallest species of the genus: known by its mouse-like colour, and the duplex transverse dorsal striga of white spots on the elytra.

Rare in England: it has been taken within the metropolitan district; but it appears to be more abundant in Norfolk. "Beach-amwell, Norfolk."—J. Scales, Esq. "Cobham."—A. Cooper, Esq. "Martlesham-heath, Suffolk, by the Rev. R. Sheppard."—Marsham MSS.

Genus CLXXX.—Simplocaria, Marsham MSS.

Antennae longer than the thorax; basal joint robust, elongate; second less robust, subconic; third slender, elongate, subclavate; fourth and fifth of equal length, short, subovate; sixth rather short, the remainder forming an elongate gradually incrassated club, the four basal joints of which are transverse, the terminal very large, ovate. Palpi with the terminal joint ovate-acute: head very convex: thorax rounded behind: body globose-ovate, scantily clothed with a fine pubescence: legs rather elongate, slender; femora slightly compressed: tibiae a little dilated and bent, simple, without grooves to receive the tarsi, which are somewhat elongate, and pentameroos.

Simplocaria consists of a group of small species, which may be known from the Byrrhi by the comparative nudity of the body, which is usually very shining; the acuteness of the terminal joint of the palpi, the greater length of the antennæ, the slenderness and simplicity of the legs, which are imperfectly contractile, the tibiae not having grooves to receive the tarsi:—the species frequent grassy situations, beneath the bark of trees, &c.


Ovate, deep shining black, with a faintly bronzed, glossy, very slightly pubescent body; elytra rather deeply punctate-striate, the striae reaching to the apex, and the interstices very finely but distinctly punctured; thorax the same: head impunctate: legs and antennæ black.

Distinguished by its deep black colour, broader form, and nearly glabrous body:—it differs in the latter respect from the other species of the genus, and also by having the penultimate joint of the tarsi obscurely bilobed.
Found beneath masses of chalk, near Dover, and also in the vicinity of Bristol.

Sp. 2. semistriata. *Oblongo-ovata, piceo-nigra, pubescens, antennis pedibusque pallidis, elyris basi tenuè striatis.* (Long. corp. 1 1/4—1 1/2 lin.)


Oblong-ovate, pitchy-black, pubescent: head punctured: thorax somewhat aeneous, punctured, clothed with cinereous pubescence: elytra also somewhat aeneous, attenuated towards the apex, thickly punctured, with a scattered ashy pubescence, with a single entire stria at the suture, and several abbreviated ones at the base, vanishing before the middle: legs and antenna pale rufescent.

The pale rufescent legs and antennae of this species, with the abbreviated stria on the elytra, distinguish this from the foregoing species, and the latter character from the following.

Not uncommon in Battersea-fields, and in other places in the vicinity of London, at the roots of grass. "Common in putrid fungi in woods (near Swansea), and is often rather plentiful about the beginning of summer, in Crwmlyn Burrows."—L. W. Dillwyn, Esq. "Glanville’s Wootton."—J. C. Dale, Esq.

Sp. 3. picipes. *Oblonga, nigro-subanea, nitida, pedibus rufas, elyris profundiis continuò striatis.* (Long. corp. 1 1/4 lin.)


Oblong, of a somewhat aeneous black: head aeneous: thorax clothed with griseous pubescence: elytra elongate, acuminate at the apex, regularly striated, each elytron with ten rather deep, scarcely punctate, striae, reaching nearly to the apex, the interstices minutely punctate: legs and antenna rufo-testaceous. As long, but not so broad, as the foregoing species; from which it also differs in having the striae on the elytra produced nearly to the apex of the latter.

Less common than the last; I have taken it in the neighbourhood of London, and it has been sent to me from the vicinity of Bristol. "On Crwmlyn Burrows, not uncommon."—L. W. Dillwyn, Esq.

*Family XXIII.—Histeridae, Leach.*

Palpi filiform, short, unequal: maxilla furnished within with an arcuate claw: mandibles exposed: antennae abruptly elevate, geniculatæ; the basal joint often nearly half their length, incurved and slightly thickened towards the apex; the club generally triarticulate: head, small, deflexed, contractile, deeply inserted in the thorax; the latter transverse, marginate anteriorly: sternum much dilated anteriorly: breast large: body subquadrate, obtuse, glabrous, in general
depressed: elytra truncated at the apex, leaving the extremity of the abdomen exposed; the lateral margin inflexed: wings ample: legs robust, contractile: tibia compressed, externally dentate: tarsi short, filiform, terminated by two stout contractile claws.

The Histeridae differ from the insects of the foregoing family, to which they are evidently allied, by their geniculated antennae, which are generally terminated by a nearly solid triarticulate club, and by their abbreviated elytra:—they inhabit various decaying substances, occurring in dead animals, dung, putrid fungi, beneath the bark of decayed or dead trees, &c., occurring chiefly in the spring and summer; they walk slowly, and when touched become immoveable, contracting their legs and antennae like the Byrrhidae: they fly, however, with rapidity.

The following are the indigenous genera, as proposed by Dr. Leach in the Zoological Miscellany:

Genus CLXXXI.—Abræus, Leach.

Antennæ with the basal joint moderately elongated; the second and third subcylindric; the latter less robust; the fourth short; the three following subglobose, and nearly equal; the eighth lenticular-subglobose; the three terminal ones forming a short-ovate club: head convex, retractile, deflexed: thorax rather narrowed anteriorly: body short, robust, subglobose, not sulcated above: sternum not dilated anteriorly: legs elongate, slender; tibia straight, slender, the anterior somewhat triangular, all simple: tarsi long and slender.

The Abræi are the most minute insects of the present family, and may readily be known by their more or less globose form, truncate, unsulcated, elytra, slender and simple tibia, and by the structure of the antennæ:—they inhabit rotten wood and vegetable refuse.
Sp. 1. globosus.—Globosus, rufo-piceus subtilissime punctatus, tibiis anticis in medio triangulariter dilatatis. (Long. corp. \( \frac{1}{4} - \frac{3}{4} \) lin.)


Globose, rufo-piceous, finely punctate: thorax convex, much narrowed anteriorly; elytra very convex, nearly as long as the abdomen, with the apex distinctly truncate and the disc delicately punctate: legs with the four posterior tibiae linear and slender, the two anterior triangularly dilated, all simple.

Somewhat larger, more globose, and of a brighter hue than the following, from which it also differs in the form of the anterior legs, and in being distinctly punctate above.

Not common: found occasionally in hot beds, or beneath rotten garden refuse, in the vicinity of London. "Netley."—Rev. F. W. Hope. "Norwich."—Dr. Leach.

Sp. 2. minutus. Subrotundus, piceus, nitidus, tibiis omnibus linearibus. (Long. corp. \( \frac{1}{4} - \frac{1}{4} \) lin.)


Nearly round, piceous, shining, very smooth, but with a very powerful lens obsoletely punctured: head rounded: thorax convex, slightly narrowed anteriorly: elytra moderately convex, with the sides dilated, shorter than the abdomen, with the apex obliquely truncate: legs with all the tibiae linear, the anterior curved and a little dilated externally.

The minute size of this species, united to its smooth impunctate surface, and simple tibiae, distinguish it from the preceding.

Much more abundant than the foregoing species, frequenting the same haunts. "Near Swansea."—L. W. Dillwyn, Esq. "Woodland, Devon; Chelsea, Norwich, &c."—Dr. Leach.

Genus CLXXXII.—Onthophilus, Leach.

Antenna with the basal joint long, robust, subclavate; second subglobose; third elongate, slender; five following very short, somewhat moniliform or subglobose; the remainder forming an ovate-globose club. Palpi slender: head small: thorax subtrigone, sulcate: elytra also sulcate: body subquadrate, robust: sternum simple: legs long; tibiae long, slender, compressed: tarsi slender, the four basal joints subequal.

The genus Onthophilus is rendered conspicuous, by the deep longitudinal sulci which adorn the upper surface of the body, by which they may be instantly recognized from the other genera of this family, exclusively of their other characters, which are fur-
nished by their antennae, form of body, &c.:—the species inhabit dung.

Sp. 1. striatus. Ater, thorace elytrisque lineis elevatis sex, antennis nigris, capitulo fusco. (Long. corp. $\frac{2}{3}$—1 lin.)


Deep black, slightly shining: head and thorax broad, with four elevated lines in the middle, and two abbreviated ones on each side at the base: elytra with the suture and six distinctly elevated lines; the interstices delicately striated and obsoletely punctate: breast and abdomen thickly and deeply punctate: antennae and legs black, the club of the former dusky.

Much less than the following, and differs not only in the sculpture of the upper surface, but also in the colour of the antennae.

Common in Battersea-fields, and in other places within the metropolitan district. “Netley, abundantly.”—Rev. F. W. Hope.


Sp. 2. sulcatus. Ater, obscurus, thorace lineis elevatis quinque, elytris tribus, interstittis punctatis, antennarum capitulo subferrugineo. (Long. corp. $1\frac{1}{2}$—$1\frac{1}{4}$ lin.)


Dull black: head and thorax punctate, the latter with five elevated lines, the central one furcate before and channelled at the base: elytra with the suture and three lines on each very much elevated, the interstices with four finely elevated ridges, the alternate ones sparingly punctate: breast and abdomen punctate: mouth and antennae dull ferruginous, the basal joint of the latter black: legs pitchy-black.

Larger than the foregoing, from which it differs in having five elevated lines on the thorax and three only on the elytra; it also differs in sculpture and colour.

Rare: it has been taken in several parts of Norfolk, and in the west of England. “Kingsbridge, Devon.”—Dr. Leach.

**Genus CLXXXIII.—Hister Auctorum.**

Antennae shorter than the thorax, with the basal joint very large, robust, incurved, and incrassated at the apex, which is emarginate; the second slender, recurved, larger than the two following, which are short obconic; the four next very short, transverse, the seventh and eighth being broadest; the remainder forming a subglobose, compressed, triarticulate, club. Palpi short, filiform, unequal, with the terminal joint elongate, subfusciform, truncate: head small: thorax transverse, deeply emarginate anteriorly: elytra con-
considerably abbreviated: body convex above: sternum dilated anteriorly: legs short: femora compressed, simple: tibia much compressed; the four posterior furnished with two series of spines: tarsi short, simple.

The genus Hister, which from the species feigning death when alarmed have been termed Mimic beetles, differs from the other genera of this family by having two series of spines on the four posterior tibiae, combined with a considerable convexity of body, slightly narrowed thorax anteriorly: — from Dendrophilus, by having the antennæ differently constructed, the second joint being curved, and the seventh and eighth very short and broad, &c.: — the species inhabit dung, dead animals, rotten vegetable matter and refuse of all kinds.

A. With the elytra striated; the external striae entire.

a. With two longitudinal striae on the sides of the thorax.

1. The elytra with a marginal stria.

Sp. 1. Marshami. Plate xviii. f. 5.—Elongatus, subdepressus, ater, nitidus, elytris striis quatuor integris, tibiis anticus tridentatulis, posticus spinosisimis. (Long. corp. 3½ lin.)


Elongate, deep, very glossy, black: head and thorax impunctate, the former with a slightly curved impressed line on the forehead, the latter with two faint striae on the margin, the inner one nearly touching the base: elytra elongate, very smooth, with six obsoletely punctured striae, of which the one nearest the suture is abbreviated anteriorly, being about half the length of the elytra; the four following run the entire length, the first being nearly straight and the others slightly curved; and on the outer angle of the elytra is a sixth abbreviated rather faint impunctate one: exposed segments of the abdomen, especially the anal one, much punctate: legs slightly piceous, with the four posterior tarsi thickly furnished with castaneous spines.

The elongate form of this species, with its dissimilarity of sculpture, and the densely spinose posterior tibiae, at once point out its distinction from its congeners.

The only example of this insect which I have seen, I obtained from the Marshamian cabinet, in which it was placed as the other sex of Hi. unicolor.

Sp. 2. merdarius. Ater, nitidus, elytris externè quinque striatis, thoracis lateribus punctatis, antenarum clavó ferrugineā. (Long. corp. 3 lin.)


Oblong-quadrate, shining black: thorax scarcely narrowed anteriorly; the space between the two lateral striae thickly punctured: elytra rather deeply striated, the striae slightly punctate, and the two on each nearest the suture abbre-
viated, within the apex a transverse impression; tibiae very much dilated, the anterior with four teeth, the outer one being bifid and the inner one minute: antennæ with the club ferruginous.

The oblong form of this species, with the punctate space between the lateral striae on the thorax, and the ferruginous club of the antennæ, at once distinguish it from the others of the genus.

Rare: specimens have been taken near London, and in Herefordshire. "Copenhagen-fields."—Mr. Ingpen.

Sp. 3. unicolor. *Ater, nitidus, elytris striis tribus integris externis, tibiis anticus tridentatis, dentes extim obfido.* (Long. corp. 2½—4 lin.)


Somewhat rounded, deep glossy-black: thorax convex, as broad as the elytra behind, but narrower anteriorly and deeply notched; lateral striae rather faint, the outer one rarely extending beyond the middle of the margin: elytra rather convex above, with the lateral margins much dilated, each with seven subpunctate slender striae, of which the three nearest to the suture are abbreviated anteriorly, the three next entire, and the outer one again abbreviated; on the shoulder is frequently a faint oblique stria: legs stout; anterior tibiae externally tridentate, with the outer tooth bifid: antennæ black. Differs from the two foregoing species by its rounded form, &c. from the following by having three abbreviated striae on each elytron adjoining the suture, the outer striae on the thorax abbreviated, and the tibiae tridentate.


Sp. 4. cadaverinus. *Ater, nitidus, elytris extremita quinque striatis, tibiis anticus sex dentatis.* (Long. corp. 2½—3½ lin.)


Somewhat rounded, glossy-black: thorax convex, obsolesly punctate on the margin, with the lateral striae deep, and both extending to the base, the outer one somewhat remote from the margin and waved: elytra slightly convex, each with five nearly entire striae, two abbreviated ones adjoining the suture, and two other obsolete ones at the base, between the two exterior, which are somewhat divided by a humeral callous: anterior tibiae dilated, with five or six small denticulations on its outer margin.

In form resembling the preceding insect, from which it abundantly differs by the depth and elongation of the thoracic striae, the integrity of the third stria from the suture, the denticulations on the anterior tibia, &c.

Also abundant in Britain, frequenting the same haunts as the last. "Salop, Gloucester, South Wales, Deal, Southend, &c."—Rev. F. W. Hope. "Carlisle."—T. C. Heysham, Esq. "Com-

Sp. 5. quadrimaculatus. _Ater, subnitidas, oblongo-quadratus, thoracis lateribus subparallelis, elytris maculâ lunatâ rubrâ; tibiis anticus tridentatis, extimo integro._ (Long. corp. 3½—4½ lin.)


Oblong-quadrate, black, moderately glossy: thorax large, but very little narrowed anteriorly, the lateral striae rather faint, the outer one scarcely reaching beyond the middle, the interior entire: elytra depressed on the back, each with four rather faint striae externally, leaving a broad space very smooth towards the suture; at the base of each elytron a more or less distinct large lunate red spot, frequently occupying the entire shoulder, and extending beyond the middle of the elytra in a curved direction, towards the suture: this spot is often interrupted, forming a lunule at the base, and a rounded spot on the disc, behind the middle, and sometimes the basal spot is divided into two: anterior tibiae with three stout acute simple dentations externally: antennae with a ferruginous club.

Differs from the two following in having a marginal stria on the elytra, the latter with four striae, the anterior tibiae with the dentations simple, &c.

Apparently not very rare in remote parts of the coast of Kent, and at times in the utmost profusion. "Hister 4-maculatus, of which I had previously taken few specimens, now (1827) covered South Sea Common, so that many were crushed under foot at every step."—Lt. Davies, in Loudon's Magazine. "Deal."—Rev. F. W. Hope. "Herne Bay."—Mr. Ingpen. "Ramsgate."—Mr. Stone.

8. The elytra without a marginal stria.

Sp. 6. sinuatus. _Ater, nitidus, thorace antico angustiori, elytris tristriatis, arcâ magno rubro longitudinali, tibiis anticos tridentatis, extimo bifido._ (Long. corp. 2½—3½ lin.)

Hi. sinuatus. _Ilhiger._—Steph. Catal. 100. No. 1051.—Hi. 4-maculatus. _Donovan_, xv. pl. 525.

Somewhat rounded, glossy-black: thorax very smooth, narrowed anteriorly, the exterior lateral striae scarcely reaching beyond the middle, the interior deep and nearly extending to the base: elytra slightly convex, with three striae externally, but none on the margin; three faint abbreviated ones at the apex towards the suture, the one nearest the suture longest; on each elytron a large bright red arcuated spot, reaching from the base nearly to the apex, and bending inwards: anterior tibiae with three stout teeth, the exterior bifid.

The red spot on the elytra varies considerably; in one of my specimens it occupies nearly the entire disc, leaving the suture and apex with an oblong spot in the centre alone black.
The bifid exterior dentation of the anterior tarsi, with the convexity of body, tristriate elytra, and large red spot on the latter, which have three abbreviated striae at the apex, but none on the margin, distinguish this species from the foregoing.

Not common; I possess a specimen taken on Dartford-heath, and others captured in Devonshire. "Kingsbridge, Spitchweek, Swansea, Worcester."—Dr. Leach. "I have a memorandum that it has been taken in the neighbourhood of Swansea."—L. W. Dilwyn, Esq. "Sandsfield."—T. C. Heysham, Esq.

Sp. 7. quadrinotatus. Ater, nitidus, thorace antice angustiori, elytris subtristriatis, macula humerali alterque medià obliquà rubris. (Long. corp. 2½—3½ lin.)

Hi. 4-notatus. Linne.—Steph. Catal. 100. No. 1052.

Rounded, broad, glossy-black: thorax with the lateral striae rather deep, reaching nearly to the base: elytra rather depressed, dilated on the margins, with two entire striae towards the margin on each; and an indistinct imperfect one within, leaving a broad impunctate space between it and the suture; on the shoulder is a subquadrate red spot, and an oblique one on the disc, sometimes united to the former: anterior tibiae with three teeth, the exterior bifid: antennae with the tip of the club ferruginous.

From the preceding this species is known by the greater width of body, by having the outer lateral striae on the thorax continuous, the elytra scarcely tristriated, and the red spots differently placed on the surface.

Also rare: but found in distant parts of the kingdom. "Bristol, and near London."—Dr. Leach.

b. With one longitudinal stria on the sides of the thorax.

1. The elytra without a marginal stria.

Sp. 8. duodecimstriatus. Ater, nitidus, elytris striis sex, tibitis anticis tridentate, dente extimo bifido, antennarum clavà ferrugineâ. (Long. corp. 2 lin.)


Shining black, impunctate; thorax with the lateral striae extending to the base: elytra each with six distinct, punctuate, striae, the five outer ones being equidistant, and the inner one near the suture, and united at the base to the following, having an elliptic space on the disc: anterior tibiae tridentate, the outer tooth bifid: club of the antennae ferruginous.

Somewhat resembling the following in sculpture, but differs in being totally black above, with the anterior tibiae tridentate.

Not very abundant near London; found however throughout the metropolitan district and other parts of the country. "Oxford and Netley."—Rev. F. W. Hope. "In carrion and cow dung, not common (near Swansea)."—L. W. Dilwyn, Esq. "Near Bir-
Mandibulata.—Coleoptera.


Somewhat depressed, shining black: thorax smooth, the lateral stria not touching the base, towards the anterior angle, within the stria on each side, is a rounded impressed fovea: elytra very short, rather depressed, the base interiorly black, the apex diagonally, from the shoulder to the apex of the suture, bright red; on each elytron are six punctate striae, of which the one near the suture is abbreviated anteriorly: femora black: tibiae and tarsi ferruginous; the anterior tibiae quadridentate: antennae ferruginous.

The depressed form of this species, combined with the distinctly bifoveolated thorax, rufous tipped elytra, quadridentate tibiae, and small size, distinguish it from its congeners.

Not uncommon throughout the metropolitan district. "Netley and Oxford."—*Rev. F. W. Hope.* "Common (near Swansea.)"


Sp. 10. parvus. *Ater, nitidus, elytris sex striatis, interioribus duabus abbreviatis, tibias antecis tridentatis, antennarum clavata ferrugineas.* (Long. corp. 2—2½ lin.)


Shining black; thorax with the lateral stria reaching nearly to the base, and with a very short arcuated one at the anterior angle on each side: elytra slightly convex, with six striae, of which the two interior are more or less abbreviated at the base: legs piceous, with the anterior tibiae tridentate; the outer tooth broader and bifid: antennae with the club ferruginous.

The short arcuated striga on the anterior angles of the thorax sufficiently distinguishes this small species, exclusively of its other characters.


Sp. 11. corvinus. *Ater, nitidus, antennae pedibusque rufos ferrugineis, elytris sex-striatis interioribus abbreviatis, tibias antecis quadridentatis.* (Long. corp. 2 lin.)

Glossy-black; thorax with the lateral striae reaching to the base, where it is slightly recurved: elytra with six striae, the two inner abbreviated, the one nearest the suture being the longest: legs and antennæ rufo-ferruginous; anterior tibie quadridentate.

Resembles the last in size and habit, but differs in having the legs and antennæ rufo-ferruginous, with the anterior angles of the thorax less produced and destitute of the abbreviated curved stria; the anterior tibie are also quadridentate.

More abundant than the last, but apparently rare: I possess specimens captured within the metropolitan district.


Rather oblong, deep black, slightly glossy: thorax with the lateral line straight and rather approximating to the margin; elytra each with an abbreviated stria next the suture, about half their length, then a second about one-third the length of the former, followed by four entire ones on the disc, the margin without stria: legs black; the anterior tibie with five denticulations, the outer one bifid: antennæ black: mouth piceous.

The want of the marginal stria on the elytra distinguishes this insect from Hi. carbonarius, which it somewhat resembles, but the striation of the elytra is different.

Of this insect I possess specimens captured near London by myself, but I know not the exact locality.

2. Elytra with a marginal stria.


Oblong-ovate, black, smooth, very glossy: frontal striae rather deeply punctured: thorax with the lateral stria somewhat remote from the margin and reaching to the base: elytra a little dilated on the sides, the apex of each slightly rounded, each with a small lateral stria, abbreviated at each end, then three entire simple slightly curved ones, and three abbreviated ones within at the apex, the sutural one being the longest: body pitchy-black beneath: breast deeply punctured: antennæ and legs black, the anterior tibie much dilated, with four robust teeth, the intermediate stoutest.

The very glossy upper surface of this species, with the brevity of the lateral stria on the elytra, the four-toothed anterior tibie, &c., distinguish it from the following.

Not uncommon in the vicinity of London, and I believe in other
parts of the kingdom. "Netley."—Rev. F. W. Hope. "Norfolk."—Dr. Leach. "Taken by Mr. Jeffreys (near Swansea).”—L. W. Dillwyn, Esq.

Sp. 14. neglectus. _Ater, nitidus, oblongo-ovatus, elytris extrorsum striis quinque integris, tibiis anticus quinque dentatis._ (Long. corp. 3 lin.)

Hi. neglectus. _Megerle.—Steph. Catal. 101. No. 1057._

Shining black, oblong-ovate: thorax with the lateral line entire, straight, rather approximating to the margin: elytra rather depressed, with two abbreviated striae next the suture; the second shortest, then five entire ones, the marginal one being rather flexuous, and rather obsolete anteriorly: legs black, the anterior tibiae with five obtuse denticulations: antennae piceous, with the club dusky.

In description this species greatly resembles Hi. carbonarius, but from that insect it is abundantly distinct; its form being very dissimilar, oblong-ovate, somewhat depressed, instead of short and subconvex.


Sp. 15. Leachii. _Ater, nitidus, subconvexus, elytris striis quatuor integris, tribus abbreviatis, tibiis anticus quinque dentatis._ (Long. corp. 2½ lin.)


Black, shining, subconvex: thorax with the lateral line abbreviated: elytra slightly convex; each with two striae towards the suture of equal length, being about half that of the elytra, then four entire ones, and finally an abbreviated one on the margin; the five outer ones sparingly punctate: legs black, with the anterior tibiae five dentate: antennae piceous, with the club black.

Differs from the preceding in being subconvex, with the sculpture slightly different, and from the following by having the marginal thoracic line abbreviated, the two abbreviated striae on the elytra half the length of the latter, and in other less evident characters.

Found, but rarely, near London; also in other parts of the kingdom. "London and Bristol."—Dr. Leach.

Sp. 16. carbonarius. _Ater, nitidus, elytris externè striis quinque integris, five submarginali punctati, tibiis anticus 5 vel 6 dentatis._ (Long. corp. 2—3½ lin.)


Shining black: thorax a little narrowed before, with the lateral striae entire a little curved, and rather distant from the margin: elytra slightly convex, with seven striae, of which the two nearest the suture are always abbreviated, and the next frequently so; the three following are entire; the seventh on the margin a little flexuous outwardly, anteriorly; and beneath the margin an
oblung deeply and thickly punctate foveae: antennae and legs black; anterior tibiae with five or six acute denticulations.

Variable in colour, being sometimes castaneous-brown.

Differ from the foregoing by being shorter, broader, and more convex, the anterior tibiae being multidentate, and the striae on the elytra rather differently disposed.


Sp. 17. quisquilius. *Ater nitidus, elytris stris septem, tribus internis abbreviatis, thorace postice utrinque ad angulos foveâ profundâ, tibiis anticus quadridentatis.* (Long. corp. 2½ lin.)


Very glossy black: thorax with the lateral stria scarcely extending to the base, and rather remote from the edge; on the posterior margin, towards the angles, a deep rounded fovea: elytra with seven striae, the three internal abbreviated; antennae black, with the club dusky: legs black, the anterior tibiae quadridentate.

The two distinct posterior foveae on the thorax, with the three abbreviated interior striae on the elytra, and the quadridentate anterior tibiae, distinguish this species from the foregoing, which it somewhat resembles in form.

Occasionally found near London, and in other parts of the kingdom. "Bristol."—Dr. Leach. "On the sand hills, and under rubbish on the sea-shore (near Swansea)."—L. W. Dillwyn, Esq.


Shining black: thorax with the lateral line not extending to the base, and closely adjoining the margin: elytra slightly convex, with two abbreviated striae near the suture, four entire ones on the disc placed in pairs, and an abbreviated marginal one: legs and antennae black: anterior tibiae with five teeth, the exterior one bifid.

The abbreviated lateral striae on the thorax, with its very close propinquity to the margin, the paired striae on the elytra, and the five-toothed anterior tibiae distinguish this series.


Convex, shining black: thorax with a deep lateral line extending to the base, and rather close to the margin: elytra subconvex, with a more or less distinct undefined red spot or patch on the disc, sometimes, though rarely, obliterated; and each with five entire striae, and two inner abbreviated ones: legs and antennæ piceous; anterior tibiae with five teeth, the outer ones simple.

The red patch sometimes occupies nearly the entire disc of the elytra, and the insect is not unfrequently of a more or less intense castaneous-brown.

Exclusively of the red disc of the elytra, this species may be known by its short, convex form, by the five-toothed anterior tibia, the outer of which is simple, by the dissimilar position of the striae on the elytra, and the integrity of the lateral line on the thorax.

Common in the neighbourhood of the metropolis: in profusion at South Lambeth in April last; and frequently observed in other parts of the country. "Netley, Deal, and Southend."—Rev. F. W. Hope. "Not common (near Swansea)."—L. W. Dilwyn, Esq. "Carlisle."—T. C. Heysham, Esq.

Sp. 20. castanipes. *Ater, subnitidus, paulò convexus, elytris externe quinque-striatis, pedibus piceo-castaneis, tibiis anticiis undulatis. (Long. corp. 2 lin.)


Black, slightly glossy, and a little convex: thorax with the lateral line extending to the base, where it is slightly rounded: elytra rather convex, with five anterior simple striae externally, one parallel with and close to the suture, about two-thirds the length of the elytra, and between it and the outer ones a very faint short one, scarcely a third of the length of the former: legs pitchy castaneous; the anterior tibiae undulated externally: antennæ ferruginous.

From the former this species differs in having the upper surface entirely black, and the inner stria on the elytra of very dissimilar length, the anterior tibiae waved exteriorly, and the legs castaneous.

Taken near London and in Suffolk, but not common.


Rather oblong, deep, very glossy black: thorax with the marginal line rather deep, punctate, and with an abbreviated bent one on the anterior angle, as
in Hi. parvus; at the base and towards the lateral margin are several remote impressed dots: elytra with an abbreviated stria near the suture, then two about half the length of the former and united at the apex, followed by three entire ones, and a short basal one on the margin: legs black: anterior tibie with five denticulations, the outer one bifid: antennae pitchy-black, with the club ferruginous.

Abundantly distinct from all the foregoing species of this section, and may be readily known by having the inner stria on the elytra abbreviated at the base, with the second and third united, and in having a mere rudiment only of an external stria; the club of the antennae ferruginous, and in its oblong depressed form. This species resembles Hi. 12-striatus var. ß. Plate i. f. 6. of the Entomologische Hefte, which both in form and sculpture appears very different from the var. a. of the same work, Plate i. f. 7.

Found near London; a single example only.

B. Elytra striated, the external striae abbreviated: thorax without lateral striae, the margins more or less punctured.

Sp. 22. nitidulus. Ovatus, nigro-subaeus, punctulatus, elytris antice lavibus, striis quinque obliquis abbreviatis. (Long. corp. 2—3 lin.)


Ovate, black glossed with brassy, shining: forehead punctate: thorax with the disc very smooth, with the sides broadly and the base narrowly but thickly punctate, and an impression on each side within the anterior margin: the elytra rather convex, with the posterior half thickly and finely punctate, each with five punctate, very oblique stria, the outer ones shortest, and the space between the third and fifth somewhat rugged: legs pitchy-black, the anterior tibie slightly crenate-dentate.

Larger than either of the other species of this section, and known by having the space between the third and fifth striae on the elytra wrinkled, the wrinkles placed obliquely.


Sp. 23. pulcherrimus. Ovatus, aeneo-ater, punctulatus, thoracis disco nitido, elytris margine maculique sesquialterâ glaberrimi; pedibus piceis. (Long. corp. 2 lin.)


Ovate, aeneous-black, the latter colour predominating beneath; thorax shining,
with the margin punctate; elytra punctate, opaque, each with the shoulders, apex, and margin, with two disoidal spots, one large, suboval, placed towards the suture, the other shorter, small, external, and towards the base very smooth and very shining; abdomen punctate; legs piceous, punctate.

Known by its Æneus tinge, with the disc of the thorax, a large patch on the anterior part of the elytra, and another smaller one adjoining externally, being very glossy and smooth.

Rare: it has occurred on the Welsh coast. “South Wales, near Swansea, by Mr. Millard.”—Dr. Leach.


Ovate, convex, bluish-black, very thickly rugose-punctate: thorax with the anterior and lateral margin ruggedly-strigose, the hinder margin punctate, leaving a narrow smooth space behind the middle: elytra with an oval space on the disc towards the scutellum, very smooth and glossy, the rest of the surface extremely, and deeply, rugose-punctate, with four very obsolete abbreviated striæ at the base, and a single entire one on the suture, recurved at the scutellum, bounding the smooth disoidal spot, and terminating on its outer edge: legs black, with the anterior tibiae strongly quadri-dentate.

The very rugose-punctate surface of the elytra, with the obsolete abbreviated striæ thereon, combined with the bluish hue, and the strongly denticulated anterior tibiae, characterize this insect.

Decidedly uncommon: it has, however, been captured on several parts of the coast. “Barmouth.”—Rev. F. W. Hope, and C. Darwin, Esq.

Sp. 23. æneus. Ovatus, æneus, creberrimè punctatus, thoracis disco, elytronque maculát bascos duplicatâ lavissimis nitidis, tibiis anticus serratis. (Long. corp. 1–1½ lin.)


Ovate, Æneus, or blackish, shining: forehead thickly punctured: thorax with the disc smooth, the lateral margins broadly, and the anterior and posterior narrowly, but thickly punctate: elytra broad, with the posterior half and margin very thickly punctate, the humeral callous smooth, and a large very smooth glossy space near the scutellum; parallel with the suture is an entire simple striæ, which is recurved at the base, and continued obliquely over the smooth space on the disc, which it divides in two, the outer division being smallest, having a very short rudimentary striæ at the base, and bounded by another striæ nearly half the length of the elytra, and in the punctate space beyond is an obsolete fourth one, the part adjoining which is singularly strigose-punctate: legs piceous, with the anterior tibiae serrate.
This species is distinguished by having the bright polished space on the elytra, in the region of the scutellum, divided into two unequal areas, the inner of which has an abbreviated stria at the base, and by having the anterior tibiae serrated.


Hi. conjungens. Paykul Faun. i. 44.—Curtis' Guide.

Black, slightly glossed with greenish-brass; forehead flat, thickly punctated; thorax with the angles rounded, the disc very smooth, the anterior and posterior margins narrowly punctate, the lateral ones broadly so; elytra with the apical half irregularly and not very thickly punctate, the base smooth, each with four deeply punctate, somewhat oblique striae reaching beyond the middle, nearly to the apex, the inner one distant from the suture, near which is an entire stria recurved at the base and united to the second; on the punctured space between these last at the apex is an indistinct abbreviated punctate stria; legs piceous, with the anterior tibiae four or five toothed.

The obscure abbreviated stria, between the sutural and adjoining one, at the apex of the elytra, with the more deeply punctate stria at the base, and their elongation, distinguish this species.

Of this insect I have not seen a specimen, and I am not aware of its locality;—it is introduced as British in the work last referred to.

Sp. 27. maritimus. *Oblongo-ovatus, niger, thorace lavisíssimo posticé tenué punctato, elytris striís quatuor ultrā medium productis, apicé internó punctato.* (Long. corp. 1 ½—2 lin.)


Oblong-ovate, deep black, slightly shining and convex: thorax smooth, with the anterior and lateral margins impunctate; the posterior with a narrow edge of impressed dots: elytra with the apex within punctate, each with a punctate stria near the suture, extending to the apex, curved at the scutellum, and descending obliquely across the disc rather beyond the middle, parallel with this last are three other striae, of which the first is rather longest, and at the base is an obsolete rudiment of a fifth stria; the internal apex of the elytra is rather thickly and coarsely punctate: legs pitchy-black; the anterior
tibiae with three large and two or three small teeth: antennae rusty-piceous; the basal joint sometimes blackish.

Var. s. With the space between the arch of the sutural striae thickly rugose-punctate throughout, especially towards the base, which in var. a is smooth.

In some examples the legs are black, with castaneous spines; and others have the apex of the elytra piceous.

The impunctate anterior and lateral margins of the thorax at once point out the distinctions of this species.


Sp. 28. semistriatus. Convexus, ater, obscurus, thoracis disco postico lavi, elyтро- 
rum basi impunctato, striis quinque abbreviatis, apice interno punctato, tibiis 
anticus subundulatis. (Long. corp. 1½ lin.)

Hi. semistriatus mihi.

Convexus, black, obscure: forehead smooth, with a longitudinal impressed line: thorax very finely punctured on the lateral and anterior margins, with a narrow streak of punctures on the posterior edge, having a smooth patch on the hinder portion of the disc: elytra each with an entire stria at the suture, curved at the base and united to the second, which extends obliquely across to the middle of the disc, and is followed by three other equidistant ones, of which the third is longest, and the space between it and the preceding at the base is rugose; and on the shoulder is a short oblique stria closely approximating to the adjoining one; the apical half of the elytra, except a small patch at the outer tip, is thickly and rather deeply punctate; legs and antennae pitchy-black.

This species may be known from the others of this division, by having the anterior half of the elytra impunctate, and adorned with four equidistant oblique striae, reaching to about the middle of the disc, with the space between the third and fourth longitudinally rugose as in Hi. nitidulus, from which it differs by its minute bulk, dissimilarity of form, &c.

I possess a single example of this very distinct species, which I obtained from Mr. Millard of Bristol, in the neighbourhood of which city it was captured.

Sp. 29. metallicus. Atro-violaceus, fronte rugosa, elytris apice interno punctatis, 
cestus striis quatuor abbreviatis, suturalique integra, tibiis anticus quadri- 
dentatis. (Long. corp. 1½ lin.)


Deep violaceous-black, or greenish: the forehead with two transverse wrinkles: thorax thickly rugose-punctate, with the disc posteriorly alone smooth, elytra from the middle to the interior angle somewhat thickly punctate; leaving the anterior and outer limb smooth; at the base are four oblique, short, striae, rather deeply punctate, and the inner one is connected to the second by a curved
line: legs black, the anterior tibiae dilated, with four short teeth; the posterior thickly furnished with acute ferruginous spines.


The four abbreviated equidistant striae on the elytra of this species, combined with its small size, metallic tinge, and quadridentate anterior tibiae, are its most evident characters.


Ovate, violaceous; thorax with the entire disc punctate, not glabrous: elytra with five recurved striae at the base, the apex punctate.

From the following species, which has also the entire disc of the thorax punctate, this may be known by its superior size, and by having the striae at the base of the elytra more distinct:—it may possibly be merely a large and dark variety of that species.


Sp. 31. virescens. Ovatus, virescens thoracis superficie toto elytrorumque limbo punctatissimis, striā suturali integrā, humeralibus abbreviatis. (Long. corp. 1¾—2 lin.)


Ovate, entirely of a rich shining green: forehead convex, punctate: thorax with the disc entirely and finely punctate: elytra convex, thickly punctate throughout, excepting a small ovate space near the scutellum, which is bounded by a stria parallel with the suture, recurved at the base, and descending obliquely on the disc, and beyond this three very short punctate striae at the base: body beneath dull green; tibiae and tarsi piceous.

The totally punctate thorax and bright-green colour of this species are sufficient characters to discriminate it from its allies.


Sp. 32. rotundatus. Ovatus, niger, subdepressus undique punctatus, elytris striis quatuor abbreviatis, suturali nulli. (Long. corp. 1¾ lin.)
MANDIBULATA.—COLEOPTERA.


Ovate, black, a little depressed, and sparingly punctate throughout: forehead convex: thorax scarcely margined, with the entire surface finely punctured: elytra glossy, punctate throughout, the punctures finer and more distinct on the disc anteriorly; each with four oblique abbreviated punctate striae reaching beyond the middle, and a very short one on the shoulder, the inner one recurved, but not descending down the suture. Smaller than the foregoing, from which, among other characters, it differs in wanting a sutural stria, in having the striae more elongated, in colour, &c.

Rare: I have taken one specimen in the neighbourhood of London, but forget the exact locality. "Swansea and Norfolk."—Dr. Leach.

Genus CLXXXIV.—Dendrophilus, Leach.

Antennæ with the basal joint long, robust, clavate, the second about one-fourth the length of the first, less robust and clavate; four following somewhat moniliform; the two upper larger; the remainder forming an oval, rather solid triarticulate club. Palpi unequal, with the terminal joint elongate: head small, rounded: thorax short, produced in the centre beneath: elytra truncate, nearly covering the abdomen: body more or less convex: legs short: tibiae compressed, the anterior dilated externally, and sub serrated; the four posterior less dilated, the outer edge slightly spinulose; tarsi contractile, simple.

The typical Dendrophili differ from the Histri in habit, by inhabiting beneath the bark of dead or decaying trees, though the less typical ones affect the putrid remains of animals and other refuse: they may be known from the insects of the preceding genus by the dissimilarity in the proportions of the articulations of the antennæ, by having the tibiae dilated and simple, the elytra nearly covering the abdomen:—the genus probably requires subdivision, the insects of the first section differing materially in habit from those of the second, which are intimately allied to those of the next genus, living beneath the bark of trees, as above noticed.

A. With the body considerably elevated, and convex, the elytra striated.


"Smooth, not very shining, dull castaneous: head black, minutely punctured; club of antennæ ferruginous: thorax vermiculated and punctured under a high power: scutellum none: elytra minutely and sparingly punctured (ap-
paring shagreened under a powerful lens), each having one slight and five curved, very shallow, striae, extending the whole length."—Curtis, L. c.

The only example I have hitherto seen of this species was taken by the late Rev. R. Sheppard out of the head of a snake at Nacton in Suffolk, and is in Mr. Kirby's cabinet.

†Sp. 2. Cooperi. Ater, subnigricent, subtilissimè punctulatus, elytris striis quinque integris externis. (Long. corp. 1½ lin.)

Deep black, rather glossy, head sparingly punctate: thorax more thickly and deeply punctate: scutellum minute: elytra rather closely punctured, each with five striae towards the outer edge slightly vanishing towards the apex, and a sixth very obsolete one at an equal distance from the fifth within, leaving a considerable unstriated space adjoining the suture: legs dull castaneous: antennae dull pitchy-ferruginous.

Differs from the foregoing in having an evident scutellum, the antennæ totally ferruginous, and the striae on the elytra deeper, vanishing towards the apex, and in wanting one parallel with the suture.

Of this species I have also seen but one specimen, which was taken at "Cobham, in September last."—A. Cooper, Esq.

Sp. 3. punctatus. Ovatus, niger, obscurus, punctatissimus, elytris striis quatuor abbreviatis, tibiis valdè dilatatis, subcrenulatis. (Long. corp. 3½—1 lin.)


Ovate, obscure black, thickly punctate: forehead convex, scarcely punctate: thorax finely and closely punctured throughout: elytra convex, with the margin and apex piceous, the entire surface rather deeply and thickly punctate, with four obsolete, slightly bent, striae at the base, of which the two exterior reach nearly to the apex, the others to about the middle: body pitchy beneath: legs pitchy-red, with all the tibiae, especially the anterior, much dilated externally, and finely crenulated: antennæ ferruginous, with the base obscure.

Larger and broader than the following, and known by having all the striae on the elytra abbreviated, and the entire surface thickly punctate throughout.

In April, 1813, I found a single example of this species—which seems rare—crawling up the venerable structure of Waltham Cross: the only individual I have ever seen alive. "Norwich, by the late J. Hooker, Esq."—Dr. Leach.

Sp. 4. pygmaeus. Nigro-piceus, leavis, elytrorum striis quatuor obsoleteis, utrinque abbreviatis, tibiis dilatatis integerrimis. (Long. corp. 3½—3 lin.)


Very convex; above smooth, pitchy-black or obscure castaneous: thorax immarginate, angulated posteriorly, narrowed and deeply emarginated anteriorly: elytra dilated, with four obsolete impunctate striae externally, neither ex-
tending to the base nor to the apex: body piceous beneath: legs rufo-ferruginous, with all the tibiae compressed, much dilated externally, and entire. Differs from the next by being of a darker hue, with four striae only on each elytron—the marginal one being obliterated—and by having the tibiae dilated.

Not very uncommon near London; frequenting sandy or gravelly situations, such as the sand-pits on Hampstead-heath, and the gravel-pits at Coombe-wood, where it has been taken in plenty, especially at the latter place in the spring; it also occurs in Norfolk and near Bristol.

Sp. 5. piceus. Rufo-piceus, lavoïsimus, elytris striátis marginalis quatuorque dor-salibus utrinque abbreviatis impunctatis, tibiis angustis subinermibus. (Long. corp. \( \frac{1}{4} \)-\( \frac{3}{4} \) lin.)


Above deep rufo-piceous, very smooth and shining: head rounded; forehead rather flat: thorax deeply emarginate anteriorly, with the sides rounded and narrowly margined, the base slightly bisinuated: elytra dilated, nearly gibbous, each with five very faint impunctate striae, the marginal one longest, extending from the base to beyond the middle, the dorsal ones shorter and abbreviated at both ends: body pale, rufo-piceous beneath; with the sides finely punctate, the middle smooth: legs pale reddish, with the tibiae slender, sublinear, and scarcely denticulate.

The elonate marginal stria on the elytra, slender tibiae, and paler colour, at once distinguish this insect.

Less common than the last, frequenting similar haunts; it is found within the metropolitan district, as well as near Bristol.

"Norwich."—Dr. Leach.

B. With the body much depressed and elongate, the elytra scarcely, or not at all, striated.

Sp. 6. flavicornis. Ovali-oblongus, ater, nitidus, nudique punctulatus, antennis flavescentibus, pedibus rufo-piceis. (Long. corp. \( \frac{2}{4} \) lin.)


Oblong-oval, shining, black; forehead somewhat depressed, punctate: thorax with the angles acute, deeply emarginate anteriorly, and thickly punctate throughout: elytra slightly dilated in the middle, the surface entirely punctate, with several very short obsolete rudiments of striae towards the sides: body pitchy-black: legs pitchy-red; the anterior tibiae incurved, dilated and somewhat denticulate outwardly: antennæ flavescent, with the club pale.

Smaller, less convex, rather shorter, but scarcely narrower, than the following species.

Rare: few specimens have hitherto occurred in Britain; it is
found beneath the bark of trees. "In Boleti near Bristol, by Mr. Miller."—Dr. Leach. "South Creek, Norfolk."—Rev. T. Skirr-shire. "Coombe-wood."—Messrs. Waterhouse and Westwood.

Sp. 7. picipes. Lineari-elongatus, convexus, niger, undique punctatus, antennis pedibusque rufescentibus. (Long. corp. 1 lin.)

Elongate-linear, convex, black; head broad, finely punctate: thorax subquadrate, somewhat truncate anteriorly and posteriorly, the lateral margins parallel, convex above, and thickly punctate throughout: elytra very convex, black, with the margin and apex piceous; the surface delicately punctate throughout: legs rufescant, with the anterior tibiae dilated and somewhat denticulated anteriorly; antennæ rufescant.


Also rare in Britain; and, like the preceding species, found beneath the bark of trees. "Near Norwich, by Mr. Paul."—Dr. Leach. "Occasionally found under stones, and among moss on the sand-hills (near Swansea)."—L. W. Dillwyn, Esq.—Var. β. "Near Bristol, found in a Boletus by Mr. Miller."—Dr. Leach.

Genus CLXXXV.—Platysoma, Leach.

Antennæ with the basal joint very long, somewhat recurved at its apex, and abruptly clavate; second, short, straight, less robust, the six following very short, rather slender, gradually increasing in diameter; the seventh and eighth being transverse; the remaining three forming a solid subglobose club. Palpi very short: head broad, small: thorax transverse or equally subquadrate: body flat above: elytra rather long, truncate: the abdomen with its two terminal segments exposed: legs short; tibiae compressed, the outer edge of the anterior pair furnished with a double row of minute serrations, and of the four posterior with small spines, with a groove to receive the tarsi, which are simple.

Platysoma is distinguished by the great comparative width and flatness of its form, the back being scarcely higher than the sides; it also differs by having the first joint of the antennis recurved and remarkably clavate, the clava being dilated internally: the second joint is not recurved as in Hister, and the six following are gradually shorter, but broader; the eighth being scarcely less in diameter
than the first of the club;—the elytra are more abbreviated than in Dendrophilus, and the antennæ are differently constructed:—the species are found beneath the bark of dead and decaying trees, and appear rare in Britain.


Deep black, very glossy: forehead excavated: thorax very broad, depressed, with the lateral margin finely punctate: elytra each with three entire stries on the outer edge, and a fourth abbreviated one within at the apex, and sometimes with the rudiments of a fifth between the latter and the suture: legs obscure pitchy-black, the anterior tibiae dilated and quadridentate: antennæ ferruginous.

Differs from the following in being more depressed, broader, and by having only four stries on the elytra.

Rare: found beneath the bark of the oak and beech near London, and in Norfolk. "I have a memorandum that it has been taken under bark (near Swansea)."—L. W. Dillwyn, Esq.

†Sp. 2. oblonga. *Linearis, subdepressa, atra, nitida, elytris sex striatis, tribus exterioribus integris.* (Long. corp. 1½ lin.)


Linear-elongate, somewhat depressed, shining black: forehead excavated: thorax subquadrate, above a little convex, the disc smooth, the lateral margins thickly and finely punctured: elytra linear-elongate, with the back depressed; each with six stries, of which the three inner ones are more or less abbreviated: legs pitchy-black; with the anterior tibiae quadridentate, the posterior bidentate, with the apex bicuspid: antennæ ferruginous.

Known by the six stries on the elytra, exclusively of its dissimilarity in form, &c.

Very rare: I have hitherto seen but the specimens which are in the British Museum, and which were taken "near Norwich, beneath the bark of trees, by the late J. Hooker, Esq."—Dr. Leach.

**Subsectio II.—LAMELLICORNES, Latreille,**

Contains such herbivorous Coleoptera as have the antennæ clavate, with the club composed of three or more lamelle, or pectinations, the legs fossorial, with the tibiae externally dentate and spinulose, and the tarsi mostly pentamerous.

This division of Coleopterous insects, taken in its fullest latitude,
is very extensive, and contains some of the largest and most con-
spicuous species of the order; many of which are no less di-
stinguished for their magnitude, than by the very extraordinary
forms which they present, from the horn-like and tubercular pro-
cesses which arm the head and thorax of several: few, however, of
these conspicuous insects inhabit Britain, though some of the largest
indigenous species belong to this group.

The larvae have the body long, nearly semicylindric, soft, flexible,
rugose, and whitish, composed of twelve rings, with a scaly head,
armed with strong mandibles, and with six scaly legs; on each side
are nine stigmata: the hinder extremity is more robust, rounded,
and nearly always curved under, which causes the animal to walk
with difficulty, as, from the curvature of the back, it falls over con-
tinually from side to side:—many of them are three or four years
before they change to pupa, which they do in an oval cocoon formed
of a glutinous substance mixed with the remains of the materials
upon which they feed, either in the earth or the decayed trunks of
trees: their food is various, some families subsisting upon putrid
vegetable remains, others upon vegetables in a living state, as
more particularly noticed hereafter.

The Lamellicornes are naturally divisible into two groups, the
first of which answers to the Prioceri of Duméril, and the second to
the Petalocera of the same writer: the first group, corresponding
with the Lucanides of Latreille, contains only one indigenous

Family XXIV.—Lucanidæ, Leach.

Antennae geniculated, mostly ten-jointed: basal joint very long, subcylindric,
the capitulum pectinated or somewhat perfoliated, and consisting of three or
four lamelle: labrum indistinct: maxilla setose: labium membranaceons,
concealed beneath the mentum, with two hirsute pencil-like laciniae: head
large, exserted: mandibles, especially in the males, very large: thorax with
its hinder margin not very remote from the base of the elytra, which latter
are as long as, and conceal, the abdomen: legs, especially the anterior, generally
elongated: claws large, with a bifid unguiform process between them.

The insects of this family have, doubtless, considerable affinity
with those of the foregoing, as so admirably pointed out by Mr.
MacLeay, in the Horse Entomologiae: their larvae inhabit the
trunks of trees, upon which, or in wood, the imago occurs.
The British genera may be known by the following characters, partly abridged from the delightful work above mentioned.

\[
\begin{align*}
\text{Antennarum capitato} & \quad \text{subperfoliato, quadrilaminato:} & 187. \text{Dorcus.} \\
\quad & \quad \begin{aligned}
\text{1-laminato.} & \quad \text{Labium integrum:} & 186. \text{Platycerus.} \\
\text{pectinato.} & \quad \text{bifidum:} & 188. \text{Lucanus.} \\
\text{3-laminato:} & \quad & 189. \text{Sinodendron.}
\end{aligned}
\end{align*}
\]

**Genus CLXXXVI.—Platycerus, Geoffrey.**

*Antennae* shorter than the thorax, the basal joint very long and subclavate; second smaller; the four following transverse, much shorter than the second; the remainder forming a laminated club, the first joint of which is small, the two next of equal size, the terminal very large, subovate. *Palpi* short, with the terminal joint subovate: *mandibles* short, lunate, shorter than the head, obtusely dentate within: *mentum* semi-oval, transverse: *labium* minute, entire: *head* subquadrate: *thorax* transverse, slightly margined: *body* depressed: *scutellum* small, somewhat triangular: *legs* moderate: anterior *tibia* irregularly serrated without, tridentate at the apex: *tarsi* with the four basal joints short.

The genus Platycerus may be known from Dorcus by the form of the club of the antennae, and from Lucanus by the brevity of the mandibles in both sexes, exclusively of its comparatively minute size, dissimilarity in the palpi, trophi, &c.:—the only indigenous species lives at the roots of trees.


Blue or greenish, shining, smooth: head finely and thickly punctured, slightly pubescent; thorax thickly punctured, especially on the sides, which are somewhat sinuated; elytra punctate-striate, the interstices thickly punctured, the punctures somewhat disposed in lines, and rather deep; body dusky, dull, pitchy-black beneath, pubescent; legs piceous; antennæ black; palpi castaneous.

Very rare in Britain: specimens have been taken by Mr. Waring of Bristol, and others in Scotland: it has also occurred near Oxford, and in the west of England.
Genus CLXXXVII.—Dorcu s, MacLeay.

Antennæ shorter than the thorax, the basal joint about half their length, clavate, second short, slender at the base, clavate; the four following shorter than the second, the last of them being slightly produced in its inner edge, the remainder forming a somewhat perfoliated club, the terminal joint of which is large and semicircular. Palpi, maxillary elongate: labia very short: mandibles short, dentate inwardly: labrum distinct: mentum semicircular: flat, with the anterior margins entire, straight: labium bilobed: head very broad, transverse: thorax with an obscure dorsal channel, slightly margined; the lateral margin straight: body depressed; rounded at the sides: scutellum triangular, slightly rounded posteriorly: legs short, stout: anterior tibiae irregularly serrate externally, intermediate and posterior with a tooth at the outer edge, the apex of all spurred: tarsi short.

Dorcu s is evidently a distinct genus from Lucanus; and although there is a little external similarity between the indigenous species and the female of Lucanus Cervus, it may be known by the width of the head, the evident labrum, the entire lateral margin of the thorax, the less dilated anterior tibiae, subperfoliated antennae, &c.

Sp. 1. parallelipipedus. Niger, mandibulis longitudine capitis; dente medio elevato, labro late truncato, superficie total subtillisissimâ punctatâ: aut, supernê rugoso-punctatae labro emarginatae, capite bituberculato; femina. (Long. corp. 9—14 lin.)

Luc. parallelipipedus. Linné.—Don. viii. pl. 264.—Do. parallelipipedus. Steph, Catal. 103. No. 1086.

Dull black; head very finely punctured, nearly as wide as the thorax, retuse anteriorly, with the labrum broad, truncate; mandibles stout, acuminated, with an elevated obtuse vertical tooth in the middle: thorax finely punctured on the disc, more thickly so on the lateral margins; elytra scarcely so wide as the thorax, very thickly and finely rugose-punctate. Female with the upper surface rather more shining, closely and deeply rugose-punctate, especially on the head and thorax, the former of which is much narrower than the latter, and has two approximating elevated tubercles on the forehead; the labrum is small, transverse, deeply emarginated and ruggedly punctate; the mandibles are shorter than in the male, with an obsolete not elevated tooth in the middle; thorax more convex.

Found in old decayed trees in the woods about Shooters' Hill, Eltham, Chisselhurst, Birch-wood, &c., and in the neighbourhood of Hertford. “Occasionally, though not frequently, found in various places (near Swansea).” —L. W. Dillwyn, Esq. “Common in pollard ash trees, in the neighbourhood of Bottisham and Ely.”
MANDIBULATA.—COLEOPTERA.


Genus CLXXXVIII.—Lucanus Auctorum.

Antenna longer than the thorax, the basal joint curved, very long, elavate; second short, subelavate; third longer, subcylindric; fourth and fifth short, subelavate; sixth short, with an acute process within—in the female these five last joints are of nearly equal length and bulk, and transverse—the remainder forming a pectinated club of four nearly equal lamellae, the outer one being largest. Palpi, maxillary elongate, slender; the second joint longest: labial short, the joints subequal: mandibles dentate internally, very large and glabrous in the males: mentum broad, transverse: labium bifid; head broad; in the males broader than the thorax, and margined: thorax with a dorsal channel; the lateral margin obliquely truncate posteriorly: body somewhat depressed: scutellum rounded: legs rather long: anterior tibia dilated, compressed in the female, dentate: posterior more or less spinose: tarsi long, simple.

The male Lucani may be instantly recognized by their gigantic mandibles, which in the indigenous species are furcate at the apex, and more or less considerably dentate within; and the females may be known from the others of the family by the oblique truncation of the lateral margin of the thorax, the broad, dentate anterior, and spinose posterior, tibiae, small head, with concealed labrum, quadrilaminate club of the antennae, &c.

Sp. 1. Cervus. Fusco niger, elytris mandibulisque fusco-castaneis. (Long. corp. 8 1 unc. 5 lin.—2 unc. 9 lin.:—2 1 unc. 1 lin.—1 unc. 8 lin.)

Deep fuscous-black, slightly shining, with the mandibles and elytra more or less castaneous; head larger than the thorax, flat above, retuse anteriorly, the marginius considerably elevated; mandibles half as long as the body, stout, with the apex bifurcate, a stout elongate acute tooth in the middle within, and several obtuse smaller ones; thorax short, punctulatet, the sides angulated and deflexed; elytra with the sides a little dilated, thickly and finely punctulated. Female much less, with the mandibles not larger than the head, the apex acuminate, simple; head much less than the thorax, coarsely and deeply punctured; thorax finely punctured; tibiae short, stout, anterior compressed.

Var. 8. Steph. Catal. 1. c.—Much less than var. a., with the mandibles bifurcate
at the apex, crenulated in the middle within, the crenulations unequal and variable in number; the head not so large as the thorax, without elevated margins.

Var. 2. With the apex of the mandibles obtuse, subtruncate, not bifurcate, the inner margin with two obtuse denticulations.

The male varies extremely in the dentation and bulk of the mandibles, scarcely two specimens being precisely similar, and every intermediate grade between the two extremes being observable, seems to militate against the opinion of there being more than one species found in this country:—both sexes also vary considerably in size.

This species, which is the largest Coleopterous insect found in Britain, occurs in the utmost profusion in the neighbourhood of Ripley, Cobham, and in other parts of Surry; also at Darenth, Birch-wood, in the New Forest, Devonshire, &c. "I once found a specimen lying dead on the sea-shore (near Swansea), and it had probably been washed up with the tide."—L. W. Dilwyn, Esq. "Has never occurred in Cambridgeshire to my knowledge."—Rev. L. Jenyns. "Epping."—Mr. Doubleday.

**Genus CLXXXIX.—Sinodendron, Fabricius.**

*Antennae* much shorter than the thorax; the basal joint about half their length, slightly tumid at the apex; second short, subglobose; the five following short, transverse, the remainder forming a serrated compressed triarticulate club, the joints of which are trigonal-transverse. *Palpi*, maxillary with the last joint cylindric-oval; *labial* with the terminal joint very stout: *mandibles* very short, concealed beneath the clypeus: *mentum* narrow, entire, carinated: *head* small, with a horn on the clypeus, elongate in the male: *thorax* dissimilar in the sexes: *body* convex, cylindric: *legs* short: *tibie* spinose externally: *tarsi* short, the terminal joint very large.

This anomalous genus has been constantly shifted about by systematic writers, some placing it with the present family, others with Oryctes and its allies, but from which however it seems abundantly to differ, and the rather to associate with the Lucanidae, from the other indigenous genera of which it disagrees, by having the body convex, cylindric, the antennæ very short, with the second joint subglobose, and the capitulum composed of three lamellæ only, the mandibles concealed, and the mentum small.

Sp. 1. cylindricum. *Nigrum, thorace antice truncato, quinque dentato, capitis cornu recurve, postice fulvo-hirto.* (Long. corp. 6—9 lin.)


**Mandibulata. Vol. III. 30th Sept. 1830.**
Black, shining; head depressed, armed anteriorly with a compressed, bent, vertical, obtuse horn, which is clothed behind with a fulvous down: thorax large, very convex, with a few scattered impressions above, anteriorly very retuse, or obliquely truncate, with five teeth, the middle one longest: elytra somewhat rugged, rudely striated, and with coarse rounded impressed spots: body beneath black, with the apex piceous: antennae rusty-piceous. Female with the horn on the head very short, straight, the thorax scarcely retuse anteriorly, with its surface thickly and very coarsely punctured. Variable in size and colour; some specimens being piceous; others castaneous or pale ferruginous: the latter being probably immature.


The second group of the lamellicorn insects is very extensive, though the indigenous species are not very numerous; it corresponds with the section

**Petalocera of Dumeril**:

Their antennae are generally composed of nine or ten joints only, inserted in a cavity on the border of the head, the anterior portion of which is generally produced; the eyes are placed more beneath than above: the mouth varies, but the labium is most frequently covered by the mentum, which is large and horny: the anterior tibiae, and sometimes the others, are dentate outwardly, and calculated for burrowing; the tarsi are always entire: the body is in general more or less oval; and, as before mentioned, the head and thorax are frequently armed with horns or tubercles.

The Petalocera subsist entirely on vegetable substances; the greater portion—those of the first five subjoined families—preferring it in a state of decomposition; while the Melolonthidae devour fresh leaves, and the Cetoniadæ flowers in their perfect state; the latter
insects—the Thalerophaga of MacLeay—are of brilliant and lively colours; while those which feed upon decaying substances—the Saprophaga of the same author—are dusky or black, sometimes with a metallic tinge. The following are the indigenous families, which may be known by these concise characters, abridged from those in the Horse Entomologicae:

**FAMILY XXV.—SCARABÆIDÆ, MacLeay.**

*Antennæ* nine-jointed, the basal joint elongate, cylindric, somewhat attenuated in the middle, the capitulum large triphyllous. *Labrum* concealed beneath the clypeus: *mandibles* membranaceous, hidden, elongate-lanceolate: *maxillæ* crustaceous, with membranaceous processes: *palpi, maxillary* subfiliform, naked; *labial* very pilose, the articulations somewhat dilated: *head* somewhat semicircular, frequently dentate, or horned on the clypeus: *thorax* transverse: *scutellum* concealed: *breast* large: *body* orbiculate-ovate, convex or depressed; not wholly covered by the elytra: *legs* stout, intermediate-ovate, distant at the base; posterior placed far behind: *tibial* broad, externally dentate: *tarsi*, especially the anterior, small: *claws* minute.

The Scarabæidæ may be distinguished from the Geotrupidæ and Aphodiidæ by their concealed elytra, lanceolate mandibles, and large pectus: they are also remarkable from having the posterior legs placed very far behind, a structure admirably calculated for their peculiar habits of depositing their eggs in little masses of dung, which they roll into balls: they are all copro-
phagus; and the British species may be thus concisely divided into genera.

**Corpus**

- convexum: *Palpi labiales articulo ultimo minuto*:
- depressum: *Palpi labiales articulo ultimo minuto*:

190. **Copris**.

191. **Onthophagus**.

192. **Oniticellus**.

**Genus CXC.—Copris, Geoffroy.**

*Antenna* short, the basal joint considerably elongated, subclavate; the three following short, equal in length, subhemispheric; the two next very short, transverse; the remainder forming an abrupt three-jointed club. *Palpi, maxillary* elongate, four-jointed; the terminal joint long, attenuated at each end, acute; *labial* short, very hairy, triarticulate, the terminal joint slender, truncate, minute: *head* triangular: *clypeus* emarginate in the centre, and sinuated laterally; armed in the middle with an acute or emarginate horn: *thorax* transverse, considerably shorter than the elytra, retuse and tuberculated, or cornuted anteriorly: *elytra* entire: *body* convex: *legs* stout: *anterior tibia* broad, rather curved, tridentate exteriorly: *posterior* bidentate, and bicalcarated at the apex: *tarsi* anterior, slender, and rather short; four posterior longer and dilated, especially the basal joint.

Copris differs from Onthophagus, not only by its greater bulk, but by having the body convex, the terminal joint of the maxillary *palpi* acute, and of the labial ones minute and slender, the *clypeus* emarginate anteriorly, the thorax distinctly shorter than the elytra, &c. *C. lunaris* frequents sandy districts, where it burrows obliquely to some depth, for the purpose of depositing its eggs in safety.


Shining black, with the outer margin of the *clypeus*, *thorax*, and base of the elytra ciliated with castaneous hairs: *clypeus* semi-orbicular; depressed, deeply emarginate anteriorly, with an erect, elongate, subulate horn in the middle, having its base bidentate within: *thorax* punctate, with a deep central channel, anteriorly retuse, bilobed, with the sides prominent, acute, the middle broad, truncate, bifid: *elytra* sulcate.

Female with the horn on the head shorter, emarginate; the thorax scarcely tuberculated.
The length of the frontal horn differs considerably, as do the tubercles or horns on the anterior margin of the thorax; but as every intermediate shade may be readily obtained, all the varieties are doubtless to be referred to this species.


**Genus CXCI.—Onthophagus, Latreille.**

**Antennae** with the basal joint long, cylindric; the second globose; the four following short, gradually becoming transversely oval; the remainder forming an abrupt, pubescent triarticulate club. **Palpi, maxillary**, with the terminal joint attenuated at each end and truncate; labial very hairy, two-jointed, the apical joint reniform, obliquely truncate: head cornute or tuberculated: clypeus large, entire, irregularly semicircular: thorax broad, as long or longer than the elytra, emarginate and retuse before, rounded behind: body depressed: legs moderate: anterior tibia large, strongly dentate externally; posterior bidentate at the apex: tarsi slender, anterior rather smallest.

The singular genus Onthophagus is characterized by having the body depressed, the clypeus entire, or slightly emarginate, the thorax very broad, as long as the elytra, the terminal joint of the maxillary palpi truncate, and of the labial ones secundiform, &c.:—the species generally appear toward the end of April, and frequent cow-dung in preference to other pabulum:—they vary extremely both in size and colour, as well as in the length of the various horn-like prominences with which most of them are armed on the clypeus; which latter circumstance has induced some writers to suppose there was an intermediate sex; but as every possible shade of variation in length may be obtained by an extensive collection of specimens, that theory is clearly incorrect.

A. With the head cornuted, or tuberculated.


Black, shining, thorax slightly ancous: clypeus punctured; towards its hinder margin arise two long arcuated inclined horns, which are united at the base by a transverse line: thorax finely punctured, smooth anteriorly, depressed in the centre, and on each side: elytra finely punctate-striate, each slightly pubescent: tarsi and base of antennae dull ferruginous. Female with two transverse elevated lines on the clypeus.

The only indigenous example of this fine and remarkable species which I have seen is contained in the rich cabinet of Mr. Bentley, who obtained it from that of Mr. Stone. It was captured in October, 1826, in the New Forest, Hants, near Brockenhurst.

Sp. 2. Vacca. _Virescenti-aneus, clypeo subemarginato elytris ochraceis, viridi punctatis; occipite lineis duabus elevatis, postice ad angulos laterales utrinque in cornis productis._ (Long. corp. 3½—4 lin.)


Greenish-brass, slightly glossy: clypeus slightly emarginate anteriorly, villose, somewhat rugose and punctate, with a slightly lunate transverse carina on the vertex, and a second towards the posterior edge, the last terminating on each side in a short obtuse horn: thorax villose, retuse anteriorly, transversely excavated, with an obtuse lobe in the centre: elytra obscurely striated, ochraceous, very sparingly punctate with greenish, the suture also greenish. Female with the carina on the clypeus simple.

On. Vacca differs from the following insect by being rather narrower in proportion to its length, in having the posterior carina of the clypeus distinctly shorter than the anterior, with the horn at its extremity larger than in On. medius: the elytra are very sparingly punctate with greenish, and the thorax is more villose.

Rare: it has been taken in Norfolk and Suffolk, but I believe not in the vicinity of London; certainly not in Battersea-fields; the insect said to be there found being On. medius. I have not seen above six indigenous specimens, three of which I possess.

Sp. 3. medius. _Virescenti-aneus, clypeo rotundato, obtuso, subrugoso, elytris griseis, maculis majoribus aneo-nigris confluentibus, occipite spinâ geminâ breve._ (Long. corp. 3—4½ lin.)


Greenish-brass, obscure: clypeus rounded, with the anterior margin reflexed, obtuse, subtruncate, above thickly rugose-punctate throughout, and in the male furnished with a slightly bent carina on the vertex, and a second behind, terminating at each extremity in a short spine, as in On. Vacca: thorax bronzed-black, granulated, excavated anteriorly, with a small central glossy lobe: elytra griseous, punctate-striated, with the disc thickly spotted with deep black-bronze clouds, dispersed in longitudinal streaks: body be-
neath and legs brassy-black, dentate, with the laminae on the clypeus less elevated and more curved, the posterior one scarcely produced into lateral spines; the thorax less excavated anteriorly.

Known from the foregoing, which is the only indigenous species it resembles, by its broader form, deeper clouded elytra, and the greater width of the laminae on the clypeus.

Not uncommon towards the end of May, in cow-dung, in Battersea-fields: it has also been taken in Epping Forest, and in Norfolk.


Dusky-brassy, pubescent: clypeus of the male anteriorly narrowed, reflexed, and prominent, slightly emarginated, punctate, with an obsolete curved line in the middle and a carina posteriorly, furnished on each side at the base with a denticulation or angle, and the centre produced into an elongate spine bending forwards towards the apex: thorax sometimes bright greenish-bronze, thickly punctulated, excavated in the middle of its anterior edge: elytra very finely striate, lurid-griscous, sprinkled with subconfluent dusky-bronze spots, sometimes a little reticulated, but mostly disposed in lines: body and legs bronzed-black. Female with the clypeus less produced anteriorly, with two elevated lines, the anterior arcuated and rather obsolete: the posterior shorter, unequal: the thorax not excavated in front.

The length of the occipital horn in this, as in the other, species varies considerably; in some examples it becomes nearly obsolete.


Brassy-green, pubescent: male with the clypeus reflexed anteriorly and slightly emarginate; the disc punctate, with an erect spine or horn posteriorly, arising from a transverse carina, and sometimes a little bent forwards: thorax rich green, finely granulated, with an excavation in the middle of its anterior edge: elytra rufo-griscous, rather faintly striated, and usually immaculate,
but sometimes a little spotted with greenish-bronze; body and legs brassy. Female with two transverse carinae on the occiput, but no spine behind; the anterior edge of the thorax bituberculated in the middle.


Sp. 7. Dillwynii. Plate xviii. f. 6.—Neo-niger, elytris luridis nigro reticulatis; mas, occipite sublævi, vertex carinâ obsolete et postice spinâ erectâ; foemina, occipite carinis duabus elevatis. (Long. corp. 24/2—3½ lin.)


Brassy-black, slightly pubescent; clypeus in the male rounded in front, and obscurely emarginate in the centre, its margins reflexed, the disc nearly smooth, with an obsolete carina on the vertex, and a distinct elevated one behind, terminating in an elongate slightly nutant horn; thorax finely granulated, excavated in front, with two tubercles towards the middle, and two others on the lateral margins; the anterior angles slightly reflexed; elytra behind more or less reticulated with bronzed black. Female with two arcuated elevated carinae on the clypeus, the thorax not excavated anteriorly. Known from the following by its deeper hue and the reticulated elytra, as also by its more glabrous aspect and larger size.

This insect occurs chiefly in maritime districts, though it does appear inland. "Not uncommon in the meadows between Gravesend and Cliffe."—Mr. Bainbridge. "Not uncommon in


Obscure black, pilose; clypeus somewhat smooth, attenuated in front, especially in the male, which has an elongate, rounded, slender, carina behind, terminating in an acuminate spine; thorax large, granulated, considerably excavated in front, for the reception of the vertical horn; elytra griseous, obsolesly punctate-striate, with a few irregular black spots between. Female larger, with the clypeus shorter and less attenuated, with two small elevated transverse carinae; thorax anteriorly excavated, with an emarginate central tubercle.

Introduced as British in the work above referred to, without any authority for its insertion.


Brassy-black, pubescent; clypeus suborbiculate, with the margin reflexed; punctulated above, with an arcuated transverse carina in the middle, and a straight acute spine behind, arising from a small dilated carina: thorax granulate-punctate, with the lateral and posterior margins rounded, the anterior angle not reflexed, the front slightly retuse: elytra punctate-striated, lurid-griseous, with irregular, somewhat confluent deep black or bronzed clouds. Female with two much elevated carinae on the clypeus, the anterior curved, the posterior straight, and more elevated; the thorax anteriorly considerably produced in the middle.

Very variable, as well in size as in colour, and in the length of the occipital horn.


Black, slightly shining and finely pubescent; clypeus attenuated in front, and considerably reflexed, with an obscure line on the vertex, produced posteriorly into a broad elevated carina, which terminates in an elongate nutant spine; thorax very retuse in front, with a deep excavation to receive the occipital spine: the anterior angles acute and somewhat reflexed, the disc granulated: elytra deep black, faintly punctate-striated. Female with two considerably elevated carinae on the clypeus: the thorax excavated in front, with a bifid central lobe.

In some parts of the metropolitan district, this species occurs in the utmost profusion, especially in Epping Forest, and also at Darenth, near Birch-wood, Dulwich, &c.; but in others it is some-

B. With the head not armed with a spine or horn.

Sp. 10. ovatus. *Niger; obscurus, clypeo rotundato carinis duabus transversis elevatis, elytris obsoletè crenato-striatis.* (Long. corp. 2—2¼ lin.)


Entirely of an obscure black, pubescent: clypeus nearly orbicular, obtuse anteriorly, and slightly emarginate, with a semicircular, somewhat obsolete carina in the middle, and a second more elevated and shorter one behind: thorax finely punctured, with a slight tubercle in the centre: elytra faintly excavate-striated. Female similar.

Rather local, but found in several places throughout the metropolita n district; as at Darenth, Hertford, Ripley, Charlton, &c. "Very common in the neighbourhood of Bottisham."—Rev. L. Jenyns. "Never plentiful (near Swansea), but is occasionally found throughout the neighbourhood."—L. W. Dillwyn, Esq.

**Genus CXCII.—Oniticellus, Ziegler?**

*Antennae short, with the basal joint short, clavate, the two following somewhat cup-shaped, the three next transverse, the remainder forming a trilamellate club. *Pulpi maxillary short, with the terminal joint subovate: labial slightly pilose, with the apical joint minute subulate: head small, suborbicular: thorax large, somewhat orbiculate, slightly produced in the centre behind, emarginate anteriorly: elytra small: body depressed: legs rather long: femora simple: tibiae anterior much dilated, and strongly dentate externally; intermediate and posterior short, especially the former, and slightly denticulated on the outer margin: anterior tarsi short, slender; four posterior larger and stouter.*

‡Sp. 1. verticicornis. *Thorace griseo nigro punctato, capitis cornu erecto brevissimo.* (Long. corp. 4 lin.)


Black: clypeus rounded, senecous, with a very short recurved horn: thorax rounded, smooth, griscous, with two anterior and one lateral spot, black: elytra smooth, griscous: legs pale.

Introduced as British on the authority of Fabricius, who refers to Mr. Tunstall's collection.
Family XXVI.—GEOTRUPIDÆ, MacLeay.

Antennas eleven-jointed, the basal joint elongate, subclavate, the capitulum large, triphyllous and subglobose. Labrum exserted, crustaceous: mandibles porrect, horny: maxillae crustaceous, with membranaceous processes: palpi filiform; maxillary naked; labial slightly pilose: head sometimes cornuted: clypeus triangular: thorax broader than long: scutellum distinct: body convex, orbiculate-ovate, or suborbicular: legs very stout: tibiae broad, spinose at the apex, the anterior dentate externally; the posterior somewhat dilated at the apex: tarsi rather long, slender: claws distinct.

The indigenous Geotrupidæ are generally large and conspicuous insects: from the Scarabaeidæ they differ by their corneous mandibles, and by their more convex form; they are coprophagous, and excavate deep cylindric holes in the earth under their food: the following genera have been distinguished, and may be known by the annexed concise definitions:

\[
\begin{align*}
\text{Antennarum articulo secundo} & \quad \text{193. Bolbocerus.} \\
tertio longiore & \\
globoso, tertio breviore & \quad \text{194. Tychæus.}
\end{align*}
\]

Genus CXCIII.—Bolbocerus, Kirby.

Antennæ rather short, the basal joint elongate, subclavate, very pilose on its inner edge; second large, cup-shaped; the six following short, transverse; the remainder forming a large oval club, the first joint of which is largest, and the terminal smallest. Palpi maxillary with the fourth joint considerably longer than the third, subcylindric: head small, with an erect occipital horn in the male: thorax large, unequal, cornuted in the males, simple in the females: elytra short, convex: body suborbicular: legs rather long: tibiae curved; anterior compressed and serrated without; intermediate and posterior denticulated: tarsi long, basal and terminal joints of equal length; fourth smallest.

Bolbocerus was first described as a distinct genus from Geotrupes by Mr. Kirby, in the Linnean Transactions, although the name Odontœus had been previously applied thereto on the continent, but without characters:—the genus may be readily known from the others of the family, by the brevity of the third joint of the antennæ, which is considerably shorter than the second, exclusively
of other evident characters, as the dissimilarity in the proportions of the terminal joints of the maxillary palpi, the cornuted head, unequal thorax, subhemispheric body, &c.


Black, sometimes with a chestnut hue, beneath testaceous; clypeus sinuate, punctate, with a long linear, slightly recurved, moveable horn in the middle: thorax deeply punctate, with a groove in the middle, having an acute process on each side, to receive the occipital horn, and two longer, more or less elongate, compressed, bent, processes on each side near the anterior angles: elytra deeply punctate-striated: body beneath testaceous; legs castaneous: palpi and antennae flavescent, the club of the latter pitchy-chestnut. Female with obsolete rudiments of tubercles on the head and thorax. Variable in colour, as well as in the length of the occipital horn, but rarely entirely testaceous.

Not common: found in various places within the metropolitan district; specimens having been found at Hertford, Darenth, Birch-wood, Dartford, &c.: it has also occurred in Cambridgeshire at Wisbeach, on Mounshold heath, near Norwich. "Coome-wood." —Mr. Hatchett. "A single female in Lord Clifford's park near Bristol."—G. Waring, Esq.


Less than the last; rufo-testaceous; eyes black: male with a rather short, slightly recurved acute horn on the clypeus: thorax punctate, with a shallow central channel anteriorly, having a minute prominence on each side, and a large tubercle of a triangular form near the anterior angles: elytra punctate-striated. Female with two minute tubercles on the clypeus. Smaller than the last, with the horn on the clypeus more slender, shorter, less recurved and tapering to its extremity, the armature on the thorax very short, and sometimes nearly obsolete: the eyes black, and the serrations of the anterior tibia piceous.

I am induced to consider this distinct, from the facts that out of an extensive series that I possess of each species, there are no intermediate specimens; the armature of the head and thorax being in all remarkably short, and the tubercles on the thorax very small, and in some instances obsolete, while all the specimens are considerably smaller than those of Bo. mobilicornis; and
Gyllenhal states that the present insect is not found in Sweden, whereas the last species is a native of that country.

I believe all my specimens were taken in Norfolk.

† Sp. 3. quadridens. *Ferrugineus, capitis cornū elevato simpliei, thorace anticie quadridentato.* (Long. corp. 6 lin.)

Much larger than *Bo. mobilicornis*; ferruginous; male with a short immovable horn on the clypeus; thorax with four, nearly equidistant, obtuse teeth near the anterior margin; elytra punctate-striated. Female with a slightly elevated line on the head, and another more obsolete near the anterior margin of the thorax.

The only recorded indigenous examples of this species were taken during a flood on the marshes between Peterborough and Wisbeach, in the summer of 1807, by Mr. W. Skrimshire, who states, in the Entomological Transactions, p. 317, that he captured a pair, male and female.

**Genus CXCIV.—Typhœus, Leach.**

*Antenna* rather slender, the basal joint elongate and robust, slightly pilose; the second short, globose; the three following of nearly equal length, slightly elongate; the three next short, transverse, the remainder abruptly forming an ovate trilamellate club. *Palpi maxillary* with the terminal joint rather longer than the third, slightly attenuated at each end: *head* triangular: *clypeus* rhomboidal, incurved: *thorax* large, convex, produced anteriorly into horns or tubercles: *elytra* oval, convex: *body* robust, ovate: *legs* stout: *femora* simple: *tibia* curved, serrated externally: *tarsi* with the basal and terminal joints of equal length, elongate.

*Typhœus* was established as a genus by Dr. Leach, in 1812, in the Edinburgh Encyclopaedia, but within these few years Fischer also proposed detaching it from Geotrupes, by the name Cerophyus, which has been adopted by Latreille, in the new edition of the Régnè Animal, regardless of the priority of Dr. Leach's claim; in justness, however, to my friend, I shall retain his original appellation:—the cornuted thorax, elongate fourth joint of the antennæ, and basal joint of the tarsi, will sufficiently enable any one to detect the only indigenous species, which usually frequents sandy or gravelly wastes and heaths.


Entirely black, shining: head depressed, villose at the sides: clypeus angulated, margined, with a longitudinal elevated ridge: thorax smooth in the middle, with the sides punctated and foveolated, the male with two porrect acute horns at the anterior angle, reaching over, and as long as, the head, and an intermediate shorter ascending one in the middle: elytra striated: female with the lateral horn on the thorax very short, and in place of the central one a transverse elongate ridge.

Very variable in size and in the length of the thoracic horns, as well as in sculpture and colour. In some examples the lateral horns in the male are considerably longer than the head, and have a distinct tooth above; while others are nearly obliterated and perfectly simple: some examples have the sides of the thorax very rugose; while others are simply punctate: others again have the elytra castaneous and rather deeply sulcate: but as all intermediate shades occur, they must all be considered as belonging to one species.


**Genus CXCV.—Geotrupes, Latreille.**

Antennæ rather slender, basal joint long, triangular, slightly pilose; second short, globose; third elongate; fourth shorter than the fifth, which is slightly elongate; the three following transverse, cupshaped; the remainder forming an oval trilamellate club. *Pulpi maxillary* with the third and fourth joints of equal length, the latter cylindric: *head* triangular: *clypeus* rhomboidal: *thorax* broad, convex, unarmed: *clytra* large, oval: *body* convex, robust: *legs* stout: *femora* short, sometimes spinose: *tibia* curved, more or less compressed, the anterior dentated externally, the others notched: *tarsi* with the basal joint shortest.

Latreille—than whom no one is more competent to decide upon a point relative to the structure of insects, and "whose accuracy is beyond all praise" in the details thereof, but who is not in-
frequently at fault when he ventures an opinion regarding the diversity of species—says "Magnitudine, colore admodum variet Ge. stercorarius. Majores nostri suprâ nigri, marginibus thoracis et elytrorum corporeque infrâ violaceo-coeruleis, &c.—Alii minores, colore suprâ intense viridi, infrâ aurato-viridis, &c.—Has meras varietates ut species distinxit Dom. Marsham, in Entomologia Britannica; Sc. stercorarius, spiniger, foveatus, mutator:—which opinion given nearly a quarter of a century since has been recently assumed as a proof of the identity of certain Marshamian species of this genus with Ge. stercorarius, in spite of the subsequent observations of Molinousky, in the first vol. of the Transactions of the Natural History Society of Halle, and of the palpable diversity of the insects in question, a point which I have attempted to render evident in the subjoined pages, by submitting the dictum of Latreille to the test of experience, truth alone being my object; while a retrograde movement, solely to follow the views of a distinguished writer, must inevitably lead to error and its consequences.

The short third joint of the antennae and basal joint of the tarsi, as well as the smooth unarmed thorax, will at once enable any person to detect the insects of the present genus, which are usually found in meadows, fields and wastes, where cattle are pastured; their use in the economy of nature being to devour the dung of herbivorous animals—they abound most in the spring and autumn, and very frequently are observed of an evening flying towards sunset, with a loud hum:—they are much infected with acari.

Sp. 1. vernalis. Subhemispharicus violaceo-niger, nitidus; antennarum capitulo fusco, thorace elytrisque lavishis, glabris. (Long. corp. 6—9 lin.)


Subhemispheric: glossy violet-black; with the club of the antenna fuscous: clypeus rugose, with the vertex slightly prominent: thorax very finely and faintly punctate on the disc, rather coarsely so on the lateral margin, near which on each side is a deep fovea: elytra very glossy, smooth, but with a lens they appear faintly punctate striate, and obsoletely strigose between the striae: body beneath pubescent, deep violet or greenish: posterior femora denticulated in the male.

Very variable in size and colour, specimens occurring of a rich violet-blue, greenish or nearly black.

Somewhat local; but found in sandy situations in several places
within the metropolitan district:—in plenty on Wimbledon common; also near Ripley, Hertford, Croydon, in the New Forest, in Devonshire, and abundantly in Suffolk, near Woodbridge. "Baron Wood."—T. C. Heysham, Esq. "Epping."—Mr. Doubleday.

Sp. 2. laevis. Subhemispharicus, atro-violaceus, nitidus, thorace confertissim: punctulato, elytris levissimis, irregulariter obsolete punctato- striatis. (Long. corp. 6—9 lin.)


Subhemispheric, deep violet or black, shining; vertex slightly prominent; clypeus rugose; thorax very thickly and rather deeply punctured throughout, with a fovea on each side near the lateral margin; elytra very smooth and glossy, with several obsolete irregular faintly punctured striae; body beneath pubescent, violet, sometimes greenish; posterior femora serrated on the inner margin in the males; club of the antennae black, with its apex sometimes ferruginous.

Variable both in size and colour, like its congeners.

Not very uncommon on heaths near London, but more abundant in the mountainous districts of Wales and Cumberland; also found in the New Forest. "Barmouth and North Wales."—Rev. F. W. Hope and C. Darwin, Esq. "In abundance on the mountains near Wast Water in Cumberland, and in Borrowdale."—W. C. Hewitson, Esq. "Common on heaths in the neighbourhood of Nottingham, from March to October."—Dr. Howitt.

Sp. 3. sylvaticus. Subhemispharicus, supra niger, violaceo marginatus, infra violaceus aut aurato-viridis, vertice tuberculo acuto, thoracis disco punctis sparsis, elytris striatis, interstitionibus transversim strigosissim. (Long. corp. 6—10 lin.)


Subhemispheric; above blue-black, margined with violaceous; beneath violaceous or golden green; clypeus rugose, with an acute tubercle on the vertex; thorax sprinkled with distinct, somewhat remote punctures on the disc, somewhat rugose on the lateral margins, with a punctate fovea towards the edge; elytra rather faintly striated, the interstices transversely strigose; antennae somewhat piceous, with the club fuscous; tarsi piceous; posterior femora in the male with a single denticulation on the inner edge.

Extremely variable in size, and in colour; some examples being of a rich purplish violet above, and others nearly black; and the under surface being occasionally of a rich coppery-purple, or golden-green.

The most abundant species of this genus within the metropolitan
district, especially on wastes in the vicinity of woods. "Ar-
mathwaite."—T. C. Hesylham, Esq. "Heaths near Nottingham,
in July and August."—Dr. Howitt. "Epping."—Mr. Doubleday.

Sp. 4. niger. Subhemisphericus, supræ obscurus, niger, laevis, sublus atro-viola-
ceus, pedibus anciae, elytris obsoleti striatis. (Long. corp. 7—9 lin.)


Subhemispheric: above dull-black, smooth, beneath deep violet; elytra with an
obtuse tubercle; thorax very absolutely punctate on the disc, the punctures
remote, except towards the lateral margins, where they become confluent,
with a slightly impressed fovea towards the edge; elytra very absolutely
striated, between the striae some obscure strigose lines; legs greenish-brass,
or violet.
The most doubtful species of the genus: I suspect it may only prove a variety
of Ge. sylvaticus.

Found within the metropolitan district, but not common: also

Sp. 5. foveatus. Subovalis, niger, thorace subpunctato utrinque punctis duabus
excavato, lateribus rugulosis, elytris sulcatis. (Long. corp. 7—9 lin.)

107. No. 1109.

Suboval; black, with the margins of the thorax and of the elytra deep-bluish;
elytra with an acute tubercle on the vertex; thorax smooth, with a few
scattered punctures on the disc, two fovee on each side, and the lateral margins
rugosely-punctate; scutellum violet; elytra sulcate; the interstices smooth;
tarsi picaceous; posterior femora with one or more denticulations on the inner
edge.

Distinguished by having two fovee on the lateral margins of the thorax, which is
subpunctate, and the elytra sulcate.

Found occasionally within the metropolitan district and in
Suffolk.

Sp. 6. punctato-striatus. Oblongo-ovatus, violaceo-niger, vertice tuberculo mi-
nuto, thorace laevi, elytris profusâ punctato-striatis. (Long. corp. 6—8 lin.)


Oblonga-ovate, above deep violaceous-black, beneath rich violet or purplish:
elytra with an obtuse minute tubercle; thorax with the disc impunctate, a
few confluent punctures and a fovea on the lateral margins: elytra rather
deply punctate-striate, the striae equidistant, the interstices slightly convex
and a little strigose, especially towards the apex: legs violaceous: tarsi
picaceous: club of the antennae ferruginous.

The oblong form and equidistant punctate stripe of this species, combined with the

plain disc of the thorax, which has merely an obsolete longitudinal row of punctures in its centre, at once point out its distinctions.

Found within the metropolitan district, and in Suffolk.

Sp. 7. mutator. Oblongo-ovalis, suprâ versicolor, infra splendidé aureo- aut cupreo-viridis aut amethystino-purpureus, thoracis disco impunctato, elytris profunde punctato-striatis, striis per paria digestis. (Long. corp. 7—10 lin.)

Oblong-oval, above violaceous or green, of a rich amethystine hue, very glossy and brilliant: elyseus very rugose, with an acute elevated tubercle on the vertex: thorax convex, the disc impunctate glossy, with an irregular dorsal channel, having a few scattered impressions in its centre, more or less obliterated anteriorly, arising from a punctate fovea on the anterior margin of the thorax, and terminating a little before the hinder margin: scutellum large, depressed in the centre, its margin memranaceous: elytra rather deeply punctato-striated, the striae disposed in pairs, especially towards the shoulders and outer margin of the elytra, the interstices convex, the third from the suture punctate: body beneath very splendid and rich coppery or golden-green, or rich amethystine purple, with brilliant iridescent shades: legs variable in hue, like the upper surface; tarsi picceous: antennæ fuscous at the base, with the capitulum dusky.

Extremely variable in colour, some examples being of a remarkably rich hue; but all have the striae on the elytra disposed in pairs.

This insect occurs in the utmost profusion in some fields between South Lambeth and Clapham, and is also found not uncommonly in Battersea-fields; but during several years' research in the fields to the north of London, about Islington, I never observed a single example, although Geo. stercorarius abounds therein; whereas in the former localities it is evidently rare: and as every individual that I have inspected, amounting to several hundreds, possesses its own peculiar characters, I feel convinced, notwithstanding the high authority of Latreille, that Ge. mutator is positively a distinct species from either of the others:—it is likewise found in Somersetshire, near Bristol. "Swanse."—L. W. Dillwyn, Esq.

Sp. 8. puncticollis. Oblongo-ovatus, violaceo-niger; vertice tuberculo minuto, thoracis disco undique sparsim punctato, elytris punctato-striatis interstitis subdepressis. (Long. corp. 7—10 lin.)

Oblong-ovate: above deep violet-black, beneath violaceous: elyseus rugose, with a minute tubercle on the vertex: thorax moderately convex, with a punctate dorsal channel; the disc throughout covered with scattered, not very distant,
punctures, the lateral margins very thickly punctured, with a fovea towards
the middle: scutellum smooth, with an impressed dorsal line: elytra moderately
convex, slightly elongate, punctate-striate, the interstices smooth, depressed:
legs violaceous-black; tarsi pitchy-black: antennæ with the club slightly cas-
taneous or rusty-piceous.
Variable in bulk, but not much in colour:—and may be at once known from its
congeners by the deeply impressed puncta on the thorax, combined with its
distinctly punctate-striate elytra, with depressed interstices, in which latter
characters it differs from Ge. sylvaticus, niger, and lavis, which have the thorax
more or less punctate throughout; but these insects are of a totally different
form.

Not very abundant within the metropolitan district, but apparently
more so near Bristol, whence I have received many specimens: it
also occurs in Wales. "Cooms-wood, Arnmathwaite."—T. C. Hey-
"Swansea, not uncommon."—L. W. Dillwyn, Esq.

Sp. 9. sublavigatus. Oblongo-ovalis, violaceo-ater, marginibus purpureis, verticē
tuberculo obsoleto, thoracis disco convexo lavi, utrinque bifoveolato, lateribus
punctatis: elytris tenuissimis: striatis, striis punctatis, interstilīs planis.
(Long. corp. 10 lin.)


Oblong-oval: deep violaceous-black, with the lateral margins of the thorax and
elytra purple: clypeus slightly rugose, with an obsolete central tubercle:
thorax moderately convex, the disc smooth, with an interrupted punctate
dorsal channel, the sides rather thickly and deeply punctate, especially on the
margin, where the puncta become confluent; on each side are two foveae, one
depth punctate one externally, and a smaller impunctate one towards the disc;
and towards the middle of the anterior margin are also two other rather large
impunctate depressions, equidistant from each other and the lateral margins:
scutellum rugose in the centre: elytra finely striated, the striae composed of
distinct punctures, the interstices depressed and smooth: body beneath vio-
laceous: legs the same: tarsi piceous: antennæ with the capitulum rusty-
piceous.

In form resembling Ge. stercorarius 3, but totally distinct from that insect,
from which its obsolescent striated elytra, with flat interstices, at once remove
it, and distinguish it from its congeners.

My example of this conspicuous species was taken by myself,
many years since, in the neighbourhood of London, but I do not
remember the exact locality.

Sp. 10. stercorarius. Oblongo-ovalis, niger, infrā violaceus, verticē tuberculo
acuto, thorace lavi, linēā dorsāli abbreviātā impressā, elytris profundè striātis
striis impresso-punctatis. (Long. corp. 8—12 lin.)
MANDIBULATA.—COLEOPTERA.


Oblong-oval; black above, deep violaceous beneath; clypeus with an acute tubercle on its vertex; thorax convex, the disc impunctate, with a simple abbreviated dorsal channel behind, the lateral margins thickly punctate close to the edge, with a few scattered puncta interiory, and on each side a single small glossy punctate fovea; scutellum punctate in the centre; elytra deeply striated, the striae with impressed punctures, the interstices convex, smooth. Male with a solitary erect spine on the anterior tibiae within, and one or more strong teeth on the inner edge of the posterior femora. Also variable in size and colour, but the latter more constant than in the other species, the only variation consisting of a slight gloss of greenish or bluish upon the upper surface.


**Family XXVII.—APHODIIDÆ, MacLeay.**

*Antennae* nine-jointed, the basal joint slightly elongate, the capitulum sub-globose-ovate, triphyllous. *Labrum* concealed beneath the clypeus: *mandibles* hidden, subcorneous or coriaceous: *maxillae* with membranaceous processes: *palpi*, maxillary filiform, naked: *labial* short, slightly pilose, with subglobose joints: *head* semicircular: *clypeus* sometimes tuberculate: *thorax* transverse-quadrare: *scutellum* distinct: *body* ovate, rounded at the extremity; somewhat convex above; completely covered by the elytra: *legs* short, equidistant; anterior *tibia* broad, tridentate externally: *femora* with an impressed row of hairs within.

In this family are included some of the smallest of the lamellicorn insects: they differ from the Scarabæide in having short, dilated coriaceous mandibles, the pairs of legs being at equal distances from each other, and the scutellum distinct; from the Geotrupidæ by their small bulk, the mandibles being concealed beneath the clypeus, and the palpi very short and glabrous: and from the Trogidæ by the labrum being concealed beneath the clypeus, their mandibles being thin and compressed, and the elytra not reflexed beneath the apex of the abdomen:—they are chiefly coprophagous, but some
of them subsist upon putrescent vegetable matter: the indigenous species have been divided into the two following genera:

\[
\text{Palporum articulo ultimo} \begin{cases} \text{filiforme, haud dilatato:} & \ldots \ldots \ldots 196. \text{ Aphodius.} \\
\text{dilatato:} & \ldots \ldots \ldots 197. \text{ Psammodius.}
\end{cases}
\]

**Genus CXCVI.—Aphodius, Illiger.**

*Antennae* with the basal joint slightly elongate, robust, cylindric; the second globose; third small; the three following transverse; the remainder forming a triphyllous, subglobose-ovate, capitulum. *Pulpi, maxillary* filiform, naked, the terminal joint longer than the third, cylindric; *labial* very short, slightly pilose, the joints nearly equal, the terminal one not dilated; *labium* emarginate at the apex: head broad, with a semicircular or lunate clypeus, frequently tuberculate: body oblong, convex, or slightly depressed.

The genus Aphodius comprises a vast host of species, of which a considerable number inhabit Britain; their habits are nearly similar, living in dung, and flying during the sunshine in roads, meadows, &c., where their pabulum is to be obtained; the larvae resemble in form that of an Oryctes or Melolontha (cockchafer), and feed like the imago upon dung. From the extent of the genus, I have divided it into the following sections, for the sake of more readily ascertaining the species, many of which are extremely variable, and difficult to determine with certainty, without great trouble.

A. Scutellum very large, elongated.

a. With the body convex.

Sp. 1. *Fossor*. *Ater, clypeo tuberculis tribus, medio subcornuto, elytris leviter punctato-striatis, thorace subretuso.* (Long. corp. 4—6 lin.)


Very convex, entirely of a deep glossy-black; glabrous; clypeus emarginate, with three tubercles, the middle one elongate, acute; thorax anteriorly impressed in the middle, the sides sparingly punctate: elytra rather faintly punctate-striate, the interstices very smooth. Female with the tubercles on the clypeus nearly obsolete; the disc of the thorax punctate throughout; with the anterior impressions nearly obsolete.

Variable in size, and some examples are more obscure than others.

Very common throughout the metropolitan district, especially in horse-dung. "Bottisham."—Rev. L. Jenyns. "York and New-


Entirely black, very glossy, slightly depressed: clypeus angulated, emarginated anteriorly, punctuated within the margins, with a slight elevation in front, and three tubercles behind: thorax large, covered throughout with deep scattered punctures; scutellum depressed; elytra rather deeply sulcate, the sulci crenated; body slightly pubescent beneath, and with the legs black, tarsi pecious, or castaneous.


Sp. 3. haemorrhoidalis. *Brevis, niger, clypeo trituberculato, elytris crenato-striatis, apice rufis.* (Long. corp. 2—3 lin.)


Short, black, slightly glossy: clypeus subemarginated, with three minute tubercles behind: thorax thickly punctate: scutellum acuminated, punctate: elytra moderately convex, rather deeply crenate-striated, black, with the apex more or less rufous; body beneath and legs pitchy-black: tarsi rufescent.

Var. b. *Steph. Catal. l. c.—With a rufescent spot at the base of the elytra upon the shoulder.

Not a very abundant species near London; found occasionally in meadows near Hertford, Coombe, and Darenth: in the Castle meadow, Dover, I found the insect in the utmost profusion, in August, 1819. It is found in Norfolk, the New Forest, Devonshire, and near Bristol. "Dalston."—T. C. Heysham, Esq. "In dung (near Swansea), not uncommon."—L. W. Dillwyn, Esq.

b. With the body depressed.


Black, depressed, broad: clypeus suborbiculate, very much punctate, with a
single, more or less obsolete, tubercle on the vertex, and sometimes an elevated line on each side: thorax convex, very thickly and finely punctate throughout: elytra short, considerably depressed, livid-griseous, with the suture rather dusky, finely punctate-striated, the interstices delicately punctulated.

Elytra sometimes fuscescent, with the apex pale.


B. Scutellum small, short.

a. With the clypeus tuberculated, generally emarginated.

1. With the body convex.

† Sp. 5. Scrutator. Ater, clypeo trituruberculato, thoracis margine, elytris ab- domineque rufis. (Long. corp. 4—5 lin.)


Black, shining: clypeus rounded, with three tubercles: thorax punctate, with the margins broadly rufous: elytra striated, rufous, with an elevated point at the base and apex: abdomen entirely rufous: legs black.

A specimen of this insect is said to have been taken near Leeds, by the late Mr. Atkinson—others were in the collection of Mr. MacLeay, according to Marsham.


Shining black; clypeus obscurely emarginate in front, with a distinct short elevated line on the vertex and three tubercles behind: thorax sparingly punctate, with the anterior angle on both sides testaceous or red; and in the male the anterior margin with an excavation in the middle: elytra bright rufous, immaculate, punctate-striate, the interstices smooth: abdomen and legs black; tarsi rufous.

The elytra are sometimes slightly fuscescent:—known from the following by its black abdomen.

Sp. 7. fœtens. **Niger. nitidus, thoracis angulitis, antecis, elytris, abdomenque rubris, clypeo trituberculato.** (Long. corp. 3 lin.)


Glossy black: clypeus entire, with an obsolete elevated line on the vertex, and three tubercles behind, the central one longest: thorax sparingly punctate, the anterior angles with a rufous spot: elytra rufous, immaculate, rather deeply punctate-striate: abdomen pale rufous: antennae and palpi the same, the latter with a piceous ring on the terminal joint: legs black; tarsi rufescent.

In some examples the elytra are of a duller hue than in others.

Latreille, in his Genera, &c., considers this as a mere variety of the foregoing; but its different period of appearance, as well as the constant dissimilarity of characters, clearly show its distinction.

Found in June and during the summer within the metropolitan district, not in company with the preceding. "Bottisham."—**Rev. L. Jenyns.** "Common, especially in horse-dung about the sea side (near Swansea), in summer."—**L. W. Dillwyn, Esq.**


Shining black: clypeus angulated, entire, with three tubercles behind, and an obsolete carina on the vertex: thorax immaculate, with a few scattered punctures on the disc, which is nearly smooth anteriorly: elytra pale griseous, with the suture dusky, rather deeply punctate-striated: legs testaceous: antennæ testaceous, with the capitulum dusky.

**Var. b. Steph. Catal. i. c.—Sc. conflagratus. Don. ii. pl. 70.—With a broad oblique fuscous or black patch on the elytra, reaching from the shoulder towards the apex.**

The concordorous anterior angles of the thorax and pale elytra distinguish this species from the foregoing.

Less abundant than the last, but nevertheless not unfrequently found during the spring months in Battersea-fields, and other places within the metropolitan district: in Norfolk, Suffolk, &c. "Botchardby, Dalston, &c."—**T. C. Heysham, Esq.** "York and Newcastle."—**W. C. Hewitson, Esq.** "Swansea."—**L. W. Dillwyn, Esq.**

Sp. 9. rufescens. **Rufo-ferrugineus, convexus, thoracis disco nigro punctatissimo, pedibus rufis, inmaculatis.** (Long. corp. 3½–3½ lin.)


Rufo-ferruginosus, convex, shining: clypeus with three tubercles, the intermediate longest in the male; the vertex rather blackish: thorax glossy black,
the lateral margins broadly dull ferruginous, with an obscure fuscous spot, the
disc throughout thickly and finely punctate: elytra punctate-striate, generally
immaculate, but sometimes with a larger or smaller oblique fuscous patch, or
with the entire disc fuscous: body beneath and legs immaculate rufo-ferru-
ginous; breast sometimes piceous.
More elongate than either of the preceding insects, from all of which it may be
known by its immaculate red legs.

Common in horse-dung throughout the metropolitan district: also found in Norfolk. "Occasionally found on the sand hills (near Swansea), about midsummer."—L. W. Dillwyn, Esq. "Bott-
tisham."—Rev. L. Jenyns.

Sp. 10. castaneus. *Rufo-castaneus, elytris antenna pedibusque testaceis, capite
subrituberculato.* (Long. corp. 2¼ lin.)

Reddish-chestnut, shining: clypeus with three obsolete tubercles: thorax some-
what castaneous, the disc darker, and throughout sprinkled with minute
punctures: elytra testaceous, punctate-striate: legs pale testaceous.

Probably an immature state of the foregoing; the puncta on the thorax seem
however differently disposed.

I possess one specimen captured by myself near London, and a
pair from the Marshamian cabinet.

Sp. 11. ochraceus. *Oblongus, niger, parum convexus, clypeo trituberculato, tho-
race punctatissimo, elytris ochraceis, pedibus piceis.* (Long. corp. 3 lin.)

Oblong-black: clypeus angulated, thickly punctate, with three small tubercles
behind: thorax thickly and deeply punctate throughout, with the anterior
angles testaceous: elytra rather long, ochraceous, slightly clouded with dusky,
punctate-striated: abdomen dusky-testaceous: legs pitchy-black: tarsi ru-
fous; antennae dusky-ferruginous.

More convex than the two last, from which it also differs by having the an-
terior angles alone of the thorax pale, and the disc thickly punctate.

My example of this insect, which greatly resembles A. Lapponum
of Gyllenhall, was taken near London.

Sp. 12. sordidus. *Livido-testaceus, parum convexus, thoracis disco nigro parci
punctulato, corpore pedibusque nigro varis.* (Long. corp. 2½—3½ lin.)

Rather depressed, livid-testaceous: clypeus entire, ferruginous; the disc and
crown black, the latter with three tubercles: thorax broad, convex, very
glossy, the disc smooth, or with a few scattered punctures; the margins pale,
the lateral ones broadly so, with a black dot in the middle: elytra broad,
punctate-striate, livid or pale-griseous, glossy, with the suture obscure, and frequently a humeral and one or two other black or dusky spots: body and legs livid, clouded with dusky.

The clouded legs and more depressed form distinguish this insect from Ap. rufescens, which it most resembles.


Elongate, subcylindric, pitchy-black: clypeus anteriorly ferruginous, with three tubercles on the vertex, and a single obsolete one anteriorly: thorax shining black, punctulated, with the lateral margins broadly testaceous: elytra punctate-striate, shining, pale testaceous, with the suture dusky: body beneath pitchy-ferruginous; legs paler.

Smaller than any of the foregoing, and more elongate, with the lateral margins of the thorax immaculate.

Not common: it occurs sometimes within the metropolitan district, and also in Norfolk. "Rather common in dung, particularly on the sea shore (near Swansea)."—L. W. Dillwyn, Esq.


Oblong, livid, shining: clypeus semiornicular, slightly emarginated anteriorly, rufescent, with the vertex black, and bearing three tubercles: thorax convex, very glossy, posterior and lateral margins livid, the sides broadest, with a fuscous dot; the disc, especially in front, black: elytra livid, with the suture dusky, and a large patch on the disc fuscous, punctate-striated: body beneath pitchy-brown, with the abdomen paler: legs pale, with the femora stout.

Slightly variable in colour, and in the size of the fuscous patch upon the elytra.

The only locality I am aware of for this pretty species is the vicinity of Darenth-wood, in the lanes about which place I have very frequently captured it during the month of July.

Sp. 15. conspurcatus. Oblongo-niger, thoracis lateribus pallidis, elytris tenué
punctato-striatis pallidis, maculis septem nigris distinctis. (Long. corp. 2½ lin.)


Oblong, black, glossy: clypeus entire, with three tubercles, and an oblong ferruginous spot before the eyes: thorax convex, thickly punctate, the sides broadly pale, with an obsolete fuscous spot: elytra pale, a little convex, faintly punctate-striate, with the interstices flat, smooth, shining; each elytron with seven distinct oblong-quadrat black spots, of which two are between the second and third stria from the suture, beyond the middle, one behind the other; a third anterior, between the third and fourth stria; the fourth and fifth between the fourth and fifth stria, the former before and the latter behind the middle; the sixth obliquely curved on the shoulder; and the seventh in the middle of the disc, elongate: abdomen and legs pale testaceous.

Differs from the following, which it most resembles, in having the elytra more depressed and less deeply striated, the suture and stria not dusky, and the spots differently placed.

Rare; it has been taken within the metropolitan district, but it appears more frequent in the west of England. "In horse-dung (near Swansea), not common."—*L. W. Dillwyn, Esq.*


Shining-black: clypeus entire, with three obsolete tubercles, and before the eyes a ferruginous spot on each side: thorax thickly punctured, the disc glossy black; with the sides broadly, and the anterior and posterior edges narrowly, margined with testaceous, the former with a fuscous dot in the middle: elytra griseous-testaceous, rather deeply punctate-striate, the interstices elevated, glossy, and smooth; the suture and the stria fuscescent; in the middle of the base an elongate black spot, towards the suture and middle of the elytra two other small united ones, joined to the preceding by the fuscous stria; within the apex three other small ones, the middle one being anterior; and beneath the shoulder an oblique stria: body fuscous beneath; legs pale.

The spots on the elytra are more or less confluent in different examples, and vary in size:—the insect chiefly differs from the last described by the number and confluence of the spots, with the fuscous and deeply impressed striae, and more convex form.

Not uncommon near London: I have taken it during the summer at Ripley, and near Hertford.

Sp. 17. inquinatus. *Niger, nitidus, thoracis angulis anticis maculâ rufâ, elytris griseis maculis nigris, interioribus tricompositis.* (Long. corp. 2—2½ lin.)

Shining black: clypeus slightly emarginated, with three tubercles; thorax thickly, but finely punctulated, with the anterior angle on both sides reddish: elytra pale griseous; with the suture dusky; finely punctate-striate, with various black marks, viz. on the middle of the base an oblong spot; against the middle interiorly, another, composed, as it were, of three; beneath which, towards the apex, a third, also triplex; within the margin, beneath the shoulder, a slightly oblique elongate striga, and generally a lunular one within the apex: body piceous: legs pale griseous, varied with black.

Extremely variable in the confluence or absence of the marks on the elytra; many of the varieties having been described or named as distinct species, as may be seen by a reference to my Systematic Catalogue, as above cited.

The rufous anterior angles of the thorax, united to its spotted elytra and pale legs, sufficiently distinguish this variable insect from its allies.

Not uncommon in pastures throughout the metropolitan district.

"Common in the spring near Bottisham."—Rev. L. Jenyns.


Sp. 18. tessulatus. Brevis, convexus, niger, immaculatus, elytris griseo-pallidis, fasciis oblique tessellato-denticulatis nigris. (Long. corp. 2 lin.)


Short, very convex, black, shining: clypeus slightly emarginated, rugose-punctate, with three small tubercles on the vertex, and a slightly bent short carina anteriorly: thorax very convex, finely punctulated, with the anterior angle slightly piceous: elytra punctate-striated, pale griseous with black spots, disposed in two or three irregular confluent tessellated fascie, of which the posterior is semicircular, arises at the margin of the base beneath the shoulder, and is united to the opposite one beyond the middle of the suture: body and legs black: tarsi ferruginous.

Slightly variable in the dissimilarity of the tessellated strige on the elytra:—known from Ap. inquinatus, which it somewhat resembles, by its convex form, black legs, and subbifasciate tessellated elytra.

Rare; three or four indigenous specimens having hitherto come beneath my observation: it has been taken near Tunbridge Wells, and I believe in South Wales. "Henlault Forest."—Mr. Beck.


Short, convex, black: clypeus slightly emarginated, rugose-punctate, with three tubercles; thorax thickly and rather coarsely punctate, immaculate: elytra
convex, obtuse, faintly punctate-striated, the interstices opaque and thickly covered with minute impressions; body and legs glabrous, black; tarsi piceous.

Varies in having the elytra and legs more or less of a castaneous hue.


Sp. 20. obscurus. *Niger, clypeo tuberculis tribus, intermedio subcornuto, elytris obscuris striatiss.* (Long. corp. $2\frac{1}{2}$—3 lin.)


Short, black: clypeus with three tubercles, the middle one subcornuate, and an anterior bent carina: thorax convex, deeply punctulatated, glossy: elytra rather obscure, fuscous, with the suture black, punctate-striated, the interstices punctulated; legs black.

This may possibly be a large variety of the foregoing species; from which it chiefly differs in bulk, in the paler hue of its elytra, and by having the central tubercle of the clypeus considerably produced.


Sp. 21. terrenus. *Niger, capite tuberculis tribus equalibus, elytris levissimi striatis brunneis.* (Long. corp. $2\frac{1}{2}$ lin.)


Black, rather obscure: clypeus slightly emarginate, with three equal tubercles: thorax thickly and somewhat finely punctulatated: elytra bruneous or red-brown, obscure, striated, the striae very delicately punctate: body beneath black: legs piceous or red-brown.

Differs in its smaller size, by the equality of the occipital tubercles, bruneous elytra, and more delicately punctured surface, from the two preceding species.


Sp. 22. ater. *Niger, capite tuberculis tribus, medio subcornuto, elytris striatis levissimis.* (Long. corp. $2\frac{1}{2}$ lin.)


Black: clypeus rounded, slightly emarginated, with three minute tubercles, the central one longest: thorax slightly punctate, shining; immaculate: elytra black and shining, striate, the striae simple: body black; legs piceous.
The slightly punctulate thorax, elongate central tubercle on the clypeus, and smoothly striated elytra, are the chief distinguishing characters of this species.

Found within the metropolitan district.

Sp. 23. nitidus. *Ater, nitidissimus, clypeo tuberculis tribus subaequalibus, elytris punctato-striatis, interstitialis lavissimis.* (Long. corp. 2 lin.)


Black, very glossy: clypeus scarcely emarginated, with three nearly equal tubercles: thorax very finely and distantly punctulated: elytra pitchy-black, punctate-striate; the interstices slightly convex and impunctate: legs pitchy-black.

The impunctate interstices of the striae on the elytra, united to the punctations of the striae themselves, the subaequal occipital tubercles, and very glossy surface, distinguish this species.

Taken near London and in Suffolk.


Allied to the last: deep very glossy black: clypeus emarginated, with three posterior tubercles, the central one elongate: thorax rather coarsely punctate on the disc, the lateral margin with an obscure piceous spot: elytra punctate-striate, the interstices rather convex, impunctate: body beneath and legs pitchy-black.

From Ap. granarius, which has an obscure reddish or piceous spot on the lateral margins of the thorax, this is known by the coarsely punctate surface of the latter, and distinctly trituberculated clypeus; by which characters it also differs from the preceding species.

Found within the metropolitan district, and in Norfolk.


Slightly depressed, black, somewhat opaque: clypeus emarginate with three equal tubercles posteriorly: thorax rather sparingly and finely punctate, immaculate: elytra pitchy-black, with the apex pitchy-red, punctate-striate; the interstices punctate: abdomen and legs rufous-piceous.

The slightly depressed form of this species, with its obscure surface, the sparingly punctate thorax, and rufous-tipped elytra, are its chief points of distinction.
Taken in Suffolk, and within the metropolitan district.

Sp. 26. niger. Ob longitudus, subcyindrical, niger, nitidissimus, clypeo inaequali elytris tenue: punctato-striatis, scutello minuto. (Long. corp. 2\frac{1}{2} lin.)


Oblong, subcyindrical, black: clypeus angulated, emarginate anteriorly, thickly punctate, with an elevated line on the crown, and an obsolete tubercle on the disc anteriorly: thorax immaculate, thickly punctulated: scutellum minute, smooth: elytra linear, convex, finely punctate-striated, very glossy: body black; legs pitchy-black.

Known by its oblong subcyindrical form, glossy surface, slightly punctate-striate elytra, and by the elevated line and single tubercle on the clypeus.

Taken within the metropolitan district, and in other parts of the country.

\*Sp. 27. bimaculatus. Ob longitudus, niger, clypeo trituberculato, elytris punctato-striatis, maculâ oblongâ bascos rubrâ. (Long. corp. 2\frac{1}{2} lin.)


Oblong, slightly glossy, black: clypeus angulated, a little margined, punctulate, with three somewhat obsolete tubercles on the crown; thorax broad, thickly punctured, immaculate: elytra sublinear, slightly convex, deeply punctate-striate, with the interstices very finely punctulate, a large red spot at the base, extending towards the middle of the elytra: body black: legs pitchy-black.

The two distinct red spots at the base of the elytra of this species at once distinguish it from its allies.

Rare: the only indigenous specimens which I have seen are in the collection at the British Museum; they were taken near Windsor, many years ago.

Sp. 28. granarius. Niger, nitidissimus, clypeo subtuberculato, thorace parci punctato; elytris tenue punctato-striatis, margine apicis rufescente. (Long. corp. 2—2\frac{1}{2} lin.)


Shining black: clypeus subemarginated, punctulated, the vertex with a single tubercle on a transverse elevated line: thorax large, very glossy, with the disc very smooth, the lateral margins with some scattered punctures, with an obscure reddish spot in the middle, not extending to the anterior angle: elytra slightly convex, finely punctate-striate, the interstices very smooth, shining, the margin at the apex obscure rusty-red: body pitchy-black: legs rufescent; tibiae obscure.

Ap. granarius, amongst other characters, differs by having an obscure rufescent spot towards the middle of the lateral margins of the thorax, the disc of which is but sparingly punctate; the apex of the elytra within is somewhat reddish.
Not uncommon within the metropolitan district; also found in Norfolk and Suffolk. "Hill-ends."—T. C. Heysham, Esq. "Near Swansea."—L. W. Dillwyn, Esq.

Sp. 29. emarginatus. Ater, clypeo emarginato, subtrituberculato, thorace tenui punctato, elytris picis, tenui punctato-striatis. (Long. corp. 1 1/2—2 lin.)


Black, slightly shining: clypeus somewhat deeply emarginate anteriorly, with three obscure tubercles: thorax rather finely and sparingly punctate, immaculate, glossy: elytra picceous, but little glossy, punctate-striate, the striae rather faint, and the interstices impunctate: abdomen pitchy-black; legs rufo-piceous.

The small size of this species, with its very distinctly emarginated and slightly tuberculated clypeus, sparingly punctate thorax, picceous opaque and faintly striated elytra, serve to discriminate it from its congeners.

Taken near London.


Shining black: clypeus emarginated, rugose, with three tubercles posteriorly, and an obsolete curved line in front: thorax rather finely and sparingly punctate, immaculate: elytra pitchy-black, with the apex paler, punctate-striate, the interstices a little elevated and smooth: legs black, with picceous tarsi.

This small species has the legs nearly black, the clypeus rugose anteriorly, with an obsolete curved ridge in front, and three small tubercles behind, of which the latter are nearly of an equal size: the pitchy or rufescent apex to the elytra is also a distinguishing character.

Found occasionally throughout the metropolitan district; also in Suffolk and Norfolk. "Bottisham."—Rev. L. Jenyns.

Sp. 31. borealis. Nigro-piceus, nitidus, clypeo vix punctulato, trituberculato, thoraces lateribus anteriis rufis, elytris leviter punctato-striatis, posterioris rufo-piceis. (Long. corp. 2 1/2 lin.)


Pitchy-black, shining: head angulated, black, with an elevated margin on both sides anteriorly, of a translucent ferruginous; above absolutely punctate, with three tubercles on the vertex, of which the middle one is stoutest, and the lateral ones oblong, and an elevated, curved, abbreviated line anteriorly: thorax convex, short, rather thickly and deeply punctate, with the anterior angles more or less rufescent: scutellum picceous, with an elevated ridge at the
aphodiidae.—aphodius.

apex: elytra very convex, rather faintly punctate-striate, black with a spot on the shoulders, and the apex rufescent, or entirely of a rufo-piceous hue: body beneath black, with the apex piceous: legs rufo-ferruginous.

The anterior rufous angles of the thorax, impunctate clypeus, and delicately punctate-striate elytra, with rufo-piceous tips, sufficiently characterize this species.

Found occasionally within the metropolitan district: also in Cumberland.

2. With the body somewhat depressed.

Sp. 32. porcus. *Niger obscurus, capite trituberculato, elytris rufo-brunneis, duplicato-striatis.* (Long. corp. 2½—2½ lin.)


Obscure black: clypeus with three tubercles, the central one longest: thorax black, very thickly punctuated, the anterior margin with a slender pale border: elytra reddish-brown, punctate-striated, the striae composed as it were of closely approximating pairs, the interstices finely but thickly punctate, with a sericeous hue: abdomen a little glossy beneath, and black: legs piceous, with black femora.

The depressed form of this species, with its red-brown duplicate-striated elytra, at once separate it from the others of this genus.

Not very common; it has been taken near London, but is more usually found in maritime districts. “On Crwmlyn Burrows, not uncommon.”—L. W. Dillwyn, Esq. “Ramsgate.”—Mr. J. Gretton.

Sp. 33. ruficrus. *Niger, capite obsolete trituberculato, elytris pedibusque rufis, femoribus piceis.* (Long. corp. 2 lin.)


Black: clypeus with three obsolete tubercles: thorax finely punctured: elytra rufous, punctate-striated, the interstices punctulated: legs rufous, with piceous femora.

Less than the foregoing, of which it may be only a variety: its chief differences consisting in its smaller size, brighter colours, and obsolete tuberculated clypeus.


Sp. 34. fulvicrus. *Niger, opacus, capite obsolete trituberculato, elytris nigro-piceus punctato-striatis, pedibus nigris, tarsis fulvis.* (Long. corp. 2 lin.)


Black, opaque, depressed: clypeus somewhat angular, with three obsolete tubercles: thorax rather coarsely punctured throughout, immaculate: elytra piceous black, punctate-striate, the striae rather wide but shallow, the interstices impunctate: legs black, with fulvous tarsi.

Differs from the two preceding in being smaller, of an obscure black colour, with the elytra piceous black, and punctate-striate, with the interstices impunctate, the legs black, and tarsi fulvous.

Found in Norfolk, and I believe not within the metropolitan district.

b. With the clypeus not distinctly tuberculated.

1. The body depressed, with the clypeus entire.

Sp. 35. rufipes. *Oblongus, piceus, subitus dilutior, clypeo thoracisque disco lavibus, elytris striatis, tibiis antecis externis tridentatis.* (Long. corp. 4—5 lin.)


Oblong, pitchy: clypeus very large, rounded anteriorly, angulated towards the eyes, smooth, black: thorax smooth, shining, with the lateral edges a little punctate: elytra rather long, shining piceous, striated, the striae obscurely crenate-punctate, the interstices convex, smooth, but obscurely punctate towards the base: body beneath, antennae and legs rufo-ferruginous: anterior tibiae tridentate.

Variable in colour: known from the following, which it greatly resembles in size and habit, by having the anterior tibiae strongly tridentate.

Extremely abundant throughout the metropolitan district, and I believe in most parts of the country. I have taken it near Dover, at Brighton, in the Isle of Wight, &c.; and it occurs in Norfolk, Suffolk, Devonshire, Dorsetshire, &c. “Bottisham.”—*Rev. L. Jenyns.* “Near York and Newcastle.”—*W. C. Hewitson, Esq.* “Cardew Mire.”—*T. C. Heysham, Esq.*

Sp. 36. muticus. *Oblongus, piceus, subitus dilutior, clypeo thoracisque lavibus, elytris striatis, tibiis antecis externis subunidentatis.* (Long. corp. 5 lin.)


Oblong, piceous: clypeus large, rounded anteriorly, impunctate; its margin rufofuscent: thorax transverse, impunctate: elytra oblong, shining piceous, striated, the striae faintly punctured, the interstices rather convex and not in the least punctate at or towards the base: body beneath, antennae and legs rufo-piceous, the anterior tibiae obscurely unidentate.

The obscurely unidentate anterior tibiae of this species form its chief point of distinction from the last described, of which it is not improbable it may be only a monstrous variety; though many specimens were taken by Dr. Leach in the north of England.
Occasionally taken within the metropolitan district. "North of England."—Dr. Leach, who first detected the peculiarity of this insect.

Sp. 37. depressus. *Brevis, niger, thorace punctato, elytris rufis punctato-striatis, interstitiis punctulatis, tarsis rufis.* (Long. corp. 3 lin.)

Short, black: clypeus large, obtusely punctate: thorax immaculate; the disc thickly and rather deeply punctate throughout; elytra broad, bright rufous, punctate-striated, the interstices punctulated: legs pitchy-black, with the tarsi rufous.

Elytra sometimes of a piceous red.

The bright rufous elytra of this species well distinguish it from the others of this section; and from *A. fimetarius* and *fetens*, which it resembles in that respect, the absence of tubercles on the clypeus, which is broad and rounded, and its depressed body, readily separate it.

Rare: a single example was found in Richmond Park very many years since; subsequently to which, specimens have occurred in South Wales and in Somersetshire. "Swansea."—L. W. Dillwyn, Esq.

Sp. 38. nigripes. *Brevis, niger, thorace punctato, elytris punctato-striatis, interstitiis punctulatis, pedibus nigro-piceis, tarsis rufis.* (Long. corp. 3 lin.)

Short, black, slightly shining: clypeus angulated, finely punctulated, with an obsolete curved line on the crown: thorax with the surface thickly punctulated throughout: elytra broad, finely crenate-striated, the interstices thickly punctulated: body beneath clothed with an ashy pubescence: legs pitchy-black, with the tarsi rufescent.

The black elytra distinguish this insect from the preceding, and its broader form from the dark varieties of the following.


Black, slightly glossy: thorax punctate; elytra deep opaque black, punctate-striate, with the interstices punctulate: legs black, with the tarsi rufescent.

P 2
Var. 8. Steph. Catal. l. c.—With the elytra black at the base, the apex more or less irregularly striated with griseous.

Var. 8. Steph. Catal. l. c.—With the elytra griseous, striated with black, with irregular longitudinal streaks of black between.

Var. 3. Steph. Catal. l. c.—With the elytra griseous, striated with black, the interstices immaculate.

Every possible shade of variation may be obtained in this inconstant species in the proportions of the two colours with which the elytra are covered: in some examples the elytra are of a dull nearly uniform black, while in others they are of a pale lurid griseous, with the striae alone slightly suffused with dusky: the form of this insect (at least in my very extensive series) is totally different from that of Ap. nigripes, which I have no hesitation in considering totally distinct from the present.


2. The body slightly convex; with the clypeus somewhat emarginate.

Sp. 40. contaminatus. Oblongus, niger, eneo nitens, thorace subquadroto, lateribus ciliato, elytris pubescentibus griseis, maculis minoribus fuscis. (Long. corp 2 1/2—3 lin.)


Black, with a brassy gloss: clypeus obscurely emarginate in front, the disc smooth, with an oblong testaceous spot within the anterior margin on each side: thorax large, subquadrate, with the angles rounded, the anterior with a testaceous spot; the lateral margins ciliated with long hairs, the disc very smooth: elytra griseous, densely clothed with a short cinereous pile, punctate-striated, with an elongate stria beneath the shoulders, a small spot adjoining the apex of the latter, and two double ones on the disc, in the middle towards the suture, one behind the other: body beneath pitchy, with the apex pale: legs pale, with the joints dusky.

The ciliated lateral margins of the thorax of this species at once point out its distinction.

Most abundant, not only throughout the metropolitan district, but throughout the kingdom, frequenting high roads, where scattered dung abounds, and flying about in the sun during the day, so early as February or March, and continuing throughout the summer. "Common near Swansea."—L. W. Dillwyn, Esq.
Sp. 41. prodromus. Oblongs, niger: clypeo levii, thorace transverso, elytris pubescentibus griseis, plagae magni fuscâ. (Long. corp. 2 1/2—3 1/2 lin.)

Oblong, black; elytra large, smooth: thorax short, transverse, slightly convex, the disc smooth, glossy black, the lateral margins broadly pale and a little punctate: elytra broad, clothed with an ashly pubescence, punctate-striate; the interstices posteriorly thickly punctuolated, anteriorly less so; pale griseous, with the suture rather dusky, and a large fuscous spot on the disc, attenuated anteriorly towards the shoulder: body black, with the apex reddish: legs pale.

Differs from the next in having the clypeus and thorax impunctate, the former with scarcely a vestige of tubercles on its vertex.

Not uncommon near London: also found at Bristol, in Devonshire, Cornwall, &c. "Bottisham."—Rev. L. Jenyns.

Sp. 42. sphacelatus. Oblongs, niger, vertice lineâ impressâ, clypeo thoraceque punctatis, elytris glabris griseis, plagâ fuscâ. (Long. corp. 2—3 lin.)

Oblong, black, glabrous: clypeus rather thickly and deeply punctured, with a transverse curved line on the vertex: thorax also thickly and deeply punctured, with the lateral margin pale; elytra glabrous, with a dusky discoidal patch, of variable size: abdomen pitchy-black, with the apex rather paler.

From Ap. prodromus, the punctate clypeus and thorax readily distinguish this species; and the glabrous elytra, as well as the obsolete curved line on the clypeus, are also essential points of difference.

Variable both in size and colour; some examples having the patch on the disc of the elytra of a darker hue than others.

Common in horse-dung that is readily scattered by the wind, throughout the metropolitan district, especially towards the early part of the year. "Great Barrock."—T. C. Heysham, Esq. "Bottisham."—Rev. L. Jenyns. "Common (near Swansea)."—L. W. Dilwyn, Esq.

Sp. 43. marginalis. Oblongs, niger: clypeo obsoletâ trituberculato, thorace punctato, margine omni pallido, elytris griseis, plagâ magnâ fuscâ. (Long. corp. 1 3/4—3 lin.)

Oblong, black; clypeus very obsoletely tuberculated, the central one most distinct: thorax very sparingly punctured on the disc, black, with all the
Margins pale: elytra slightly pubescent, with a large discoidal fuscous patch; punctate-striated, the interstices punctuated: body beneath black, with the apex pale: legs pale. The pale margins to the thorax, obsoletely trituberculated clypeus, and punctate thorax, well characterize this species. Variable in bulk; but generally much smaller than the foregoing.

Found not uncommonly within the metropolitan district. I have also received it from Bristol. "Bottisham."—Rev. L. Jenyns.

Sp. 44. Pecari. *Ater, nitidus, elytris striatis rufis maculâ communi dorsali nigrà, pedibus rufis.* (Long. corp. 3 lin.)


Glossy, black; clypeus large, entire: thorax rather delicately but sparingly punctate on the lateral margins towards the anterior angles: elytra rufous, with the suture black, which colour expands a little before the middle into a large dorsal patch common to both elytra, which are punctate-striated, with smooth and flat interstices: body beneath black: legs bright rufous. Distantly resembling Ap. fimetarius or depressus, but known from both by the black dorsal patch, and from the former by the clypeus not being tuberculated.

The only indigenous examples I have seen of this conspicuous species are in the collection of the British Museum: they were captured, I believe, in the neighbourhood of Windsor.

Sp. 45. merdarius. *Niger, clypeo subemarginato, thoracis angulis antieis subferrugineis, elytris testaceis, suturâ nigrä.* (Long. corp. 2 lin.)


Black, shining: clypeus large, obscurely emarginated: thorax convex, glossy black, smooth, with the anterior angle, and sometimes the lateral margins, testaceous; elytra punctate-striate, yellow-testaceous, with the suture black, and the lateral margin rather dusky: body black; legs picceous, or testaceous. Known by its small size, bright testaceous-yellow elytra, with a broad black suture, and the anterior margins of the thorax being more or less testaceous.


Sp. 46. phæopterus. *Ater, nitidus, elytris pedibus thoracisque lateribus rufopiceis.* (Long. corp. 1½ lin.)


Shining black, beneath piceous: clypeus smooth: thorax very thickly but finely
punctulated, with the lateral margins rufescent, or pitchy: elytra of a pitchy-red, rather faintly striated, the stria a little punctate; legs pitchy-red.

From all the foregoing species this differs by its minute bulk, and in having the lateral margin of the thorax, the elytra and legs, pitchy-red.

Rare: found in Suffolk, near London, and at Tunbridge Wells.

Sp. 47. pusillus. *Ater, nitidus, clypeo levis, thorace punctulato, elytris punctatae*, *striatis toti rufo-ferrugineis, femoribus rufo-piceis.* (Long. corp. \(1\frac{1}{2}-1\frac{3}{8}\) lin.)


Glossy black: clypeus obsoletely emarginate, smooth: thorax thickly and rather deeply punctured, immaculate: elytra punctate-striate, with the interstices subpunctuated, entirely of a rufo-ferruginous or piceous colour; body piceous beneath: femora rufo-piceous; tibiae and tarsi rufous.

From the preceding this species differs in having the thorax entirely black, the elytra rather deeply punctate-striate, and in its greater bulk—from the following by the clypeus being smooth, the anterior angles of the thorax black, and the elytra entirely rufous.

Far from rare in the neighbourhood of London: I have also found it near Dover, and have received it from Somersetshire.

Sp. 48. granum. *Niger, clypeo lineâ elevatâ, thorace crebrê punctulato, elytris punctatae-striatis, apice late rufis.* (Long. corp. \(1\frac{1}{4}-2\frac{1}{4}\) lin.)


Black, a little shining: clypeus punctulated, the vertex with a more or less obsolete elevated line, but not tuberculated: thorax convex, black, the anterior angles rufous: elytra deeply punctate-striate, with the interstices impunctate, the apex more or less rufo-ferruginous: femora piceous; tibiae and tarsi ferruginous.

Larger than the foregoing insect, from which it differs in having an elevated line on the clypeus, with the anterior angles of the thorax rufous, and the apex alone of the elytra of this last colour:—from the following species it differs by not having the entire lateral margins of the thorax rufous, and by the elytra being more deeply striate.

Common throughout the metropolitan district, and I believe in many other places.

Sp. 49. coenosus. *Ater, nitidus, thorace punctato, margine laterali rufe, elytris obscuri rufis striatis.* (Long. corp. 2 lin.)


Glossy black: clypeus punctate, a little emarginated anteriorly: thorax punctured, with the lateral margins more or less rufous: elytra dull-rufous, with the humeral angles paler, finely striated, the striae very obsoletely punctate: body black beneath: legs fusceous, or rufo-piceous.
Somewhat resembling Ap. phaeopterus; but from that insect it differs in being considerably larger, in having the clypeus punctate, the thorax more deeply punctured in proportion to its bulk: the elytra of a darker hue, and the legs more or less fuscous:—from the allied dark-coloured species, the pale lateral margins of the thorax distinguish it.

Taken near London; at Brighton, Shoreham, &c. "Near Whitburn, Northumberland."—W. C. Hewitson, Esq.

Sp. 50. tristis. *Niger, clypeo lineo elevato subtuberculato, thorace immaculato punctulatissimo, elytris striatis, interstitibus punctatis.* (Long. corp. 2 lin.)


Black, shining: clypeus punctulated, the vertex with an obsolete carina, and an indistinct tubercle on each side: thorax convex, black, immaculate: elytra deeply punctate-striated, with the interstices somewhat punctured; the suture, a spot on the shoulders, and the apex more or less rufo-ferruginous: legs pitchy-black, with the tibiae and tarsi rufo-piceous; posterior tibiae compressed, bent, and considerably dilated beneath. From the three foregoing species, this may be known by its punctulated elytra, black thorax, and curved, dilated, posterior tibiae.

Found within the metropolitan district, and in Somersetshire. "Swansea, I believe, is not uncommon."—L. W. Dillwyn, Esq.

Sp. 52. quadrimaculatus. *Convexus, niger, nitidus, thorace immaculato, elytris puncto humerali maculato posticis rubris.* (Long. corp. 1 ½—1 ¾ lin.)


Short, convex, shining black: clypeus angulated, anteriorly depressed, punctulated: thorax thickly punctured, immaculate: elytra punctate-striate, with the interstices finely punctured; a small red spot on the shoulders, and towards the apex a large orbiculate one: body and legs black; tarsi rufescent. The humeral spot on the elytra is sometimes produced into an abbreviated streak.

†Sp. 51. quadriguttatus. *Oblongus, niger, thorae lateribus, elytrorum maculis quatuor, pedibusque rufis.* (Long. corp. 1 ½ lin.)

Ap. quadriguttatus. Illiger. K. i. 35.—Fabricius, S. E. i. 78. (†)

Black: thorax smooth, "shining; the lateral margin obscure rufous: elytra obsoletely striated; the interstices smooth, each elytron with two rufous spots, the anterior angulated, the posterior rounded; legs also rufous.

Fabricius gives this species as a native of England, but I have never seen an indigenous specimen.
The small size of this insect, combined with its bright red spotted elytra and immaculate thorax, at once distinguishes it from its congeneres.

Rare near London; it has however been taken in the warren at Coombe-wood, and near Windsor: and in Norfolk and Somersetshire, in June. "Near Swansea, not common."—L. W. Dillwyn, Esq.

Sp. 53. plagiatus. Oblongus, subcylindricus, niger, elytris tenuâ punctato-striatis, plagâ rufescente. (Long. corp. 1\(\frac{1}{2}\)—2 lin.)


Oblong, subcylindric, black, slightly glossy: clypeus angulated, with an oblique elevated line behind: thorax thickly but not coarsely punctured, immaculate: elytra rather faintly punctate-striate, with an elongate red dash on the disc towards the suture: body beneath and legs black; tarsi pitchy.

The conspicuous red dash on the elytra of this species serves, exclusively of other distinguishing characters, to separate it from its allies.

First taken near Wisbech in Cambridgeshire by Mr. Weatherhead, and subsequently during a flood in the marshes near Peterborough by Mr. William Skrimshire: it is, however, rare.

Sp. 54. arenarius. Brevis, convexus, niger nitidus, elytris punctato-striatis, posticâ dilatatis, apice sulcatis piceis. (Long. corp. 1\(\frac{1}{2}\) lin.)


Short, convex, shining black: clypeus convex, emarginated, punctured: thorax immaculate, punctured: elytra dilated posteriorly, very convex, pitchy-black, with the lateral edge and apex sometimes ferruginous; punctate-striate, the striae expanded and deeper towards the apex, the interstices a little punctate: body beneath piceous, with the apex palest; legs pitchy-ferruginous.

The breadth of the hinder portion of the elytra, with their sulcate striae, the short, convex body, and small size, distinguish this insect.

Also a rare species; found principally in sandy districts near the coast: but it has occurred abundantly on Newmarket-heath.

"Rarely found by the seashore (near Swansea), but much more common inland."—L. W. Dillwyn, Esq.

Sp. 55. Scrofa. Ovatus, subdepressus, niger obscurus, pubescens, elytris punctato-striatis, interstitis rugoso-punctatis. (Long. corp. 1\(\frac{1}{2}\)—1\(\frac{1}{2}\) lin.)


Ovate, somewhat depressed, obscure black, pubescent: clypeus large, rounded, entire; thorax slightly convex, thickly punctate, pubescent: elytra punctate-striate, the interstices subrugose, with larger impressed spots, pitchy-black, with the apex rather paler: body black; legs rusty piceous.
The large elyopacity, subrugose, pubescent, elytra and small size of this species, are its most evident characters.

Apparently a rare species: I possess a single example from the Marshamian cabinet only. "Pentire Point, Cornwall." — Dr. Leach.

† Sp. 56. villosus. Oblongus, subdepressus, ferrugineo-piceus, pubescens, elytris obsolete sulcatis. (Long. corp. 1½ lin.)


Oblong, somewhat depressed, ferruginous, shining: elyopacity angular, scarcely emarginated, narrowed before, punctured: thorax slightly convex, pubescent, thickly punctured, with a smooth line down the middle, piceous, with the lateral margins paler: elytra a little convex, pilose, fusco-piceous, darkest on the back, with seven broad sulci, each with a row of punctures on the sides; the interstices flat, smooth: beneath piceous, with the tip of the abdomen and legs pale.

Differs from the following, which it somewhat resembles in colour, by the elytra being obsolete sulcate and spotless.

The only known indigenous specimen of this insect was found dead upon Newmarket-heath in the month of August many years since.


Oblong, depressed, dull rufous or ochraceous: elyopacity large, truncate, punctuated, with the vertex fuscos: thorax but little convex, thickly but rather finely punctate, pubescent, rufous, with the disc, and a spot on the side, dusky; elytra griscous, pubescent, with broad, rather deep, scarcely punctate sulci, with the interstices elevated, smooth; the second and fourth from the suture with a row of oblong-quadrate, more or less confluent, black spots: body and legs rufo-fuscos, with the femora paler.

Rather variable in colour, and in the intensity of the colour of the black spots on the elytra; but these characters, united to the costate elytra, serve to distinguish the species.

Rare near London; but more frequent in the western counties: it has also been found near Norwich. "Taken most abundantly, by J. Rawlins, Esq., in a field by Rivelstone-wood, near Edinburgh." — Dr. Leach. "Common (near Swansea), about the seaside, particularly at the end of summer." — L. W. Dillwyn, Esq.

Sp. 58. testudinarius. Subdepressus, niger, obscurè, pubescens, elytris sulcatis piceis maculis sparsis ferrugineis. (Long. corp. 1½—2 lin.)
Somewhat depressed, obscure, black: head and thorax very thickly and rather coarsely punctured, slightly pubescent; the clypeus a little emarginated: elytra oblong, rather convex, piceous, with paler, somewhat ferruginous, rounded spots on the disc, deeply sulcate, the sulci obsoletely punctate, the interstices narrow, carinated: body and femora black: tibiae and tarsi ferruginous.

The prettily spotted sulcate elytra of this insect, with its small size and obscure pubescent surface, are sufficient characters to discriminate it from all the foregoing: it closely resembles some of the Psammodii in habit.

Found in sandy situations near the metropolis, most abundantly during the spring: on Hampstead-heath I have taken it most copiously in April. "Fields near Bow, Essex, in company with A. inquinatus in profusion, in February; Hampstead-heath and Coombe."—Mr. Ingpen.

Genus CXCVII.—Psammodius, Gyllenhal.

Antennae with the basal joint robust, oblong, subfusiform; the second subglobose; the third slender, subelavate; the three following somewhat cup-shaped, the remainder forming a triphyllous laminated club, the terminal joint of which is oval. Palpi, maxillary with the third joint very short, the terminal about three times as long, subovate: labial short, with the terminal joint large, ovate; head broad, with the clypeus generally notched: body oblong-ovate, generally convex: tibiae with the apex considerably dilated.

The principal distinctions between Psammodius and Aphodius consist in the former having the mandibles more corneous, the terminal joint of the palpi dilated, and the third of the maxillary very short, the third joint of the antennae somewhat pear-shaped, with the terminal ovate, and the tibiae much dilated at the apex:—all the species delight in sandy districts, chiefly near the coast.

A. With the thorax not sulcate transversely.


Oblong, somewhat linear, rather depressed, shining black: clypeus deeply emarginated anteriorly, convex, with a few scattered punctures: thorax rather coarsely, but not very thickly punctured: elytra elongate, depressed on
the back, crenate-striated, the interstices flat and impunctate: body beneath black; legs rufo-piceous.

Larger than the following, from which it is distinguished by its elongate form, deeply emarginated clypeus, depressed elytra and less punctate thorax.

I possess a single specimen of this insect, which I obtained from the Marshamian collection:—I believe there is a second in the British Museum.


Oblong, pitchy-black, shining: clypeus punctulated, broad, transverse, entire, with the angles rounded: thorax thickly and deeply punctate: elytra oblong, convex, deeply punctate-striate: legs black, or piceous, with the anterior tibie and tarsi rufescent.

Ps. Sabuleti may be known by the integrity of the clypeus, the thickly and deeply punctured thorax, and its deeply punctate striated elytra.

Rare: I possess a specimen from the neighbourhood of Bristol, and two which were captured near "Crickhowel, on the banks of the Usk."—Marsham.

Sp. 3. porcatus. *Piceo-niger, subobscurus, thorace punctato subcanaliculato, elytris profundè sulcatis, sulcis punctis impressis.* (Long. corp. 1½—1⅛ lin.)


Slender, subcylindric: clypeus obsoletely emarginated, acutely angulated before the eyes: thorax very deeply punctulated, with a rather deep abbreviated longitudinal furrow behind: elytra very deeply sulcate, the interstices narrow, smooth, the sulci with a series of large impressions; beneath piceous: legs piceous, with the femora dusky and the tarsi rufescent.

Much smaller than either of the foregoing, from which the abbreviated longitudinal furrow on the thorax at once distinguishes it; and the want of oblique ones on the lateral margin shows its distinction from B. caesus.

Not unfrequently taken near London in the spring: during April last, it was in plenty in my garden at South Lambeth, and in Larkhall-lane and the adjoining fields: it occurs also in Norfolk. "At the Mumbles (near Swansea), by Dr. Leach."—L. W. Dillieyn, Esq.

Sp. 4. caesus. *Cylindricus, niger, clypeo subemarginato, margine antico pallido, thorace punctato, utriusque sulcis duobus obliquis abbreviatis, elytris punctato-striatis, pedibus piceis.* (Long. corp. 1½ lin.)

Cylindrical, black, shining: clypeus somewhat emarginate, finely punctured, with the anterior margin pale; thorax rather coarsely punctate, with two oblique sulci on each side, one arising at the anterior angle, the other behind the middle, and an abbreviated longitudinal one behind: elytra elongate, rather deeply punctate-striate: abdomen black; legs piceous.

From Ps. porcatus this species may be known by its more elongate cylindrical form, and by the oblique abbreviated sulci on the lateral margins of the thorax.

A rare species, at least towards the eastern parts of Britain; in the western it appears to be more abundant. "Near Bristol and Pentire Point, Cornwall."—Dr. Leach.

B. With the thorax sulcate transversely.

Sp. 5. asper. Oblongus, fusco-niger obscurus, thorace transversum rugoso, elytris punctato-striatis, interstitionibus granulatis. (Long. corp. 1 2/10 lin.)


Oblong, dullfuscous-black: clypeus angulated, deeply emarginated, convex, the margins ferruginous, the vertex obliquely sulcate: thorax short, convex, ciliated laterally and behind, with four transverse elevated costae, the two posterior of which are sinuated and interrupted in the middle: elytra linear-elongate, punctate-striate, the interstices thickly granulated: body piceous; antennae and legs somewhat ferruginous.

The granulated interstices between the striae on the elytra at once separate this species from the following.

Also a local species; found in the west of England: my specimens were captured "Near Bristol."—Dr. Leach.

Sp. 6. sulcicollis. Ovatus, niger, nitidus, thorace transversum rugoso, elytris posteriis gibbosis, crenato-striatis, interstitionibus levibus. (Long. corp. 1 2/10 lin.)


Ovate, black, shining: clypeus emarginated, rugose, rufopiceous anteriory: thorax with five transverse ridges, the furrows between slightly crenated, the posterior ones interrupted by a longitudinal fovea: elytra very convex, considerably dilated behind, deeply crenate-striate, with the interstices flat and smooth: body and legs rufopiceous.

Variable in colour: some examples being of a piceous or castaneous hue, depending upon the state of maturity.

Taken not unfrequently near Swansea in the summer, and probably also in Suffolk. "On Crwmlyn Burrows;—and towards
sunset, on a fine summer's evening, is often found in considerable numbers climbing up the sand-hills."—L. W. Dillwyn, Esq.—

"Weston-super-Mare."—G. Waring, Esq.

FAMILY XXVIII.—TROGIDÆ, MacLeay.

Antennæ short, nine or ten-jointed; the basal joint thick; the capitulum triphyllous, ovate, transverse, the disc of the lamelle frequently convex. Labrum exserted, coriaceous: mandibles corneous, thick, stout, with the apex very acute: maxilla corneous: palpi rather short; labial with the terminal joint somewhat thickened and ovate: head subquadrate: clypeus short, convex anteriorly: thorax transverse: elytra ample, gibbous, arched, deflexed on the sides and at the apex; body ovate, very gibbous, flat beneath: legs short, stout; tibiae compressed, anterior slightly dentate without: tarsi short: claws simple.

The Trogidæ inhabit sandy places, and their food is supposed to consist of the tendinous portion of nearly dried carcasses, from the insects having been frequently captured on old bones, horns, &c.: there is great analogy between them and the Histri; like those insects the head is deeply sunk in the thorax, and they counterfeit death when touched, by applying the antennæ and legs close to the body, and seeming without motion till their alarm ceases:—from the Geotrupidæ the distinctly laminated club of their antennæ distinguishes them; and from the preceding and following families, and the Scarabæidæ, their exserted labrum.

The following are the British genera:

\[
\begin{align*}
Antennæ & \begin{cases} 9 \text{-articulatae} : & 198. \text{Ægialia} \\
10 \text{-articulatae} : & 200. \text{Tron} \\
\end{cases} \\
\text{Tarsi} & \begin{cases} 4 \text{-articulati} : & 199. \text{Trachyscelis} \\
\end{cases}
\end{align*}
\]

GENUS CXCVIII.—ÆGIALIA, Latreille.

Antennæ nine-jointed; the basal joint robust, cylindric, scarcely pilose; second also stout, obconic; third slender, rather long, somewhat pear-shaped; three following very short, transverse, the remainder forming an acute triphyllous club. Palpi slender, the terminal joint of the maxillary elongate, attenuated: labrum linear-transverse, very short: mandibles with the apex bifid: head rounded, inflexed: thorax rounded, with the sides inflexed: body short, ovate, very gibbous behind: legs short, stout; anterior tibiae strongly tri-
dentate without; posterior very robust, with dilated spoon-shaped spurs: tarsi short, with minute claws.

Ægialia is distinguished by having the antennæ nine-jointed only, the body considerably dilated, and nearly globular, behind; the mandibles bifid; the palpi slender, with the terminal joint of the maxillary attenuated; the antennæ free, with the basal joint cylindric and nearly naked: the only known species frequents the vicinity of the coast.


Shining black: clypeus semi-orbiculate, with elevated rough eminences: thorax very smooth, impunctate: elytra glossy black, with the suture piceous, rather faintly striated, the striae impunctate: body beneath rusty-piceous; legs the same: antennæ and mouth ferruginous.

Variable in size and in colour; some examples being more or less ferruginous, or testaceous; arising, most probably, from their state of maturity.


**Genus CXCIX.—Trachyscelis, Latreille.**

Antennæ scarcely longer than the head, the basal joint elongate; the third and two following very small; the remainder forming an abrupt, short, laminate-perfoliate six-jointed club. Palpi thickened outwardly, with the terminal joint largest, somewhat obtrigonal: labrum transverse; slightly exserted, with the tip entire: head broad: thorax transverse: body very convex: legs very stout: tibiae obtrigonal, furnished above with very numerous spines: tarsi with the first joint longer than the intermediate.

This singular genus, whose location is less natural than could be wished, is distinguished from all the other lamellicorn insects by having the tarsi heteromerous, the four anterior ones being five-jointed, and the two posterior four-jointed only: the structure of the antennæ is also different, as is also the form of the terminal joint of the palpi:—the indigenous species inhabits sandy districts.


Black, shining: thorax deeply punctate: elytra striated: antennae and legs pale-brown.

I possess a fragment only of this singular insect, which I obtained from the collection of Mr. Marsham.

A single perfect example only of this insect has come beneath my observation; it was taken as mentioned below, and is in the collection of the British Museum:—the locality of my injured specimen I know not. “In the New Forest, near Lyndhurst.”—Mr. D. Bydder.

**Genus CC.—Trox, Fabricius.**

Antennae concealed during repose beneath the sides of the thorax, anteriorly, ten-jointed; the basal joint very large, subconic, a little bent, and clothed with rigid hairs; second also stout, subglobose; five following short, rather slender, the third the longest; the remainder forming a triphyllous club, with the lamellae rather long. Palpi rather stout, the terminal joint ovate: labrum semicircular, hairy: mandibles with the apex bent, acute: head short, deeply sunk in the thorax, which is situated behind, and rugose: body subovate, very rugged, couvex, flat beneath: legs short, stout, generally pilose: tibia with acute spurs at the apex: tarsi short; claws rather large.

As a genus, Trox may be known from the foregoing by having the basal joint of its antennae very robust and pilose, the antennae themselves concealed during the repose of the insect beneath the anterior angles of the thorax, the body curved and very rugose; the mandibles with the apex acute, simple, the claws rather large; the labrum semicircular, &c.:—like the rest of the family, they chiefly inhabit sandy or gravelly places during the spring.


Black: clypeus semi-orbiculate, punctate: thorax very unequal, channelled, thickly punctured, and bordered throughout with rufous cilia: elytra coarsely punctate-striate, with the alternate interstices more elevated, and adorned with short tufts of red-brown hairs, but less evident on the disc.

Larger than the two following species, from which it may be known by having the clypeus semi-orbicular, the elytra more rugose and deeply striated, &c.
In the neighbourhood of London this species is usually found in the gravel-pits of Coombe-wood and Wimbledon. I have, however, taken the insect in other places, but it never appears to be abundant. "Sundridge, Kent."—Mr. Ingpen. "Spitchweek."—Dr. Leach. "On Newmarket and Gamlingay heaths."—Rev. L. Jenyns.


Less than the last: black: clypeus slightly acuminated in front, punctulated: thorax unequal, channelled, punctured: elytra very obsoletely striated, with a series of distinct subconic tubercles in each alternate interstice, anteriorly smooth, shining, posteriorly furnished with tufts of rather long rigid cinereous hairs: body and legs rather glossy-black.

The smaller size of this species, with the form of its clypeus, and the more obsoletely striated elytra, are its chief distinctions from the foregoing.

Taken, though rarely, within the metropolitan district, and in other parts. "In carrion on the sand-hills (near Swansea) not common."—L. W. Dillwyn, Esq. "Lowestoft, Suffolk."—W. C. Hewitson, Esq.

Sp. 3. scaber. Niger obscurus, elytris punctato-striatis, interstitiis omnibus punctis fasciculato-pilosis. (Long. corp. 3 lin.)

Dull black, or fuscous: clypeus rounded, punctate: thorax a little convex, obsoletely channelled, punctulated: elytra oblong, punctate-striate, each interstice with a row of reddish-brown tufts of hair, of which the alternate series are largest: body and legs piceous.

Smaller than either of the other species, and known by each interstice between the striae having a row of pilose tufts.

Not uncommon within the metropolitan district; in April last I captured several specimens flying in my own garden at South Lambeth. "A pair taken at Bottisham, in decayed wood."—Rev. L. Jenyns. "Scarborough."—W. Bean, Esq.

†Sp. 4. lutosus. Fuscocinereus, elytris elevato-striatis lineatisque, fronte marginatá acutá. (Long. corp. 6 lin.)

Ashy-brown: head angulated, elevated in the middle, with the forehead mar-

gined, acute: antennæ pale: thorax somewhat rugged, absolutely five-lobed behind, with the intermediate angle acute: elytra striated, with four striae of elevated oblong spots, the anterior series with elevated punctate lines: anterior tibia simple.

The only known example of this insect, which is in Mr. Kirby's cabinet, was taken by the late Rev. P. Lathbury, I believe during a flood at Livermere in Suffolk.

**Family XXIX.—DYNASTIDÆ, MacLeay.**

Antennæ ten-jointed; the basal joint very robust, conic, hairy; the second sub-globose; the five following very short; the remainder forming a short, ovate, triphyllous capitulum. *Labrum* membranaceous, generally concealed beneath the elytra, its margin frequently ciliated: mandibles convex, subtrigonal, with the base thick; the apex obtuse: maxillæ corneous: palpi with the terminal joint ovate, the basal joint of the maxillary minute: head sub-trigonal; clypeus frequently horned: thorax sometimes horned: elytra not covering the apex of the abdomen, which is generally pubescent: body large, convex, rather elongate-ovate: legs stout; tibiae broad, anterior considerably dentate: tarsi rather long.

The Dynastidæ live either in rich vegetable mould, or in the putrid detritus which results from the decomposition of trees; they differ from the Trogidæ by having the labrum concealed, and in general by their gigantic bulk.

The reputed indigenous genera may be known by the following concise definitions:

\[
\begin{align*}
\text{Maxillæ} & : \quad \text{dentate:} & \quad 201. \text{Oryctes.} \\
\text{Maxillæ} & : \quad \text{inermes:} & \quad 202. \text{Dynastes?}
\end{align*}
\]

**Genus CCl.—Oryctes, Illiger.**

Antennæ with the basal joint very robust, clavate, pilose; the second smaller, subglobose; the third still less, globose; the four following transverse, very short; the remainder forming a triphyllous plicatile club. Palpi with the terminal joint oval: mandibles with their external edge without teeth: maxillæ entire, one-lobed, ciliated: mentum ovate, pilose: head triangular, cornuted: thorax retuse, with the sides dilated and a little rounded: body ovoid, convex, pilose: anterior tibia tridentate externally; posterior ciliated.

From Dynastes? this genus is distinguished by having the terminal joint of the palpi ovate and not attenuated, the mandibles
and maxillae unarmed, mentum ovate, head cornute, thorax retuse, &c.

‡Sp. 1. nasicornis. Castaneus, elyceo cornuto, thorace retuso carina postica subtridentata, elytris politis, subtilissimis punctata-striatis. (Long. corp. 1 unc. 1–3 lin.)


Castaneous or fuscescent, shining: head with a single horn, which in the male is elongate, conic, recurved, the anterior margin of the clypeus abruptly produced in the middle and truncate; the thorax in both sexes retuse anteriorly; and in the male the hinder margin of the retuse portion is produced into a transverse obsoletely tridentate carina: elytra very glossy, finely and distantly punctuated.

The only known indigenous specimen of this insect was taken "alive by a bricklayer, amongst old timber, on pulling down the roof of a building at Chelsea."—Haworth in Entomological Transactions, vol. i. p. 76. I think it very doubtful whether this fine species be really indigenous, as it appears highly probable that the specimen above alluded to may have been imported amongst some of the continental plants which abound in the above vicinity, and the insect occurs very copiously in rotten bark, the refuse of conservatories, and putrid wood, in various parts of the continent.

Genus CCII.—Dynastes? MacLeay.

Antennae with the basal joint stout, pilose; the second subglobose; the five following very short, transverse; the remainder forming an elongate-ovate triphyllous club. Palpi with the terminal joint ovate, acuminate: mandibles with the internal edge denticulated: maxillae dentated: mentum subquadrate, convex, setose: head subquadrate: clypeus with the margin thickened: thorax rounded, margined, obtusely cornute in front: body oblong, convex: anterior tibia tridentate; posterior transversely ciliated.

The chief distinctions between this genus and Oryctes consist in the form of the terminal joint of the palpi, the denticulated mandibles and maxillae, the convexity of the thorax, unarmed head, subquadrate mentum, &c.

‡Sp. 1. incernis. Piceo-niger, thorace cornis brevissimo obtuso, subtus ferrugineus pilosus. (Long. corp. 6 lin.)
Mandibulata.—Coleoptera.


The entire body above pitchy-black, smooth: antennae ferruginous: the anterior margin of the clypeus elevated, dentate: thorax very convex, with scattered impressions; the middle of the anterior margin with a short obtuse horn, behind which is an excavation: elytra rugose-striated, with impressed dots: abdomen beneath ferruginous, pilose: legs also ferruginous, dusky exteriorly.

Marsham describes this species as being in the collection of the late Mr. Beckwith (now incorporated into that of the Zoological Society); and a pair are in Mr. Kirby’s cabinet, who has also specimens, I believe, from the south of Europe.

Family XXX.—Melolonthidæ, MacLeay.

Antennæ nine- or ten-jointed, the basal joint conic, elongate; the capitulum elongate, composed of from three to seven lamelle. Labrum with the anterior margin exposed, sometimes thickened and deeply emarginate beneath: mandibles stout, cornaceous hidden, beneath the clypeus: maxillæ short, with a cornaceous process within: palpi, maxillary prominent, with the terminal joint ovate or oval, and a little thickened: mentum inflected: head subquadrate: scutellum divided by a transverse suture before the eyes: thorax subquadrate: body subconvex: elytra shorter than the abdomen: legs slender: tibia not dilated.

The stout mandibles and cornaceous dentate maxillæ of the insects comprised in this family are admirably calculated for their method of feeding; their food consisting in their perfect state of living vegetable matter, chiefly the leaves of trees, which they devour


Pitchy: clypeus rounded, with a transverse elevated striga in the middle: thorax rounded, punctate, black, anteriorly with a small impressed point, and beneath this a very short mucro; elytra crenate-striate: body pilose.

In the printed catalogue of the rare insects contained in Mr. Wilkins’ cabinet, a reference is made to this insect, as here quoted, but I presume the species last described is intended, which were it not for its locality I should conceive synonymous.
most voraciously, as their larvae do the roots; and the latter are sometimes very destructive, as they live for several years; but the imago lives for a short period only.

The following are the indigenous genera, which may be detected by the annexed characters:

Genus CCIII.—Serica, MacLeay.

Antennæ ten-jointed, the basal joint thick, clavate, pilose; the second globose; third and fourth subcylindric, short; fifth conic; sixth and seventh cup-shaped; the remainder forming a trilamellated club, which in the male is very long and narrow. Palpi, maxillary pilose, with the terminal joint naked, shorter than the others united, cylindric, with the apex rather acute; labial with the terminal joint very acute: labrum emarginate: head broad: clypeus slightly emarginate: eyes large, globose: thorax very short, transverse: body short, ovate, convex: elytra elongate: legs slender: tarsi very long; claws equal, bifid at the apex.

Serica resembles Omaloplia in habit; but from that genus the acuteness of the terminal joint of the maxillary palpi at once removes it, exclusively of the dissimilarity in the proportions of the antennæ, form of body, &c.


 Entirely of a testaceous-red, glabrous, sometimes with a slight vaneous tinge: clypeus punctate; the vertex sometimes dusky: eyes black: thorax finely punctulated, with an obscure fuscous spot on each side: elytra obsolesce punctate-striated.
Abundant occasionally near London, frequenting the sandy districts of Hampstead, Woolwich, Richmond, &c.; and its remains are very frequently to be observed in spiders’ webs during the month of August. "Rare in Cambs.—I have seen very few specimens."—Rev. L. Jenyns. "Sandfield, Cumb."—T.C. Heysham, Esq. "Sea banks, Tynemouth; Newcastle, Keswick, &c. common: I have dug the pupa up in grassy places on the Magnesian limestone, about three or four inches beneath the surface."—G. Wailes, Esq. "On Sketty Burrows (near Swansea)."—L. W. Dillwyn, Esq.

Genus CCIV.—Omaloplia, Koppe.

*Antennæ* ten-jointed; the basal joint somewhat robust, subclavate, slightly pilose; second subglobose; third and fourth a little elongate, slender; three following transverse, cup-shaped, slightly dentate within, the remainder forming a short tripodyllous capitulum. *Palpi, maxillary* with the terminal joint subtruncate; *labial obtuse: head suborbiculate; elytra* rounded, entire: thorax rounded at the sides, sublobate posteriorly: *body* pilose, short, convex: *elytra* rounded at the apex, as long as the abdomen: *legs* rather short: *tarsi* very slender, elongate: *claws* small, uniform, bifid.

From Serica this genus differs in having the palpi obtuse, and the terminal joint of the maxillary ones truncate; the body short and stout, the antennæ abbreviated, with the capitulum ovate, the legs but moderately elongated, &c.


Black, with a satiny gloss: *clypeus* slightly punctate: thorax finely punctured, immaculate, and with the head sparingly clothed with black hairs: elytra testaceous-red, simply striated, with the interstices punctured, the suture and margin black: legs piceous, with rufescent tarsi.

Var. b. *Steph. Catal. l. c.—With the disc of the elytra dusky rufous, glossed with changeable blue tinges.

The elytra are sometimes entirely of a blue black, and the width of the dark margin in the testaceous variety differs considerably: the legs and thorax are sometimes rufo-testaceous, the probable effect of immaturity.

The only locality I am acquainted with for this insect near London is a portion of the western margin of Darenth-wood, between the lane leading from the village and Dartford: it has been
taken abundantly on Newmarket-heath and in Sussex. "Occasion-
ally taken on the wing at Swaffham Bulbeck, about mid-
summer."—Rev. L. Jenyns.

**Genus CCV.—Amphimalla, Latreille.**

*Antenna* nine-jointed; the basal joint elongate, slender at its origin, pilose; the second subglobose; the two following considerably elongate cylindrical; the fifth and sixth short, transverse, slightly dentate within; the remainder forming a triphyllous club, slender and elongated in the male. *Palpi, maxill-
ary* with the terminal joint considerably dilated, acuminated to the apex; *labial* short, acute; *head* small; *clypeus* short, broad, reflexed, entire: *eyes* large, globose; *thorax* short, transverse; *scutellum* rounded; *elytra* elongate, not covering the apex of the abdomen; the latter obtuse: *legs* moderate; *tarsi* rather stout, the basal joint shortest: *claws* simple, with a den-
ticulation at their base.

Amphimalla differs from Melolontha by having the capitulum of the antennae triphyllous in both sexes, the antennae nine-jointed, the body pilose, the clypeus more produced, the terminal joint of the palpi of different form, &c.

Sp. 1. solstitialis. *Griso-testacea villosa, vertice pectore abdominique nigro-
fascis, elytris lineis quatuor pallidioribus*. (Long. corp. 7—10 lin.)


Pale-testaceous: *clypeus* anteriorly ferruginous; *vertex* dusky: *eyes* black: *thorax* dusky-testaceous, densely clothed with griseous hairs: *elytra* sparingly clothed with pale long hairs, elongate, convex, rather pale, with the suture and outer margin fuscous, the disc slightly punctate, with four obsolete elevated whitish lines: exposed segments of the abdomen dusky-testaceous, granulated, clothed with long erect hairs: *breast* densely pubescent: *abdo-
men* black-brown, with a depressed whitish pubescence: *legs* rufescent.

Extremely common about the solstice in several places within the metropolitan district, but I believe not very abundant beyond the midland counties of England. "Cambridgeshire."—Rev. L. Jenyns.—"Ramparts, Tynemouth Castle, the only locality known to me in this part."—G. Wailes, Esq. "On Sketty Burrows, (near Swansea), rare."—L. W. Dillwyn, Esq.

†Sp. 2. Fallenii. *Fusco-picea villosa, clypeo, thoracis lateribus elytrisque rufo-
testaceis, pygidio punctulato testaceo*. (Long. corp. 6½ lin.)

Me. Fallenii. *Gyllenhal, iv. 258.*
Pitchy-brown, villose; clypeus rufo-testaceous, with its reflexed margin brown: vertex pitchy-black, thickly and deeply rugose-punctate, with a longitudinal impressed fovea in the middle anteriorly, and an obsolete transverse interrupted carina between the eyes, which are brown: thorax, with the lateral margin obsoletey crenulated and broadly rufo-testaceous, the disc thickly punctured, with a dorsal punctate furrow, densely clothed with pale slightly decumbent hairs: scutellum clothed with a dense flavescent down: elytra shining rufo-testaceous, a little pubescent, somewhat thickly punctate, and rugose towards the suture: exposed segments of the abdomen testaceous, punctulated, with short erect hairs: breast densely clothed with long pale down; abdomen with short ashy-white hairs: legs pale rufo-testaceous.

The only example I have seen of this species was taken many years since by Mr. Chant—in whose collection it is preserved—but he forgets the exact locality, which is probably Derbyshire or Yorkshire.

**Genus CCVI.—Melolontha Auctorum.**

*Antennae* ten-jointed; the basal joint elongate, clavate, pilose, robust; the second slender, also clavate, and shorter than the third, which is of similar form, the remainder, in the male, forming a bent elongate capitulum formed of seven leaves, and in the female a short six-leaved capitulum, the joint preceding which, or the fourth from the base, is short, transverse, with a denticle within. *Palpi* with the last joint oval, rather thickened and slightly acuminated: *clypeus* entire, slightly reflexed: *thorax* convex, with the sides rounded; the angles acute: *scutellum* rounded: *body* stout, convex, squamose: *elytra* shorter than the abdomen, the apex within submucronate: *legs* slender; *tarsi* moderate; *claws* simple, with a tooth at the base.

The distinctly ten-jointed antennae of Melolontha distinguish the genus from Amphimalla and Phyllopertha, exclusively of other characters, amongst which may be noticed the seven-leaved club of the male antennae, and the six-leaved one of the female: the species devour leaves in the perfect state, and the roots of grass in that of the larva.

Sp. 1. vulgaris. Oblonga, convexa, nigro-picea, pubescens, elytris testaceis, margine concolore, stylo ani sens:im angustato. (Long. corp. 10 lin.—1 unc. 2 lin.)


Pitchy-black, densely pubescent: clypeus with the margins ferruginous, reflexed; thorax thickly punctured, with the sides rounded, the angles acute,
villose, especially towards the sides: scutellum black, with a row of yellowish scales at the base; elytra slightly rugose-punctate, villose, each with five rather elevated smooth longitudinal lines; abdomen considerably produced at the apex, and terminating in a gradually attenuated, subacuminated process: breast clothed with a griseous down; abdomen slightly pubescent, with triangular snowy patches on the sides: legs ferruginous.

The pubescence is very easily rubbed off, when the elytra appear of a brick colour.

An abundant insect throughout the south and west of England, in the beginning of May, the larvae at times doing incredible mischief in pastures, &c. "Very common (near Swansea), and in 1814, every tree, bush, and hedge was covered and nearly denuded by them."—L. W. Dillwyn, Esq. "Not very common, near Carlisle."—T. C. Heijsham, Esq. "Cockchafers are found very plentiful about Gravesend, and are collected in innumerable quantities by the Dutch fishermen."—Pococke's Gravesend, p. 217. "Newcastle, Mildon-park, Northumberland, Keswick, &c."—G. Wailes, Esq.

Sp. 2. Fullo. Oblonga, fusco-brunnea, albo irrovata, scutello maculd duplici albâ. (Long. corp. 1 unc. 2—6 lin.)


Blackish, brown or testaceous: clypeus punctate, the sides densely covered with white scales: thorax also punctured with three longitudinal lines of white scales, the outer ones interrupted; scutellum with a bilobed scaly white patch; elytra a little rugose, irregularly varied with white scales, the suture elevated: breast clothed with a fulvous down: abdomen with short ashy-white or griseous pubescence; antennae of the male with the capitulum composed of very long, curved, lamellae; of the female, small, ovate.

Rare: all the known indigenous specimens have been captured on the sandy coasts of Kent between Hythe and Ramsgate, chiefly in the neighbourhood of Deal and Sandwich: in the beginning of July, 1815, eight examples—of which I possess two—were taken by a lady near the latter place.

Genus CCVII.—Phyllopertha, Kirby.

Antennae nine-jointed, the basal joint elongate, clavate; the second globose; the three following slender, gradually diminishing in length; the sixth transverse, very short; the remainder forming a triphyllous club, slightly elongated in the male. Palpi subfiliform; maxillary with the terminal joint
subtruncate: 

### Coleoptera

**Mandibulata.**—The anterior margin reflexed, entire: thorax convex, with the sides dilated anteriorly, and the hinder margin subcarinilated: scutellum short, rounded: elytra a little depressed; rather shorter than the abdomen; body ovate, pilose: the four anterior claws very unequal, one being slender and simple, the other bifid; the posterior ones simple, somewhat unequal, the inner one being rather the least.

The bifid unequal claws at once distinguish this genus from Melolontha, exclusively of other characters, derived from the nine-jointed antennæ, subfiliform palpi, &c.; and from Anomala, the form of the thorax, which is narrow behind, and the pubescent body, will enable any one to divide it.

**Sp. 1. Horticola.** 
*Ovata,* hirta, caeruleo-virescent, elytris striatis, testaceis, aut nigris, aut nigro-brunneis. (Long. corp. 3—3 lin.)

**Sc. Horticola.** 

Green or blue, clothed with long hairs: clypeus thickly punctured: thorax convex, punctate: elytra slightly convex, coarsely punctate-striated, deep, slightly glossy, rufo-testaceous or ferruginous, with the lateral margin dusky: body and legs greenish-black.

**Var. b. Steph. Catal. l. c.—With the elytra of a bluish-black.**

Very variable in the colour of the elytra; sometimes the base alone is bluish-black, at others the suture: again some examples have the disc alone slightly testaceous, and the rest of the surface bluish-black, or brown: every intermediate shade may be obtained: the dark varieties are however rare.


**Sp. 2. errans.** 
*Testacea,* thorace maculis duas nigris, aut immaculato; pedibus rufo-testaceis. (Long. corp. 4 lin.)

**Sc. errans.** 

Pale-testaceous, slightly pubescent: eyes dusky: head and thorax thickly punctate, the latter with an obscure dusky spot on each side towards the margin: elytra obscurely punctate-striate, the striae disposed in pairs, and the interstices faintly punctured: legs pale testaceous, with the denticulations of the tibiae and the tarsi somewhat picaceous.
This insect differs considerably in form from the preceding species, and I doubt the propriety of associating it in the same genus, but my specimen is in too injured a condition to determine the point satisfactorily.

I possess a single example of this insect, which was captured above twenty years since in the neighbourhood of Dartford. Fabricius gives it as a native of England, and refers to the late Mr. Tunstall's collection as containing a specimen.

**Genus CCVIII.—Anomala, Koppe.**

*Antennae* nine-jointed; the basal joint stout, clavate, obliquely truncate, pilose; the second short, subglobose; the two following slender, elongate; the two next short, transverse; the remainder forming a short, triphyllous club. *Palpi* subfiliform, glabrous: head suborbiculate; *clypeus* truncate anteriorly, entire, the margins but little reflected: *thorax* transverse, undulated at the base, which is as broad as that of the *elytra*, which are broad; *scutellum* rounded: *body* ovate, convex, glabrous: *legs* slightly pilose: *anterior* tibiae simple, produced at the apex, with a spiniform process; four anterior *tarsi* with the *claws* unequal; one stout and bifid at the apex; *posterior* unequal, undivided.

Anomala differs externally from Anisoplia by having the *clypeus* but slightly produced and transverse, the basal joint of the *antennae* distinctly truncate at the apex; the *palpi* subfiliform; the *thorax* transverse, with its base as broad as that of the *elytra*, which are convex.


Oblong-ovate, head, thorax, and *scutellum* punctured, green or blue-bronze, rather glossy; the lateral margins of the thorax more or less broadly testaceous: *elytra* rather obsolescely punctate-striate, the interstices irregularly punctured, and slightly raised towards the outer margin, in general of a greenish-testaceous, with the suture of a darker hue, but sometimes entirely of a bright rich green or deep black or violet-blue: body beneath and legs of a greenish brass: *antennae* testaceous, with the capitulum fuscous.

The lateral margins of the thorax are sometimes concolorous with the disc, without reference to the colour of the *elytra*:—such varieties have been distinguished as different species, but evidently with impropriety.
Very abundant on several of the coasts of Britain, but rare inland. I possess a fine specimen with green elytra, from the banks of the Thames, near Richmond, and I found an elytron in fine condition in a sand-pit on Ockham-heath, near Ripley, in July, 1827. "Sandylinks, near South Shields, abundant."—G. Wailes, Esq. "Frequent in June and July on the sand-hills (near Swansea).”—L. W. Dillwyn, Esq. "Aldborough, copiously.”—Rev. F. W. Hope.

† Sp. 2. Donovanii. Nigro-aneus, elytris punctato-striatis testaceis, suturâ limbo apice fasciâque undulatâ nigris. (Long. corp. 5 lin.)


Black-brass, slightly shining; head and thorax immaculate: elytra punctate-striate, testaceous, with a central transverse slightly undulated fascia, the suture, apex, and lateral margins bronzed-black: body beneath piceous, with a cinereous pubescence: legs piceous: antennæ ferruginous.

This insect evidently belongs to the present genus, as pointed out to me by Mr. Westwood, and differs chiefly from Ano. Frischii by having the elytra rather deeply punctate-striated, with their margins and a transverse fascia black.

A pair of this species in Mr. Donovan’s collection, and two in that of the British Museum, are the only examples that have hitherto come beneath my observation: the former were captured "on the sand-hills near Newton Nottage.”—Donovan’s Tour through Wales:—of the locality of the others I am ignorant.


(Steph. Catal. corp. 6—7 lin.)


Short, ovate; entirely of a rich changeable satiny green, with the lateral margins of the thorax more or less broadly testaceous-yellow, and sometimes the outer margins of the elytra, the posterior coxae and anterior edge of the hinder femora the same: as are the antennæ with a concolorous club; head and thorax punctate: elytra broad, rather coarsely punctate, and irregularly striated.

Known from the green variety of An. Frischii by its brevity and width, and by the concolorous club of the antennæ.

I have three specimens of this species, which are said to have been captured in the neighbourhood of London *.

* From the rarity of this insect in Britain, and from the circumstance of its name implying that the vine alone forms its pabulum, its indigenous origin
Genus CCIX.—Anisoplia, Koppe.

Antennae nine-jointed, with the basal joint robust, abruptly clavate, pilose; the second short, subglobose: the two following elongate, cylindric; the next shorter, subtransverse; the sixth very short, transverse; the remainder forming a triphyllous, elongate, slender club. Palpi with the terminal joint distinctly longer than the others, glabrous: head small, suborbicular; clypeus considerably produced, narrowed towards the apex, which is much reflexed and rounded: thorax subtransverse, its lateral margins subsinuated, its base slightly produced in the middle, and not so broad as that of the elytra, which are depressed: four anterior tarsi with the claws very unequal, one being very slender and short, undivided, the other much stouter, bifid; posterior slightly unequal, undivided.

The nasiform clypeus of this genus at once serves as an external indication of its distinction from Anomala, from which it also differs by having the terminal joint of the palpi distinctly larger than the others, the thorax subtransverse, its base not being so wide as that of the elytra, which are depressed.

Sp. 1. Agricola. Plate xix. f. 1.—Nigro-aneus, thorace villosus, elytris lividis, limbo fasciâque arcuatâ nigris. (Long. corp. 7 lin.)

Deep brassy-black; head and thorax slightly villose, punctate; the latter depressed on the hinder margin near the angles, and with a small round fovea near the lateral ones: elytra glabrous, livid, with the suture, margins, a sub-quadrate common spot surrounding the scutellum, and an abbreviated transverse fascia a little behind the middle, black: body beneath clothed with short, cinereous, down: legs and antennae black.

A rare insect in Britain: all the known examples have been found, I believe, on the coasts of South Wales. “Taken on the coast of Caermarthenshire.”—Donovan, l. c.

has been questioned; but as Fabricius states that it feeds also upon the rose, that objection becomes untenable, and the mere fact of being rare is no criterion to judge from, as amongst many other similar examples may be instanced the rediscovery of Chrysomela cerealis in comparative plenty upon the Welsh mountains in July last, by W. D. Fox, Esq.; an insect supposed to feed upon the cork tree, being frequently taken in cork-cutters' shops in London, and consequently expunged from the British list on account of that fact, combined with its scarcity; though Fabricius says that it is found upon broom.
**Genus CCX.—Hoplia, Illiger**

*Antennae* ten-jointed; the basal joint very slender at the base and abruptly clavate; the second short, globose; the third elongate, slightly obconic; the two following of equal length, short, transverse; the sixth and seventh very short, the remainder forming an ovate triphyllous club. *Palpi, maxillary* with the terminal joint incrassate, conic-ovate: *head* small, rounded; *clypeus* with the anterior margin slightly emarginate: *thorax* slightly produced in the middle behind: *elytra* shorter than the abdomen: *body* ovate, depressed, scaly: four anterior *tarsi* with very unequal *claws*, the largest bifid; posterior with a single, stout, undivided claw.

Hoplia is the only indigenous genus that has the antennae ten-jointed, and the claws at the same time unequal and simple; it differs also from the two preceding, by having the body round, with minute scales, as in Melolontha, and the elytra shorter than the abdomen.

Sp. 1. argentea. *Fusco-nigra, subbus argenteo nitens, elytris castaneis, pedibus nigris, mas; aut pedibus rufis, femina.* (Long. corp. 4—4½ lin.)


Slightly squamose; head, thorax, and scutellum obscure fusaceous black, a little pilose: elytra dull rufo-testaceous or castaneous: body beneath and legs black, clothed with shining silvery or bluish scales. Female with the base of the antennae, palpi, elytra, and legs rufous.

Rather variable in size and in colour; some examples being of a darker and others of a lighter hue than the above: and the abdomen of the female is frequently piceous.

Not uncommon in some districts in the neighbourhood of London; in July, 1813, I observed an amazing number flying in a field, on Muswell-hill, about noon, and have occasionally taken the insect in other places within the metropolitan district: it also occurs in Somersetshire, and in Devonshire, Cornwall, and Suffolk. “Near Swansea, plentiful in 1814.”—L. W. Dillwyn, Esq. “About Ely, and in the Devil’s-ditch, plentiful.”—Rev. L. Jenyns. “Epping.”—Mr. Doubleday.

**Family XXXI.—CETONIADÆ, MacLeay.**

*Antennae* ten-jointed, glabrous: the basal joint large, stout, deflexed, tuberculiform; the capitulum triphyllous, ovate. *Labrum* membranaceous, concealed
beneath the clypeus: mandibles compressed, slender, lanceolate, with a sub-
quadrate membrane within: maxillae with membraneous process within,
ciliated: palpi, maxillary with the terminal joint much larger than the others.
Head quadrate: eyes prominent: thorax ovate-quadrate, or suborbicular;
sternum sometimes produced anteriorly: elytra shorter than the abdomen:
body ovate, greatly depressed; scutellum mostly distinct: legs slender; tarsi
with simple, acute, undivided claws.

The Cetoniadse are generally of gay and lively colours, and in
their perfect state subsist on vegetable juices, some preferring the
sap which flows from the wounds of trees, while others extract the
nectar of flowers: the former insects in their larva state usually
devouring putrescent wood, while the latter attack the roots of
living plants. The antennae, concealed labrum, and membranaceous
maxillae, readily distinguish them from the Melolonthideae.

The following are the more obvious external characters of the
indigenous genera:

<table>
<thead>
<tr>
<th>Genus CCXI.—Trichius, Fabricius.</th>
</tr>
</thead>
</table>
| Antenna shorter than the head; basal joint curved, slightly pilose, with a few
  bristles; the capitulum elongate, slender. Palpi, maxillary subfiliform, the
  basal joint minute; second and third short obovate, terminal elongate-obtuse:
  labial with the apical joint larger than the rest, ovate: head porrect: clypeus
  quadrate, the anterior margin reflexed and somewhat emarginate: thorax
  suborbicular: scutellum short: elytra subquadrate: body robust: abdomen
  emarginate at the apex: legs elongate: tibia bidentate externally: tarsi
  with simple, acute, claws. |

The genus Trichius, although it contains three indigenous species
only, nevertheless requires subdivision, and will probably ere long
be formed into two genera, the habit of the insects being so ex-
tremely dissimilar, the typical species having the body nearly
entirely clothed with dense pubescence—whence the name of the
genus—and the others being nearly glabrous, or but slightly pubes-
cent: they may be distinguished from the Cetoniae by wanting the appendages at the outer edge of the base of the elytra, so conspicuous in those insects; and from the Acanthuri by the anterior tibiae being distinctly bidentate only, as well as by the form of the terminal joint of the palpi.

A. With the body more or less tomentose.

Sp. 1. fasciatus. *Niger*, *flavo-rufus tomentosus*, *elytris atris fasciis duabus luteis interne confluentibus.* (Long. corp. 7—8 lin.)


Black: head and thorax densely clothed with erect fulvous hairs: elytra nearly glabrous, of a deep satiny black, with two transverse yellow fasciae united by a longitudinal one from the base to the apex, leaving the suture itself black; or yellow, with a rounded spot at the base and apex, an abbreviated transverse fascia, and the margin black: abdomen densely pubescent above, pilose beneath.

Var. β. Tr. succinctus. *Fabricius.—Steph. Catal. l. c.—With the elytra black at the base and apex, the centre yellow, with an abbreviated transverse fascia not touching the suture.

The fasciae on the elytra vary considerably in form. Var. β₂, of which I possess specimens taken by my friend Mr. Dillwyn, is clearly only a variety.

This rare and elegant insect has not hitherto occurred, I believe, within the metropolitan district, although greatly distributed over the western portion of the island from south to north. "Aberdeen by Mr. Townsend, and near Exeter by Mr. Harris." — *Dr. Leach. "Loch Rannoch." — J. C. Dale, Esq. "About forty of these beautiful insects have been taken in the neighbourhood (of Swansea), and I have generally seen them in pairs, mostly on umbelliferous plants. It has also been taken at Coytrahene and St. Hilary." — *L. W. Dillwyn, Esq.*

B. With the body glabrous, shining.


Black, slightly shining: clypeus and thorax thickly punctured, the latter with the punctures rather coarse and deep, with a shallow dorsal channel, and fre-
frequently with a white dot on the hinder angle; clypeus rugosely punctured, each with five ochreous spots, placed very obliquely in pairs, and forming on both elytra a cross; breast pilose; abdomen nearly glabrous; in the male with a small yellowish spot on the side of each segment, and a larger one on the last; this sex has also the intermediate tibiae curved at the base; and the female has the apex of the abdomen bituberculated.

Usually found in decayed oak trees; rare near London; two specimens having been taken on Penge Common, in 1806, and two others in a lane near Brixton, about ten years subsequently. It is, however, found annually in some plenty near Windsor, by Messrs. Griesbach, to whom I am indebted for part of my series.

Sp. 3. nobilis. Viridi- aut cupreo-aureus, subitis cupreus, thorace sulcato, elytris abdomenique albo maculatis. (Long. corp. 8—10 lin.)

Shining-green, or coppery-gold colour; clypeus broad, punctate: thorax thickly rugose-punctate, with an obsolete dorsal furrow, and a white spot at the hinder angle on each side; elytra transversely rugose, with scattered white spots; abdomen cupreous, with white spots on the margin and on the upper exposed surface; breast clothed with reddish hairs. Male with curved intermediate tibiae.

In some examples the white spots on the elytra are evanescent.

Somewhat local, but found in several places within the metropolitan district; usually upon umbelliferous flowers: I have taken it at Darenth, Birch, and Coombe-woods. "Greenhithe-wood."—W. Raddon, Esq. "Near the canal reservoir, Carlisle."—T. C. Heysham, Esq.

This and the foregoing, with some continental species, form the genus Gnorimus, St. Fargeau.

Genus CCXII.—Valgus, Scriba*.

Antennae as long as the head, the basal joint considerably elongate, slender at the base, slightly pilose, the capitulum ovate. Palpi, with the terminal

* Acanthurus of Kirby, employed in page 229, I find was long since applied to a genus of fishes by La Cepede; it therefore becomes necessary to adopt another term, and as the insect which forms the type of the genus has been designated by the name above given in the last volume of the Encyclopédie Methodique, I have here continued it, in order to avoid the inevitable confusion arising from the use of the same name in different classes of nature.
joint stouter than the others, short, ovate: head deflexed: clypeus subemargined: thorax subquadrate; with the margins denticulate, and two longitudinal wrinkles: scutellum elongate, triangular: elytra short, abruptly depressed on the sides: abdomen with a series of spiniform scales at the apex, and in the female with an acute ovipositor: anterior tibia with five teeth on the outer edge; hinder tarsi with the basal joint elongate; claws simple.

The smaller bulk of the only indigenous species, compared with the Trichii, at once points out a dissimilarity therefrom; but the difference in the form of the terminal joint of the palpi, the deflexed head, subquadrate, longitudinally porcate, and denticulated thorax, and five-toothed anterior tibiae, with the spiniform process at the apex of the abdomen, may also be noticed.

†Sp. 1. hemipterus. Niger, nigro et albido-squamosus, suprò albido maculatus, subtòs albidus; versus annum maculis duabus nigris. (Long. corp. 3—4 lin.) Sc. hemipterus. Linnaë.—Tr. hemipterus. Steph. Catal. 118. No. 1902. Black, varied with black and white scales, somewhat rugose-punctate: thorax slightly narrowed in front, the disc unequal, with two longitudinal wrinkles, and spotted with white; elytra also with white spots, each with four somewhat obsolete, waved, striae: the body beneath and anus clothed with whitish or cinereous scales, with two black spots near the latter; legs black.

This insect has recently been captured in the west of England; and two specimens in the late Mr. Francillon’s cabinet are said to have been taken in a chalk-pit in Kent. “I have received this species from Bath alive, also from Devonshire.”—G. Wailes, Esq.

Genus CCXIII.—Cetonia, Fabricius.

Antennæ short; the basal joint robust, glabrous, the capitulum elongate, triphyllous; the first joint thereof dilated in the centre. Palpi short, with the terminal joint elongate, ovate-cylindric: mandibles short: head moderate: clypeus quadrate, emarginate: thorax subtrigonal, truncate anteriorly: elytra abruptly sinuated towards the base, externally, with a triangular scale interposed between the outer base and the posterior angles of the thorax: sternum produced anteriorly; scutellum large, elongate: body short, ovate, depressed, broad.

The anteriorly produced sternum, large scutellum, externally sinuated elytra, and above all the singular interposed triangular process between the base of the elytra and that of the thorax, at once show the distinction between Cetonia and the other indigenous
genera of this family. The insects are usually found in flowers in their perfect state, and in that of a larva they devour roots.

The genus may be divided, as there is considerable diversity in the habit of the two species, which seem to belong to different genera.

A. With the body glabrous, and all the tarsi shorter than the tibiae.


Sc. auratus. \textit{Linne.—Martyn, pl. 3. f. 27.—Ce. aurata. Steph. Catal. 118. No. 1203.}

Above rich shining golden-green, beneath bright cupreous: clypeus thickly punctured, with an elevated longitudinal line: thorax punctate, slightly convex, immaculate: scutellum very smooth, with a few impressions at the base: elytra irregularly and rather thickly impressed with dots and lumbar marks, with a broad furrow posteriorly towards the suture, and vanishing anteriorly, the suture itself being elevated; and on the posterior half various scattered transverse undulated whitish marks: sternum smooth, with the produced apex subglobose.

Slightly variable in colour, and in size and markings.

One of the most abundant of our coleopterous insects, frequenting the flowers of the rose, &c., in gardens throughout the south of England. "Common in Cambs."—\textit{Rev. L. Jenyns. "Common about Swansea."—L. W. Dilkwyn, Esq.}

B. Body pilose; the posterior tarsi longer than the tibiae.

Sp. 2. stictica. \textit{Nigro-anea, undique albo-guttata, clypeo elongato, lincolé frontis elevatâ}. (Long. corp. 5—6 lin.)


Brassy or coppery-black, clothed with scattered whitish hairs: clypeus elongated, with an elevated longitudinal ridge: thorax also with a longitudinal carina, thickly punctate, with six parallel white spots in pairs on the back, and other scattered ones towards the edges: elytra irregularly punctate-striate, and with about twenty unequal white spots on each: breast densely pilose: abdomen with a series of four white spots in the middle, and four smaller ones on each side.

Several specimens of this insect were taken three or four years since near Windsor, by Mr. J. R. Griesbach: a pair were in the collection of the late Mr. Francillon, and one or more in that of Mr. Green, if the Sc. Greenii of Donovan be synonymous.
Subsection III.

Corresponds with the Sternoxi of Latreille, and is nearly thus characterized by him:—

Antenna eleven-jointed, filiform, rarely thickened exteriorly, pectinated, serrated, or with the articulations towards the apex produced above into denticulations: sternum mucronated, the apex of the mucro received into a cavity in the middle: body often elliptic, conic, or trigonate: thorax with the posterior angles produced into an acute spiniform process: head short, deeply inserted in the thorax: elytra broad, elongate: legs short, capable of being closely applied to the body.

The insects of this most natural section subsist in their perfect state upon vegetable substances, some destroying the ligneous particles of trees, and others living upon the leaves or juices thereof. The two families contained therein may be thus concisely distinguished:

\[
\begin{align*}
\text{Mandibulata} & \quad \text{integra}: & \quad & \text{32. Buprestidae.} \\
\text{Mandibulata} & \quad \text{unidentata aut subemarginata}: & \quad & \text{33. Elateridae}
\end{align*}
\]

Family XXXII.—Buprestidae, Leach.

Antenna eleven-jointed, rather slender, short, filiform or setaceous, more or less serrated or pectinated. Palpi generally filiform, nearly concealed: head retuse, sometimes deeply emarginated: thorax short, broad, occasionally lobate behind; the posterior angles rarely produced behind: body generally oval, convex, or depressed, more or less triangular or conic, sometimes cylindric, linear-elongate, attenuated towards the apex: legs short, the four basal joints of the tarsi broad, the fourth frequently bilobed: claws simple. Females with a trilamellated ovipositor.

Like the Cetoniidae, the insects of this family are of brilliant and lively hues, and amongst the exotic species are some of the most splendid known insects; but few of the indigenous ones are remarkable for the beauty of their colours: their larvae reside in and subsist upon wood: the imago is found generally in hot and dry weather, and flies with great facility and with rapidity, but walks with difficulty: the smaller species are found in flowers, or upon leaves, but the larger ones are generally found in the trunks of trees, or in houses, timber-yards, &c.
The indigenous species may be divided by the following external characters into genera.

Genus CCXIV.—Buprestis Auctorum.

Antenna subfiliform, serrated in both sexes, basal joint elongate, subclavate, terminal one minute. Palpi, maxillary subfiliform, the terminal joint slightly tumid; labial minute: labrum attenuated and slightly emarginated in front: mandibles slightly bifid at the apex: maxilla small, somewhat bilobed at the tip: head deflected, short, retuse: thorax with the posterior margin closely applied to the base of the elytra; the latter elongated, trigonate, entire, or serrated: legs slender; tarsi with the penultimate joint bilobed.

The genus Buprestis may be known from Agrilus by the greater width of the body, the thickening of the terminal joint of the maxillary palpi, the attenuated labrum, the elongate basal joint of the antennæ, bifid mandibles, &c.

Whether all the following species are truly indigenous remains questionable; but doubtless some are aboriginal natives, and as all those which are hereafter given as British are introduced from the inspection of specimens captured at large—and, as the insects are, moreover, found in similar latitudes on the continent—no material injury to science can arise should their native origin prove ultimately to be erroneous.

A. With the elytra dentate, or serrate, at the apex.
   a. With the outer tip of the elytra serrate.

Sp. 2. rutilans. Auroco-violid. elytris striatis, viridibus nigro maculatis, margine aureo. (Long. corp. 7½ in.)

†Sp. 1. chrysostigma. Purpurascen-anea, thorace inequali rugoso, elytris obscurs elevato-costatis, margine maculisque duabus disci rubro-aureis impressis. (Long. corp. 6¼ in.)

Brilliant blue- or golden-green; elytra of a fine metallic green, with the margins rich gold, and the disc sprinkled with violaceous-black spots.

A single example taken in June, 1817, near Matlock, in Derbyshire; and another “found near Westerham, in Kent, by Mr. Plastead.”—Marsham MSS.

b. With the apex of the elytra two- or three-toothed.

†Sp. 3. aenea. Fusco-aenea, subtius cuprea, capite thoraceque rugoso-variolosis, elytris striatis rugosis, apice attenuatis. (Long. corp. 9 lin.)

Brassy-brown above; rich copper colour beneath; with the head and thorax ruggedly shagreened; the elytra striated, with the apex attenuated and bidentate; legs dusky cupreous, punctate.

I have seen but one indigenous example of this fine species, which was taken “near Ebberley-house, Devonshire.”—H. Hole, Esq.

Sp. 4. rustica. Aenea-nitida, thorace anteriis angustato, elytris striatis, apice truncatis, bidentatis. (Long. corp. 8 lin.)

Brilliant aeneous, slightly tinted with green or bluish: head and thorax punctate, the latter narrowed anteriorly: elytra rather deeply striated aeneous, or of a bronzed green: legs bronzed.

Three or four specimens only of this rare species have hitherto been captured in England. “At the entrance of a chapel, Old Brompton.”—Mr. G. Waterhouse.

†Sp. 5. tarda. Ovata, subdepressa, carulco-virescens, creberrimè punctulata, elytris cyaneis, apice rotundatis, clypeo flavescente. (Long. corp. 6 lin.)
Bu. tarda. Herbst. Col. xi. pl. 147. f. 3.

Ovate, subdepressed, above bluish metallic green, thickly punctured, beneath dusky bronze: elytra blue, with the apex rounded: the clypeus yellowish: legs green or bluish.


Above bronzed-purple; beneath brilliant copper-colour: thorax rugose: elytra obscure, with three elevated longitudinal lines, with the margins and two impressed spots on the disc of each golden-red.

Berkenhout gives this fine species as indigenous; but I have never seen a British specimen.
A specimen is in the collection of Mr. J. H. Griesbach, I believe taken in the vicinity of Windsor.

Sp. 6. flavomaculata. *Obscuré nigro-anea, fronte flavomaculata, elytris striatis maculis quattuor flaves, abdomine subtùs fulvo maculatis.* (Long. corp. 8 lin.)


Dull black-bronze above, with the head punctate, spotted with yellow in front; the antennae black: thorax thickly and deeply punctate, with a slender reddish-yellow streak within the margin on both sides: elytra striated, each with four yellow spots, of variable form: body beneath slightly pubescent, with each segment of the abdomen having a triangular fulvous-yellow spot on each side, some smaller ones in the middle, and some lines and spots of similar hue on the breast and pleura: legs black-brass.

Two examples (one of which I possess) taken about forty years since on a Lombardy poplar in St. George’s Fields.

B. With the elytra entire, unarmed.

a. *With the body somewhat convex.*


Oblong-ovate, golden green; head rugose, cupreous; thorax trilobed behind, punctate, with a smooth golden-red medial line: elytra with the disc bluish-green, with the suture and margin golden-cupreous; each with five elevated lines, the one nearest the suture, and the two outer ones considerably abbreviated.

I have seen but one example, which was taken "in the Wands-worth road."—W. Plimpton, Esq.

In the Linnæan Transactions, quoted above, Marsham relates that a specimen of this beautiful species was taken out of the top

‡ Sp. 7. octoguttata. *Nigro-œrulea nitida, thorace lineâ laterali, elytris maculis quinque abdomine plurimis quadrifariis flavo-albidis.* (Long. corp. 6 lin.)


Shining blue-black: head punctate, with some yellow dots on the forehead; thorax with a yellow lateral line, elytra striated, with five yellow spots on each: the abdomen with four rows of yellowish spots, and the breast and pleura with spots and lines of the same.

Said by Turton to inhabit Britain; but I presume without sufficient authority.
of a desk in Guildhall, which had been nearly thirty years in the office; and upon the surface being planed away the track of the larva was exposed.

b. With the body depressed.

Brilliant-green, beneath immaculate: elytra of a rich gold or cupreous hue, with the base bright green.

This beautiful insect has been taken on some willows in Lordship-lane, near Dulwich.

‡ Sp. 10. nitidula. *Ovata viridi-aurea, subnitida, creberrimè rugoso-punctata, thorace foveis duabus transversis impressis.* (Long. corp. 2½ lin.)
Ovate golden-green, slightly shining; head and thorax thickly rugose-punctate, the wrinkles on the latter being placed transversely; thorax with a transverse double impression a little behind the middle; elytra rather broader than the thorax at the base, depressed above, and absolutely rugose-punctate; body brilliant golden-green beneath; legs green-brass; antennae the same, obtusely serrated.

Above sometimes bluish or reddish.

Taken in the New Forest, near Brockenhurst, in the beginning of June, in the flowers of the white thorn.

‡ Sp. 11. manca. *Rufo-cuprea elytris obscuris, thorace aucreo striis duabus nigris.* (Long. corp. 4 lin.)
Bu. manca. *Fabricius.—Turton (!)—Steph. Catal. 120. No. 1214, note.
Rufo-cupreous, thorax with two obscure longitudinal lines; elytra obscure, thickly granulated; body beneath brilliant rufous-copper; femora cupreous; tibia, tarsi, and antennæ obscure.

Turton marks this as a British species; but I have not yet seen an indigenous specimen.

‡ Sp. 12. quadripunctata. *Ovata, nigra obscura, thorace foveolis quattuor transversim impressis, elytris nigè rugoso-punctatis.* (Long. corp. 2½ lin.)
Bu. quadripunctata. *Linne.—Turton, (!)—Steph. Catal. 120. No. 1215, note.
Ovate, dull-black, bronzed; thorax with four transverse impressed foveæ; the elytra thickly rugose-punctate.

Also marked as a native of Britain by Turton, but I suspect without sufficient authority.
Genus CCXV.—Agrilus, Megerle.

Antennæ serrated in both sexes; the basal joint short, somewhat angulated at the base; the two following also short, and of nearly equal length; the remainder produced internally. Labrum quadrate, slightly emarginate: mandibles triangular, stout, somewhat acute: palpi, maxillary with the terminal joint longest, ovate, truncate, not dilated; labial with the terminal joint long, acute: head retuse, not emarginated: thorax cylindric, quadrate, produced in the middle behind: scutellum transverse: elytra very long, subulate, slightly serrated at the apex: abdomen stout: legs rather slender; femora slightly incrassated; tarsi with the fourth joint bilobed.

Agrilus appears to differ chiefly from Buprestis by its cylindric form of body, short basal joint of the antennæ, quadrate labrum, simple mandibles; slender, somewhat attenuated, terminal joint of the maxillary, and elongate conic terminal one of the labial, palpi; quadrate thorax, &c.

A. With the body elongate-linear, acuminat.


Very brilliant blue- or bronzed-green above: head rugose-punctate, with a deep impression on the forehead: thorax with the disc convex, unequal, transversely rugulose, with a rounded impression in the middle, and another near the base before the scutellum, the sides depressed; elytra depressed on the back, thickly granulated, with a large deep fovea at the base, and towards the apex of each, near the suture, a small white villose spot: abdomen shining blue-green, with three or four brilliant white villose spots on each side: legs and antennæ blue-green, or bronzed.

Colour above very variable, being of various tints of blue, green, bronzed or slightly cupreous.

Not common; though frequently observed at Darenth-wood, where I have at different times taken eight or ten examples in June: it flies with great facility, and delights in settling upon felled timber in a hot day. "Cuckfield."—Rev. F. W. Hope.


Green- or bluish-brass, with the forehead convex, obscurely foveolate; the thorax very short, thickly shagreened transversely, rather narrowed and trisinuated
posteriorly; elytra very finely wrinkled transversely, immaculate; body rich glossy-bronze beneath; legs and antennae dull bronze, the latter acutely serrated.

Variable in colour; being of various tints of green and bluish: in some instances the head and thorax are of one tint, and the elytra are of another, but they are mostly conceolourous.

The most abundant species of this family in Britain; found very commonly in oaks in Darenth-wood, and also in Kensington-gardens in June and July. "Netley."—Rev. F. W. Hope. "Frost-tenden, Suffolk, and once near York."—W. C. Hewitison, Esq. "Hornsey-wood."—A. Cooper, Esq.

†Sp. 3. chryseis. Cupreopurpureus, fronte subcanaliculata, thorace trifoveolato, antennis pedibusque eneo-nigris. (Long. corp. 3½ lin.)
Ag. chryseis. Zeigler.—Curtis, ii. pl. 67.—Steph. Catal. 120. No. 1218.

"Golden purple above, beneath metallic, with a blackish tinge, pubescent; head finely and irregularly channelled longitudinally on the crown: thorax finely and irregularly punctured and channelled transversely, the anterior margin slightly elevated, a fovea in the centre near the posterior margin, and an impression on each side: elytra thickly and minutely punctured, having a scabrous appearance, with a few short bristles at the apex: antennae and legs aeneous-black, eyes brownish-black."—Curtis, l. c.

I have hitherto seen but two specimens of this insect, one of which was captured in the New Forest, near Brokenhurst, towards the end of September: the other was taken, about the same time, "in Windsor Forest."—J. H. Griesbach, Esq.

Sp. 4. amethystinus. Violaceo-purpureus, antennis pedibusque nigris. (Long. corp. 3 lin.)
Bu. amethystina. Olivier. E. ii. pl. xi. f. 128. a. b.

Rich purple-violet: forehead excavated: thorax slightly dilated on the sides, the disc a little unequal, with two foveae behind: elytra with a rounded fovea at the base, the surface very obscurely granulated, violaceus-purple: body beneath brassy-violet: antennae and legs black.

One indigenous example of this species has hitherto come beneath my inspection: it was taken near London, in the spring of 1828.

B. With the body cylindric.

Sp. 5. novem-maculatus. Plate xix. f. 2.—Ceruleo-niger, fronte puncto unico thorace duabus, elytris tribus flavis. (Long. corp. 7 lin.)
Bu. 9-maculata. Linné.—Ag. 9-maculata. Steph. Catal. 120. No. 1220.

Shining blue-black; forehead with a single round yellow spot: thorax gibbous anteriorly, thickly punctured, with a faint longitudinal impression, and near
the base, towards the anterior angles, two rounded yellow spots: elytra rather irregularly punctate-striated, each with three yellow spots, the basal one being emarginated anteriorly: body slightly pubescent beneath: legs and antennae blue-black.

The yellow spots vary in form and sometimes in number, especially on the head and thorax; and one of my specimens has two deeply impressed spots anterior to the yellow marks on the thorax.

The only locality I am aware of for this remarkable species, which will probably form the type of a new genus hereafter, is "Cockermouth, in Cumberland, taken abundantly, in July, 1817."—Dr. Leach.

Genus CCXVI.—Aphanisticus, Latreille.

Antennae clavate; basal joint stout, oblong, bent at the base; second globose; five following of nearly equal length, slender; the remainder forming a serrated club, the terminal joint of which is obliquely ovate. Labrum entire, widened anteriorly: mandibles acute: palpi, maxillary with the terminal joint short, pear-shaped: head deeply emarginate in front: eyes small, placed anteriorly: thorax margined, subquadrate, narrowed before: elytra coarctate towards the base; the apex attenuated and rounded: wings short: femora very robust; tibiae short, stout; tarsi with dilated joints, terminated by a single claw.

From the other genera of the family, Aphanisticus differs in having the antennae clavate, the forehead deeply sulcated, the labrum entire, narrowed at the base; the thorax margined, the terminal joint of the maxillary palpi acute, the four basal joints of the tarsi dilated, and the terminal one with a single claw.


‡Sp. 6. Rubi. *Æuco-niger, elytris fasciis cinereis undatis.* (Long. corp. 6 lin.)

Bronzed-black; forehead with a deep impression: thorax unequal, foveolated: elytra dull bronze, with about four transverse undulated cinereous fasciae: antennae and legs black, slightly tinted with aeneous.

This species is also indicated as a native of Britain by Turton, but without apparent authority.
Elongate: black, tinged with brassy, and very finely granulated: head and thorax slightly punctate, the latter with a transverse impression before and another more obsolete behind the middle: elytra unequal at the base, with several irregular punctate striae, and an obscure longitudinal impression on the disc.

This remarkable, though minute, insect has been very frequently captured in the broom field near the gravel-pit at Coombe-wood, in the spring, within these few years; and it has also occurred in other places, but sparingly. "Southend."—Rev. F. W. Hope. "Bath, by Dr. Davies; and Kingsbridge, Devonshire, by J. Cranch."—Dr. Leach. "Grassy places, Coombe-wood."—Messrs. Ingall, Ingpen, and Westwood.

**Genus CCXVII.—Trachys, Fabricius.**

*Antennae* short, with the two basal joints robust; the four following slender, equal, subovate; the four next produced on the inner edge, the terminal one obliquely ovate. *Labrum* transverse, obscurely emarginate: *palpi* very short, equal: *head* broad, emarginate: *thorax* transverse, situated behind: *elytra* broad, nearly triangular, attenuated to the apex: *scutellum* minute: *body* short, obtuse anteriorly, attenuated behind, depressed: *legs* slender; *tarsi* with dilated joints, the terminal joint with two claws.

Trachys may be at once known from the other Buprestidæ by the width and brevity of the body, which is greatly depressed, the robustness of the two basal joints of the antennæ, which are very short, and have the apical half above serrated, somewhat as in Aphanisticus, the palpi very short, labrum transverse, &c.


Head and thorax brilliant glossy-copper, impunctate: forehead excavated: elytra of a rich blue, rudely punctate, the punctures somewhat disposed in stripe towards the suture: body beneath black-brass, a little glossy and finely rugose: legs and antennæ aeneous.

Very rare in Britain: three or four examples only have as yet occurred, and of these two in the neighbourhood of Coombe-wood. "Cambridge."—C. Darwin, Esq.
Sp. 2. minuta. *Nigro-anea, subnitida, pilosa, fronte impressa, elytris inaequalibus saturioribus, fasciis undatis albido-pilosis.* (Long. corp. 1½—1¾ lin.)
Bu. minuta. *Linné.—Don. viii. pl. 256.—Tr. minuta. Steph. Catal. 120. No. 1823.

Brassy-black or bluish, tinted with cupreous or greenish, slightly shining, pilose: forehead deeply excavated: thorax with a transverse abbreviated striga on each side within the apex, and an entire punctate one within the base: elytra unequal, with obsolete dispersed punctures, and four narrow undulated transverse fasciae composed of a whitish pubescence: body beneath smooth brassy-black; legs and antennae black, tinged with brass. Slightly variable in colour, as above indicated.

Not uncommon on the hazel and birch in Coombe and Darent-woods, and in other parts in the vicinity of London. "Norwood."
—*A. Cooper, Esq.*

Sp. 3. nana. *Obscure nigro-subanea glabra, fronte excavata, elytris triangu- laribus, punctato-substriatis lineat lateralibus.* (Long. corp. 1½ lin.)
Tr. nana. *Fabricius.—Steph. Catal. 120. No. 1224.*

Dull slightly brassy-black, glabrous; the forehead broadly impressed below, the vertex slightly channelled; thorax a little punctate, with the lateral margins on both sides unequally impressed: elytra nearly triangular, above slightly convex, black, with a trifling brassy tinge, glabrous, with rather large impressed dots disposed nearly in rows; and within the lateral margin an elevated abbreviated ridge, which is sometimes rather obsolete: body beneath, legs, and antennae black, the former scarcely punctuated.

Two specimens are in my collection, taken in Coombe-wood in June, one by myself, the other by a practical collector, the late J. Sharp.

**Genus CCXVIII.—Melasis, Olivier.**

*Antennae* pectinated in the male, serrated in the female; the first joint in the male long and slender; the second minute, globose; third short, subovate; the remainder pectinated: in the female the basal joint long and bent; the second and third of equal length, subcyllindric; the remainder produced internally. *Labrum* minute, slightly emarginate: *palpi*, maxillary pilose, with the terminal joint large, dilated in the middle and slightly truncate; labial with the terminal joint large, truncated, pilose: *labium* bifid: head broad, deeply immersed in the thorax, which is emarginate anteriorly, and produced at the posterior angles on each side into an acute spine: *scutellum* elongate: *body* cylindric: *legs* short; *tibiae* broad, flat; *tarsi* compressed, entire.

The incrassated terminal joint of the palpi forms the most prominent distinction of this genus from its allies, from which it also
recedes by having the thorax somewhat remote from the elytra, and produced at the hinder angles into an acute spine on each side, the antennae strongly pectinated in the males, and deeply serrated in the females, the body cylindric, the legs short and compressed, the scutellum elongate, and the labrum bifid.

Sp. 1. buprestoides. *Nigra opaca, thorace anticië latiori subcanaliculato, elytron striis interruptis, vix punctatis.* (Long. corp. 3—3½ lin.)


Obscure black, sometimes inclining to castaneous, slightly glossy: head pubescent, punctured; forehead convex: thorax with the lateral margins slightly expanded anteriorly, the disc thickly and deeply punctate, slightly pubescent, with an obsolete impressed line down the centre: elytra somewhat rugose, with nine somewhat interrupted punctate striae, gradually approximating from the base to the apex: body black, thickly punctured; legs, antennae, and palpi pale rufo-ferruginous. Variable in colour: in some examples the elytra are more or less castaneous, and the body beneath somewhat rufous.

Found in old decayed trees. Not common near London, but it has been taken in tolerable plenty in the New Forest, by Mr. Chant, who supplied me with specimens, and also by Mr. Millard—it has also occurred near Windsor, where it was captured by Mr. Herschel, and also in the neighbourhood of Halesworth, Suffolk.

**Family XXXIII.—ELATERIDÆ, Leach.**

*Antennae* not very short, filiform, sometimes serrated or pectinated: *palpi* with the terminal joint generally triangular or reniform: *mandibles* notched or bifid at the apex: *body* linear, depressed: *thorax* with the hinder angles produced into a sharp tooth; the lateral margin beneath with a groove to receive the antenna: *sternum* produced behind into a sharp mucro, capable of being applied at the will of the animal to a groove at the base of the abdomen, placed immediately between the origin of the second pair of legs: all the latter very short. The females have an elongated ovipositor, composed of three pieces, the lateral ones being pointed at the apex.

The Elateridae, exclusively of their elongate form, may be at once known from the other families of Coleoptera, by the sternum being produced behind into an elongate spine, which fits into a groove at the base of the abdomen, so that when the insect is laid on its back, it is enabled to recover its position by bending the head
and thorax backwards, and suddenly striking the spiniform process of the sternum against the base of the abdomen, by which means it is thrown up a considerable height, and usually alights on its feet.

The species frequent flowers and plants, or on grass, in the trunks and beneath the bark of decayed trees: they are rarely of brilliant colours, like the Buprestidae.

The larvæ are long, nearly cylindric, provided with short antennæ and palpi and six legs; the body is composed of twelve rings covered with a hard scaly skin, the anterior extremity being produced into a margined plate, the edges of which are angular, and furnished with two soft processes curved within, and beneath which is a large fleshy retractile tubercle, which performs the office of a foot:—they reside beneath the ground, in rotten wood.

The indigenous species, which are rather numerous, may be divided into the following genera, of equal rank with those of the Harpalidæ, thus briefly characterized:

<table>
<thead>
<tr>
<th>Elateridæ</th>
<th>Articulis 2is et 3is elongatis; ultimo breve, obliquè truncato:</th>
<th>221. Cataphagus.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>et 3is brevissimis, subglobosis; ultimo elongato, gracile:</td>
<td>224. Perimecæs.</td>
</tr>
<tr>
<td></td>
<td>articulis 2is subgibbosus. Tarsi articulo basali mediocres, subbreviores:</td>
<td>225. Ludius.</td>
</tr>
<tr>
<td></td>
<td>Corpus latum:</td>
<td>227. Selatosomus.</td>
</tr>
<tr>
<td></td>
<td>simplici articulo basali medio, elongato:</td>
<td>222. Elater.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Genus CCXIX.—Ceratophyrum, Leach.

Antennae rather long, pectinated on the inner side in the males, serrated in the females; the third joint with the pectination longer than the rest; the apex rounded, incrassated. Palpi, maxillary with the last joint very much incrassated, oval, somewhat obliquely truncate: maxilla bilobed: mandibles entire: body oval; depressed: tarsi with the last joint bifid.

Ceratophyrum of Leach—Cerophyturn of Latreille—is to be distinguished from the allied genera by having the antennae of the males considerably pectinated; the maxillary palpi with the terminal joint very thick, oval, and somewhat truncate; the maxillae bilobed, the mandibles entire; body depressed; tarsi with the last joint bifid.


Black, elytra striated; the thorax slightly convex; the antennae and legs dusky. The insect to which the above name has been applied is in the collection at the British Museum; but some doubt hangs over its identity with the Cerophyturn elateroides of Latreille, as its characters appear rather to partake of those of the genus Eucnemis than the Cerophyturn; but I have not at this moment the opportunity of examining the insect in question; therefore I am compelled to notice the suspicions which have been pointed out to me by Mr. Westwood, until I am enabled to inspect the specimens.

The specimen above alluded to, with others, was taken by Mr. Millard, I believe, in the neighbourhood of Bristol.

Genus CCXX.—Eucnemis, Mannerheim.

Antennae slightly serrated, approximating at the base; the basal joint elongated; the second minute; the third longer, subcylindric; the remainder cup-shaped, and rather increasing to the extremity; the terminal joint oblong-ovate, acuminate. Labrum membranaceous, nearly entire: mandibles unidentate: palpi thickened towards the apex, with the terminal joint oblong-ovate, subsecuriform: maxilla bifid: labium subemarginate: head deflexed: thorax truncate anteriorly; bisiminated behind; closely applied to the base of the elytra, which are slightly attenuated: legs short; femora compressed; tarsi with the basal joint large, elongate, the remainder short.

The chief characters of the genus Eucnemis, according to Mannerheim, consist of the approximating antennae, which have the first
joint elongate, the second minute; labrum membranaceous, nearly entire: the palpi thickened towards the apex, with the last joint oblong-ovate, and slightly reniform; the maxillæ bifid; mandibles unidentate, &c. — the species inhabit rotten wood.

† Sp. 1. pygmaeus. Linear-elongatus, aler, griseo-pilosus, antennis tibias tarsisque rufescentibus, thorace sublongiore, elytris evidentibus striatis. (Long. corp. 2½ lin.)


Linear-elongate, black, clothed with a griseous pubescence: with the antennæ externally perforilated: the head punctured, with an elevated ridge on the vertex: the palpi rufous: antennæ black at the base, rufescent at the apex: thorax slightly elongate, punctulate: elytra flat on the back, thickly rugose-punctate, obsoletely striated, the striae deepest towards the apex: tibia and tarsi rufescent: femora piceous.

Of this insect a single specimen is in the collection of N. A. Vigors, Esq., who obtained it from that of Mr. Wilkin: of its locality I am not aware; but I believe it was found in Norfolk.

Genus CCXXI.—Cataphagus* mihi.

Antennæ rather slender; the basal joint robust, elongate, slightly bent; the second and third slender, equal, each about as long as the fourth, which, with the remainder, is obconic; the terminal joint being longest and subovate.

Month deflexed: head retracted, deflexed; forehead very convex: eyes small: thorax very convex, depressed at the base. the posterior angles forming an elongate robust spiniform process: body oblong, or linear-elongate: elytra convex, slightly acuminated behind: scutellum depressed: legs short; femora slightly incrassated: tibia slender, simple; tarsi simple.

This genus may be readily known from the other Elateridae by having the second and third joints of the antennæ slender and somewhat elongated, with the terminal joint considerably longer than the preceding, somewhat slender and subacutæ; the head is

* Latreille, in his Familles Naturelles, employs the term Hemirhipus for a genus, giving Elater lineatus as the type, but without characters, which, however, he has supplied in the new edition of the Règne Animal, whence it appears that E. lineatus of Fabricius, not of Linné, is the insect intended by him. I have therefore been compelled to propose a new appellation for the indigenous genus, from Nasus, wire, worms, in allusion to the destructive propensities of the larve, called wire worms, of the type C. lineatus, Linné.
deeply retracted, the forehead very convex, as are also the thorax anteriorly, and the elytra.

A. With the thorax sublinear: the body linear-elongate.


Linear-elongate, scarcely acuminated behind; black, pubescent: head a little glossy, thickly punctured in front: thorax with the lateral edges immarginate, the disc very glossy, finely punctured, with the anterior edge and sometimes the posterior spinous processes testaceous; scutellum black: elytra moderately convex, rather deeply punctate-striate, the interstices somewhat punctulated, testaceous, with the suture and margin fuscous-black: body beneath black, with the apex testaceous: legs and antennae pale-ferruginous.

Rather variable in colour; the elytra being sometimes without the coloured suture and margins.

Extremely abundant within the metropolitan district in grassy and woody places; and I believe in other parts of the country. "Tamerton and Woodland, Devon; and Pencarrow, Cornwall."—*Dr. Leach.* "Common among grass in woods and pastures (near Swansea)."—*L. W. Dillwyn, Esq.* "Bottisham, Wilbraham, &c., Cambs."—*Rev. L. Jenyns.* "Epping."—*Mr. Doubleday.*


Linear-elongate, slightly attenuated behind; fuscous pubescent: head and thorax a little shining, obscurely punctured, the posterior angles of the latter dull-testaceous: scutellum dull ochraceous: elytra fuscescent, with an elongate vitta on the disc at the apex, obscurely striated, the interstices thickly punctured: body beneath dull black, with the apex rather slightly testaceous: antennæ and legs testaceous.

Larger than the foregoing, with the elytra more acuminated behind, and of a dusky hue, the scutellum pale, the head and thorax fuscous, the latter with its sides concolorous, &c.

Occasionally found in hedges near London and in Devonshire. "Gravel-pits, Coombe-wood."—*Mr. Ingpen.*

Sp. 3. marginatus. *Fusco-piceus, thoracis limbo pedibusque rufo-ferrugineis, elytris testaceis, suturâ margineque nigris.* (Long. corp. 3—3½ lin.)
Elateridæ.—Cataphagus.


Pitchy-brown, slightly pubescent: head dusky; forehead very prominent, thickly punctured: thorax sublineal, moderately convex, closely punctate, black, with the angles and lateral margins more or less testaceous; sometimes of the latter colour, with a dusky spot in the middle of the disc: scutellum dusky-testaceous: elytra sublineal, slightly convex, regularly punctate-striated, the interstices thickly rugose-punctate, pale testaceous, with a broad fuscous-black common patch on the back, attenuated and nearly evanescent towards the apex, the lateral margins sometimes slightly dusky: sides and apex of the abdomen, legs, and antennæ, testaceous.

Extremely variable in colour, some examples being of an uniform testaceous hue, and all intermediate grades between that and the above described occurring.


B. With the forehead and thorax very convex; body oblong.

Sp. 4. sputator. Niger pubescens, subnigridus, thorace longiori, antennis, elyris pedibusque testaceis. (Long. corp. 3—3½ lin.)


Black, pubescent, slightly shining: thorax rather longer than broad, its lateral margins nearly straight, immarginate, the disc very thickly punctate, with an obsolete channel, black, with the exterior edge of the anterior margin and the posterior angles testaceous: scutellum dusky-testaceous: elytra a little attenuated at the apex, rather deeply punctate-striate, the interstices faintly punctate, sometimes obscure testaceous, or pitchy-fuscous, or nearly black: abdomen sometimes piceous: legs and antennæ testaceous; the former sometimes dusky.

Smaller, more glossy, with the thorax less gibbous, and the antennæ and legs generally paler than the following insect.


Sp. 5. obscurus. Brevis nigro-fuscus, pubescens, opacus, antice obtusus, thorace gibbo, antennis pedibusque fuscō-testaceis. (Long. corp. 1—1½ lin.)

Short, robust; fuscous-black, pubescent, opaque, very obtuse anteriorly: thorax very much, but rather finely, punctured, with the sides rounded, dilated in the middle, slightly margined, the disc very convex, with an obsolete channel at the base: scutellum black: elytra attenuated at the apex, faintly punctate-striated, with the interstices thickly punctulate, pale dusky-black, and slightly pubescent: body beneath black, thickly punctured: femora pitchy-black; tibiae, tarsi, and antennae dusky-ferruginous.

Slightly variable in colour, being more or less testaceous.

Considerably larger than the preceding, from which it may be known by its shorter and more gibbous thorax, more opaque surface, fuscescent legs and antennae.

Also found copiously in meadows and pastures throughout England. "Brugh Marsh."—*T. C. Heysham, Esq.* "Epping."—*Mr. Doubleday.* "This, the preceding, and the following species, very abundant in Cambridgeshire; the larvae committing great depredations at the roots of grass, &c."—*Rev. L. Jenyns.* "Common in woods, grass fields, and on the sand-hills (near Swansea)."—*L. W. Dillwyn, Esq.*

Sp. 6. lineatus. *Fuscus, griseo-pubescent, antennis pedibusque testaceis, elytris griseis, fusco-lineatis.* (Long. corp. 4—4½ lin.)


Fuscous, clothed with a griseous pubescence: head and thorax blackish, the latter with the lateral margins nearly straight, and the posterior angles very acute; the disc very convex and closely punctate: scutellum fuscous: elytra broad, a little attenuated, rounded at the apex, very convex, punctate-striated, the striae disposed in pairs and united at the apex; griseous-yellow, with the alternate narrowed interstices fuscous or dusky: margins and apex of the abdomen ferruginous: antennae and legs rufo-testaceous, the femora sometimes dusky.

Also a little variable in colour, being more or less fuscescent or testaceous.

Less abundant than the two preceding species, though far from rare throughout the metropolitan district and elsewhere; and near Edinburgh. "Not uncommon among grass (near Swansea)."—*L. W. Dillwyn, Esq.* "Dalston, Armathwaite, &c."—*T. C. Heysham, Esq.* "Epping."—*Mr. Doubleday.*
Genus CCXXII.—Elater Auctorum.

Antennæ short, with the basal joint generally robust, sometimes elongate; the second and third joints small, subglobose, the remainder more or less conic, and usually produced on the outer edge, into a serrated margin; the apical joint rarely larger than the preceding, and ovate simple. Mouth rarely deflexed: head small, generally retracted: eyes small: thorax various; generally rather elongate, the posterior angles more or less produced: body slightly convex, linear-elongate, sometimes subovate: legs short; tarsi simple.

From Cataphagus the present genus may be at once known by having the second and third joints of the antennæ short, and usually subglobose, with the terminal one more or less elongate, the body frequently depressed and broad; but as the genus at present stands, it contains insects of sufficient dissimilarity to warrant the adoption of various subdivisions, several of which will doubtless be hereafter formed into genera.

A. With the body more or less cylindric.
   a. With the thorax short, convex anteriorly; (mouth deflexed).


Rather slender, attenuated posteriorly: black, very finely and thickly punctured, and clothed with a golden pubescence: thorax immaculate; longer than broad: elytra castaneous, or dull-brown, rather faintly striated, the interstices punctured: body beneath black, with the apex sometimes slightly testaceous: femora black, the apex, with the tibiae and tarsi, ferruginous; antennæ black, or dusky.

Gyllenhal suspects this species may be merely the other sex, or a variety of the following; a suspicion I do not feel justified in confirming, never having taken either of the insects; and my own examples being only the extreme varieties.

My specimens of this insect were captured in June, 1821, in the New Forest, Hants, near Brockenhurst.

The fallacies arising from contrasted descriptions of the extreme varieties of unstable insects will be pointed out in my observations on the genus Necrodes, in the Appendix.
Sp. 2. brunneus. Rufs-ferrugineus, punctatissimus, capite, antennis thoracis disco, pectore abdominalisque basi nigris. (Long. corp. 4 lin.)


Head black, opaque; forehead thickly punctate: thorax black, with the anterior and posterior angles more or less ferruginous; beneath rufs-ferruginous, with a linear patch in the middle behind, and the breast black: scutellum depressed, black: elytra castaneous-brown, faintly striated: abdomen rufs-ferruginous, with the base black; legs testaceous, with the base of the femora sometimes dusky: antennae black, with the basal joint occasionally testaceous. With the lateral margins of the thorax above more or less broadly ferruginous. Whether the Elater maritimus, Curtis (Steph. Catal. No. 1236.), belongs to one of the varieties of this species, I have no means of ascertaining; but from an inspection of the specimens brought from the north by Mr. Dale, I believe such to be the case.

Rare near London; but more frequent in the New Forest, in company with the preceding species, of which it may possibly be the female.

Sp. 3. fulvicollis. Niger, thorace toto rufs-fulvo, elytris nigro-carulescentibus. (Long. corp. 4 lin.)


Head black: thorax above entirely bright fulvous-red, clothed with a rufous pubescence, and rather coarsely punctured: scutellum depressed, black: elytra of a deep blue-black, clothed with a short flavescent pile, rather faintly punctate-striate, the interstices transversely rugulose: antenna, legs, and body beneath black, with the margins of the thorax beneath concolorous with the upper surface, being clear fulvous-red: antennae remote at the base. This beautiful insect resembles Ctenicerus sanguineicollis, but the antennae are remote at their origin, the second and third joints are minute, the thorax very gibbous, &c.

My specimen of this handsome species was captured, I believe, near Bristol.

Sp. 4. aterrimus. Elongatus, niger, opacus, punctatissimus, thorace sublinearis postici canaliculato, pedibus fusco-piceis. (Long. corp. 5—6½ lin.)


Elongate, black, opaque, thickly punctate: head small, with an ochreous pubescence: thorax with the posterior angles stout, acute, elongated, prominent; the disc very convex, especially in front, the base with an impressed line: elytra slightly shining, crenate-striated, the interstices thickly punctate,
each with a row of short hairs: body clothed with a silvery pubescence beneath: legs piceous, with the tarsi reddish: antennæ black.

Very scarce near London—two examples only, so far as I am aware, having hitherto occurred in the neighbourhood thereof: these were taken by Mr. Pelerin, near Twickenham, in July, 1828. “Near Deal, in June, 1828.”—Rev. F. W. Hope. “Occasionally found among herbage (near Swansea).”—L. W. Dillwyn, Esq.

b. With the thorax rather elongated, gibbous in the middle.

Sp. 5. cylindricus. *Elongatus, angustus, fusco-aneus, pubescens, thorace punctato, antennis longioribus subserratis, sterno canaliculato.* (Long. corp. 5—½ lin.)


Elongate, narrow, aeneous-brown, pubescent: head finely punctured; forehead broad, subfoveolated: thorax slightly elongate, thickly punctate, and obsoletely channelled behind: elytra considerably elongated, with the apex somewhat acute, rather faintly punctate-striate, with the interstices delicately punctured: body blackish-brass beneath: the pectoral mucro incurved, with a distinct longitudinal furrow; legs and antennæ brassy-black, the latter distinctly longer than the thorax.

Sometimes taken in the hedges near Birch-wood, but not common near London; it also occurs in Norfolk and Suffolk. “Occasionally in pastures (near Swansea), and not uncommon on Crwmlyn and Sketty Burrows.”—L. W. Dillwyn, Esq. “Bristol.”—Dr. Leach.

Sp. 6. nigripes. *Elongatus, fusco-aneus, pubescens, thorace brevi punctatissimo, antennis brevirioribus subserratis, sterno conoveo.* (Long. corp. 6 lin.)


Elongate, aeneous-brown, pubescent: head deeply punctate; forehead broad, flat, subfoveolated, truncate anteriorly, with the margin slightly reflexed: thorax short, very thickly and deeply punctate, with a distinct dorsal furrow: elytra rounded at the apex, distinctly punctate-striated, with the interstices evidently punctulated: sternum subconvex, deeply punctate, and obscurely channelled: legs and antennæ aeneous-black, the latter shorter than the thorax.

It is very probable that this insect may be merely the female of the foregoing, from which it chiefly differs in its greater bulk, by the brevity of its antennæ and thorax, the more deeply punctate surface, and convex scutellum.

Found with the preceding near London and in Suffolk. “Taken among grass (near Swansea).”—L. W. Dillwyn, Esq.
c. With the thorax oblong, convex behind.

Sp. 7. serraticornis. Oblongus, nigro-subænæus, thorace longiori punctato, antennis longis acutis serratis, pedibus fuscis. (Long. corp. 2½—3 lin.)


Oblong, brassy-black: head broad, with a triangular impression on the front, which is obtuse: thorax longer than broad, the lateral edge a little rounded, the posterior angles rather elongated, stout, acute: the disc thickly punctulated: scutellum ovate; elytra linear-elongate, with the apex acuminate, the disc slightly convex, faintly punctate- striated, with the interstices thickly punctulated: femora piceous; tibiae and tarsi fuscous; antennæ about half the length of the body, black, deeply and acutely serrated.

The acutely serrated antennæ and elongate thorax distinguish this from the following species.

Occasionally taken within the metropolitan district, but more abundant near Bristol and its vicinity. "Wood Ditton, Cambs, on the flowers of the white-thorn."—Rev. L. Jenyns.

Sp. 8. minutus. Linear-elongatus, niger, pubescens, thorace punctato nitido, oblongo, elytris subdepressis vix nitidis, pedibus nigris. (Long. corp. 3—3½ lin.)


Linear-elongate, black, slightly pubescent: head short, deeply punctate, with the front irregularly impressed, and the anterior margin subtruncate, reflexed: thorax oblong, sublinear, with the sides straight, the posterior angles short, obtuse: scutellum oblong, rounded at the apex: elytra elongate, linear, with the apex rounded, slightly depressed above, punctate-striate, the interstices flat, obsoletely punctured, the sutural stria most evident; body deeply punctured, aeneous: legs black, with fuscous tarsi: antennæ black, rather acutely serrated.

Very abundant in hedges within the metropolitan district: also found near Edinburgh. "Epping."—Mr. Doubleday. "Not uncommon among grass (near Swansea), particularly in woods."—L. W. Dillwyn, Esq.

Sp. 9. nigro-ænæus. Linear-elongatus, suprâ nigro-ænæus, subtus ater, thorace nitido. (Long. corp. 3—3½ lin.)


Linear-elongate, above black-brass, beneath deep black; thorax very shining, obsoletely punctate: elytra faintly striated, rather glossy: legs and antennæ black.

This insect is certainly distinct from the Elater Bructeri, to which it is referred by Gyllenhal: it is probably a mere variety of the last described.
Found, but not commonly, within the metropolitan district. "Epping."—Mr. Doubleday.


Oblong, convex, brown-brass: the forehead subfoveolate: thorax rather short, punctate, slightly bisinuated in front, the sides a little rounded, with the posterior angles short, stout, rather acute: the disc somewhat deeply, but not thickly, punctate: scutellum rounded: elytra elongate, with the apex acuminate; the disc with obsolete, scarcely punctate, striae, with the interstices thickly punctured: body glabrous beneath, slightly punctate: femora dusky-piceous; tibiae and tarsi paler: antennae black, slender, simple, with the third joint not much less than the following.

This species has been captured, I believe, in Norfolk.

†Sp. 11. nigrinus? Lineari-elongatus, ater opacus, thorace suboblongo punctatissimo, angulis posticus elongatis, carinâ elevatâ, elytris subdepressis transversim rugoso-punctatis. (Long. corp. 3½ lin.)


Linear-elongate, deep opaque black, slightly pubescent: forehead convex, punctured: thorax somewhat oblong, the disc very thickly, but not deeply punctate, the punctures somewhat confluent, the base with a small impression in front of the scutellum; the posterior angles considerably elongated, with a distinct elevated ridge: elytra somewhat narrower than the thorax, depressed, a little shining, and clothed with a short hoary down, striated, the interstices thickly and transversely rugoso-punctate: legs and antennae black: the second and third joints of the latter, as in the rest of the genus, distinctly smaller than the remainder, which are conic.

In the possession of Mr. C. Griesbach I once observed an insect of this genus, which was evidently different from any that I possessed, or had seen in any other collection, to which I applied the name subrugosus: I had not the opportunity of taking a description, but as, from my recollection of the insect in question, I have no doubt of its identity with the above, I have referred thereto with doubt, in case upon comparison it should prove distinct. The insect above described ill associates with this section.

A single example taken "near Cobham, in Sept. 1828."—A. Cooper, Esq. The specimen in Mr. Griesbach's collection taken, I believe, near Windsor.

B. With the body more or less depressed.

a. With the thorax equal, the sides not dilated.
Sp. 12. ephippium. *Ater, hirtus, elytris sanguineis maculā suturali oblongā nigro, tarsi piceis.* (Long. corp. 5—6 lin.)


Black: head and thorax clothed with short rufescent hairs, with a lanceolate black patch on the suture, common to both elytra, more or less broad, and neither touching the base nor the apex; scutellum, antennae, and legs black; tarsi piceous.


Black: head and thorax clothed with a short rufescent down, the latter somewhat convex, punctured, with an obsolete channel behind: elytra bright immaculate blood-red, punctate-striated, sparingly clothed with short rufous hairs; antennae and legs black; tarsi piceous.

Whether this be the true E. sanguineus of Linné, his concise definition does not satisfactorily enable me to decide; as his description will equally apply to this and the three following species, whose specific distinctions were first noticed by Count Hoffmansegg, and pointed out by him to Dr. Leach, who supplied me with the specimens whence the following descriptions have been drawn up:—this, which is the largest, species may be readily known by having the pubescence above entirely rufescent.

Also rare near London: it has been taken in the woods between Highgate and Hampstead, and in Epping Forest and Coombe; but in the New Forest it has occurred in the utmost profusion on oaks. "Barmouth."—*Rev. F. W. Hope.* "Salisbury and Spitchweek Park in July."—Dr. Leach.


Black: head and thorax densely clothed with a deep fuscous or black down, the latter a little depressed and coarsely punctate, obsoletely channelled behind: elytra punctate-striate, blood-red, immaculate, sparingly clothed with short fuscous hairs: antennae and legs black; tarsi dusky piceous.

In general smaller than the foregoing, with the pubescence above entirely fuscous or black.
Not common: found in various parts of the West of England, and in the New Forest. "Bagley-wood, Oxon."—Rev. F. W. Hope.

Sp. 15. semiruber. *Ater, capite thoraceque fusco-hirtis, elytris testaceo-sanguineis pube rufescenti adspersis, tarsis piceis.* (Long. corp. 5—6 lin.)


Rather narrow, black, the head and thorax clothed with a fuscous or black pubescence; the latter somewhat depressed, rather coarsely punctate, and not channelled behind: elytra punctate-striate, pale immaculate blood-red, sparingly clothed with short rufous hairs: antennae and legs black; tarsi piceous.

More slender, but as long as the preceding insect; the head and thorax alone clothed with black, and the elytra with rufous, down.

Taken near Brockenhurst, in the New Forest; also, I believe, near Bristol. "Taken on Crwmlyn Bog, by Mr. Millard."—L. W. Dillwyn, Esq.


Rather narrow, black, clothed with a fuscous or black pubescence; thorax somewhat convex, moderately punctured: elytra punctate-striate, blood-red, with the tip alone black: antennae and legs black; tarsi pitchy.

In form similar to the last, but clothed entirely above with a fuscous pubescence, and the elytra with a small patch of black at the extreme tip.

This species has occurred at Darenth-wood, but no other part in the vicinity of the metropolis that I am aware of. "Barmouth."—Rev. F. W. Hope.

Sp. 17. praeustus. *Ater, capite thoraceque nigro lineatis, elytris sanguineis apice summo nigris, rufo-hirtis, tarsis ferrugineis.* (Long. corp. 3½—4 lin.)


Black: head and thorax densely clothed with a black pubescence; the latter very obsoletely punctate: elytra blood-red, with the apex black, the surface sparingly clothed with rufous hairs: antennae and legs black; tarsi ferruginous.

Considerably less than either of the foregoing, with the thorax almost impunctate, and with the head clothed with black down; the elytra blood-red, with a rather large patch of black at the tip, and sparingly clothed with rufous hairs.

The only locality I know for this insect, which is far from
common, is a portion of the western edge of Darenth-wood, where I have taken at different periods eight or ten specimens. “Nuthurst, Sussex.”—Rev. F. W. Hope.


Black, pubescent: head thickly punctate, with the front rounded: thorax glossy, convex above, and rather thickly, but not coarsely, punctured: elytra deeply punctate-striate, the interstices punctured; from the base to beyond the middle rusty-red, with a broad black patch occupying the entire apex: legs piceous, with the tarsi pitchy-red; antennæ dusky at the base, rufescent at the apex.


b. With the thorax unequal, the sides dilated.

1. With the body slightly pubescent, and depressed.


Black, somewhat depressed, slightly pubescent: head and thorax finely punctured, the latter dilated in the middle, with the posterior angles small and but slightly prominent, the disc glossy, very convex: elytra entirely of a pale testaceous-red, punctate-striate, the striae rather shallow: legs dusky, with the tibiae and tarsi more or less pale testaceous: antennæ fuscous, or piceous.

Found in the New Forest, and the vicinity, but rare: also in the Isle of Wight. “Nuthurst.”—Rev. F. W. Hope.

Sp. 20. bipustulatus. *Oblongus, niger, thorace convexo nitido, elytris depressis, maculâ bascis rubrâ, pedibus piceo-testaceis.* (Long. corp. 3½—4 lin.)


Oblong, black, depressed, slightly pubescent: head rugosely-punctate, with the front unequal and foveolated: thorax dilated on the sides, the disc very convex and glossy, finely punctured; the posterior angles prominent, acute: elytra depressed, dilated in the middle, rounded at the apex, punctate-striated, with the interstices punctulated, slightly shining-black, with a more or less distinct ovate rufous spot on the shoulder: legs and sutures pitchy-testaceous; tarsi paler.

The red spot at the base of the clytra is sometimes obsolete.

2. With the body densely pubescent, and slightly convex.

* With the second joint of the antennae not dilated, rather shorter than the third.

Sp. 21. holosericeus. Nigricans, suprā pedes holosericeā griseo-pallescente subjasciatus, pedibus fusco-testaceīs. (Long. corp. $4\frac{1}{2}$—6 lin.)


Dusky, clothed above with a rich pale-griseous silken pubescence forehead slightly impressed: thorax a little dilated on the sides, the posterior angles acute, with an elevated ridge, the disc very convex, not foveolated, the pubescence of changeable gloss according to the reflexion of the light: elytra dilated on the sides, attenuated towards the apex, slightly convex, faintly striated, the interstices very finely punctulated, the pubescence disposed as on the thorax, and producing the appearance of fuscos or pale fasciæ, agreeably to the position of the light: body pubescent beneath: legs testaceous-brown, with the tibiae and tarsi paler: antennae black.

An abundant species near London, especially at Coombe and Darenth woods. "Near Newcastle."—W. C. Hewitson, Esq. "Epping."—Mr. Doubleday. "I believe it has been taken by Mr. Millard (near Swansea)."—L. W. Dillwyn, Esq. "Eding-burgh, Devonshire, &c."—Dr. Leach.

** With the second joint of the antennae dilated, and larger than the third, the first joint very robust.

Sp. 22. murinus. Latus, fusco-nigricans, pubescens, albido variegatus, tho-race inaequali, antennis tarsisque ferrugineis. (Long. corp. 5—8$\frac{1}{2}$ lin.)


Broader than the preceding, dusky-black, densely pubescent, variegated with whitish: head rounded, with a triangular impression in front: thorax unequal, the disc with two slightly elevated tuberces towards the centre, a central dorsal channel and two posterior foveæ: elytra faintly punctate-striate: body beneath uniform griseous-ash: legs piceous; tarsi and antennae dull ferruginous.

Also a most abundant species, occurring throughout the vicinity of the metropolis, and in other parts of the country, in plenty. "Common among herbage (near Swansea)."—L. W. Dillwyn, Esq. "Warwick Moor, Cumb."—T. C. Heysham, Esq. "Epping."—

**Genus CCXXIII.—Hypnoidus, Dillwyn.**

*Antennae* short, naked, with the basal joint large, robust; the second and third, and sometimes the fourth, slender, obconic, of equal length; the remainder compressed, somewhat cordate, shorter than the foregoing; the terminal one obliquely truncate, or somewhat acuminated. *Head* small, porrect: *eyes* small: *thorax* broad, convex, transverse: *elytra* short, ovate, somewhat convex: *body* broad, ovate, subglabrous: *legs* slender; *tarsi* simple.

This genus embraces the smallest species of the family, and will doubtless ere long be formed into two, corresponding with the sections into which I have here thrown them: they may be known by their great comparative width and brevity, the dissimilarity in the structure of the antennae, transverse thorax, &c.

A. *Antennae* with the second, third, and fourth joints small.

Sp. 1. riparius. *Latus, fusco-aneus, nitidus, antennarum basi pedibusque rufotestaceis.* (Long. corp. $2\frac{1}{2}$—$3\frac{1}{4}$ lin.)

Short, broad, above glossy seneous-brown: head punctured, with the front subfoveolated: thorax broader than long, the disc sparingly punctate and slightly pubescent, the hinder angles elongate, acute, concolorous: *elytra* short, ovate, with the apex slightly acuminated, regularly striated, the striae impunctate, the interstices flat, scarcely punctured: *body* beneath pitchy-black, with the apex rather paler; *legs* rufescent: *antennae* black, with the basal joints more or less testaceous.

Rare within the metropolitan district, but abundant in the mountainous districts of Wales; also in Norfolk. "Near Barmouth, in

‡Sp. 23. fasciatus. *Squamosus niger, thorace canaliculato albido variegato, elytris pallido adspersis, fasciâque posticâ undulata pallidâ.* (Long. corp. 6 lin.)

Black: thorax channelled, shagreened, and clothed with small silvery scales; *elytra* varied with white scales, with an undulated whitish fascia of silvery ones a little behind the middle.

Said by Turton to inhabit Britain, but erroneously.
1829, copiously."—Rev. F. W. Hope. "Taken at the Mumbles (near Swansea), by Dr. Leach."—L. W. Dillwyn, Esq.


Black, slightly tinted with aeneous above: head punctured, with a broad frontal depression: thorax somewhat quadrate, with the posterior angles acute, carinated, and rufo-ferruginous, the disc punctate and slightly pubescent: elytra oblong, acuminated at the apex, regularly and somewhat deeply striated, the striae impunctate, with the interstices somewhat convex, and obscurely punctulate; the outer margin more or less ferruginous: body pitchy-black beneath, with the apex paler: legs and antennae entirely rufo-testaceous.

Of this insect, the only examples I have seen were taken in Gloucestershire.

B. With the second and third joints of the antennae alone smallest.

Sp. 3. Agricola. *Niger subpubescens, thorace non carinato, angulis posticis acutis rufis, maculis quatuor oblongis elytrorum pedibusque pallidis.* (Long. corp. 1½—1¾ lin.)


Black, slightly pubescent: head finely punctured: thorax short, with the sides much rounded, especially anteriorly, the disc very convex, without a dorsal carina, finely punctured, the posterior spines robust at the base, bent outwardly, acute and entirely rufo-testaceous: elytra oblong-ovate, not broader than the middle of the thorax, moderately convex and striated, the striae obsolescently punctate, with the interstices faintly punctulated; each elytron with a large oblong pale humeral spot, and a second towards the apex longer and narrower: mouth, palpi, antennae, and legs pale testaceous.

Differs chiefly from the following by having the thorax shorter, more convex, with the sides expanded anteriorly, the posterior angles pale, and the disc not carinated.

Near Bristol, by Mr. Millard, apparently in plenty. "Netley, Salop."—Rev. F. W. Hope.

Sp. 4. quadripustulatus. *Niger subpubescens, thorace carinatdorsali, elytris depressis tenue striatis impunctatis, punctis duobus pedibusque pallidis flavoscentibus.* (Long. corp. 1¾—1½ lin.)

Black, slightly pubescent: head very faintly punctulated; thorax somewhat glossy, the sides rounded and margined, dilated in the middle, with the posterior angles acute, prominent and concolorous; the disc convex, thickly and finely punctulate, with a slightly elevated smooth glabrous dorsal ridge: elytra ovate, with the apex obtusely rounded, slightly depressed and faintly striated, the striae smooth, and the interstices flat, scarcely punctulated; each elytron with a pale yellowish spot on the shoulder, and a smaller rounded one towards the apex: mouth and legs pale yellowish; antennae black, with the base testaceous.


Black, slightly pubescent; thorax short, finely punctured, with the posterior angles concolorous: the elytra immaculate, faintly striated, the striae impunctate, the interstices flat, scarcely punctured: antennae and legs pale testaceous.

Found in company with the preceding insect, but rarely.

Sp. 6. pulchellus. Oblongus, niger, convexus, thorace elongato carinato, elytris flavo-maculatis, pedibus pallidis. (Long. corp. 1½—1½½ lin.)


Oblong, black, convex: head thickly rugose-punctate: thorax elongate, the sides rounded, dilated in the middle, the posterior angles acute carinated; the disc very convex, thickly and finely rugulose longitudinally, with an abbreviated glabrous smooth, dorsal ridge: elytra rather convex, deeply punctate-striated, the interstices somewhat carinated, and granulated; the disc more or less spotted with pale-yellowish, and sometimes nearly immaculate: legs and apex of the body pale-testaceous; antennae ferruginous, with the tips dusky.

Rare: taken in Devonshire and Wales. "Capel Cerig."—M. Eyton, Esq.
Genus CCXXIV.—Perimecus, Dillwyn.

Antennae rather long, pilose; the basal joint slightly bent and thickened, and subclavate; the second and third very small, nodose; the remainder compressed, obtusely serrated, the terminal joint being longest and obtuse. 

Mouth porrect: head rounded; forehead depressed; eyes small; thorax narrowed anteriorly, moderately convex, with the posterior angles rather prominent, acute, carinated; elytra very long, gradually attenuated from the base to the apex, slightly convex; femora small, compressed; tibiae short, simple; tarsi with entire joints.

Perimecus is to be distinguished from Elater by having the second and third joints of the antennae short, and the terminal one elongate and slender; the elytra also are very long, and the body is considerably attenuated posteriorly.


Pitchy-black, pubescent, punctate; the punctures on the head and thorax largest: elytra regularly but somewhat faintly striate, the striae composed of distinct impressions, the interstices very sparingly punctured: body beneath rufo-piceous: legs ferruginous: antennae fusescent.

Extremely variable in size and slightly so in colour, the latter probably resulting from the more or less mature state of the insect:—one of my gigantic specimens of the female has the thorax very rugose, punctate, and somewhat obscure.


Genus CCXXV.—Ludius, Latreille.

Antennae rather long, acutely serrated, compressed, the basal joint somewhat robust; the second and third very small, subglobose; the fourth to the tenth subtrigonal, the inner angle considerably produced, gradually diminishing.
nishing in length, the fourth being the longest; the eleventh abruptly acumminated, giving the appearance of a twelfth joint. Palpi short, comparatively slender: head small, deeply inserted in the thorax, which is narrowed in front, with the sides rounded; the posterior angles, which are robust, elongated, carinated, and acute; the disc very convex: eyes small: body convex, attenuated behind: legs moderate; tarsi simple.

Ludius is distinguished by the remarkable peculiarity of the terminal joint of the antennae, which is so abruptly acumminated as to give the appearance of a twelfth joint; the second and third joints are very small, and the remainder, with the exception of the basal one, very acutely serrated.


Head black, thickly punctulate; thorax very thickly punctured, rufo-ferruginous, with the posterior margin and angles black, the disc sparingly covered with short flavescent hairs; scutellum black: elytra rufo-ferruginous, rather obsolete striated, the interstices very thickly and somewhat finely punctate: body beneath black: antennae and legs pitchy-black; the tip of the tarsi smooth and pale obscure rufescant.

† Var. e. With the thorax entirely of a deep fuscous-black.

This gigantic species is extremely rare in Britain; it has however been occasionally captured within the metropolitan district. "Windsor and Darent-wood."—Dr. Leach. "Clengre, Gloucestershire."—Rev. F. W. Hope. "Has once occurred at Bottisham, in a decayed walnut tree."—Rev. L. Jenyns. "Taken in a willow (near Swansea)."—L. W. Dillwyn, Esq.

Genus CCXXVI.—Ctenicerus, Latreille.

Antennae moderate, the basal joint slightly bent, robust, subclavate; the second minute, subglobose; the remainder to the tenth more or less obconic, the inner edge being considerably produced and acute, forming a serrated edge, the apical joint elongate, acuminated; in some males the antennae are considerably elongated; and the third to the tenth joints are furnished within, each with a long subclavate appendage. Palpi somewhat elongate: eyes not prominent: head small, deeply inserted in the thorax, which is rather elongate, depressed, broadest behind, with acute posterior spines: body elongate, slightly convex, usually adorned with rich metallic colours; attenuated behind: legs slender; tarsi simple.
This genus, termed Cleniocerus by Dr. Leach, in allusion to the conspicuous antennae of some of the males, may be readily known from all the preceding ones in the family, by having the second joint of the antennæ alone minute and nodose, the third being nearly as long and of similar form with the fourth; the terminal one elongate; the thorax considerably longer than broad, a little depressed, the body usually adorned with rich metallic hues, and the antennæ more deeply serrated; by several of which characters it may also be distinguished from the following genera.

A. With the antennæ pectinated in the males; serrated in the females.

†Sp. 1. aulicus. Obscurè viridi-æneus, elytris testaceis immaculatis. (Long. corp. 7—8 lin.)

Head and thorax obscure brassy-green, the former depressed and punctulated, the latter slightly pubescent: scutellum concolorous with the elytra, which are pale immaculate-testaceous, striate-punctate, with a slight impression on each side at the base: legs and body beneath dull blackish-brass: antennæ black.

In the British Museum is a pair of this insect, said to have been taken by Dr. Leach in Devonshire, about four years since; but doubts have recently been started by Mr. Curtis, with his wonted caprice, as to its indigenous origin; and also of several other species reported to have been captured about the same period, some being admitted and others doubted.

Sp. 2. pectinicornis. Elongatus viridi-æneus nitidus, thorace sulcato, elytris punctato-striatis. (Long. corp. 7—8 lin.)

Above of a rich shining brassy-green: head rather obscure, punctate: thorax with a dorsal channel, the posterior angles stout, elongate, carinated above: scutellum fuscous: elytra rich green, tinted with æneous, rather deeply punctate-striate, the interstices finely punctured and slightly pubescent: body beneath more obscure, pubescent: legs and antennæ black, the latter in the male elongate, deeply pectinated; in the female short, serrated.


t 2

Sp. s. cupreus.  *Elongatus, subitès nigro-aneus, suprà rufo-purpureo-aut viridicupreus, elytrorum basi supè flavè, his tenuè striatis, thorace profunde canali-
culato.*  (Long. corp. 5—7½ lin.)

No. 1266.—Var. El. chalybeus.  Sowerby, i. pl. 72.

Beneath black-brass or cupreous, above various tints of red-purple or green-
copper, or dusky; thorax elongate, thickly and rather coarsely punctate, with
the posterior angles elongate, carinate: elytra rather faintly striate, the in-
terstices obscurely punctured, the base more or less yellow or ochreous, but
frequently concolorous with the apex: antennæ and legs black, the latter
slightly asneous.

Scarcely two examples of this protean species occur precisely alike in the colour
of the upper surface, which in different individuals partakes of nearly every
colour of the rainbow; a great proportion have the base of the elytra fla-
vescent, in some instances the colour occupying two-thirds of the surface,
while in others it gradually vanishes, till at length the entire disc is con-
colorous with the apex; every possible shade and proportion occurs, so that
it becomes impossible to discriminate the varieties.

Inhabits similar places with the former; females generally rare;
at least fifty males to one female having usually occurred; but in
August, 1829, out of scores of specimens now under my inspection,
captured by the Rev. F. W. Hope and C. Darwin, Esq., in North
Wales, scarcely a single male was observed.  "Holme-Hill."—
T. C. Heysham, Esq.  "Monshold-Heath, Norwich."—W. C.
"In profusion near Marton-Lodge."—Rev. G. T. Rudd.

‡Sp. 4. castaneus.  *Niger, thorace pube fulvescente mutabili tecto, elytris flavis
apice summo nigris.  (Long. corp. 5 lin.)


Body beneath, head, antennæ, and legs black: thorax also black, thickly clothed
with a short fulvescent down: scutellum black: elytra testaceous-yellow, with
the apex black, the disc striated, the interstices punctured.

I believe that hitherto a single elytron only of this insect has
been found in Britain, and that was picked up by the late W.
Hooker, Esq. on Monshold-heath, near Norwich.

B. With the antennæ serrated in the males, simple in the females.

4 lin.)
El. ruficollis. *Don. xv. pl. 618. f. 1.

Black: head and thorax very pubescent; the latter attenuated in front, slightly depressed, and entirely of an immaculate blood-red; elytra bluish-black, rather faintly striated, the interstices punctured, somewhat pubescent, the margin ciliated; legs black; tip of the last joint of the tarsi rufous: antennae serrated, black.

Very rare: occasional captures of the insect have been made within the metropolitan district; it also occurs in Norfolk. "Hydepark, by Mr. B. Clark; and Windsor, by W. Griesbach, Esq."—Dr. Leach. "Copenhagen-fields."—Mr. Bainbridge.

Sp. 6. tessellatus. *Cupreo-aneus pubescens, thorace elytrisque maculis grisco-villosis tessellatis, ungulis rufis. (Long. corp. 5–7½ lin.)

Dusky or coppery-brass, pubescent: thorax and elytra clothed with short depressed cinereous hairs disposed in tessellated patches, most distinct on the elytra, but of variable form, sometimes being equally distributed over the surface, and at others occupying the alternate interstices only between the striae on the elytra: legs concolorous with the body, with the claws rufous: antennae black.

Found in marshy pastures and meadows, but local near the metropolis; the only locality that I am aware of being in a field near the "Red House," Battersea-fields, where it is sometimes found in plenty; it occurs in Norfolk. "Epping."—Mr. Doubleday. "Common in Bottisham and Horningssea Fens."—Rev. L. Jenyns. "In moist meadows, common, particularly about Penllergare and Sketty, and Mr. Jeffreys has found it under rubbish, near high-water mark."

—L. W. Dillwyn, Esq.

Sp. 7. metallicus. *Oblongus, fusco-aneus, pubescens, thorace convexo laxvi, antennarum basi pedibusque testaceis. (Long. corp. 4–5 lin.)

Oblong, brassy-fuscous, pubescent: forehead rugose-punctate: thorax convex, the sides rounded, with elongate, acuminate, posterior angles: the disc delicately punctured: elytra a little attenuated towards the apex, which is acuminated; the disc faintly punctate-striate, and rather glossy: body beneath brassy-black, shining: legs pale testaceous: tarsi fuscous: antennae with the basal joint ferruginous, the rest black.

This species ill associates with the rest of the genus; amongst other characters it has the basal joint of the antennæ large and bent, and the sides of the thorax dilated: in form it closely resembles the insects of the following genus, but its surface is pubescent, and not glabrous, as in them.
Rare near London; I have, however, frequently taken specimens in Walsam-meadows, near Ripley; it seems to occur in greater plenty in Somersetshire. "Among herbage (near Swansea), not common."—L. W. Dilkesyn, Esq.

Genus CCXXVII.—Selatosomus* mihii.

Antennae rather short, simple; the basal joint rather stout, elongate; second very short, subglobose; third elongate; the remainder short, obconic; the fourth and terminal joints being longest and about of equal length, the latter with the apex conical. Palpi rather elongate; maxilla porrect; head small; thorax broad, subquadrate-elongate, margined; the lateral margins rounded, the posterior angles carinated, the disc gibbous: body broad, nearly glabrous, richly adorned; slightly convex: elytra a little dilated behind the middle; the apex attenuated: legs rather slender; tarsi simple, not very slender; basal joint moderate.

The typical species of this genus are eminently distinguished by the splendour and brilliancy of their colouring, the surface glabrous and richly adorned with lively metallic hues; from the preceding genus they differ in having the antennae short, simple in both sexes, the body broad, thorax gibbous and expanded anteriorly; and from Caloderus they may be known by the same characters, united to the margined thorax, with its carinated posterior angles, rich colouring, &c.


A most variable species, both in size and colour, the latter partaking of almost every conceivable hue: body above of various hues of aneus, green, blue, violet, or purple, the elytra being sometimes concolorous, at others dis-similar: head and thorax finely punctured, the latter with an obsolete dorsal channel and two rounded foveolae: elytra rather deeply striated, especially at the base; the interstices faintly punctulate: body green or bluish-brass beneath: legs pitchy-black or dusky; sometimes bright-red, with fuscos tarsi: antennae dusky or black:—the male is usually smaller than the female.

Found in various parts of the country, but very rare near the metropolis; it occurs in plenty in the county of Norfolk, also in

* Σιλικ, fulgor; ςωρα, corpus.

‡ Sp. 2. cruciatus. Thorae nigro, vittis duabus rubris, elytris flavescence cruce communi lineolâque humerali nigris. (Long. corp. 7 lin.)


Head and thorax black, the latter with a longitudinal red line on each side: elytra striated, flavescent, with the suture, a transverse fascia a little beyond the middle, and the outer edge of the elytra from the transverse fascia to the apex black: body beneath black, with the edges of the abdomen rufous: legs pale rufous, with the tips of the femora black.

Rare: but taken by the late W. Griesbach, Esq. near Windsor, of whose capturing four or five examples are in the British Museum.

† Sp. 3. bimaculatus. Niger, elytris testaceis, apice nigris, puncto albo. (Long. corp. 3 1/2 lin.)


Body beneath, head, antennae, and thorax shining black: elytra striated, rufous from the base nearly to the middle, then black to the apex, with a white spot on each within the tip; towards the middle of the elytra is a black dentate patch, united to the black margin: legs flavescent, with black femora.

This species may possibly not belong to the present genus.

There are specimens of this insect in the collection at the British Museum, said to have been taken by Dr. Leach, about five years since, in Devonshire.

Genus CCXXVIII.—Caloderus * mili.

Antennae rather approximating at the base, short, simple in both sexes; the basal joint short, robust; second very short, subclavate; third as long as the fourth, both obconic; the remainder, except the terminal one, shorter, also obconic; terminal one slender, ovate-acute. Palpi short: mouth porrect: head small, rounded, deeply inserted in the thorax, which is very gibbous, rounded laterally, immarginate; the hinder angles short, not carinated: body

* Kαλδτ, pulcher; ἡσε, collum.
rather elongate, slender, more or less pubescent, slightly depressed, usually of sombre hue: legs short; tarsi very slender, simple, basal joint moderate.

The approximating simple antennæ of the insects contained in this genus, combined with the slenderness of the body, immarginate, very gibbous, thorax, and usually sombre colouring, distinguish them from those of the two preceding genus, as do the slender tarsi from Anathrotus.

Sp. 1. thoracicus. *Niger, glaber, thorace toto rufo.* (Long. corp. 4 lin.)

Body, head, antenna, and legs black: thorax above globose, bright immaculate, red, beneath red, with a longitudinal black streak in the middle: elytra deep-black, striated: claws rufous. Known from the other species, which have the thorax rufous, by the superior gibbosity of the latter, the elongate third joint of the antenna, which last are simple in both sexes and approximating, and by its glabrous body.


Sp. 2. ruficollis. *Niger, glaber, thorace lavi rubro, antice nigro, elytris sub-caruleis, striatis.* (Long. corp. $2\frac{3}{4}$—3 lin.)

Shining black: the thorax above smooth, rufous, with the anterior portion black, beneath also rufous, with the anterior edge, and a longitudinal streak, black: elytra bluish-black, rather depressed, deeply striated, with the interstices granulated: tarsi slightly rufescent. The anterior broad black margin to the thorax at once distinguishes this pretty species from the preceding.

Very few examples of this very rare species have hitherto been captured in Britain: one of my examples was taken in the neighbourhood of London; the insect has also been found on the oak, in Norfolk.

Sp. 3. Equiseti. *Niger, cinereo-pubescent, thorace lavi, pedibus piccis, geniculis tarsisque subtestaceis.* (Long. corp. $3\frac{1}{2}$—5 lin.)

Black: thickly clothed with a cinereous pubescence; thorax very convex, with an obscure dorsal channel; the hinder angles short: elytra depressed, a little
broader than the base of the thorax, punctate-striate: legs pitchy-black, with the base of the femora, the joints, and the tarsi more or less testaceous: antennae black.


Not common within the metropolitan district; the only locality where I ever met with it being in a lane leading from Birch to Darenth-woods: it is found in Somersetshire, in Suffolk, and near Edinburgh. “Among herbage on Crwmlyn-burrows, not common.” —*L. W. Dillwyn, Esq.* "Kew."—*Rev. T. T. Haverfield.*

**Genus CCXXIX.—Aplotarsus* mihi.**

*Antenna* moderate, slightly serrated, naked; the basal joint slightly incrassated; the second short, subglobose; third rather longer, and more slender, than the fourth, which, with the six following, is obconic; the terminal one elongate lanceolate-ovate. *Palpi* filiform, with the terminal joint ovate-subtruncate: *mouth* prorect: *head* transverse; *forehead* with the anterior margin reflexed: *thorax* elongate, narrowed anteriorly, the sides margined, disc slightly convex; posterior angles carinated, slightly prominent: *body* slightly pilose: *elytra* sublinear, a little convex: *legs* slender; *tarsi* gracile; the four basal joints simple, gradually diminishing in length, the fourth being shortest; *claws* simple, very slender.

From Caloderus the present genus may be distinguished by having the third joint of the antennæ elongated, the palpi nearly filiform, the thorax elongate, very slightly convex; and from the two following by having the tarsi slender and the fourth joint not minute.


Elongate: head and thorax immaculate, slightly shining, black; the posterior angles of the latter very acute: elytra finely striated, the interstices thickly but finely punctulate, testaceous, immaculate: legs entirely pale-testaceous: antennae dusky, with the basal joints slightly testaceous; mouth piceous.

I possess one example of this rare insect from Mr. Hall’s collection, and a pair from the vicinity of Bristol: it occurs also near Edinburgh.

* *Avhss, simplex; *taequs, palmula pedis.*
MANDIBULATA.—COLEOPTERA.

Sp. 2. ochropterus. *Niger, subinitidus, elytris striatis subtestaceis, pedibus nigro-piceis.* (Long. corp. 4 lin.)


Head and thorax black immaculate, the posterior angles of the latter acute: elytra striated, the interstices obsoletely punctured, pale testaceous: body beneath black: legs pitchy-black, with the tibiae sometimes paler, or somewhat testaceous: antennae black.

Known from the preceding, which it greatly resembles, by its dusky legs and larger size.

I have three specimens, which were found in South Wales.

Sp. 3. rufipes. *Oblongus, niger, nitidus, thorace levissimo immarginato medio latiori, elytris depressis punctato-striatis, pedibus rufis.* (Long. corp. 3½—4 lin.)


Oblong glossy-black, slightly pubescent; thorax shining, immarginate, broadest in the middle, subpunctate: elytra scarcely broader than the thorax, with the apex rounded, above a little depressed, punctate-striate, with the interstices very obsoletely punctate: legs dull rufous, with the tarsi fuscenscent.

Rare; especially near London: it is also found in the west of England. "Woodland, Devon."—Dr. Leach.

Sp. 4. Quercus. *Oblongus-niger, elytris fusco-virentibus, thorace elongato pos-tice levii, fronte profunde punctato, pedibus fusco-testaceis, tibiis pallidis.* (Long. corp. 3—3½ lin.)


Oblong-black: forehead deeply rugose-punctate, slightly foveolate: thorax elongate, finely punctured anteriorly, smooth posteriorly: elytra slightly acuminated, moderately convex, of an opaque greenish fuscous, clothed with a fine cinereous down, obsoletely striated, the interstices finely granulated; the inflexed margin obscurely fuscenscent: legs fusco-testaceous, with the tibiae pale: antennae black, with the basal joint piceous.

The elongate thorax, dark legs, with pale tibiae, distinguish this from the preceding insect.

Found occasionally in woods near London; the only localities I know being those of Darenth and Birch-wood.

GENUS CCXXX.—Ctenonychus* mihi.

*Antennae* short? simple, pilose; the basal joint elongate, slightly robust; second
rather slender, subcylindric; third and following subclavate, scarcely compressed. **Month** deflexed: **palpi** very short: **head** broad, angulated anteriorly: **thorax** oblong, the sides margined, rounded towards the middle, the hinder angles produced into a short prominent spine; the disc slightly globose anteriorly: **elytra** elongate, slightly attenuated: **body** clothed above with long hairs, beneath with a dense pile: **legs** moderate: **femora** and **tibiae** compressed: **tarsi** with the three basal joints considerably dilated, the third being produced beneath into a bilobed spongy process; the fourth joint extremely minute: **claws** short, each furnished with four elongate horny spines at the base within.

The pectinated claws of the only species of this genus well distinguish it from the other genera of this family, from which it also differs in having the antennæ not compressed, and composed of somewhat cylindric, subclavate joints, the body remarkably pilose, the third joint of the tarsi with an elongate bilobed spongy process, the two basal joints also dilated, and the fourth extremely minute; but in these last characters it somewhat resembles the following genus.

Sp. 1. **hirsutus.** *Nigro-fuscus, flavescenti-cinereo-villosus, elytris elongati striatis.* (Long. corp. 5 lin.)


Above fuscous-black, densely clothed with rather long flavescent-ash coloured hairs, especially on the head and thorax; the latter rather elongate, the anterior margin slightly fulvescent, with the angles deflexed, the disc convex anteriorly, with the posterior angles somewhat elongate and acute; the disc thickly punctuated, and with a dorsal channel behind: **elytra** elongate, densely clothed with short down as on the head, punctate-striate, the punc-
tures minute: **legs** slightly piceous; body beneath black, densely covered with a short silvery down; antennæ testaceous.

Not found near London; my specimen, which is greatly injured, I obtained from Bristol: and in the collection at the British Museum, I believe, there are others from the same quarter.

**Genus CCXXXI.—Anathrotus, Dillwyn.**

**Antennæ** rather long, compressed, deeply serrated, the basal joint generally robust, elongate, curved; the second short, subglobose, or somewhat elongate, subclavate; the third and following elongate obconic; the terminal one longest and attenuated at the apex. **Palpi** short, slender: **head** broad, angulated anteriorly: **thorax** elongate, narrowed in front, the hinder angles acute,
prominent, the disc slightly convex: elytra very long: body sublinear, pubescent: legs rather slender: tarsi with the three basal joints, with a spongious process beneath, obscurely bilobed; the fourth joint minute, simple; terminal joint and claws slender, the latter simple.

There is considerable diversity between the insects comprised in this genus; but without a more rigid investigation of them than I have the opportunity of devoting to their examination, I must content myself with pointing out some of the more important external distinctions; which characters have chiefly guided me in the distribution of the Elateridæ:—the first section of this genus may be distinguished by having the antennæ rather long, the second joint manifestly abbreviated, and more or less subglobose; and the third elongate, subclavate; while in the second section the antennæ have the second joint somewhat lengthened, and in some instances scarcely shorter than the third: the body in both sections is somewhat linear, subconvex; and the tarsi have the fourth joint extremely minute, and the three basal ones considerably dilated, and in some species obscurely bilobed.

A. With the second joint of the antennæ more or less subglobose.


Body entirely of a pale rufo-testaceous hue, and slightly clothed with a cinereous pubescence: forehead deeply impressed between the antennæ, which latter are rather longer than the thorax, and serrated; thorax slightly convex, finely punctate, glossy: elytra punctate-striate, with the interstices finely punctured, pubescence as if obliquely abraded a little behind the middle, forming by the union of the elytra an obscure letter V.: legs black.

This species, which might, without due attention to the structure of its antennæ, readily pass for an immature state of Perimecus fulvipes, was discovered many years since in "Lee-wood, by Mr. Millard."—Marsham MSS. It was afterwards taken by Mr. Bydder, in the New Forest, and again near Lyndhurst, by Mr. Weaver, who captured eight or ten specimens in the summer of 1826.

Shining black, clothed with a fuscous down: thorax very glossy, obsoletely punctate: elytra faintly punctate-striated, the striae deeply impressed at the base, the interstices finely punctured: legs black, with the tarsi somewhat piceous. Generally smaller and more glossy than the following species, and clothed with a fuscescent pubescence.

A very abundant species in hedges and by the sides of woods, throughout the metropolitan district, and not uncommon in other parts of the country. "Epping."—Mr. Doubleday. "Greenwich Park."—Mr. Ingpen. "Bottisham, common."—Rev. L. Jenyns.

Sp. 3. nigrinus. *Niger, nitidus, cinereo-hirtus, thorace punctato, elytris striatis.* (Long. corp. 6 lin.)


Shining black, clothed with a cinereous down: thorax punctate: elytra striated, the striae impunctate: antennae serrated.

Larger and less shining than the foregoing, and clothed with a cinereous, instead of a fuscescent pubescence:—whether it be more than a variety, with the pubescence bleached by age, I am unable satisfactorily to determine.

Found in similar places with the foregoing, and not uncommonly. "Among herbage (near Swansea), not uncommon."—L. W. Dillwyn, Esq.

†Sp. 4. varius. *Niger, thoracis margine, elytrorumque basi fasciâ posticâ villosa-flavescentibus.* (Long. corp. 5½ lin.)


Black, slightly tinted with rufous: thorax canaliculate, with the sides densely clothed with short, erect, flavescent hairs: elytra black, somewhat granulated, with the base and a broad fascia at the apex clothed with flavescent down: body black: legs and antennae dull ferruginous.

I have seen but one specimen, which was taken in "Windsor Forest."—J. H. Griesbach, Esq.

B. With the second joint of the antennae somewhat obconic, sometimes not much shorter than the third.

Sp. 5. hæmorrhoidalis. *Nigro-fuscus, pubescens, thorace lineari elongato, elytris piceis, abdominis marginitus anique rufo-ferrugineis.* (Long. corp. 6—8 lin.)


Linear-elongate; fuscous-black, pubescent; thorax elongate, linear, the posterior angles short; the disc slightly convex, with a very obsolete channel, clothed with a depressed grisaceous pubescence; black, with the hinder angles sometimes slightly rufescent: elytra moderately punctate-striate, piceous or brunneous,
sometimes rufescent: body beneath fuscescent, with the margins of the segments and the terminal one rufo-ferruginous: legs dusky-ferruginous, with the anterior femora piceous: antennae piceous.

Variable:—in some examples the body beneath is nearly entirely of a bright rusty-red, and in others nearly fuscescent, with the margins of the segments nearly concolorous.


Sp. 6. elongatus. Elongatus, posticè acuminatus, totus castaneus, elytris striatis. (Long. corp. 6 lin.)


Elongate, attenuated behind; entirely castaneous or rusty-fuscescent; thorax broadest anteriorly, convex, punctulated, excavated behind, with a dorsal channel and an oblique obscure impressed line on each side, the hinder angles rather elongate, acute: elytra striated, rather depressed, acute: body bright rufo-castaneous: eyes black.

In my Catalogue I supposed this might be a variety of An. hemorrhoidalis; but its characters are evidently too dissimilar to support the assumption.

My specimen formed a portion of the Marshamian collection; I know not its locality.

Sp. 7. subfuscus. Linearis-elongatus nigricans, pubescens, antennis, ore, thoracis limbo, elytris ano pedibusque ferrugineo-testaceis. (Long. corp. 4—5 lin.)


Linear-elongate; dusky, pubescent: head rufo-piceous: thorax sublinear, with the posterior angles short, obtuse; the disc pitchy-brown, shining, with all the angles, and generally the entire margin more or less broadly rufo-testaceus: elytra pale testaceous immaculate, nearly linear, the apex obtusely rounded; faintly punctate-striate; body pitchy-black, with the margin of the abdomen and the apex testaceus: legs and antennae rufescent.

Somewhat rare near London, but apparently in great plenty in the New Forest: it has also, I believe, occurred in Norfolk.


Pitchy-fuscescent, pubescent: head black, with frequently an oblong testaceous spot on each side of the forehead: thorax with the anterior and lateral margins
and all the angles rufo-testaceous: elytra pale testaceous, with the suture and lateral margins more or less broadly fuscous-black, and sometimes nearly concolorous: body beneath pitchy-fuscous, with the margin and apex rufo-testaceous: legs pale testaceous: antennae more or less testaceous at the base, the apex black.

Variable in the intensity of its colours, being sometimes of a fuscous-black.

Also somewhat uncommon within the metropolitan district, but abundant towards the west of England, especially in the New Forest, and in Somersetshire. "Found by Mr. Jeffreys lying dead in considerable numbers among rubbish left by the tide on the shore, at the confluence of the Neath river with the sea."—L. W. Dillwyn, Esq.

Sp. 9. angularis. Oblongus, fusco-piceus, pubescens, thorace breviori, subconvexo, angulis posticis rufis, elytris fuscis, striatis, pedibus antennisque rufis. (Long. corp. 5 in.)

N.G. angularis. Steph. Catal. 127. No. 1288; DelE. erythrogramus. Müller? Oblong; pitchy-brown, slightly glossy and pubescent: thorax rather short, somewhat convex, with the posterior angles very short, rufous or rufo-testaceous; elytra rather deep fuscous, clothed with a griseous pubescence, punctate- striate, the interstices convex and finely punctulate: body beneath rufo-piceous: legs and antennae rufous; the latter with the second and third joint somewhat elongate, slender.

This insect is evidently not the El. erythrogramus of Müller, that having the second and third joints of the antennae short and nodose.

I have a pair of this distinct species, which were captured in Devonshire.


Head black, forehead deeply excavated: thorax elongate, with an abbreviated dorsal sulcus and two posterior foveole; black, with the lateral margins and posterior angles testaceus: scutellum black: elytra broader than the thorax, rather deeply punctate-striate, with the interstices convex, pale-testaceous, with the outer margins rather broadly dusky, and the suture more or less black: body fuscous, with the margins of the segments rufescent: legs testaceus, with the femora sometimes fuscous: antennae black. Female with the thorax less elongate than in the male, slightly globose; the elytra rather broader, and the antennae a little rufescent.

Var. ß. Rufo-testaceous, with the eyes black.

Common at Darenth and Coombe-woods, also throughout the
MANDIBULATA.—COLEOPTERA.


Genus CCXXXII.—Campylus, Fischer.

Antennae rather long, slender, serrated; the basal joint moderately robust; the second abbreviated, subglobose; the third to the tenth nearly of equal length, obconic, elongate; the terminal one slender, longer than the preceding, acuminate. Palpi short: head exserted, subquadraté; the frontal margin elevated: eyes large, globose, prominent: thorax scarcely broader in front than the head; the sides a little dilated anteriorly, then contracted towards the hinder angles, which are stout, elevated, somewhat bent outwardly and acute: body linear, slightly pubescent: elytra elongate, rounded at the apex: legs elongate, slender: tarsi with simple joints; the fourth somewhat abbreviated.

The large projecting eyes of this genus, with the exserted head, prominent, elevated, acute posterior angles of the thorax, linear body, and elongate antennae, well characterize it, and distinguish it from its allies: the only indigenous species is extremely variable in colour; it occurs upon trees.


Body beneath black, with the margin and apex, and sometimes the breast, testaceous; above extremely variable in colour: head deeply punctured, black, with the mouth testaceous, or pale testaceous, with the eyes deep brunnæous: thorax in both sexes punctate, with a deep dorsal channel, and a transverse impression a little behind the middle, the superficies bright testaceous-red, sometimes with a deep black discoidal spot, or the disc fusaceous, with the hinder angles above pale testaceous: scutellum oblong, testaceous or black: elytra punctate- striate, linear, dilated, and rather convex in the female, slightly pubescent, pale testaceous, with the suture sometimes more or less fusaceous, this latter colour occasionally predominating over the entire surface, especially in the females, leaving only the margin itself bright testaceous: legs testaceous, with the femora more or less fusaceous: antennae black, varied with testaceous at the base.

One of the most inconstant species of this most variable family. That the above variations, which, in fact, are mere shades of colour, the fovea and sculpture of
each sex not undergoing the slightest change, positively belong to one species, the fact of my having repeatedly taken the insects in copula proves indisputably; a point I am here induced to notice from a difference of opinion prevailing amongst entomologists who have not had the opportunity of capturing the insects in plenty.


Subsection IV.

Antennae 11- rarely 10-jointed, mostly elongated, more or less serrated, or pectinated; occasionally with the three terminal joints more robust (sometimes considerably, and suddenly, elongated): or clavate, the club composed of compactly united articulations: head nutant, in some instances somewhat produced into a rostrum anteriorly, in general deeply inserted in the thorax, which is more or less semicircular or subquadrate, sometimes cylindric or subcordate: body soft and depressed, or of a firm consistence and more or less cylindric and elongate: legs rather long; tarsi five- or four-jointed, the penultimate joint frequently bilobed.

There is considerable diversity of appearance amongst the insects of this subdivision; nevertheless, although they seem to form a group sufficiently natural to allow of being associated together, it appears useful to divide them into the subjoined families, concisely distinguished by the following external characters:

- **bilobo**: Head bifurcate: 34. Cerrioidae.
- **filiformes labiales** bifido: Palpi maxillares: 35. Cyphonidae.
- **filiformes vel setaceae. Tarsi arti penultimo hand bifurcati: 36. Lampyrinae.**
- **apiccrassiores. Antennarum basi validé approximati: 37. Telephoridae.**
- **lancillata.** 36. Melyridae.
- **extrorsum artis 3-4 ultimis subito longioribus: approximati: 40. Ptinidae.**
- **crassiores, articulo ultimo magno: 39. Tillidae.**
- **clavata, clava subquadra: 41. Postricidae.**
Family XXXIV.—CEBRIONIDÆ mihi.

Antennæ inserted before the eyes, longer than the thorax, filiform, composed of cylindric articulations: mandibules corneous, bent, acute, slightly emarginate towards the tip: palpi filiform, the posterior shortest: labium emarginate; body elongate, rather firm; head rather small, inclined: thorax trapeziform: legs rather long; tarsi 5-jointed, the penultimate joint bilobed.

There is but one indigenous genus of this family, which may be thus known:

Genus CCXXXIII.—Atopa*, Paykull.

Antennæ with the first and second joints very short, and the third slightly elongate, and equal in length with the terminal one, which is obliquely truncate. Palpi, maxillary long, filiform: labial short, the terminal joint slightly incrassated, obovate: mandibules porrect, with a single tooth within: maxille bilobed, the outer one bifid: labium divided into two bifid divergating lobes: head moderate, deeply inserted in the thorax, which is transverse, with the posterior margin sinuated: elytra elongate-ovate, convex, as long as the abdomen: legs long and slender: femora compressed: tarsi with the three basal joints cordate, the fourth joint bilobed.

Of this genus a single species only is found in Britain: it may be known from the others of the group by its elongate, convex body, combined with long filiform antennæ and palpi, and the singular structure of the maxillæ and labium, the bifid portions of which are composed of elongate membraneous pubescent lobes.


Dusky, or black, clothed with a dense ochreous pubescence, minutely and thickly punctured, the punctures somewhat disposed in lines on the elytra and rather coarse. Female livid, with the elytra, legs, and antennæ dull testaceous. Variable:—in some males the body beneath and thorax are black, and the elytra livid or dull testaceous, in others the legs are more or less testaceous:—the

* I have here followed Paykull's name, in preference to the one applied a short time previously by Latreille, as, although not strictly incorrect, it is manifestly absurd to apply the old name of a fish to a genus of insects.
females sometimes are entirely livid above, with the abdomen alone dusky, or have the head and thorax dusky, but the legs are always paler.
My experience proves incontestably that the sexes above described are legitimately united, for similar reasons to those mentioned under the last-described insect: (Campylus linearis.)


Family XXXV.—CYPHONIDÆ mihi.

Antennæ filiform, simple, sometimes slightly serrated, with the second and third joints generally shortest: mandibles concealed beneath the labrum: the labial palpi bifurcate: head very small: body ovate, or hemispheric, rather soft: elytra flexible, as long as the abdomen: thorax very short, transverse, narrowed and rounded in front and on the sides: legs short: femora sometimes incrassated: tarsi five-jointed; the penultimate joint bifid.

The Cyphonidæ are insects of small size and plain colours: they differ from the Cebrionidæ by having the labial palpi bifurcate, the body ovate or rounded, soft, and not greatly convex: they are attached to damp and marshy situations amongst herbage; fly and run with rapidity.

Two genera only have hitherto been formed out of the indigenous species, distinguished by the magnitude of the hinder femora.

Femora postica \{ valdé incrassata: . . . . . 234. Scirtes.

Genus CCXXXIV.—Scirtes, Illiger.

Antennæ short, about half as long as the body, slender, filiform; the basal joint short, robust; the second and third very short, the former subglobose, the
latter smaller, subconic; the seven following of nearly equal length, oblong, cylindric; the terminal one rather longer, ovate: head deflexed, small: thorax very short, transverse, the anterior and posterior margins bisinuated, the angles rather acute, the lateral edges slightly margined: body hemispheric, slightly depressed: legs short; femora compressed, the posterior ones greatly incrassated; tibiae armed at the apex with a stout, elongate, slightly bent spine.

Scirtes may be at once known from Cyphon by the incrassated posterior femora, and by the elongate spine at the apex of the tibia: the antennæ are shorter than in the latter genus, with the third joint proportionally longer, and not greatly dissimilar in bulk to the second.


Black, pubescent; obsoletely punctulate, and slightly shining: elytra more distinctly punctate, the pubescence changeable: body beneath pitchy-black: femora also pitchy-black, with the apex testaceous; tibia and tarsi pale-testaceous: base of the antennæ pale, the apex black or fuscose.

Not uncommon in damp and marshy situations throughout the metropolitan district; on the banks of the Lea river I have frequently observed it. "Windsor."—Mr. G. Waterhouse. "On aquatic plants, not common (near Swansea)."—L. W. Dillwyn, Esq. "Rushes, Battersea-fields."—Mr. Ingpen. "Aquatic plants, Plaistow Marshes."—A. Cooper, Esq.

Sp. 2. pallescens. Testaceo-pallidus, pubescens, antennis pedibusque pallidis.


Pale-testaceous, pubescent; obscurely punctulate; with the antennæ and legs pale, the hinder femora with a black patch in the middle.

Larger than the foregoing species, from which it differs also in being more pubescent as well as in colour, which is not that of an immature insect.

Rare: I have hitherto seen but four or five examples. "Battersea-fields and Spitchweek Park."—Dr. Leach.

Genus CCXXXV.—Cyphon, Paykull.

Antennæ elongate, above half the length of the body, slender, filiform; the basal joint stout, cylindric; second shorter, globose; third minute, nodose; the re-
mainder of nearly equal length, filiform; the fourth and last being rather the longest; or with the fourth to the tenth joints inclusive slightly pectinated or serrated. Head transverse, in general concealed beneath the anterior margin of the thorax, which latter is transverse, margined laterally, rounded in front and mostly sinuated behind: body ovate or oblong, sometimes rounded: legs short; femora compressed, slender: tibiae with the apex unarmed, or furnished with a very minute spine.

The elongate antennae, slender hinder femora, and unarmed tibiae enable us with facility to discriminate the insects of this genus from Scirtes:—there is nevertheless considerable diversity amongst the species; and doubtless the time is not far distant when the first and the two last species will be separated into other genera: Cy. chrysomeloides, of which the male has slightly pectinated antennae, is evidently more allied to this than to the preceding genus.

A. With the head concealed beneath the thorax.

a. The body hemispheric: antennae serrated.


Rufo- or ferruginous-testaceous, pubescent, eyes black: scutellum rather large, oblong, triangular: elytra large, very convex, thickly and rather coarsely punctured: body finely punctulated beneath: legs and antennæ pale-testaceous, the latter more or less serrated.

Apparently very rare: I once took a specimen many years since, in Coombe-wood, and subsequently obtained a second example from the same locality, and an original specimen from the Marshamian collection: these, with two others, are the only examples I have seen.

b. The body oblong-ovate: antennæ simple.

Sp. 2. melanurus. *Oblongo-ovatus, testaceus, pubescens, elytrorum apice abdome
mineque fuscis, antennis fuscis basi testaceis.* (Long. corp. 2—2½ lin.)


Oblong-ovate, testaceous, pubescent, shining; with the apex of the elytra and the abdomen fuscous; the antennæ fuscous, with the base testaceous: eyes black.

Variable in colour: sometimes entirely rufo-testaceous, with the eyes and tip of the antennæ alone black.

Occasionally met with in plenty in the neighbourhood of the
metropolis, frequenting hedges and flowers in the month of June.

Sp. 3. laetus. Oblongo-ovatus, testaceus, vertice nigricanti, elytrorum sutura apiceque late nigro-fuscis. (Long. corp. 2 lin.)
Oblong-ovate, testaceous, pubescent, with the vertex dusky or black: the elytra thickly punctured, with the suture and apex more or less broadly black, this colour sometimes occupying above half the surface: abdomen and pectus also black.

Supposed by Gyllenhall to be a variety of the foregoing; but I conceive it to be distinct from the circumstance of its not occurring in company therewith near London, though seemingly abundant in other places. Found in Devonshire, and near Edinburgh. “Swansea.” — L. W. Dillwyn, Esq. “Liverpool.” — Mr. J. Hutchinson.

Sp. 4. assimilis. Ovatus, brevis, livido-testaceus, pubescens, oculis antennarumque apice nigro-fuscis, thorace subrotundato medio fusco. (Long. corp. 1½—2 lin.)
Ovate, short, of a livid testaceous or ochraceous, pubescent, with the eyes and apex of the antennæ fuscous-black, the thorax somewhat rounded, fuscescent in the middle.
Shorter and proportionably broader than the following species, from which it also differs in being of a very pale livid testaceous hue, and in having the thorax longer and somewhat rounded.

Found in hedges within the metropolitan district, but rarely; more frequent in South Wales.

Sp. 5. lividus. Ovalis, livido-testaceus, pubescens, oculis antennarumque apice nigro-fuscis, thorace breviori transversi. (Long. corp. 2—2½ lin.)
Oval, livid-testaceous, pubescent; with the eyes and tip of the antennæ black-brown, the thorax very short, transverse, with the disc more or less fuscescent. Longer than the foregoing, but not broader, thereby differing in form; its thorax is very short and transverse, colour deep livid, or rufescent testaceous, with the eyes and apex of the antennæ of a darker hue.

Extremely abundant in damp hedges throughout the metropolitan district, and, I believe, elsewhere, in June. “Rushes, Battersea-fields, very abundant.” — Mr. Ingpen. “Epping.” — Mr. Double-
day. "Not uncommon in June, on the leaves of willows and alders (near Swansea)."—L. W. Dillwyn, Esq.

Sp. 6. testaceus. Ovalis, corpore antennarumque totò (oculis nigris exceptis) testaceis, subtili pallidiore. (Long. corp. $\frac{13}{4}$—2 lin.)

Oval, with the body above and below entirely of a pale-testaceous hue, immaculate: the eyes alone black; the under surface paler than the upper.
Rather less than the foregoing, which it somewhat resembles in form, but differs in colour; and the thorax appears somewhat longer.

Taken near London and in Somersetshire; also, I believe, in Devonshire.

Sp. 7. obscurus. Suboblongo-ovalis, testaceus, subpubescens, oculis nigris, thorace medio fusciscenti, elytris fusco-nigris. (Long. corp. $2\frac{1}{2}$ lin.)

Somewhat elongate-ovate, testaceous, slightly pubescent: head fuscescent, eyes black: thorax with the anterior margin nearly straight; the disc slightly clouded with fuscous; elytra fuscous-black, rather coarsely and transversely rugose; legs and three basal joints of antennae testaceous, the rest of the antenna black.

As long, and of the same form with the foregoing, but differs in having the head and the disc of the elytra dusky-black, and the anterior margin of the thorax nearly straight.

A single specimen caught within the metropolitan district.

Sp. 8. marginatus. Ovalis, nigro-fuscus, pubescens, antennarum basi, thoracis margine laterali et antico, tibiisque testaceis. (Long. corp. $1\frac{1}{2}$—2 lin.)

Oval, fuscous-black, pubescent, with the base of the antennae, the lateral and anterior margins of the thorax and the tibiae testaceous.
The elytra have frequently a broad testaceous longitudinal patch on the disc, and the abdomen has sometimes a cloud of the same colour at the base.

Rare: specimens were first given to me by my friend L. W. Dillwyn, Esq., who says it is "not uncommon in summer on various plants in moist parts of the Penllergare-woods, and particularly about the large oak near the lower bridge." "Yorkshire."—Mr. Chant. "Liverpool."—Mr. J. Hutchinson.

Sp. 9. pubescens. Ovalis, nigro-fuscus, subpubescens, thorace brevissimo sinuato, supra elytris tibiosisque griseo-testaceis. (Long. corp. $1\frac{1}{4}$—$1\frac{1}{2}$ lin.)
MANDIBULATA.—COLEOPTERA.

Ovate, fuscous-black, slightly pubescent: head black: thorax very short, situated on the anterior and posterior margins, griseo-testaceous: elytra of a livid griso-testaceous: body beneath fuscous-black, with the segments slightly margined with pale ochraceous: femora fuscouscent; tibiae and tarsi pale testaceous: antennae with the second and third joints pale.

Less than either of the foregoing, and differs from the following in being broader and more depressed, exclusively of its colours.

Also very abundant in hedges throughout the metropolitan district; in Devonshire, near Edinburgh, Norfolk, Kent, &c.

Sp. 10. dorsalis. Ovalis, ferrugineus, suturâ nigrâ ad apicem ferrugineâ. (Long. corp. 1 1/2 lin.)


Above ferruginous, with the suture black at the base, then fuscescent towards the middle and ferruginous at the apex; body beneath fuscous, or rusty-black.

I suspect this insect may prove to be a mere variety of the foregoing, although Marsham and a recent compiler place it with the Cryptocephali! It is, however, rather narrower and more convex.

The original Marshamian specimen of this insect is the only example I have seen. "Has been taken on the alder, and by Mr. Jeffreys on the Crwmlyn sand-hills."—L. W. Dillwyn, Esq.

Sp. 11. griseus. Ovalis, nigro-fuscus, pubescens, thorace brevissimo sinuato, elytris griso-testaceis, antennarum basi pedibusque totis pallidis. (Long. corp. 1–1 1/2 lin.)


Ovate, fuscous-black, pubescent: head dusky, with the mouth testaceous: thorax very short, entirely of a fuscous-black hue, situated anteriorly and posteriorly: elytra griseous-testaceous, or deep castaneous, sometimes fuscescent: antennae with the four or five basal joints and legs entirely pale-testaceous.

Variable; sometimes entirely of a silken fuscous-black, with the mouth, base of the antennae and legs testaceous; at others of a pale rufo-testaceous, with the eyes black, and the antennae black at the apex; but all intermediate tints occur.


Ovate, fuscous-black, clothed with silken pubescence; elytra rather deeply punctured, the apex pale, but the margin itself fuscous: tibiae and tarsi pale-testaceous; the second and third joints of the antennae the same.

Varies in being entirely of a pale-fuscous, with the pale spot at the apex of the elytra more or less expanded, and sometimes very obsolete.

Also common in the vicinity of London: I have likewise taken it at Dover, and on the coast of Sussex, in June. "Swansea."—Dr. Leach.

Sp. 13. ater. *Brevis, ovatus, nitidus, fusco-niger, elytris pallidioribus, antennis nigro griseoque variis.* (Long. corp. ½ lin.)


Short, ovate, fuscous-black, with the elytra paler, the antennae varied with black and griseous, alternately.

Less than the last, and differs in being of a darker hue, and by having the antennae varied with pale-griseous and black.

Found near London.


Cy. ochraceus mihi.

Oblong, entirely of a pale ochraceous, pubescent: with the eyes black, and the apex of the antennae rather fuscescent.

Much less than either of the other species, and as oblong in proportion as Cy. melanura.

This minute species I found at Ripley; in 1827.

B. With the head exserted: the antennae more or less serrated.

Sp. 15. angulosus. *Ferrugineus, capite thoraceque saturioribus, convexis, nitidus, elytris angulis binis longitudinalibus elevatiusculus.* (Long. corp. Ⅰ¼ lin.)


Head and thorax piceous; the latter convex, shining; mouth ferruginous: elytra ferruginous, thickly punctured, and sometimes a little clouded with dusky, with a duplex longitudinal slightly elevated carina reaching from the base nearly to the apex: body beneath ferruginous: antennae black, with the base ferruginous: legs pale.

Many years since I captured a single example of this singular
insect, to which I find, by an old MSS., I applied the name C. bicolor; but having subsequently obtained the original Marshamian specimen of Crioceris angulosa, I have reverted to his name. Found in June, at Coombe-wood.

Sp. 16. dubius. Oblongus, rufo-testaceus, pubescens, oculus nigris, corpore subitus antennarumque apice nigro-fusci. (Long. corp. 1/2 lin.)


Oblong, rufo-testaceous, pubescent, with the eyes black, thorax immaculate rufo-testaceous: elytra with a slightly dusky streak on the suture: body beneath dusky-black, the segments and apex finely margined with testaceous: antennae testaceous at the base, dusky at the apex, the second and third joints a little elongate.

Known from the rest of the genus by having the second and third joints of the antennae slightly elongate, and from the preceding, with which it agrees in having the head exserted, by the thorax being testaceous, the elytra convex, and not carinated.

Found near London; I believe at Darenth-wood, in June.

Family XXXVI.—LAMPYRIDÆ, Kirby.

Antennæ filiform, approximating at the base, rather short, composed of compressed articulations, frequently serrated or pectinated. Palpi, maxillary much longer than the labial, which are usually small, very short, subcylindric or robust, with the terminal joint triangular: mandibles very acute, entire, or bidentate at the apex: head exserted or concealed beneath the anterior margin of the thorax, the latter transverse or semicircular: body oblong, more or less depressed: tarsi 5-jointed, with the penultimate joint bifid.

The typical genera of this family are distinguished by having the antennae closely approximating at the base, and frequently pectinated or serrated, the articulations compressed; the body elongate, depressed, soft, &c., and the penultimate joint of the tarsi bilobed.

The larvae are depressed, broad, and in the typical genus closely resemble the apterous females: they are, so far as known, carnivorous.

The following genera occur in Britain; but with regard to the location of the first I do not feel satisfied.

Mandibulae apice

\( \begin{align*}
\text{bidentate:} & \quad \ldots \quad \ldots \quad \ldots \\
\text{integres:} & \quad \ldots \quad \ldots \quad \ldots \\
\text{Caput:} & \quad \ldots \quad \ldots \quad \ldots \\
\end{align*} \)

236. DRILUS.

237. LAMPYRIS.

238. LYCUS.
Genus CCXXXVI.—Drilus, Olivier.

Antennae rather stout, pectinated internally in the males, the second joint small, rounded; simple in the females. Palpi unequal, the maxillary elongate, with the terminal joint acute, the labial short, subcylindric: maxilla not bilobed; mandibles emarginate at the apex: labium obsolesly emarginated; head short, exserted, almost as broad as the thorax, which is somewhat transverse, broader behind than in front: body elongate, arched: elytra flexible: female apterous.

As before stated, the location of this genus is objectionable; but as the habits of the larvae closely resemble those of the true Lampyridæ, doubtless its situation must be near them, from which the only known species may be distinguished by its transverse thorax, which is narrowed in front, the deeply pectinated antennæ, exserted head, and emarginate mandibles.

The larva resembles that of a glow-worm, but the sides of the abdomen are furnished with a series of conical fleshy lobes, and its back with two rows of hairy fascicles; the extremity of the body is forked, and the anal lobe is employed as a seventh leg: it feeds voraciously upon the Helix aspersa.

Sp. 1. flavescens. Niger, pubescens, elytris flavescentibus. (Long. corp. $1_{2}^{4} - 3_{2}^{1}$ lin.: $2-8-10?$ lin.)


Black, covered with a rich griseous pubescence: elytra flavescant, very soft and flexible, also clothed with a griseous pile. Female apterous, subcylindric, rather narrower in front, fleshy, yellowish orange, with two darker patches on the upper side of each segment of the body.

Not very uncommon in June, on high grass in the lanes about Darenth-wood; also taken near Gravesend, and I found two specimens at Dover, in June, 1819: at different periods I have captured nearly fifty specimens of the male, but the female—which is the Cochleoconus vorax of Mielzinski—I have never beheld, though the sexes have been found in copulâ at Darenth by a gentleman residing at or near Gravesend.

Genus CCXXXVII.—Lampyris Auctorum.

Antennæ short, the articulations short, cylindric, compressed; the third as long as the following; the second small, the terminal one elongate, acute. Palpi, maxillary with the last joint trigonal ovate, compressed, acute at the apex: labial short. Head concealed beneath the anterior margin of the thorax, which is semicircular (in the indigenous species): eyes large: body soft, oblong-oval, much depressed: abdomen serrated on the lateral margin: elytra coria-
ceous, slightly flexible: legs compressed, simple. Females aterous, with the rudiments of elytra at the base of the abdomen.

This genus, which forms the type of the family, is to be known by having the antennae short, approximating, the eyes large, the head small, concealed beneath the anterior edge of the thorax, which is semicircular, the body generally elongated and rather soft, and during life the terminal segments luminous, hence called glow-worms: the mandibles entire.

The larva closely resemble the perfect females; they are elongate, depressed, composed of thirteen broad segments, the centre thoracic one semicircular, gradually attenuated to the apex, and each with the posterior angle coloured; palpi and antennae short; mandibles strong: legs, six short, triarticulate, with a small claw at the apex:—they feed upon small molluscoous animals, especially those of the genus Zonites De Montfort; and not upon leaves or grass, as generally supposed.

Sp. 1. noctiluca. Elongata, supra fusca, thoracis limbo cinereo: femina aptera. (Long. corp. 5—8 lin.)


Elongate, above fuscous: eyes black: thorax with the disc fuscescent, the margins throughout pale-cinereous: elytra with three elevated longitudinal lines, the disc rather thickly and finely rugulose-punctate: body beneath pale-fuscous, with the terminal segments flavescent: legs and antennae fuscous. Female aterous: the abdomen entirely of an immaculate fuscous above, with the apex paler; the head and thorax as in the male.

Larva similar to the female, but each segment of the abdomen and the angles of the thorax with a triangular flavescent spot on the margin.

This is the common and apparently the only indigenous species of true glow-worm, the La splendidula having been erroneously introduced into our Fauna: it is abundant in grassy places on heaths, by the sides of woods and in lanes. "Rose Castle, Black-Hall-

†Sp. 2. splendidula. Elongata, supra fusca, thorace antice lunulis duabus fenestrato-pellucidis; femina aptera. (Long. corp. 6 lin.)


Elongate, above fuscous, the thorax anteriorly, with two transparent glabrous lunules in front: female aterous, varied with ashy-white.

Stewart introduces this insect into our Fauna, but without giving any authority for so doing: the example in the Marshamian collection, considered as this species by Marsham, is a mere dwarf variety of L. noctiluca.
wood, Barrock Lodge, &c."—T. C. Heysham, Esq. "Stockton-
common, near York; Stella, near Newcastle, Wastwater and Ulpha,
Cumberland; and Brignall, in Yorkshire."—W. C. Hewitson, Esq.
"Epping."—Mr. Doubleday. "Not uncommon (near Swansea)."

Genus CCXXXVIII.—Lycus, Fabricius.

Antennae rather elongate, compressed, sometimes serrated: the first and second
joints subovate, the last very short: the third shorter than the fourth, which
is about of equal length with the terminal one; the remainder gradually
diminishing in length to the end. Palpi, maxillary with the terminal joint
subtrigonal, broadest at the apex: labial short, robust; the terminal joint
largest: head small, inclined, produced in front into a rostrum: eyes small:
thorax subquadrate: body oblong, depressed: elytra very flexible, a little di-
lated behind: legs slightly compressed, robust.

This pretty genus differs from Lampyris by having the head ex-
serted, the maxillary palpi of different form, the labial very robust:
the head small, produced in front into a kind of rostrum: the thorax
subquadrate, and the female winged:—the species reside in and
upon trees.

Sp. 3. minutus. Ater, holosericeo-pubescens, antennarum apice testaceo, elytris
costalis sanguineis crebré reticulato-punctatis. (Long. corp. 3—4 lin.)

†Sp. 1. sanguineus. Ater nitidus, thoracis lateribus elytrisque sanguineis, his ob-
soletè striatis villosis. (Long. corp. 4 lin.)
No. 1315. note.
Glossy-black, with the sides of the thorax and the elytra blood-red, the latter
obsoleetely villose.

Given by Stewart, without any authority, as indigenous.

†Sp. 2. festiva. Ater, thoracis marginibus elytrisque rufo-fulvis, his apice fuscis,
antennis pectinatis. (Long. corp. 6 lin.)
Black, with the margins of the thorax and the elytra rufo-fulvous, the apex of
the latter black: antennae pectinated.

Whether this be truly an indigenous species is uncertain: it is given as such by
Donovan, who obtained it from Mr. Drury's cabinet, but without any notice
of its locality: it is possible that it might have been placed therein—in ac-
cordance with the bad taste of his time—in lieu of L. minutus.
Black, clothed with a fine pubescence: the apical joint of the antennæ pale-testaceous: the thorax black, foveolated: elytra blood-red, with four elevated lines on each, the interstices with a double series of punctures within, forming a beautiful reticulated appearance.

This elegant insect is apparently very rare in Britain, not more than twenty or thirty examples having occurred in as many years: it has been found on the oak at Coombe and Birch woods, in August and September; also near Tunbridge Wells, and in Norfolk. "Woodland, Devon, July."—Dr. Leach.

**Family XXXVII.—** TELEPHORIDÆ, Leach.

*Antenna* setaceous, rather long, somewhat remote at their base, the joints generally cylindric and elongated, sometimes slightly serrated. *Palpi* unequal; *maxillary* longer than the *labial*, the terminal joint ovate or securiform: *mandibles* entire, acute: *body* oblong, very soft, slightly depressed: *elytra* as long as, or shorter than, the abdomen: *tarsi* 5-jointed, the penultimate joint bifid.

The Telephoridae in their perfect state are decidedly carnivorous: they differ from the insects of the foregoing family by having the antennæ remote at their origin, and setaceous, the articulations elongated; the head broad, vertical, not concealed beneath the anterior margin of the thorax, nor produced into a rostrum; and from the Melyridæ, by having the penultimate joint of the tarsi bifid: two genera only occur in Britain, as hereunder briefly characterized.

The larvae are elongate, somewhat flattened below, composed of twelve rings, and a flat scaly head, furnished with two stout mandibles, two small antennæ and four palpi: the body is soft, the three first joints have each a pair of long scaly three-jointed legs, terminated by a slightly curved hook, and, on the last segment, a fleshy tubercle answering the purpose of a seventh leg: they reside in damp earth, and are carnivorous, according to De Geer.

Genus CCXXXIX.—**Telephorus, De Geer.**

*Antenna* elongate, the basal joint robust; the second small; third shorter than the fourth; the remainder gradually decreasing in length to the last, which is as long as the fourth and subfusciform. *Palpi* with the terminal joint
securiform: maxillae bilobed; head nutant, suborbicular: thorax suborbicular: body elongated, soft: elytra as long as the abdomen, covering the wings.

The insects of this genus may be at once known from the Malthini by having the elytra as long as, or longer than, the abdomen, and the terminal joint of the palpi securiform, exclusively of their comparatively gigantic bulk: they are very active insects, fly with considerable rapidity in the sunshine; they appear towards the middle or the end of spring, frequenting umbelliferous and other flowers for the sake of the insects therein, being extremely voracious, some of them not sparing even their own species:—they vary greatly, and from the number of species and their diversity of structure, I have divided the genus into sections, for the convenience of more readily ascertaining them: their antennæ are said to differ in structure amongst individuals of the same species; but this anomaly I have not observed; and which I conceive has only occurred where species have been assumed to be mere varieties; in which case a discrepancy might be apparent.

A. With the sides of the thorax scarcely rounded.

a. With the thorax transverse, the lateral margins cut out behind (antennæ serrated, with the second joint minute).

Sp. 1. ruficollis. Ater, ore, thorace, abdomineque rufis. (Long. corp. 3—3½ lin.)

Head black, mouth rufous: thorax immaculate rufous, the disc foveolated: elytra black: scutellum and breast the same; wings fuscous: abdomen rufous: legs and antennæ black, the latter serrated. This insect is doubtless the Cantharis ruficollis of the Systema Entomologia of Fabricius; but in his latter works he refers to Sulzer, plate vi. f. 6, which represents an insect at least twice as long:—the serrated antennæ and excised thorax well distinguish it from its congener.

Apparently rare, being very seldom found within the metropolitan district: I have obtained specimens from Norfolk. "Epping."—Mr. Doubleday. "Swansea."—L. W. Dillwyn, Esq.

b. With the thorax transverse, the posterior angles entire.

1. Antennæ with the second joint much shorter than the third.

Sp. 2. thoracicus. Rufo-testaceus, vertice, antennarum apice, elytrisque nigris, pectore piceo. (Long. corp. 3½—4 lin.)
Head black behind, rufo-testaceus anteriorly: thorax immaculate rufo-testaceus: scutellum subtestaceus: elytra black, pubescent, rugose-punctate: breast piceous, or somewhat testaceus: abdomen yellow-testaceus, immaculate; legs entirely of the same colour, but paler, with the tarsi obscure: antennae with the three or four basal joints testaceus, the rest black.


Sp. 3. fulvicollis. *Niger, ore, antennarum basi, thorace, ano pedibusque rufo-testaceis.* (Long. corp. 3—3½ lin.)

Head black, with the mouth testaceus: thorax rufo, immaculate, or with a few blackish marks towards the base: scutellum piceous: elytra linear, totally black, slightly pubescent, thickly rugose-punctate: thorax beneath black in the middle, with the sides testaceus: breast black: abdomen broad, testaceus yellow, the anterior segments each with a broad transverse black fascia at the base: legs rufo-testaceus, with the tarsi somewhat dusky: antennae with the three or four basal joints testaceus, the rest black: apex of the maxillary palpi black.

Less common than the foregoing, but far from scarce within the metropolitan district and elsewhere. "Epping."—Mr. Double-day. "Glanville's Wootton."—J. C. Dale, Esq.

Sp. 4. affinis. *Lineari-elongatus, rufo-testaceus, vertice, thorace antice, elytris, pectore, abdominis basi antennarumque apice nigris.* (Long. corp. 3 lin.)

Linear-elongate: rufo-testaceus, with the head behind, the anterior margin of the thorax, the elytra, breast, base of the abdomen and apex of the antennae black; the tarsi fuscosecent.

More elongate in proportion than the preceding insect, and differs in having the anterior edge of the thorax dusky or black, the palpi concolorous, and the abdomen more decidedly testaceus at the apex:—it may possibly, however, be a mere variety of that insect; but I possess several examples of each sex, of both insects.

Also a common species within the metropolitan district.

Sp. 5. ater. *Elongatus, fusco-niger, antennarum basi tibialisque totis pallide luteis, thorace breviori subtransverso.* (Long. corp. 3—3½ lin.)

Elongate: head black: mouth testaceus: thorax fusco-black, with the margins testaceus: scutellum and elytra also of the same hue, the latter clothed
with a griseous pubescence: abdomen black: femora black, with the apex broadly flavescent or pale-testaceous; tibiae entirely of the latter colour; tarsi fuscescent: antennæ with the three basal joints flavescent, the rest black.

In some examples the thorax has the disc almost totally rufous; but these varieties may be known by the dusky base of the femora from the preceding insect.

Not uncommon in June and July in woody and damp situations.

"Glanville's Wootton."—_J. C. Dale, Esq._

Sp. 6. flavilabris. _Oblongus, niger, ore, antennarum basi, thoracis limbo, tibiis anoque pallide rufo-testaceis._ (Long. corp. 3—3½ lin.)


Oblong: black; with the mouth, the three basal joints of the antennæ, the margins of the thorax, the disc of which is very glossy, the tibiae and apex of the abdomen pale rufo-testaceous: palpi fuscescent.

Variable in the colour of the thorax, which is sometimes rufous, with a small central black patch; the legs are occasionally without the dusky base of the femora, and the palpi but slightly fuscescent.

This closely resembles the preceding species, but it is of a deeper black, &c.

Less abundant than the three or four last-mentioned species, though far from uncommon within the metropolitan district.

"Waterford, in Ireland."—_Dr. Leach._ "On flowers (near Swansea), not common."—_L. W. Dillwyn, Esq._

Sp. 7. pulicarius. _Oblongus, niger, mandibulis, thoracis limbo toto, abdominis margine, anoque testaceis._ (Long. corp. 2—2½ lin.)

Te. pulicarius. _Olivier?_—_Steph. Catal. 131. No. 1324._

Oblong: head black, with the mandibles testaceous: thorax with the disc black, shining, the margins testaceous-yellow, the lateral margins being most broadly edged: scutellum and elytra black, the latter finely rugose-punctate and densely pubescent; beneath black, with the margins of the abdomen narrowly, and the apex broadly, testaceous: legs entirely black, with the claws alone testaceous: antennæ with the basal joints testaceous beneath, the rest black.

Of this species I possess a pair, taken either in the north of England or in Scotland by Mr. Dale, who presented me with the specimens.

2. Antennæ with the second and third joints nearly of equal length.

Sp. 8. lateralis. _Niger, capite antice, antennis inferne, thorace tuto, abdominis limbo pedibusque rufo-testaceis, elytrorum margine laterali apeceque flavis._ (Long. corp. 2—2½ lin.)
MANDIBULATA.—COLEOPTERA.


Black: with the head anteriorly, the antennae beneath, the entire thorax, the margins of the abdomen and the legs rufo-testaceus; the lateral margins of the elytra and the apex flavescent: the elytra densely clothed with a short cinereous pubescence.

The posterior tibiae have frequently a broad dusky ring in the middle.

Not common: I have occasionally met with it in the Robin-Hood Lane, leading to Coombe-wood, and possess examples taken near Bristol. "Epping."—Mr. Doubleday. "Southend."—Rev. F. W. Hope.


Deep black, pubescent: head anteriorly, base of the antennæ, margins of the thorax, and edge of the abdomen rufo-testaceus: elytra with the lateral margin and the apex yellow: femora fuscos, with the base and apex pale rufo-testaceus; tibiae the same; tarsi obscure.

Differs from the foregoing by being rather more slender, with the disc of the thorax black, and the femora and tibiae also varied with the latter colour, or fuscos.

Taken at Darenth-wood by myself many years since.

Sp. 10. testaceus. Brevior, niger, submitidus, thorace quadrato lateribus testaceo, antennarum basi, elytris tibiisque pallidis. (Long. corp. 2—3 lin.)


Short, black, slightly glossy: the thorax quadrate, with the lateral margins testaceus, the base of the antennæ, the elytra and the tibiae pale-ochraceous: palpi fuscoscent.

The coloured legs and palpi, and shorter thorax, distinguish this from the following insect.


Sp. 11. ochropus. Niger, submitidus, thorace longiori lateribus late testaceis, antennarum basi elytris pedibusque pallidis. (Long. corp. 2½—3 lin.)

Black, slightly glossy, with the thorax a little elongate, the lateral margins broadly testaceous; the base of the antennae, elytra, and legs entirely pale-ochraceous; palpi the same.

It is possible this may be a mere variety of the foregoing, but its form appears dissimilar, exclusively of the colour of its legs:—the name pallipes I find used by Fabricius; I have therefore been compelled to substitute a new one.

Also common within the metropolitan district; and I have received it from Devonshire, the New Forest, Norfolk, &c. "Common (near Swansea)."—L. W. Dillwyn, Esq.

c. With the thorax elongated (antenna long).

Sp. 12. pallidus. Linear-elongatus, niger, nitidus, antennarum basi, elytris pedibusque pallidis, thorace angustiori postici truncato. (Long. corp. 3—3½ lin.)

Linear-elongate, shining-black, with the base of the antennae, the elytra entirely, and the legs pale-ochraceous; the thorax totally black, narrow, and truncate behind.

The black thorax and immaculate elytra distinguish this from the other species of this section.


Black, slightly pubescent: thorax subquadrangular, rufescent: elytra ochraceous, with the apex more or less fuscos; legs pale.

The black apex of the elytra, combined with the subquadrate thorax, black body, and pale legs, distinguish this from the following species, which has also the apex of the elytra black.

Not very common, but found within the metropolitan district: in Norfolk, Suffolk, Essex, Hunts, Sussex, &c. "Crwmlyn-burrows and Penllergare, not common."—L. W. Dillwyn, Esq.

Pale-rufous: the thorax elongate, narrowed in front: the antennae, tarsi, and apex of the elytra black.

The distinctly elongate thorax, black antennae and tarsi, and rufous body, are the chief distinctive characters of this insect.


Sp. 15. pilosus. Linearis-elongatus, fusco-testaceus, longiis pilosus, thorace angustiori subquadrato, marginato. (Long. corp. 4—4½ lin.)


Elongate, linear; of a deep dusky-testaceous: eyes very prominent, deep black; antennae fuscescent, with the base pale: thorax rather deeply margined, the disc pilose, dusky-testaceous: elytra elongate, of an ochraceous-fuscescent, very pilose; body beneath with the apex pale: legs more or less deeply testaceous.

Var. &. With the antennae and legs entirely of a pale testaceous, the thorax slightly rufescent, and the elytra pale.

Whether Var. & be the Telephorus unicolor of Curtis I am unable to decide: it is the species originally called Te. longicornis by me in my MSS.

Four or five examples of this species are the only specimens that have come beneath my observation: one I captured at Ripley, in June, 1827, and the others have all been taken at Darenth.

B. With the sides of the thorax distinctly rounded.

a. With the thorax rounded anteriorly.

1. Antennae with the second joint scarcely longer than the third.

Sp. 16. clypeatus. Suprā pallidus, vertice thoracisque disco anterius angustato nigro, pedibus pallidis, posticeis infuscatis. (Long. corp. 3½—4 lin.)


Above pale, with the hinder part of the head and the disc of the thorax black, the colour of the latter narrowed in front; the legs pale, the posterior clouded with fuscescent.

The clear whitish-ochreous margins to the thorax, and the glossy-black central discoidal spot on the latter, with the pale legs and antennae, are the more prominent characters of this insect.

This species, I believe, is not found within the metropolitan district: I have taken it at Dover and near Hastings: it occurs in Suffolk, and in South Wales is not very uncommon. "In woods (near Swansea) not uncommon."—L. W. Dillwyn, Esq.
Sp. 17. dispar. _Niger, thorace lavis rufis immaculato, abdominis limbo pedibusque rufis, genibus tibialisque posticis nigris._ (Long. corp. 5—6 lin.)

Black: thorax smooth, immaculate rufous; elytra fuscous-black, the margins of the abdomen and anterior legs rufous; the intermediate with a spot at the tip of the femora, and the middle of the tibia black; the posterior femora at the apex, and the tibiae and tarsi entirely of a fuscous-black: antennae also black, with two or three of the basal joints testaceous: eyes black.


Sp. 18. nigricans. _Fusco-niger, ore, antennarum basi, thoracis abdominisque limbo, pedibusque flavo-testaceis, tibiiis posticis fuscis._ (Long. corp. 5—6 lin.)

Fuscous-black, with the mouth, base of the antennae, margin of the thorax and of the abdomen, and the legs pale-testaceous; the apex of the hinder femora and the posterior tibiae entirely fuscous or black.

Varies in having the disc of the thorax slightly fuscous, and the abdomen being sometimes entirely rufous.


Sp. 19. discoideus. _Fusco-niger, ore, antennarum basi, thoracis abdominisque limbo, pedibusque rufo-testaceis, femoribus posticis tibiarumque basi fusce-centibus._ (Long. corp. 4—5 lin.)

Fuscous-black, with the mouth, base of the antennae, margin of the thorax and of the abdomen, and the legs rufo-testaceous, the posterior femora with a small black dot at the apex, and the base of the posterior tibiae dusky or black.

Smaller and rather more slender in proportion than the foregoing insect, which it greatly resembles; its colours are however different, being more of a rufous hue, the margins of the thorax in this being nearly of the latter colour, whereas in the foregoing species they are ochraceous or nearly white: the posterior legs also differ.

Less common than the foregoing, but nevertheless not of unfrequent occurrence throughout the metropolitan district.

Sp. 20. obscurus. _Niger, thoracis lateribus summusque abdominis margine rufopallidis, pedibus totis nigris._ (Long. corp. 4 1/2—5 1/2 lin.)
Black, rather shining, pubescent; with the lateral margins of the thorax pale-rufous: the margin and apex of the abdomen and the mandibles the same: the legs entirely black; the two basal joints of the antennae beneath pale-rufous; the remainder black.

Distinguished at once by having the lateral margins only of the thorax bright-rufous, with the rest of the thorax and the legs totally black.

Rare in the south of England, but apparently not very uncommon in the north.

2. Antennae with the second joint shorter than the third.

Sp. 22. cyaneus. _Ater, nitidus, pubescens, capite antice; thorace abdomineque rufis, elytris cyaneis._ (Long. corp. 6—8 lin.)


Shining-black, pubescent: head anteriorly, thorax and abdomen rufous: elytra cyaneous, rugose, with three obscure lines on each: palpi and apex of the mandibles dusky-black: basal joint of the antennae rufous beneath, the apex and rest of the antennae black.

Known from the following species, with which it has been confounded, by its entirely black legs:—Marsham long since applied the name tricolor thereto, which has ridiculously enough been changed to the appellation it now bears: it may be the cyanipennis of Ziegler, a more apt designation.

† Sp. 21. longicornis. _Luteus, elytris testaceis, apice nigris, antennis longitudine corporis._


Luteous, with the elytra testaceous, black at the apex, the antennae as long as the body.

Introduced as British in the work above cited, but evidently without any authority: the insect here described is Brazilian, and the blunder originated from the misapplication of my MSS. name of longicornis, in an endeavour to conceal its origin.

† Sp. 23. violaceus. _Niger, capite, thorace, abdomine pedibusque rufis, elytris caeruleis, antennarum articulo primo pallido._


Black, with the head, thorax, abdomen and legs rufous, the elytra cyaneous, the basal joint of the antennae pale: the crown of the head more or less dusky in the male.

Introduced by mistake for the preceding insect in Wilkin’s Catalogue of the rare insects contained in his collection.


Black; with the head anteriorly, the thorax, abdomen, and legs rufous, the posterior tibiae black, and the apex of the femora slightly so.

Allied to the following, which I think it probable may be a variety, as there stated: it differs in having the entire abdomen rufous, and the apex of the femora dusky or black.

Not uncommon throughout the metropolitan district: also found in other parts; and I have seen examples from Edinburgh. “North Wales and Netley.”—Rev. F. W. Hope. “Common (near Swansea).”—L. W. Dillwyn, Esq.

Sp. 25. cantianus. *Niger, capite antice thorace tota abdumineque apice rufis, pedibus rufis, tibiis posterioribus fusco-nigris.* (Long. corp. 5—6 lin.)


Black, with the head anteriorly, the entire thorax and the apex of the abdomen rufous; the legs also rufous, with the posterior tibiae of a dusky-black.

Differs from the foregoing in having the base of the abdomen black, and in being somewhat larger; but I suspect it may be only a variety.

Found in various parts of the country: I originally gave the above name to my specimens, from having at the time merely observed those which I had captured at Darenth-wood; but notwithstanding the insect has occurred in many other counties, I do not choose to follow the inconvenient plan adopted by others of willfully changing the name.


Black, slightly pubescent: thorax punctate, rufous, with a black spot on the anterior margin of variable size: head rufous anteriorly; the three basal joints of the antennae the same, the rest black: abdomen black, with the margins broadly rufous: legs entirely black.

The anterior femora are sometimes slightly testaceus at the base.

The black legs and anterior black patch on the thorax distinguish this from the following insect.

Sp. 27. rusticus. *Niger, thorace punctato, maculâ disci nigrà, femoribus omnibus rufis, apice nigris.* (Long. corp. 5—6 lin.)
Black, pubescent: thorax punctate, rufous, with a central black spot; head anteriorly, base of the antennæ and of the femora, and margin of the abdomen, rufous: apex of the antennæ and femora, the tibæ, and tarsi fuscos-black. The central black spot in the disc of the thorax, rufous femora, and smaller size, are the chief characters of distinction between this and the preceding insect.


Sp. 28. lividus. *Rufo-testaceus, thorace rotundato immaculato, maculâ frontali, pectore, abdominis basi, genibus tibiisque posticis nigris.* (Long. corp. 5—6½ lin.)
Rufo-testaceus, pubescent: thorax rounded, immaculate: a small spot on the forehead, the breast, and base of the abdomen, the apex of the hinder femora, and the hinder tibæ black: tip of the antennæ fuscescent. In some examples the entire vertex is fuscescent, and the tips of the four posterior femora, with the four hinder tibæ, are black. The black frontal spot and posterior tibiae serve to distinguish this common species.

Perhaps the most abundant species of this genus in Britain; scarcely an umbelliferous flower being without a specimen during May and June. "Baron-wood."—T. C. Heysham, Esq. "Epping."—Mr. Doubleday. "Glanville's Wootton."—J. C. Dale, Esq. "Very common (near Swansea)."—L. W. Dillwyn, Esq.

Sp. 29. confinis. *Rufo-testaceus, pectore abdominis basi oculisque nigris, pedibus toto pallidâ testaceis.* (Long. corp. 4½—5 lin.)
Rufo-testaceus, pubescent; thorax shining immaculate; breast and base of the abdomen, with the eyes, black: legs and antennæ entirely of a pale testaceous.
The totally pale legs distinguish this from Te. lividus, and the pale elytra and dark breast and abdomen from the following.

Taken near London, and in Somersetshire: communicated by Mr. Millard from the last county.

Sp. 30. testaceipes. *Rufo-testaceus, oculis nigris, pectore abdominisque basi piceis, elytris testaceo-fuscis, pedibus testaceis.* (Long. corp. 5 lin.)


Rufo-testaceous, pubescent: eyes black: breast and base of the abdomen piceous: elytra testaceous-brown: legs totally pale rufo-testaceous: each joint of the antennæ tipped with fuscescent.

Intermediate between the preceding and following species, from the former of which it differs by having the elytra fuscescent, and the breast piceous; and from the following by the thorax being immaculate, and the legs totally rufo-testaceus:—it is not the Ca. analis of Fabricius.

Found, near Ripley, by myself: "Epping."—*Mr. Hanson.*

Sp. 31. lituratus. *Suprà testaceus, thorace posticè liturâ angulâtâ nigrâ, pedibus testaceis, femoribus nigro-lineatis.* (Long. corp. 4½—5 lin.)


Above testaceous, pubescent: thorax rather glossy, with several angulated confluent marks behind: eyes black: breast and abdomen at the base black, the latter with the margins of the segments, and the apex, testaceous: elytra generally pale-testaceous: legs variable, sometimes with the femora testaceous, lineated with black, or dusky striped with testaceous; tibiae sometimes with a black or dusky spot towards the apex, the joints always pale.

The thorax is sometimes immaculate; and the elytra occasionally fusco-testaceous; with the thoracic mark very distinct, and the legs very dark.

Not common near London; the only locality I am aware of being Walsam-meadows, near Ripley, where I met with several specimens in June, 1827. "Bristol."—*Mr. J. Millard.* "Glanville's Wootton."—*J. C. Dale, Esq.* "On flowers (near Swansea), not very common."—*L. W. Dillwyn, Esq.*

Sp. 32. rufus. *Rufo-testaceus, thorace subquadrato, elytris ochraceis, oculis alis pectorisque nigricantibus.* (Long. corp. 3—4½ lin.)


Rufo-testaceous, slightly pubescent: thorax subquadrate, shining immaculate: eyes, wings, and breast dusky or black: elytra ochraceous: abdomen testa-
ceous, with the anterior segments black at the base: legs entirely rufo-testaceous, immaculate, tarsi obscure.

Rather variable, the breast and basal segments of the abdomen being concolorous with the body.

The immaculate legs, and less brilliant colour, distinguish this from Te. bicolor, its nearest ally.

Not uncommon in the south of England, and in South Wales.


Sp. 33. bicolor. Rufo-testaceus, oculis, alis, pectore, abdominis basi, genibusque posterioribus nigris. (Long. corp. 2\(\frac{1}{2}\) — 3\(\frac{1}{4}\) lin.)


Rufo-testaceus; slightly pubescent: with the eyes, wings, breast, base of the abdomen, and four posterior knees black: the antennæ dusky towards the apex: thorax immaculate.

The two posterior knees are sometimes alone black, and the posterior tibiae are occasionally a little fuscous.

The black joints of the hinder legs, and the brighter rufescent colour and smaller size of the insect, are the principal points of difference between this and the foregoing.


b. With the thorax truncate anteriorly (antennae with the second and third joints short).

Sp. 34. alpinus. Supră testaceus, vertice attenuato nigro, thorace transverso quarti subemarginato, utrinque unidentato. (Long. corp. 6 — 7 lin.)


Testaceus: head attenuated behind and black, testaceous in front; eyes large, black, and very prominent: thorax transverse, truncate anteriorly, subemarginate posteriorly, and the hinder angles produced into a minute tooth: the disc rufo-testaceus, unequal, with a more or less distinct black central spot: elytra of a lurid testaceus, rugoso-punctate, pubescent: body dusky-black, with the sides and margins of the segments and the apex testaceus; legs testaceus, with the tarsi dusky.

The elytra are sometimes of a fuscous-black: and the hinder femora and tibiae are occasionally blackish.

The only localities I know for this remarkable species are Darenth and Coombe woods: in the former place it is not uncommon
among oaks and other high trees, but it is somewhat rare in the latter. "Glanville's Wootton."—J. C. Dale, Esq.

Genus CCXL.—Malthinus, Latreille.

Antenna elongate, slender, filiform, rather distant at their origin; the second and third joints shortest; the remainder elongate, cylindric; the basal one subclavate. Palpi with the terminal joint ovate, acuminated at the apex, and nearly subulate; head rather large, more or less attenuated posteriorly: eyes more or less projecting: thorax subtransverse: elytra slender, generally shorter than the abdomen: wings large, exposed at the apex: legs rather long, slender.

Malthinus differs from Telephorus by several very obvious characters: the terminal joint of the palpi is ovate, acuminated, not securiform, the elytra are generally very much abbreviated, the wings large, exposed at the apex, the insects generally of minute bulk, linear-elongate, &c., and they usually prefer trees for their habitation;—there are either many species, or they are very prone to vary.

A. With the head rhomboidal; the eyes very prominent.

Sp. 1. flaveolus. Flavus, vertice nigro, thorace fusco-maculato, elytris fuscis, apice rotundatis sulphureis, abdomine vix breviaribus. (Long. corp. 2½ lin.)


Yellow: the head posteriorly black, much punctate: the thorax dull flavescent, with two large fuscous spots on the disc, frequently united: the elytra fuscous, with the apex rounded, and sulphur-yellow: legs dusky-yellow: antennae yellow, with the apex dusky.

Known from the following by its spotted thorax, brighter colour, and larger size.


Sp. 2. immunis. Flavus, vertice nigro, thorace immaculato, elytris subfuscis, apice rotundatis sulphureis. (Long. corp. 2—2½ lin.)


Yellow: vertex black, very much attenuated, punctate: thorax bright-yellow, generally immaculate: the elytra pale fuscous, with the apex rounded and sulphuraceous: body beneath and legs bright-yellow: antennae flavescent at the base, dusky at the apex.
The immaculate thorax, with other characters, distinguishes this species, which Gyllenhall gives as the male of the preceding species, but I suspect improperly.

Less abundant than the foregoing near London; found in Suffolk and Norfolk. "In woods (near Swansea)."—L. W. Dillwyn, Esq.

Sp. 3. humeralis. Thorace flavo medio atro, elytris fuscis, basi apiceque flavis. (Long. corp. 1½—2 lin.)

Head yellow, posteriorly black: thorax black in the middle, with the lateral margins yellow: elytra fuscous, with a broad space at the base yellowish, and the apex of a brighter yellow: abdomen black: legs and antennae yellow.
The black spot on the disc of the thorax is divided longitudinally.

Not uncommon within the metropolitan district, and I suspect frequent in other parts. I have received it from Bristol.

Sp. 4. luteolus. Ochraceo-flavus, thoracis disco fuso submaculato, elytris ochraceo-flavis apice sulphureis, vertice nigrigente. (Long. corp. 2—2½ lin.)

Ochraceous-yellow: vertex with a narrow black fascia behind: thorax slightly clouded with fuscous on the disc: elytra pale ochraceous-yellow, with the apex bright sulphurous: body beneath, legs, and antennae entirely bright ochraceous-yellow.
In this insect the two fuscous clouds on the thorax are placed longitudinally, one towards the centre of the anterior, and the other close to that of the posterior margin, by which it differs from the foregoing.

Found within the metropolitan district, and in Suffolk; also at Dover, and in Devonshire: not common.


Black: mouth, and a spot between the antennae, rufescent: thorax rufous on the lateral margins, the disc glossy-black, rugulose and channelled: elytra distinctly punctate-striate fuscous-black, with a broad, pale-yellowish fascia, dilated outwardly in the middle, and a distinct round sulphurous spot at the apex: abdomen rufescent, with the apex dusky; the four anterior legs yellowish, the posterior dusky, with the tarsi and joints paler.
The punctate-striate elytra at once point out the peculiarity of this insect.

Not common, but rather widely distributed: I have taken it at Dover, and received it from Norfolk, and the New Forest, Hants. "Netley."—Rev. F. W. Hope.
Sp. 6. collaris. _Flavescens, antennarum apice vertice thoracis disco supero nigricantibus, elytris levibus subfuscis, basi obscuriore, apicibus flavis._ (Long. corp. 1 2/3—2 lin.)
Ma. collaris. _Latreille.—Steph. Catal. 133. No. 1356._
Flavescent: head behind and disc of the thorax dusky; the latter not broader than long: elytra smooth, not punctate-striate, somewhat fuscous, with the base more obscure, the apex light-yellow; the antennae flavescent at the base, dusky at the apex.
Somewhat resembling the foregoing insect, but the elytra not punctate-striate.
Taken near London, and in Devonshire; also near Bristol

Sp. 7. biguttulus. _Niger, punctatus, ore lutescente, thorace immarginato, elytris longitudine abdominis apice acuminatis sulphureis._ (Long. corp. 1 2/3—2 lin.)
Black, punctate: the mouth lutescent: thorax bordered with testaceous, the sides deflexed, immarginate: elytra elongate, punctured, with two or three obsolete striae towards the suture, obscure dusky-black, with the apex acuminate and bright sulphurous: abdomen fuscous, with the margins of the segments and the apex yellowish: femora yellow; tibiae and tarsi dusky: antennae fuscous, with the base yellowish beneath.
The dark elongate acuminate elytra of this insect, black thorax, and dusky tibiae and tarsi, are its most prominent characters.
Extremely abundant on oaks, &c., from May to July, throughout the metropolitan district. "Fisk, N. B."—_Rev. J. Fleming._

Sp. 8. frontalis. _Niger, fronte flavid, pedibus antennarumque basi sordide testaceis._ (Long. corp. 1 2/3—2 lin.)
Head black, a little brassy; with the forehead yellow: thorax dusky, immarginate: elytra immaculate fuscous: legs and base of the antennae dull-testaceous.
The yellow forehead distinguishes this insect from the following, and the immaculate elytra from the preceding.
Less abundant than the last near London. "Swansea."—_L. W. Dillwyn, Esq._

Sp. 9. immaculatus. _Niger, fronte concolore, elytris fuscescentibus immaculatis, antennis extrorsim pedibusque posticis fuscis._ (Long. corp. 1 2/3—1 2/3 lin.)
Black, with the forehead concolorous: thorax immarginate: elytra fuscescent, with the apex immaculate: antennae dull-testaceous at the base, the apex dusky: anterior legs dull rufo-testaceous, posterior fuscous.
The black forehead and immaculate elytra, with the dark tips of the antennæ and fuscous posterior legs, distinguish this insect from its nearest allies.

Found throughout the metropolitan district, but not common. "Glanville’s Wootton."—J. C. Dale, Esq.

**Sp. 10.** *Pinicola. Ater, immaculatus, elytris paulò dilutioribus, pedibus nigro-fusinis, antennarum basi obscuré testaceo.* (Long. corp. 1\(\frac{3}{4}\)–2 lin.)


Immaculate-black: thorax immarginate: elytra somewhat fuscescent, with the apex concolorous: all the legs fuscous-black, with the articulations somewhat paler: antennæ dull-testaceous at the base beneath, the apex fuscous. Mouth sometimes piceous.

The black head and legs of this insect distinguish it from the two preceding.

The antennæ short in both sexes.

**Very abundant in June, 1827, on pines and firs near Ripley.**

**B.** With the head rounded; eyes small.

1. **Thorax subelongate.**

**Sp. 11.** *bигuttatus.* *Niger, vertex subattenuato, thorace marginato, lavi, elytris abdominalibus brevioribus apice sulphuro.* (Long. corp. 2–2\(\frac{1}{2}\) lin.)


Black: head large, a little attenuated behind: thorax somewhat transverse, slightly margined; black, with the anterior and posterior edges delicately bordered with pale-testaceous or rufescent: elytra short, dusky, with the apex bright sulphur: breast black, edged with yellow: abdomen black, with the sides, apex and margins of the segments flavescent: legs fuscous-black, with the base of the femora and the joints sometimes pale: antennæ flavescent at the base beneath.

Resembles *M. bигuttulus*, but the form of the head and the eyes, as well as the colouring, different.

**Very abundant in woods throughout the vicinity of the metropolis, and at Dover.** "In woods (near Swansea)."—L. W. Dillwyn, Esq.

**Sp. 12.** *nigricollis.* *Niger, thorace submarginato, atro, elytrorum apice sulphuro, antennis pedibusque nigro-fusinis.* (Long. corp. 2–2\(\frac{1}{2}\) lin.)


Black: head broad, punctate: thorax slightly margined, the disc black, the edges very finely bordered with yellow: elytra short, fuscous, with the apex yellow: antennæ entirely and legs fuscous.
Probably a mere suffused variety of the last-described insect, from which it differs chiefly in the darkness of its hues.

Found near London, at Hertford, Dover, and in Suffolk, Hants, and Devonshire.


Black: thorax smooth, rufous, immaculate, slightly margined: elytra linear, rugose-punctate, much shorter than the abdomen, fuscos, with the apex sulphurous: body fuscous, with the sides, margins of the segments and the apex yellow: femora dusky-black; tibiae and tarsi pale-yellow: antennae flavescent at the base, black towards the apex.

The bright, immaculate, rufous thorax of this insect distinguishes it from its fellows, without taking other characters into consideration.

Found in various parts of the country; not very abundantly within the metropolitan district.


Black, thorax slightly margined, fulvous, immaculate: elytra shorter than the abdomen, a little rugulose, fuscos, with the apex yellow: legs entirely and base of the antennae pale-yellow.

Differs from the foregoing in having the thorax immaculate fulvous.

Less abundant than the last, but found in various places within the metropolitan district and in Suffolk.

Sp. 15. minimus. *Niger, thorace marginato, lavi, elytris abbreviatis, apice sulphureis, pedibus fuscis.* (Long. corp. 1½—2½ lin.)

Black: head and thorax smooth, the latter margined, shining, with the anterior and posterior edges, and sometimes the lateral ones, yellow: elytra dusky, with the apex yellow: body black, with the segments delicately margined with white, the apex yellow in the male: legs black, with the base of the femora and the joints sometimes pale: antennae entirely black.

Known from the foregoing species by having the thorax black in the centre and glossy.

Not uncommon in the neighbourhood of London.

Black; forehead with a yellow spot: the thorax slightly margiued, luteo-testaceous, with a central black spot: the elytra fuscous, with a small yellow spot at the apex; the antennae pale at the base, and the legs fuscous.

Differs from M. fulvicollis in having the thorax with a black central spot, and the legs fuscous; and from M. sanguinicollis in the same characters and larger size.


Black: head immaculate; thorax yellow, with a central glossy black spot: elytra black, with the apex yellow: femora fuscous: tibie pale: antennae pale at the base, fuscous at the apex.

The black forehead, spotted thorax, and smaller size, distinguish this from the three or four preceding insects.

Abundant on trees in the neighbourhood of London: also found near Bristol. "Common (near Swansea), principally in woods."—L. W. Dillwyn, Esq.


Black: thorax glossy, immaculate: elytra dull-fuscous, linear, rather elongate, immaculate at the apex: body beneath and femora black: tibie and base of the antennae dilute fuscous, or slightly pale.

The concolorous apex of the elytra, black thorax, and dark legs, well characterize this insect.

Not very common near London; more abundant in Somersetshire. "Frequent (near Swansea)."—L. W. Dillwyn, Esq.

b. With the thorax transverse, very short.


Head black: mouth fuscous: eyes black: thorax as broad as the head; margined throughout, above depressed, shining black: elytra linear, nearly as long as the abdomen, thickly punctulate, fuscous immaculate: body fuscous, with the edges of the segments rather paler: legs fuscous.

The smallest species of the genus, and in fact of the family.

Apparently rare: my specimens were taken on "Wandsworth-common."—Mr. Westwood. "Woodland, Devon."—Dr. Leach.
Family XXXVIII.—Melyridæ, Leach.

Antennæ setaceous, short, the articulations for the most part cylindric-conic or turbinated, sometimes pectinated or serrated. Palpi not very dissimilar in length, subfiliform; mandibles emarginate, rather elongate and slender: head nutant, not so broad as, and in general inserted up to the eyes in, the thorax, which varies in form: body ovate or oblong, more or less convex: elytra generally as long as the abdomen, sometimes flexible: tarsi 5-jointed, the joints all simple.

The simple tarsi of the Melyridæ at once distinguish them from the Telephoridæ, to which may be added their short antennæ, subfiliform palpi, emarginate mandibles, convex body, &c.: most of the species are of gay and lively colours, and reside in and upon flowers, chiefly for the purpose of preying upon other insects.

The following are the indigenous genera:

\[
\begin{align*}
&\text{Palpi filiformes, apice subsetaceæ:} & \text{241. Malachius.} \\
&\text{Palpi inaequalès, extrorsum crassiores,} & \text{242. Aplocnemus.} \\
&\text{apice obliquè truncatis. Antennarum articulis} & \text{243. Dasytes.} \\
&\text{brevibus:} & \\
&\text{elongatis:} & \\
\end{align*}
\]

Genus CCXLII.—Malachius, Fabricius.

Antennæ filiform, shorter than the body, composed of obconic joints, in general longer than broad, and sometimes serrated. Labium entire at the apex or obscurely emarginate: Palpi filiform, subsetaceous at the apex: head nearly transverse, nutant, deeply inserted in the thorax; on each side of which, beneath the anterior angle, is a retractile rufous vesicle, and a second at the base of the abdomen.

The insects of this genus are remarkable for the singular appendages which are attached at the base of the abdomen and beneath the anterior lateral edge of the thorax; these appendages, which are mostly rufous, are capable of being alternately expanded and contracted at the will of the animal; but their exact use has not yet been ascertained: the insects are of very gay and lively colours, and are extremely voracious, subsisting upon other insects.


Brassy-green, pilose; head anteriorly pale rufous-yellow; eyes brown; thorax transverse ovate, smooth, with the anterior angles obliquely sanguineous; scutellum anecous: elytra pale sanguineous, with the basal half of the suture brassy-green: the lateral vesicles sanguineous, the margins of the abdominal segments the same: legs brassy-green; antennae black; the second and third joints produced in the males.


Sp. 2. bipustulatus. Viridi-anecus aut caeruleus, hirtus, ore pallido, elytris apice rubris, antennarum articulo tertio brevi. (Long. corp. 2¾–3½ lin.)


Green- or blue-brass; pilose; mouth broadly pale yellowish-white: thorax immaculate, or with a minute sanguineous spot on the anterior angle: elytra with an ovate blood-red spot on the inner angle of the apex: antennae black, with the second and third joints short, simple in the females; the males with the basal joints more or less dilated.
The short third joint of the antennae and greater bulk of the insect distinguish this species from the following, which it greatly resembles.


Sp. 3. viridis. Caeruleo-virescens, hirtus, ore flavo, antennarum articulo secundo brevi, tertio longiori obconico. (Long. corp. 1¾–2¼ lin.)


Blue-green, pilose, slightly anecous, sometimes violaceous: mouth yellowish or rufescent: thorax immaculate: elytra immaculate, or with a minute rufous spot at the apex within: antennae black, with the first joint stout; the second very short; the third long, obconic; the basal joint considerably dilated in the male.
The elongate third joint of the antennae, and nearly, or quite, immaculate elytra of this small species, exclusively of its dissimilar taint of colour, sufficiently characterize it as a species.
Somewhat rare: I have taken it at Darenth-wood, and it has occurred in other parts near London. "Cobham, Surrey, July."—Dr. Leach. "Baron-wood."—T. C. Heysham, Esq. "Near Cambridge."—J. C. Dale, Esq. "Mr. Jeffreys has noticed it very abundant on the flowers of Arundo arenaria in June."—L. W. Dillwyn, Esq.


Green or bluish, pubescent: head flavescent in front: thorax with its lateral margins pale sanguineous: elytra with an ovate pale sanguineous spot at the apex within: legs and antennae dull green, the latter with several of the basal joints dilated in the male, which sex has an acuminated tubercular process on the spot at the inner apex of the elytra, concolorous therewith.

No doubt can exist of the insect last referred to being the male of *M. marginellus*, Messrs. Chant and Bentley having taken several pairs in copula, while in Devonshire; and who remarked that their voracity was so inordinate, that if a pair were confined in a box for a single night, one only remained alive in the morning, the fragments of its partner being strewed about.

Found chiefly on the coasts, and on those of Norfolk, Suffolk, Essex, Kent, and Devonshire, it has occurred. "Southend."—Rev. F. W. Hope. "Borders of Slapton Ley, Devon."—Messrs. Chant and Bentley.


Black-brass, glabrous; mouth flavescent: thorax immaculate: elytra fuscous, or black, with a transverse fascia a little before the middle, not reaching to the suture, and the apex yellow or rufescent, the latter with two black tubercular processes.

The tubercular processes at the apex of the elytra distinguish this insect from the following: I possess the sexes of each; the above is therefore not a sexual distinction.

Not very common: found in the vicinity of London, at Hertford, Darenth, Coombe, &c., in hedges.

MANDIBULATA.—COLEOPTERA.


Black-brass, glabrous: mouth rufescent: thorax immaculate: elytra with a transverse fascia a little before the middle, not extending to the suture, and the apex itself pale rufous: body and legs aeneous, the former with the margins of the segments pale rufous.

The absence of the tubercles at the apex of the elytra at once point out the distinction of this from the preceding species.


Sp. 7. sanguinolentus. Linear-elongatus, glaber, nigro-aneus, thoracis lateribus, elytrisque totis rubris. (Long. corp. 2—2½ lin.)


Linear-elongate, glabrous: green or black-brass; mouth concolorous: thorax with the lateral margins broadly rufous: elytra smooth, entirely pale blood-red, sometimes with a fuscescent cloud towards the scutellum: body beneath, legs, and antennae brassy-black.

Known by its totally rufous elytra.

Rare near London: it has been taken on barley at Ealing; but it appears to be more abundant on the borders of Whittlesea-mere and its vicinity. "Yaxley-mere."—Mr. Standish. "On aquatic plants, on Crwmlyn Bog, not common."—L. W. Dillwyn, Esq.

Sp. 8. ruficollis. Aneo-niger, thorace toto, elytrorumque apice pallide rufis, tibiis tarsisque pallidis. (Long. corp. 1½—1⅞ lin.)


Brassy-black, glabrous: mouth rufescent: thorax entirely pale rufous: elytra greenish-brass at the base, the apical half pale rufous, this last colour produced in an acute angle towards the centre of the disc: abdomen rufous at the base, the apex aeneous, with the margins of the segments rufous: femora dark aeneous; tibiae and tarsi pale rufous, the latter black at the apex.

The first examples I saw of this elegant species were taken by Messrs. Chant and Bentley, at Whittlesea, in June; it was afterwards found by Messrs. Dale and Weaver, in the same locality.

†Sp. 9. thoracicus. Caruleo-ater, thorace toto tibiisque posticis rufis, elytris immaculatis. (Long. corp. 1⅜ lin.)

Blue-black; glabrous: the thorax entirely rufous: elytra immaculate: posterior tibiae pale rufous.

Known by its immaculate elytra and totally rufous thorax.

In the collection at the British Museum. "New Forest."—Dr. Leach.


Black, pilose: mouth whitish or rufescent: thorax entirely rufous: elytra blue-black, with a minute rufous spot at the apex within: abdomen with the margins of the segments rufescent: legs totally black. Male with the apex of the elytra truncate obliquely from the margin to the suture.

The small rufous spot at the apex of the elytra, and the totally rufous thorax and black legs, distinguish this species.

I have found this in the utmost profusion on grass by the roadside, near Hertford; and also somewhat plentifully in other parts within the metropolitan district. "Bristol."—J. C. Dale, Esq.

Sp. 11. pulicarius. *Obscuræ viridi-aneus, ore albido, thoracis lateribus rubris, elytris pubescentibus, apice luteo-rufis.* (Long. corp. 1¼—2 lin.)


Dull brassy-green: mouth whitish or flavescent: thorax with its lateral margins pale rufous: elytra pubescent, with the apex of a luteous-red; abdomen with the margins of the segments slightly margined with flavescent: legs greenish: tarsi, especially the anterior, pale: antennæ pale, with a black line above. Male with the apex of the elytra obliquely excised.

Differs from the foregoing by having the disc of the thorax black, and the antennæ pale beneath.

Not very common, the only localities I know being on the banks of a lane near Peckham, and in the Kent-road, near the Surrey Canal Bridge. "Gardens, Walworth."—Mr. Ingpen.

Sp. 13. productus.—Plate xix. f. 3, ♀.—Niger nitidus, antennarum basi, elytrorum apice pedibusque flavis, fémoribus basi nigris. (Long. corp. 1—1½ lin.)

†Sp. 12. pedicularius. *Ater, thorace marginato, immaculato, elytrorum apice rufis, antennis filiformibus.*


Black; thorax margined, immaculate: elytra tipped with red: antennæ filiform. Turton indicates this as British, but I have never seen a specimen.
MANDIBULATA.—COLEOPTERA.


Glossy-black: thorax immaculate: elytra rather broader than the thorax, convex, finely punctured, with a broad yellow or luteous spot at the apex within: abdomen with the segments slightly edged with yellowish: the four anterior legs yellow, with the base of the femora black: the posterior black in the male, with the apex of the tibiae and tarsi pale; flavescent in the female, with the femora black. Male with the apex of the elytra retuse, with a black spine near the suture.

The totally dark thorax and minute reddish spot at the apex of the elytra sufficiently distinguish this species.

Very rare: the specimens in the British Museum and in my own collection are the only examples I have seen. "Bristol, Devonshire, and Windsor."—Dr. Leach.


Brassy-green: thorax immaculate: elytra bright rufous, with a triangular spot at the base, and an oblique fascia a little behind the middle, aeneous-black: femora rufous; tibiae and tarsi aeneous.

Resembling M. fasciatus, near which it ought most probably to be placed, but differs in having the elytra rufous, with a small spot at the base, and a fascia behind the middle, brassy; the femora rufous; thorax aeneous, &c.

Found near "Bristol."—Dr. Leach.

†Sp. 15. humeralis. Viridi-aneus, elytris basi rubris apice aeneis. (Long. corp. 1½ lin.)

Brassy-green: elytra rufous at the base, aeneous at the apex.

Allied to the last, but the elytra immaculate at the apex.

In the collection at the British Museum: of its locality I am not aware.

GENUS CCXLII.—APLOCNEMUS*. nilhi.

Antennae abbreviated, composed of transverse articulations, of which the basal one is slightly robust; the second and third short, nodose; the remainder, to

*Bessers' MSS.? name, Elicopis, is too closely allied to Hellicopis of the Systema Glossatorum of Fabricius, published in the sixth volume of Illiger's Magazine, to be retained. I have therefore been compelled to substitute the present appellation, from *Aplacnemus*; simplex; *nilhi*, tibia.
the tenth, of nearly equal length, obconic, more or less produced internally, the apical one longest, ovate. Palpi with the terminal joint somewhat acute: body obtuse, somewhat oblong; slightly pilose: elytra dilated behind the middle, rather obtuse posteriorly; the apex closed: legs short; tarsi simple.

The more glabrous and broader body of the insects comprised in this genus, with the brevity and stoutness of the articulations of the antennæ, less incrassated palpi, and stouter legs, point out a few of the more obvious external distinctions between this and the following genus; the typical species (Ap. impressus) resides beneath the bark of trees.

Sp. 1. impressus. **Nigro-æneus, villosus, punctis numerosissimis griseis impressis, tibiis testaceis, annulo nigro, antennarum basi testaceo.** (Long. corp. 2 1/2—2 3/4 lin.)


Entirely of a black-brassy, clothed with a pale flavescent pile: thorax very convex, punctate: elytra more coarsely punctate, the punctures somewhat confluent and irregularly placed: the two or three basal joints of the antennæ pale testaceous: femora æneous; tibie black, with the base and apex pale; tarsi pale beneath.


Not common: found beneath the bark of elms in the vicinity of London, and in other places. "Copenhagen-fields."—A. Cooper, Esq. "New Forest, and Glanville’s Wootton."—J. C. Dale, Esq. "Elms in Copenhagen-fields and Hyde-park, in the spring."—Mr. Ingpen.

† Sp. 2. floralis? *Ater, villosus, immaculatus, antennis pedibusque concoloribus.* (Long. corp. 2 lin.)

Da. floralis. *Olivier. ii. pl. iii. f. 13. a. b.*

Deep black, slightly clothed with a fuscous pile: thorax finely punctured, with a fovea on each side towards the base; and a longitudinal sulcus parallel with the lateral margins: elytra somewhat rugose transversely, with two or three obsolete longitudinal striae: legs and antennæ deep black.

This species, apparently the Da. floralis of Olivier, was captured "in June last, at Petworth."—Mr. Westwood.

‡ Sp. 3. quadripustulatus. *Ater, hirtus, elytris maculis duabus rufis.* (Long. corp. 2 lin.)
318 MANDIBULATA.—COLEOPTERA.


Black, hairy; the elytra with two red spots, one at the base, the other towards the apex; the apical one sometimes wanting.

In the British Museum are specimens of this insect, said to have been taken by Dr. Leach, in Devonshire, about four years since.

Genus CCXLIII.—Dasytes, Paykul.

Antennae composed of somewhat elongate joints, of which the basal one is considerably incrassated; the second minute, nodose; the third somewhat longer; the fourth to the tenth gradually increasing, and frequently produced within, forming a serrated edge; the terminal one longer, ovate. Palpi with the terminal joint truncate at the apex: body more or less elongate, very pilose: elytra more or less linear, rarely dilated posteriorly, the apex dehiscent: legs long; tarsi simple: claws with a membraneous process beneath.

The more elongate and densely pilose body of the true Dasytes, combined with the dissimilarity in the form of the antennæ and palpi, and the propensities of the insects to inhabit flowers, form the chief distinctions of this genus from Aplocnemus:—but the genus evidently requires greater subdivisions, at least the first and last species being alien thereto—the first, from the remarkable posterior tibiae and appendages at the base of the tarsi, I would propose calling Enicopus; and the latter, from its filiform shape, acute squamous elytra, &c. might be termed Dolichosoma.

‡Sp. 1. ater. Oblongus, niger, vagē punctatus, hirtus pilis nigris et cinereis. (Long. corp. 3½ lin.)

Oblong, black, with deep dispersed punctures, somewhat disposed in striae on the elytra; clothed with long black and cinereous hairs: the head in front with an ovate rugulose double impression: one sex has an elongate, incurved spine at the base of the first joint of the tarsi, and the posterior tibiae are considerably incrassated and bent.

This singular insect doubtless belongs to a distinct genus from its allies, but I have not ventured to detach it therefrom, other than as above mentioned.

Said to have been captured by Dr. Leach, in Devonshire: specimens are in the British Museum indigenous collection.
†Sp. 2. niger. *Oblongus, niger, hirtus, tenué punctulatus, thorace utrinque impresso, antennis obtusè serratis.* (Long. corp. 2 lin.)


Oblong, black; clothed with rather short erect fuscous hairs; finely punctured throughout: forehead flat, with three impressed foveæ: thorax with an impression on each side; with a longitudinal sulcus on the lateral margin: antennae obtusely serrated. Male smaller, with the head rather broader, and the antennae somewhat longer than in the female.

Rare: it has been taken near "Windsor."—Dr. Leach.


Elongate, hairy; above blue or green: thorax rather deeply sprinkled with punctures, the lateral and hinder margins rounded: elytra rounded at the tip, linear-elongate, thickly and obseolutely rugose-punctate: legs elongate, bluish-black: antennæ black, with the six terminal joints elongate in the male, slightly serrated in the female; the elytra in the latter sex a little dilated.

Extremely variable in colour; every tint of blue and green—the latter frequently glossed with aeneous—occurring.

Not uncommon on flowers on the Hampshire coast, and in those of the adjoining counties. "On flowers, Barton Cliff, and Christchurch, Herne Bay."—J. C. Dale, Esq.

Sp. 4. viridis. *Elongatus, hirtus, supra viridis, thorace creberrimè punctato, posteriè angustiori, angulato, elytris apice acuminatis.* (Long. corp. 3 lin.)


Elongate, hairy: above rich green: the thorax thickly and rather deeply punctate, attenuated and angulated posteriorly: elytra elongate, linear, acuminated at the apex, somewhat deeply rugose-punctate: legs very long, black, tinted with aeneous: antennae brassy-green.

The angulated posterior margins of the thorax, and its attenuation behind, with the acuminated elytra and bright-green colour of the insect, distinguish it from the preceding; and to the following—to which it has been referred—its differences are too evident to require pointing out.

Very rare: the only examples I have seen were captured by the late Mr. Cranch, in Cornwall.

Elongate, brassy- or bluish-black, pilose; finely punctured: forehead slightly depressed: elytra elongate, dilated towards the apex, which is somewhat obtuse: body glossy black beneath: legs and antennae also black, the latter slightly serrated in the males.

Broader, and of a brighter aeneous hue, with the antennae in both sexes more slender than in the following insect.


**Sp. 6. serricornis.** Linear-elongatus, nigro-aneus, subpubescens, thorace subtransverso, pedibus antennisque atris, his extrorsim serratis. (Long. corp. 2 lin.)


Linear-elongate, deep brassy-black, pubescent; finely punctured: head broad; forehead depressed, rugose: thorax somewhat transverse: elytra linear-oblong, flexile, slightly punctate: legs and antennae entirely lack, the latter strongly serrated towards the apex. Tibiae sometimes fuscecent.

More elongate, of a deeper hue, and the antennae more acutely serrated than in Da. aeratus.

Found near London, and in Suffolk, but not common.

**Sp. 7. flavipes.** Linear-elongatus, nigro-virescens, hirtus, tenué punctulatus, antennarum basi tibisique testaceis. (Long. corp. 1½—2 lin.)


Linear-elongate, greenish-black; pubescent, delicately punctured: forehead impressed: thorax with the lateral and hinder margins rounded: elytra elongate, flexile, finely punctured: body black: first pair of legs nearly all testaceous, posterior black, with the tibiae alone testaceous: antennae black, with two or three of the basal joints testaceous.

Distinguished from the two preceding species, by having the base of the antennae and the tibiae testaceous.

Common from June to August, in thick hedges, within the metropolitan district. "Glanville’s Wootton."—J. C. Dale, Esq. "Swansea, not unfrequently found among herbage."—L. W. Dillwyn, Esq.

**Sp. 8. linearis.** Plate xix. f. 4.—Filiformi-elongatus, pallide virescens, opacus, punctatissimus, abdomen lineari aeneo-nitido. (Long. corp. 2—2½ lin.)

Very slender, filiform, elongate; opaque, pale greenish; very thickly punctured, and slightly clothed with a pale pubescence: forehead foveolated: thorax elongate, with an obsolete dorsal channel: elytra very long, linear, very obsoletely striated, the apex acuminated, gaping: body beneath glossy-aeneous: legs black; femora tinted with aeneous: antennae black, with the second joint testaceous.

The very slender form of this insect, combined with the dissimilarity in the structure of the antenna, the second joint of which is short, globose; the remainder more or less elongate, obconic, and slightly produced within, with the terminal one larger and fusiform, with the very slightly pubescent, or rather squamous, surface, point out its claim to be distinguished as a genus, as before mentioned:—it has considerable resemblance in external form to Lymexylon navale.

So far as I am aware, the only indigenous examples of this pretty species have been found as below: it is a maritime insect. “Wrabness, Essex.”—The late Rev. R. Sheppard. “Deal, in June, 1829; and Southend, in June, 1830.”—Rev. F. W. Hope.

**Family XXXIX.—TILLIDÆ, Leach.**

*Antenna* subclavate, with the three or four terminal joints, especially the last, incrassated: *head* inflexed, retractile within the thorax to the *eyes*, which last are frequently lunate: *thorax* elongate, subcylindric, or subcordate: *body* elongate, subcylindric: *tarsi* five-jointed, the penultimate joint always bifid.

The insects of this family are in general extremely beautiful, and either reside in rotten wood, or in the nearly dried remains of animals, but their larvæ are for the most part, so far as known, carnivorous: they may be known with facility from the foregoing, by having their antenna more or less incrassated towards the apex, the latter being generally subclavate, the penultimate joint of the *tarsi* bifid, &c.

The subjoined are the genera which have hitherto occurred in Britain:

<table>
<thead>
<tr>
<th>Antenna</th>
<th>Subfiliiformes:</th>
<th>Tarsi</th>
<th>Pulpil maxillares</th>
</tr>
</thead>
<tbody>
<tr>
<td>hand brevissimo</td>
<td>Artus.3 ultimis sensim</td>
<td>Artus. ultimo</td>
<td>labiates codem artus.</td>
</tr>
<tr>
<td></td>
<td>crassioribus</td>
<td></td>
<td>obconico.</td>
</tr>
</tbody>
</table>
Genus CCXLIV.—Tillus, Olivier.

*Antennae* serrate, scarcely longer than the thorax, the second joint short, globose, or ovate, the remainder short, with the terminal one oblong, acuminated. *Palpi* unequal, the *maxillary* filiform, the *labial* securiform: *head* and *thorax* rather narrower than the abdomen, the former rounded: *eyes* sublunate: *thorax* subcylindric, or a little attenuated behind: *body* elongate, subcylindric: *legs* rather short; *tarsi* distinctly five-jointed.

The serrated, subfiliform antennæ, distinctly five-jointed tarsi, elongate, subcylindric body, and filiform maxillary palpi united, are the principal points of distinction between this genus and the others of this family. The larvae feed on decayed wood, and the imago is found in flowers and on trees.

A. With the thorax cylindric.


Villosous: head black: thorax slightly narrowed behind, glossy red, with a narrow black anterior border: elytra deep bluish- or purplish-black, faintly punctate-striate: antennæ and legs black.

It varies much in size, and immature specimens have a pale testaceous spot in the centre of each elytron.

Not uncommon, in some years, in the lane leading from Darenth-green to the wood, in June; also found at Coombe-wood, and near Hertford, and in Hants and Suffolk. "Windsor."—Dr. Leach. "Camberwell."—Rev. Professor Henslow. "Baronwood."—T. C. Heysham, Esq. "Epping."—Mr. Doubleday. "Bessell's Green, Kent."—Mr. Ingpen.


Villosous, black; thorax elongate, narrowed behind, glossy black: elytra deep black, punctate, the punctures disposed in striae: antennæ and legs also black.

This also varies in bulk, and in having a pale rufescent or testaceous spot in the middle of each elytron: this last has been given as a species by Donovan, as above cited.

Not so common as the last, and but rarely found near London: it has occurred in Devonshire and in Suffolk. "Hereford."—Rev.
Professor Henslow. "Sometimes plentiful early in summer, about the borders of Cline-wood, and at Penllergare."—L. W. Dillwyn, Esq.

B. With the thorax subcordate.

Sp. 3. unifasciatus. _Ater, pilosus, elytris fasciis incurvâ pone medium albê, basi rufis._ (Long. corp. 3—3½ lin.)

Pilose, black: elytra punctate-striate, with the base rufous, the apex black, with an incurved white fascia a little behind the middle, frequently abbreviated towards the suture: antennae and legs black.

I once met with three fine specimens of this beautiful insect on some new oak paling, at Hertford, in June; and saw others, but was unable to secure them from their great activity: it has also been taken not unfrequently near Windsor.

**Genus CCXLV.—Opilus, Latreille.**

Antenna? pilose, clavate: the second joint short; the six following elongate; the remainder forming the club, of which the basal joint is elongate obtrigonate, the others shorter; the terminal one being obliquely acuminate. _Palpi_ with the terminal joint large, securiform: head as broad as the thorax, which is conic-cylindric, with the base slightly attenuated: _body_ elongate: _tarsi_ indistinctly five-jointed, the basal joint being minute and concealed above by the apex of the tibiae.

The elongated intermediate joints of the antennæ, which are gradually incrassated from the base to the apex, the securiform terminal joint of all the palpi, and simple eyes, are the principal distinctions of this genus: the larvæ and imago are both found beneath the bark of trees, and occasionally feed upon other insects in the imperfect states.

Sp. 1. mollis. _Elongatus, pubescens, fuscus, elytris fasciis duabus apiceque pallidis, abdomine rufescente._ (Long. corp. 3—5 lin.)

Elongate, pubescent, fuscos: head testaceous in front: thorax with its anterior edge testaceous: elytra with an irregular oblique pale fascia at the base, another transverse angulated distinct one a little behind the middle, and abbreviated towards the suture; and the apex also pale: breast piceous: ab-
MANDIBULATA.—COLEOPTERA.

domen reddish: legs elongate pale testaceous: the femora with a fuscous ring near the apex: antennae pale ferruginous.

The fasciae on the elytra vary much: in one of my specimens they are subdivided into several small patches, and in another the anterior one is prolonged down the suture, and becomes confluent with the inner end of the posterior one.

Found occasionally in the fields to the north of London; and I have captured two or three specimens at Coombe-wood, and several at Darenth, in hedges, in June. "Windsor."—Dr. Leach. "On an old oak, Holloway."—A. Cooper, Esq. "Kew, under the bark of trees."—Rev. T. T. Haverfield.

Sp. 2. fasciatus. Ater, villosus, elytris fasciâ pone medium alba; antennarum basi tibii tarsisque ferrugineis. (Long. corp. 2½—3 lin.)


Fuscous-black, villose: head thickly punctured: thorax deeply punctured, with a finely punctate, rather deep, sulcus down the back: elytra very coarsely punctured, the punctures sub-confluent, with a transverse whitish or pale ochraceous fascia a little behind the middle; legs ferruginous, with the base of the femora black: antennae pale ferruginous at the base, dusky towards the tip.

The fascia on the elytra varies a little in colour and form; in my specimen it is white and straight: and the thorax, which has been described from a drawing, has a deep dorsal punctate sulcus, and is not smooth, down the centre.

Three specimens only have been taken of this pretty insect, of which two were captured in the woods near Winchmore-hill, by Mr. Shillingford.

Genus CCXLVI.—Thanasimus, Latreille.

Antennæ submoniliform, the basal joints subcylindric; the seventh to the tenth turbinate; the terminal one ovate, large, obliquely acuminated; the three last forming a triarticulate club. Palpi, maxillary filiform; labial with the terminal joint clavate, secundiform: head as broad as the thorax, which is subcordate; tarsi distinctly five-jointed.

Thanasimus agrees with Tillus in having the tarsi distinctly five-jointed, but differs in the antennae being distinctly clavate, and not serrated; and from the rest of the family by the former characters, exclusively of other less obvious distinctions. They frequent rotten, or fresh cut, trees.
Sp. 1. formicarius. *Pilosus, rufus, capite pedibusque nigris, elytris nigris basi rufis fasciisque dubius albis.* (Long. corp. 3—4½ lin.)


Pilose; rufous: head black: thorax rufous, with the anterior margin black: elytra rufous at the base, the rest black, with two transverse snowy-white villose fascie, the anterior one slender and flexuous before the middle, the other broad, and more or less angulated anteriorly behind the middle: legs black: tarsi piceous: antennae piceous black, the terminal joint of the latter ferruginous at the tip.

With the thorax beneath and breast black:—this variety appears rare.

Not common: I have taken it at Coombe-wood, in April; and I believe it has been captured in other places in its vicinity, in June: it is said to be partial to trees of the fir kind. “Windsor.”—Dr. Leach. “Southend.”—Rev. F. W. Hope. “Glanville’s Wootton, on the trunk of a Scotch fir.”—J. C. Dale, Esq. “Dublin.”—Rev. J. Bulwer. “Copenhagen-fields.”—Mr. Ingpen.

**Genus CCXLVII.**—*Clerus, Geoffray.*

*Antennae* slender, and submoniliform at the base; the three terminal joints abruptly larger, and forming an obtriangular club, the apical joint of which is very large, rounded and acuminated on the inner edge. *Palpi, maxillary filiform:* labial short, securiform: *eyes* notched: *thorax* conic-cylindric: *tarsi* indistinctly five-jointed, the basal joint being minute, and not visible from above.

The insects of this beautiful genus are distinguished by having the three terminal joints of the antennae incrassated, and the last with an acumination within, by the eyes being notched, the maxillary palpi having the terminal joint obconic, and the labial ones securiform.

The larvæ inhabit the nidi of bees, to which useful insect they are very destructive: the perfect insect is found on flowers.

Sp. 1. apiarius.—*Plate xix. f. 5.—Cyaneus, elytris rubris, fascis tribus carrulescentibus, tertii terminali.* (Long. corp. 4—8 lin.)


Deep blue; slightly pubescent: head and thorax immaculate: elytra red, with three bluish fascie; the first narrowed before the middle, the second broad behind the middle, and the third at the apex: legs bluish-black, with the tarsi rufescent: antennae ferruginous at the base, the apex dusky or black.

The larvæ is of a beautiful red, furnished with six scaly legs and two points at
the extremity of the abdomen: it inhabits the hive of the honey bee, to which it is very destructive, devouring the larva of the bee in the cell in which it is first born; and proceeding from cell to cell, until arrived at maturity, successively destroying its inhabitant: but fortunately the insect is rare in England.

I was present at Coombe-wood, near Dover, in June, when Mr. Stone beat a specimen of this elegant insect out of a hawthorn bush, but which escaped; but a second example was subsequently taken near the same spot and forwarded to him, and which is now in the collection of Mr. Bentley: the insect has also been taken in Norfolk, and near Manchester.

†Sp. 2. alvearius. *Hirtus, cyanus, elytris rufis, maculae communi fasciisque tribus nigris tertii abbreviata.* (Long. corp. 5—8 lin.)

Deep bluish-black, very hairy; head and thorax immaculate: elytra rufous, with a spot at the scutellum, a transverse fascia united thereto at the suture, a little before the middle; a second broader, behind the middle; and a third abbreviated one within the apex, deep bluish-black: legs and antennae blue-black.

Latreille says that this insect is attached to the nidus of Osmia cornuta (Syst. Catal. No. 5053); and that its larva resembles that of the foregoing species, but has a bluish spot on the scutellum.

This insect is also said to have been taken near Manchester, but a most magnificent specimen is in the collection of Mr. Chant, which was "taken near Dorking, in June."—*Mr. Waterhouse.*

**Genus CCXLVIII.—Necrobia, Olivier.**

*Antennæ* moderate, slender at the base, the first joint rather large, clavate; the second subglobose; the third slightly elongated; the five following shorter, subnodose; the remainder forming an oblongonal club, of which the terminal joint is very large and subquadrate, and the two basal ones transverse. *Palpi* unequal, subfiliform; the terminal joint somewhat fusiform: *head* small, rounded: *thorax* subquadrate, a little dilated in the middle, slightly margined.

The genus Necrobia—of which the species, as the name imports, reside in dead bodies, or in decaying or dried animal substances—may be readily known from Corynetes, by the magnitude of the terminal joint of the antennæ, which is about as long, and somewhat broader, than the two preceding united, and nearly quadrate, with the angles rounded; the antennæ are rather shorter, and the
second joint subglobose: the thorax and head are different in form.

Sp. 1. violacea. *Viaceo-cavulca aut caeruleo-viridis, pedibus subconcoloribus, antennis nigris, elytris punctatis; punctis in lineas digestis.* (Long. corp. \(1\frac{3}{4}\)–\(2\frac{1}{4}\) lin.)


Deep violet blue, or blue-green; villose: antennae black: thorax very thickly punctate: elytra rather deeply punctate, the punctures disposed in rows: body beneath obscure deep blue: legs nearly of the same hue.

Colour and size very variable: the broad truncate club of the antennae distinguishes this insect from Corynetes violacea, which it greatly resembles.


Sp. 2. ruficollis. *Capite elytrisque intensiæ caeruleis, thorace, elytrorum basi pedibusque rufis, antennis abdominis nigris.* (Long. corp. 2—\(2\frac{3}{4}\) lin.)


Villose: cyanous: head and thorax deeply punctate; the latter, and base of the elytra, and legs rufous: elytra punctate-striated: abdomen and antennæ black.

Not uncommon in several parts of the metropolitan district, especially in and about London itself; also plentiful at Hertford, Ripley, Dover, &c. "Bristol."—G. Waring, Esq. "Copenhagen-fields."—A. Cooper, Esq. "Epping."—Mr. Doubleday. "In plenty on the walls of the Penitentiary*, Millbank, in August, 1829."—S. Saunders, Esq.

Sp. 3. rufipes. *Cauerulea, antennarum basi pedibusque rufis, elytris subpunctatis.* (Long. corp. \(1\frac{3}{4}\)–\(2\frac{1}{4}\) lin.)


---

* Every entomologist must rejoice at the propensity of this insect to frequent prisons, as they owe the preservation of the life of the celebrated Latreille to the appearance of one of these insects during his incarceration, at the period of the revolutionary troubles in France, thirty years since, as fully detailed by him in his Histoire Naturelle des Crust., &c.
Deep blue; pilose: thorax finely punctured: elytra delicately shagreened: legs totally rufous: antennæ black, with the base rufous.

Rare: a few specimens only having been captured within the metropolitan district, though in certain years it has been rather abundant. "At the bottom of Maiden-lane, Copenhagen-fields, in plenty, October, 1816."—J. E. Gray, Esq. "Epping."—Mr. Doubleday.

Genus CCXLIX.—Corynetes, Paykull?

Antennœ rather long; the basal joint elongate, incrassated, and slightly bent; the second subconic; third and fourth elongate, a little tumid; four following short; the remainder forming a rather slender club, of which the two basal joints are longest, and the terminal one is rounded, and slightly produced within at the apex. Palpi with the terminal joint obconic; head broad, transverse: thorax with the sides emarginated, longer than broad.

Known from Necrobia—with which genus it has been apparently confounded by all continental writers—by having the antennæ elongate, the terminal joint subglobose and shorter than the two preceding, which are broader than it, the second joint subconic, and the third and fourth longer than the four following: the only species chiefly inhabits hedges and flowers, but whether for the purpose of preying upon other insects I am not aware.


Glossy blue or greenish; clothed with a fuscous pile: antennæ black, the base fuscous: thorax slightly punctured: elytra obsoletely punctate-striate: body beneath dark-bluish, or greenish: legs greenish-brown.

Very variable in size and colour.

Extremely abundant in hedges near Ripley, in June, and also at Hertford, at the same time: it likewise is common in houses at the latter place. "Epping."—Mr. Doubleday. "Glanville's Wootton."—J. C. Dale, Esq. "Swansea."—L. W. Dilkeyn, Esq.
Family XL.—PTINIDÆ, Leach.

Antenna sometimes ten-jointed; filiform, elongate, simple or pectinated, occasionally serrated; or short, slightly thickened at the apex, with the three terminal joints suddenly elongated: mandibles short, stout, bifid or bidentate at the tip: palpi short, nearly equal; the terminal joint rather largest: maxillæ bilobed: labium emarginate: head rounded, deeply immersed in the thorax, which is mostly cucullated: abdomen large, convex or gibbous: tarsi mostly short, five-, rarely four-jointed.

The Ptinidæ consist of two apparently distinct groups, one of which has the antennæ filiform, with the tarsi simple and always pentamerous; the other having the three apical joints of the antennæ considerably and suddenly elongated, and slightly incrassated, with the tarsi occasionally tetramerous, and the penultimate joint sometimes bilobed.

The Ptinidæ in many points of habit resemble the Dermestidæ; like those insects they attack and devour, both in their larvæ and imago states, the dried remains of animals or wood: when touched, they also counterfeit death, applying their antennæ and legs closely to the body, and withdrawing their head; and so tenaciously fearful are they, that they defy the utmost attempts to arouse them, the united effects of fire and apparent torture not inducing them to move a limb.

The larvæ, which subsist on dry wood, are white, soft, with the head brown, scaly, and armed with two stout mandibles, with which they tear the wood upon which they feed, reducing it to a fine yellowish powder, with which their canals are filled, and in which they change to pupæ:—those that destroy animal remains resemble closely the larvæ of the lamellicornes; they are yellowish, pilose, and velvety, elongate, cylindric, rugose, and curved posteriorly, so that they have not the power of walking on a flat surface;—they change to pupa towards the end of summer in a cocoon formed of the debris of the materials upon which they had previously subsisted; and the imago appears in the following autumn or spring: the indigenous species are somewhat numerous, and require the following subdivisions into genera.
MANDIBULATA.—COLEOPTERA.


pectinata. Corpus latum, ovatum: 250. Xiletinus.


Antennæ inserta aed the eyes, serrated in both sexes, composed of triangular articulations, the second and third excepted, which are short and subglobose.

Palpi with the terminal joint subsessile: head rather broad; eyes globose: thorax transverse, sinuated behind, and sometimes expanded laterally: elytra sinuated at the sides: body short, ovate: legs rather long.

The short ovate form of the Xiletini, combined with their broad thorax, short, serrated antennæ, and deeply striated elytra, of which the lateral margins are sinuated, sufficiently distinguish them from the Ptilini, with which they agree in their propensities to destroy old wood. The species are rare in Britain.


Dull black, clothed with a fine silken pubescence: head punctulate, with an obsolete elevated frontal line: thorax very convex, a little waved behind, the disc punctured: elytra oblong-ovate, sinuated on the sides, the apex rounded, the disc punctate-striate, the striae disposed in pairs, and the interstices very finely punctured: legs and antennæ pale rufous, the apex of the latter and femora sometimes fuscescent.

Rare: I possess a single example, taken near London in an old post. "Spitchwick, beneath moss."—Dr. Leach. "Cobham, on palings, June, 1839."—A. Cooper, Esq.
Sp. 2. ater. _Niger opacus, holosericeo-pubescent, antennis nigris, tibis tarsisque solum testaceis._ (Long. corp. 1 1/3—2 lin.)

Ph. ater. _Panzer.—Xi. ater._ _Steph. Catal._ 139. No. 1411.

Dull black, with a short silken pubescence; head distinctly punctate, with an evident frontal carina; thorax finely punctured, with the lateral margins expanded; elytra as in the foregoing, punctate-striate, with the interstices punctured, and the lateral margin sinuated; body beneath and femora pitchy; tibiae and tarsi rufo-testaceous; antennæ black.

The only example I ever found of this insect I caught upon some old palings at Hertford, in July, 1826:—it has, I believe, been found in Norfolk.

**Genus CCLI.**—_Ptilinus, Fabricius._

_Antennæ inserted before the eyes; the basal joint elongate, bent: the second short, nodose; the remainder pectinated in the males, serrated in the females; the radii in the males subclavate, and in the females acute. _Palpi_ filiform, with the terminal joint conic-acute: _head_ broad, deflexed; _eyes_ large: _thorax_ subglobose: _body_ elongate, subcylindric: _legs_ slender.

The Ptilini—which differ from the preceding and following genera, by the structure of their antennæ, and the form of the thorax and abdomen—like the Anobia, perforate and destroy old trees and wood, making round deep cylindric holes therein, especially attacking the trunks of old willows.

Sp. 1. pectinicornis. _Nigro-fuscus, antennis pedibusque pallide testaceis, elytris brunneo-testaceis, vix costatis, thorace subgloboso antice integro._ (Long. corp. 1 1/4—2 1/2 lin.)


Opaque, fuscous-black: head punctured; mouth testaceous; thorax very convex, subglobose, somewhat granulated, the anterior margin reflexed, but not emarginated; elytra narrower than the middle of the thorax, very convex, fuscous or pale testaceous, irregularly punctate, the puncte somewhat disposed in striae towards the margins: body beneath piceous: legs pale testaceus, with the femora sometimes dusky at the base; antennæ pale testaceous, with the radii considerably elongated in the males.

Very variable in size and colour: but known from the following by the almost total absence of the costæ on the elytra and the integrity of the anterior margin of the thorax.
MANDIBULATA.—COLEOPTERA.


Sp. 2. costatus. Saturaté niger, antennis tarsisque luteo-ferrugineis, elytris lineis elevatis perspicuis, thorace antice leviter emarginato. (Long. corp. \(1\frac{3}{4}\)–2\(\frac{1}{2}\) lin.)


Deep satiny black: thorax with the anterior margin more or less emarginated in the middle; elytra deep black or castaneous, each with two or three elevated longitudinal lines: femora for the most part and sometimes the tibias pitchy-black: antennæ and tarsi of a rusty-luteous; the radii of the former somewhat clavate and abbreviated in the males.

The emarginate anterior edge of the thorax and subcostated elytra, with the general darker colour, and larger size of the insect, distinguish it from the other species.

Found in willows and poplars; not so common as the foregoing.

Genus CCLII.—Ptinus Auctorum.

Antennæ approximating at the base, elongate, filiform, composed of subcylindric nearly equal articulations, the second alone being abbreviated: Palpi unequal, subfiliform: maxilla unidentate at the origin of the palpi: head small: eyes globose, rather prominent: thorax cucullate, generally coarctate behind: abdomen much broader than the head and thorax, suboval or globose; legs long and slender; femora (especially in the males) clavate.

From Mezium and Gibbium, which have the abdomen ovate and tumid, and broader than the head and thorax, Ptinus may be known by the elytra not being soldered together at the suture, by the dissimilarity in the structure of the antennæ, the second and third joints of which are not stouter than the others, in having a distinct scutellum, &c.:—the species are many of them very destructive to collections of dried plants and insects, upon which their larvæ subsist: the pupa is enclosed in a delicately white silken tissue.

Sp. 1. imperialis. Oblongus, fuscus, thorace postice carinato, elytris levibus maculatá sinuatá-lobatâ, apiceque albis. (Long. corp. 2–2\(\frac{1}{2}\) lin.)
Oblong, fuscous; covered with a whitish down: thorax compressed longitudinally in the middle into an elevated carina, terminating posteriorly in a spine: the down on the elytra is more obscure, and is produced on each side into a white sinuated spot, the union of which on both elytra somewhat resembles the figure of an imperial eagle; the apex is also whitish: legs and antennae ferruginous.

This beautiful species somewhat recedes in habit from the rest of the genus.


Sp. 2. rufipes. Oblongs, nigricans, griseo-pubescent, thorace quadridentato, postice impresso, antennis pedibusque rufis. (Long. corp. 2—2½ lin.)

Oblong, dusky: thorax quadridentate, with a posterior impression: elytra deeply punctate-striate, with the shoulders gibbous, and clothed with a griseous pubescence: antennae and legs rufous; the latter with clavate femora, and the former nearly as long as the body.

Found with the following insect; of which it is probably the male.


Oblong-ovate, rusty-brown; villose: thorax quadridentate: scutellum snowy: elytra punctate-striate, black-brown, with two waved whitish fasciae, and a spot of the same colour at the apex: antennae and legs testaceous.

Perhaps merely the female of the foregoing.


Sp. 4. sexpunctatus. Oblongus, fuscus, pubescens, fronte, scutello, elytron fasciā antiquā abbreviātā, punctisque duobus posticis niveis. (Long. corp. 2—2½ lin.)
Oblong, fuscous, pubescent: forehead white; eyes black; thorax with four
tubercles transversely disposed in pilose fascicles: scutellum niveous; elytra
fuscous-brown, crenate-striate: with a snow-white transverse villose fascia
at the base, not touching the suture, and throwing off a small branch in the
middle anteriorly, and behind the middle are two other villose niveous spots,
which are sometimes united into an abbreviated fascia: legs and antennae
rusty-fuscous; femora slightly clavate.

Larger than Pt. Fur, with the fascie on the elytra of a different form, the pu-
bescence shorter, femora less clavate, &c.

Not common in the neighbourhood of London. "Hyde-park."  
A. Cooper, Esq. "Old houses, Carlisle."—T. C. Heysham, Esq.
"In houses, &c., abundantly in Edinburgh."—Dr. Leach. "Far-
ley, Dorset."—J. C. Dale, Esq.

Sp. 5. Fur. Fusco-ferrugineus pubescens, thorace quadrifasciculato, elytris in-
terrupti; albofasciatis, femoribus elongatis clavatis. (Long. corp. 1\1/2—2 lin.)  

fuscous, clothed with an ashly-down: head ferruginous: eyes black: thorax
with four transverse fascicles: the back channelled: scutellum cinereous:
elytra rather dusky, with two interrupted whitish fascie, one a little bent to-
wards the base, the other near the apex, the disc crenate-striate: legs ferru-
ginous; femora elongate clavate: antennae also ferruginous, elongate in the
males, shorter in the females.

Very variable in size and colour; being more or less ferruginous or testaceous,
and in some instances the elytra are immaculate. Male elongate and more
slender than the female.

Extremely abundant in old houses in London, and throughout
the metropolitan district, and very destructive to neglected collections of insects and plants. "Old houses, Carlisle."—T. C. Hey-

Sp. 6. crenatus. Obscure testaceus pubescens, thorace gibbo-submutico, elytris
crenato-striatis immaculatis. (Long. corp. 1\1/4—1\3/4 lin.)

Dull-testaceous, pubescent: thorax gibbose, obsolesly bituberculated, the base
concrate; elytra crenate-striate, immaculate, clothed with an ashly pubesence:
 antennae and legs ferruginous; the femora subclavate. Male smaller, of a
paler rufo-ferruginous; the thorax shorter, more globose; elytra oblong-
orate, narrower; the femora very slender at the base, and the apex more clav-
ate, and the antennae somewhat longer than in the female.

Found also in old houses in and about the metropolis: at Hert-


Oblong, black or fuscous: thorax gibbous, obsoletely bidentate: elytra striate, undulated with white, or obsoletely clothed with the same: scutellum white: antennae and legs rufous; the femora slightly clavate. The female with the abdomen more tumid, the elytra more distinctly marked, and the antennae shorter.

Not so frequent as the last; found chiefly in hedges, old trees, &c., in various parts throughout the metropolitan district. "Palings, Cobham."—A. Cooper, Esq. "Windsor."—Mr. Waterhouse.

**Genus CCLIII.—Mezium, Leach.**

*Antennae* approximating, subfiliform, robust, squamous; the basal joint slightly clavate, and the two following a little stouter than the remainder, which are subequal, the last being longest and obliquely acuminated: head small: eyes minute: thorax pubescent, longitudinally squamous: scutellum wanting: elytra connate, gibbous, shining, subhyaline: legs rather long; femora clavate.

Mezium differs from Ptinus by having the elytra connate, or united, and extremely smooth and glossy, the antennae squamous, with the second and third joints somewhat incrassated, and the terminal one acuminate: the scutellum wanting, and in other less evident characters: in habit it however resembles the Ptini, subsisting upon dried decaying animal and vegetable substances.


Head and thorax clothed with a whitish down, the latter with two longitudinal elevated ridges down the centre, and the margin thickened: elytra gibbous, very smooth and polished, fusco-testaceus or castaneous: legs and antennae white.

Not very common: found occasionally in old houses in London;
and sometimes in other places within the metropolitan district. "Lincoln's Inn Fields."—Mr. Ingpen. "Has been taken in the neighbourhood of Swansea."—L. W. Dillwyn, Esq.

**Genus CCLIV.—**Gibbium, Kugellan.

*Antennae* approximating, subsetaceous, the articulations cylindric; the second, third, and fourth rather thickened; the terminal joint slightly elongate and obtusely acuminated at the apex: *head* deeply inserted in the *thorax*, which is short, transverse, smooth, produced in the middle behind, in place of the *scutellum*, which is wanting: *eyes* minute: *body* ovate, gibbous, compressed laterally: *elytra* connate, glossy, smooth: *legs* elongate: *femora* suddenly clavate at the apex.

Gibbium may be readily known from Mezium, which it resembles in having the *elytra* connate, glabrous, and shining, by the short, smooth *thorax*, the incassation of the second, third, and fourth joints of the *antennae*, the obtusely acuminated terminal joint, and the compressed form of body.


Shining castaneous, impunctate: with the *antennae* and *legs* pubescent.

Rare in the south, but apparently not very uncommon in the north of England. "Bristol."—Mr. Millard. "Newcastle-on-Tyne."—G. Wailes, Esq.

**Genus CCLV.—**Dorcatoma, Herbst.

*Antennae* with the basal joint robust, somewhat elongated and bent; the second small, nodose, or slightly produced within: the six following extremely minute and slender; the remainder very large, compressed, triangular, the two basal ones more or less produced within. *Palpi* four, unequal, securiform; *head* short, transverse: *thorax* transverse, sinuated or rounded behind; *elytra* striated laterally, punctate on the back: *legs* short, simple; *tarsi* very short.

The singularly constructed *antennae* of Dorcatoma sufficiently distinguish this genus from the rest of the family, the first joint thereof being incassated, the second small, but still comparatively
robust, the six following extremely minute, and the three terminal ones composing nearly half the entire length, stout, and in some cases produced internally into slight rays.


Oval, convex, black: thorax very convex, truncate anteriorly, with the deflexed angles much produced, the sides nearly straight, the posterior margins sinuate-rounded, with the angles obtuse: elytra finely punctured, with the apex rounded; the lateral margin of each with two parallel deeply punctate striae: legs and antennae rufo-ferruginous: eyes entire.

Very rare: it has been found in Suffolk, and near London. "Taken in a window, by Mr. Kirby."—Marsham MSS. "Cobham, 19th August, 1830."—A. Cooper, Esq.


Subglobose, black, punctulate: thorax very convex, truncate and narrowed anteriorly, broad behind, the posterior margin sinuated: elytra broader at the base than the thorax, dilated laterally, the sides with two nearly entire striae, and a third about half the length at the base: legs and antennae pitchy-fuscos: eyes divided by a deep sulcus nearly into two parts.

Also very rare: I have hitherto seen but three specimens: one of which was found near London, the others near "Windsor and Spitchweek."—Dr. Leach.

Sp. 3. rubens. Globosa, ferruginea, thorace postice rotundato, elytris marginis tristriatis, oculis integris. (Long. corp. 1¾ lin.)

Do. rubens. Ent. Hefte, ii. 103. pl. 3. f. 12.

Globose, ferruginous: thorax very short, rounded behind, the posterior angles obliterated, the disc slightly dusky: elytra broad, punctured, the lateral margin with three entire longitudinal striae; the humeral callus rather prominent: antennae rather short, pale testaceous: legs ferruginous: eyes entire.

My own example of this singular insect—which recedes from the type of the genus—the only one which I have seen, was found about five years since "in an old tree, Regent's Park."—Mr. Lamley.
Genus CCLVI.—Anobium, Fabricius.

Antennae subfiliform, distant at the base, with the three terminal joints a little incrassated and suddenly elongated, the two basal of which are somewhat obconic, and the apical one oval. Palpi clavate: head short, retractile: thorax short, gibbous, the sides margined: scutellum short, rounded: body ovate-cylindric, rounded anteriorly and posteriorly: elytra embracing the abdomen: legs simple; tarsi composed of short articulations.

The Anobia may be known by their cylindric form and subfiliform antennae, the three terminal joints of which are suddenly very much longer and stouter than the foregoing; in which point they somewhat agree with Choragus and Cis, but their tarsi, although short, are evidently pentamerous.

Their larvae are very destructive to furniture, particularly to such articles as are made of soft wood, perforating and riddling it in all directions, forming little round deep holes: they are white, soft, elongate, with six short legs; the head is scaly and terminated by two very powerful mandibles, by which they reduce the wood to an almost impalpable powder, within which they change to pupae, in a soft silken cocoon:—some however attack hard bread or biscuit, or the dried remains of animals, as skins and insects in collections.

Some of the species, when in search of a mate, are remarkable for the singular noise they make, which distantly resembles the faint ticking of a watch—thence called "death watches," and the origin of many superstitious notions.

A. With the elytra striated.


Fuscous, inclining to castaneous, pubescent: eyes black, thorax rugose-punctate, with a transverse impression within the anterior margin, the disc rather densely pubescent: elytra rather more castaneous than the head and thorax, deeply crenate-striate, with the interstices slightly elevated and finely punctulated; antennae and legs ferruginous; the latter fuscous.

Extremely variable in size, and slightly so in colour.

Not very common, in whitethorn hedges, within the metropolitan

Sp. 2. *rufipes*. *Elongatum, subglabrum, nigrum, obscurum; thorace canaliculato postici rotundato, gibbo, antennis pedibusque rufis.* (Long. corp. $1\frac{1}{2} - 2\frac{1}{4}$ lin.)


Elongate, nearly glabrous, dull black; head granulated: mouth rufescent: thorax truncate anteriorly and subemarginate in the middle, the disc very convex, with a more or less distinct longitudinal dorsal line, and the base on each side with a somewhat bilobed impressed fovea: elytra elongate, linear, slightly pubescent, punctate-striate, with the interstices convex and finely granulated: legs rufo-ferruginous: antennae rufous.

Variable in size and colour: in some examples the suture and margins of the elytra are rufo-piceous, and others are almost totally of a ferruginous or castaneous hue:—probably immature.

Abundant in hedges throughout the metropolitan district: also found at Dover, Hastings, &c. "In the garden at the Willows (near Swansea)."—L. W. Dillwyn, Esq.

Sp. 3. *pertinax*. *Nigro-fuscum, obscurum, thorace rugis elevatis, basi utrinque macula ochracea, elytris striatis, striis punctatis.* (Long. corp. $2\frac{1}{4}$ lin.)


Dusky-black, obscure: thorax fuscous, very pubescent and convex, with an elevated carina posteriorly, giving off two branches in front, and a third in the middle behind, within each of the lateral margins an impression, and a larger one at the posterior angles; this last is densely clothed with an ochreous pile: elytra deeply punctate-striate; the interstices smooth and flat: femora pitchy-fuscous; tibiae and tarsi pale ferruginous.

The rugose thorax, with the distinct ochaceous patch of down at the posterior angles, and the deep hue of the insect sufficiently distinguish it from *An. striatum*.

Apparently rare: the only indigenous example of the true species that I have seen being my own specimen, which I obtained from the Marshamian cabinet, without a name. "Swansea."—L. W. Dillwyn, Esq.

Sp. 4. *denticolle*. *Fusco-ferruginaceum, pubescens, thorace obsolètè canaliculato, utrinque foveis duabus profundis impresso, angulis posticis in dentem acutum productis.* (Long. corp. $2\frac{1}{4}$ lin.)


Dusky-ferruginous, slightly pubescent: thorax broad anteriorly, its lateral margins depressed, and terminating posteriorly in an acute denticulation; the
disc obsoletely channelled, with a large somewhat deep fovea on each side at the base, and another towards the articular angle: elytra opaque, slightly punctate-striate: femora dusky: tibiae and tarsi ferruginous.

Allied to the foregoing, but at once known by the acute tooth at the posterior angles of the thorax, its dark colour, &c.

A single specimen in my collection, caught near London, in June.

Sp. 5. striatum. Fusco-piceum, pubescens, convexum, thorace canaliculato, postici compresso, carinâ elevâtâ trigoni. (Long. corp. 1¾—2 lin.)

Pitchy-brown, convex, pubescent; the pubescence griseous: thorax compressed behind, with an elevated triangular carina, and a longitudinal dorsal channel; on each side of the hinder margin are two foveæ, one shallow towards the carina, and the other near the margin and deep; elytra striate, the striae formed of small distinct punctures, the interstices flat and finely shagreened: antennæ and legs ferruginous: slightly variable in colour.

Extremely abundant in old houses in London and its vicinity; also frequent in other parts. "Not uncommon (near Swansea)."
—L. W. Dillwyn, Esq.

Sp. 6. nitidum. Nigro-piceum, subpubescens, antennis pedibusque testaceis, thoracis disco posteriûs triangulariter elevato, foveis includentibus profundi impressis arcuatis. (Long. corp. 1¾—1½ lin.)

Piceous-black, slightly pubescent: thorax with the disc behind elevated triangularly, in which are two deep arcuated foveæ: antennæ and legs pale testaceous, the latter with the femora sometimes dusky. Variable in colour, sometimes rufo-ferruginous.
Less pubescent, with the foveæ on the thorax deeper and curved, the antennæ and legs testaceous, &c., darker than An. striatum, to which it is very closely allied.

Less common than the last; found in the metropolitan district.


Ovate, ferruginous; slightly pubescent; eyes black: thorax convex, equal, finely punctured, with a narrow fovea on each side of the posterior margin; elytra convex, rounded at the apex, clothed with an evident pubescence, delicately striated, the striae composed of minute punctures, the interstices flat and finely rugulose: antennæ and legs rufo-ferruginous.
Larvae white, curved; it feeds upon farinaceous substances, and is particularly attached to old bread and wafers, the latter of which it fastens together in masses of three or four, within which it undergoes its metamorphosis, the insect appearing in plenty in June:—it will also attack neglected collections of insects.

Very common throughout the metropolitan district.

B. Elytra with scattered punctures, not striated.


Ferruginous-brown, scabrous: thorax and elytra punctulate, tessellated with a flavescent down, the former convex, scarcely foveolated, its anterior margin considerably elevated over the head: antennae dusky-ferruginous, slightly serrated: legs fusco-piceous.


Sp. 9. molle. *Oblongum, testaceum pubescens, thorace postice rotundato marginato, antennis mediocribus articulis ultimis filiformibus.* (Long. corp. 1 3—2 lin.)


Oblong, testaceous, pubescent: eyes brown-black: thorax short, rounded behind and margined; the sides deflexed and rounded: the disc moderately convex, thickly punctured; elytra linear-elongate, finely and thickly punctured, dull testaceous; the apex rounded and somewhat glossy: legs and antennae ferruginous: the latter rather elongate, with the three terminal joints, especially in the males, filiform and slender. Slightly variable in colour.


Sp. 10. Abietis. *Oblongo-ovatum, fusco-testaceum, pubescens, thorace postice truncato, lateribus depresse, antennis mediocribus.* (Long. corp. 2 lin.)


Oblong-ovate, fusco-testaceous, pubescent: eyes dusky-black: thorax short,
truncate posteriorly, its lateral edges broadly expanded and densely pubescent; elytra linear-elongate, pale-reddish; breast obscure brown; legs pale rufotestaceous; antennae rather short, ferruginous, the three basal joints determinately incrassated.

Differs from the foregoing in having the thorax distinctly truncate behind, the antennae shorter with the three terminal joints manifestly incrassated, and by its more ovate form.

Also rare; and found in pine woods. "Scotland, by Mr. Wilson." Dr. Leach. "Penllergare, not common."—L. W. Dillwyn, Esq.

†Sp. 11. erythropum. *Nigro-piceum subnitidum, pubescens, antennis pedibus oculisque ferrugineis.* (Long. corp. 2 lin.)


Pitchy-black, slightly shining and pubescent: the antennae, legs, and eyes ferruginous.

The only example I have seen of this insect was taken in "Rivelstone-wood, by R. Rawlins, Esq."—Dr. Leach.

**Genus CCLVII.—Ochina, Zeigler.**

Antennae long, the basal joint robust; the second smaller, subglobose; the two following slender, obconic; the fifth to the tenth subequal, conic-triangular, produced within and forming a serrated edge; the terminal joint elongate-ovate, acuminate. Palpi short; maxillary with the apical joint obtuse: head small, nutant: thorax transverse, narrowed anteriorly, and somewhat produced in front: elytra convex, the lateral margin not sinuated: body oblong-ovate, moderately convex: femora slightly incrassated: tibia simple, pilose; tarsi five-jointed.

This singular genus, which is obviously very distinct from Anobium, may be readily known from the insects of that genus by the antennae being serrated, and by having the terminal joint alone of the antennae elongate: the thorax is not convex, or produced in front, as in them, and the elytra are rather densely clothed with pile.

Sp. 1. ptinoides. *Pubescens, castanea, elytris lavibus fasciis duas undatis cinereis, antennis pedibusque rufo-testaceis.* (Long. corp. 1\(\frac{1}{4}\)—1\(\frac{3}{4}\) lin.)


Castaneous, pubescent: elytra smooth, castaneous, with two somewhat waved fasciae, composed of cinereous down: abdomen castaneous-brown, clothed with
a cinereous pubescence: antennae and legs rufous or rufo-castaneous: eyes black.

Abundant in old hedges near Ripley in June: it frequents trees that are deeply enveloped in ivy, upon which it feeds in the larva state: also found in the lane near Coombe-wood. "On a crab-tree clothed with ivy, near Cobham, June, 1830."—A. Cooper, Esq.—who conceives that Cleonymus dispar is parasitic upon the larva of this insect.

**Genus CCLVIII.**—**Choragus, Kirby.**

Antennae with the two basal joints incrassate; the third short, obconic; the fourth subelongate, cylindric; the four following obconic; the three terminal ones suddenly longer; the ninth and tenth being obconic, and the last nearly ovate; the three forming a loose club. Palpi subsetaceous, the terminal joint acute, and nearly subulated: mandibles acute: head inflexed: clypeus elongate: thorax convex: scutellum minute: body cylindric.

Choragus is evidently allied to Cis, from which it differs not only by having the two basal joints of the antennae incrassated, but by the form of the body, which resembles that of a Cryptocephalus, the subsetaceous palpi, acute mandibles, &c., and by the property the living insect possesses of leaping considerably.


Pitchy-brown, clothed with an obscure pubescence: head subtriangular, punctated: eyes black: thorax conic globose, very much punctured, each puncture, beneath a powerful lens, with a central eminence: elytra punctate-striate: tibiae rufous: tarsi also rufous, with the intermediate articulations broader than the rest.

Taken in Suffolk by the late Rev. R. Sheppard; also near Ripley, in July, 1827, by myself; but the specimen was unfortunately lost.

†Sp. 2. niger. *Ater, punctulatus, elytris striatis, antennis pedibusque fusco-piceis.* (Long. corp. 3 4 lin.)


**Mandibulata. Vol. III. 31st Dec. 1830.**
MANDIBULATA.—COLEOPTERA.

Black, slightly pubescent; punctured: elytra punctate-striate: the antennae and legs pitchy-brown.

Also found in Suffolk: it may be only a more mature state of the foregoing insect.

Genus CCLIX.—Cis, Latreille.

Antennae inserted at the base of the mandibles, the basal joint large, robust, ovate; the second smaller, ovate; third slender, obconic; the four following very short, coarctate, truncate; the remaining three large, forming a sub-perfoliate elongate club, of which the two basal joints are truncate, and the terminal one ovate. Palpi unequal, maxillary thickened externally, with the terminal joint subovate; labial small, subulated, with the apical joint slender, conic: mandibles exserted, apex bidentate: head transverse; sometimes tuberculated in front in the males; eyes prominent: thorax transverse, margined; the anterior edge generally produced over the head: body ovate, convex above: tarsi tetramerous.

Cis, which from its tetramerous tarsi is placed by Latreille at a remote distance from Ptinus, appears both in habit and structure to approximate closely to the genus last mentioned, or rather to the family of which it forms the type: like Anobium and Choragus the three terminal joints of the antennae are suddenly elongate and incrassated, but from the former genus it may be known by its tetramerous tarsi, and from the latter by its more cylindric form, the different structure of the antennae, &c.:—the species feed upon Boleti.


Dusky-brown or castaneous, somewhat pubescent, and a little glossy, thickly punctured: the thorax unequal, reflexed anteriorly, with the sides broadly margined, and obtusely angulated posteriorly; elytra somewhat irregularly rugulose-punctate: antennae and legs rufescent, or testaceous. Variable in colour, arising from its state of maturity, being more or less pale brown or testaceous, sometimes nearly ochreous.

Ferruginous; pilose: elytra punctate; the abdomen beneath rufo-fuscous; the breast and legs rufous.

Half the size of the foregoing; and differs not only in its colour, but the elytra are not rugulose.

Taken within the metropolitan district. "Swansea."—L. W. Dillwyn, Esq.

Testaceous-yellow; subglabrous: eyes black: thorax convex, unequal: elytra smooth: antennæ and legs pale testaceous.

From the Marshamian cabinet.

Pitchy-brown; clothed with a dense shining short pubescence: thorax equal, sinuated anteriorly, with the sides narrowly margined: elytra obsoletely, but irregularly, punctate-subrugose: legs and base of the antennæ testaceous.

Variable in colour; being found of a pale brown or ferruginous.

Not common throughout the metropolitan district.

Pitchy-brown; clothed with a short rigid pubescence: thorax equal, sinuated anteriorly, with the sides narrowly margined: elytra obsoletely punctate-striate: legs and antennæ totally testaceous.

It varies like its congeners: sometimes the head and thorax alone, at others the entire body, are ferruginous or testaceous.

Found near London, and in Devonshire.
Red-brown: the head and anterior edge of the thorax rufous; the latter with the disc very convex, and black behind; elytra clothed with short flavescent hairs, irregularly punctured: body beneath and femora pitchy-black; tibiae, tarsi, and antennae rufous.

My specimens were obtained from the collection of Mr. Marsham.

Sp. 7. *pygmaeus.*  *Fusco-testaceus, thorace valde convexo, antice truncato, elytris piceis subtiliter vagâ punctulatis.* (Long. corp. 1 lin.)

Testaceous-brown; elongate, subglabrous: thorax very convex, equal, truncate anteriorly, with the sides slightly margined: elytra piceous, thickly and very finely, though irregularly, punctulated: antennae and legs entirely testaceous.

Also from the Marshamian cabinet; “found near Reading.” — *Marsham, i. 86.*


lack: narrow, slightly glossy and a little villose: thorax equal, punctate: elytra obsoletely punctate: legs black, with the tarsi rufous; antennae rufous at the base, with the capitulum black.

Of this species I likewise obtained a single example from the Marshamian collection.


Found in Boleti near London; not common.

Sp. 10. *ruficornis.*  *Niger, pilosus, thorace aquali marginato, antennis pedibusque rufis.* (Long. corp. 1 lin.)

Black, pilose; the pubescence of a rufous hue: thorax obliquely truncate anteriorly, and slightly margined: elytra punctate: mouth, antennae, and legs rufo-testaceous.
PTINIDÆ.—CIS. 347

Taken near London, in June; apparently rather scarce.


Piceous, shining, glabrous: thorax equal, punctate, somewhat sinuated anteriorly, with the sides and posterior edge slightly margined: elytra not broader than the thorax, very convex, glabrous, rather coarsely and irregularly punctate: legs and antennæ pale ferruginous or testaceous. Sometimes of a pale ferruginous, with the elytra darker; or castaneous, or rufo-ferruginous, or pale testaceous, evidently arising from its state of maturity.

Very abundant in Boleti, on old trees in June, throughout the metropolitan district.


Short, convex, rufo-piceous, clothed with a whitish down: the thorax above very convex, the anterior margin bisinuated, the disc finely punctured: elytra coarsely but irregularly punctured, the apex rather testaceous: legs entirely rufo-testaceous: antennæ pale, with the capitulum rather obscure. Male with the head bituberculat.

Rather scarce: I have taken the insect in Suffolk in September, and near Ripley in July, 1827.


Pitchy-black, slightly shining, and nearly glabrous, very convex: thorax deeply bisinuated anteriorly, the middle lobe prominent, and forming two hornlike processes in the male, the disc finely punctate: elytra as broad as the thorax, with the shoulders rounded, the disc thickly and finely punctured: antennæ and legs pale rufo-testaceous. Male with two erect acuminated spines on the head. Variable in colour, like the rest of the genus.

Found gregariously in Boleti, during the months of June and July, in the vicinity of London, but rather local: I have found it
at Coombe and Darenth woods, and in Epping-forest. "Oakhampton, in Somersetshire."—Dr. Leach. "Swansea."—L. W. Dillwyn, Esq.

Family XLI.—BOSTRICHIÆ, Leach.

Antennæ with from six to eleven distinct articulations; the basal one generally elongate, and the terminal ones more or less incrassated, and forming a solid or perfoliated club. Palpi generally short, mostly conic, rarely filiform: head globose, sometimes produced anteriorly into a sort of rostrum; deeply inserted in the thorax, which is generally large, and frequently muricated: body mostly cylindric; sometimes truncate behind: tibia generally compressed, and frequently denticulated exteriorly; tarsi mostly tetramerous, the third joint sometimes bifid, in the pentamerous genera the fourth joint minute.

The Bostrichidae—which may be instantly recognised from all the preceding insects of this group by their distinctly clavate antennæ, with the tendency of the head to become rostriform in front, and of the tarsi to be quadriarticulate—both in their larva and perfect states are exceedingly injurious to mankind from the havoc many of them commit on forest trees, the larva making divers tortuous and labyrinthiform paths between the bark and wood, and in some cases perforating the solid wood itself, to the total destruction of the trees: of their ravages an interesting account is given in the eleventh volume of Latreille’s Histoire Naturelle des Crustaces, &c.; by which, amongst other facts, which my limits compel me to omit, we learn that the females deposit from sixty to eighty eggs, and that as many as 80,000 larvae have been calculated to inhabit a single tree: the females (at least of some of the species) appear to perforate the trees, and deposit their eggs as they proceed; and each larva, when born, proceeds nearly at a right angle to make a distinct perforation, the series when completed not unaptly having been compared to the apical portion of a broadly webbed feather, the excavation formed by each larva gradually diverging, so that as the animal increases in bulk, more space is acquired for it to proceed in without interfering with its neighbours:—the following are the indigenous genera:
Antennae inserted close to the anterior margin of the eyes; basal joint robust; second short, subclavate; third subcylindric; four following subtransverse;

Genus CCLXI.—Bostrichus, Geoffroy.

Antennae short, slender at the base, the club composed of three transverse sublaminated articulations. Palpi filiform, with the terminal joint elongate: thorax gibbous, cucullated: body short, villose, stout: elytra retuse, spinose: legs short: tibia simple: tarsi slender, simple.

The transverse sublaminated capitulum of the antennae, retuse spinous elytra, and villose body, appear to be the chief external distinctions of this genus.

† Sp. 1. bispinosum. Nigrum, villosum, thorace muricato, elytris rufo-fuscis posticé retusiis dentatis. (Long. corp. 3½ lin.)
Bo. bispinosus. Olivier, iv. 77. pl. 4. f. 1.—Si. muricatum. Fabricius, E. ii. 377.

Villose, black; thorax gibbous, muricated: elytra red-brown, or castaneous, retuse posteriorly and dentate, the dentations irregular.

This insect having been incidentally (but improperly) noticed as a British species from confusion in the synonymy, is here inserted for the sole purpose of stating that it has no pretensions to such a claim, as from the mere circumstance of its omission a negative rather than a positive inference as to its native origin could be drawn.
eighth and ninth very large, obtrigionate, produced interiorly; tenth ovate-truncate, subcompressed. Palpi subfiliform, the apical joint slightly fusiform: head small, deflexed: eyes small, globose: thorax globose, muricated: body elongate-cylindric: elytra rounded at the apex: legs slender; tibia simple; tarsi simple, the third joint small.

I have reverted to the original appellation bestowed upon this genus by Geoffroy, as pursued by Latreille in his “Considerations, &c.” the rule of priority being my maxim:—the present genus may be known from Sinoxylon and Apate by the antennæ, differing from the former by having the terminal joints not transverse nor laminated, and from the latter by the second joint being short and subelavate, not elongate and subcylindric: other characters might be pointed out, but the above are sufficient to discriminate the genus.

† Sp. 1. capucinus. Niger, opacus, subpubescens, elytris vagè reticulato punctatis, abdomenque rufis, thorace antice subemarginato, tuberculato muricato. (Long. corp. 5 in.)


Black, opaque, slightly pubescent: thorax short, rugulose-punctate, the anterior margin impressed in the middle, and furnished at the sides with muricated tubercles: elytra irregularly reticulate-punctate, entirely of a light red or rufous, immaculate: breast and base of the abdomen black, the rest of the abdomen red: legs pitchy-black, with the tarsi red: antennæ piceous.

Rare: three specimens only, I believe, have hitherto been found in England; the first taken many years since in London, a second in Derbyshire, and the third on the coast of Norfolk, near Cromer.

Genus CCLXII.—Apate, Fabricius.

Antennæ short, inserted close to the eyes in front; the basal joint elongate, curved, robust; second more slender, elongate-cylindric; five following transverse, slender, subcoarctate, gradually incrassated; the remainder forming an elongate somewhat perfoliated club, of which the two basal joints are more or less conic, produced within, and the terminal one subovate, or elongate-ovate. Palpi rather long, the terminal joint elongate, subacuminate; mandibles exserted: head nutant, pilose anteriorly: thorax very large, subquadrate, gibbous, retuse in front, and muricated: body elongate-cylindric: elytra linear, retuse posteriorly: legs short; tibiae slightly denticulate exteriorly, the anterior with a spine at the apex: tarsi simple.

From Bostrichus, the elongate-cylindric second joint of the an-
tenæ, as well as the retuse, more or less dentate or eroded posterior portion of the elytra, subquadrate thorax, the denticulated tibiae, &c. distinguish this genus. A. muricatum being the typical species of the genus Apate, as originally established by Fabricius in his Systema Entomologiae, it becomes necessary to employ his name for the present genus.

Sp. 2. sinuata. Plate xix. f. 6.—Nigro-picea, thorace muricato, elytris fuscis posticè retusis dentatis. (Long. corp. 3 lin.)


Pitchy-black: head very pilose: thorax anteriorly gibbous, with elevated mucrurate tubercles, the hinder portion very smooth, slightly depressed on each side at the base: elytra irregularly and coarsely punctate, retuse behind, with one small and two large tubercles on the disc of each, and the inner angle of the suture behind slightly tubercular: legs piceo-testaceous: antennæ rusty-ochraceous.

The only specimen I have seen of this insect was taken beneath the bark of a tree in Epping-forest, and is in my collection.

Sp. 1. muricata. Nigra, elytris reticulatis, posticè retusis dentatis, thorace muricato gibbo. (Long. corp. 8 lin.)


—De. muricatus. Linne. ii. 562.??

Deep shining black: mouth with a dense fulvous pile: thorax somewhat opaque, gibbous, retuse in front, the sides mucrurate anteriorly, with several hooked teeth: elytra deeply reticulated, each with three obscure lines, becoming elevated posteriorly, and forming dentations towards the apex: abdomen clothed with a fulvous pile: club of the antennæ ferruginous.

I possess a specimen of this insect—which at first sight resembles a large Sinodendron cylindricum—taken about ten years since, at the foot of a poplar, in the Isle of Dogs:—it is decidedly an imported species, being a native of the West Indies and South America, and subsisting, as Pallas informs us, upon the sugar-cane. Had Mr. Curtis taken the pains to examine the descriptions of Linneæus, Fabricius, &c. both of Apate and Sinodendron, he would scarcely have given the confused account he has of the localities of this insect and Sinoxylon bispinosum, which he has rendered still more inaccurate by copying De Jean’s reference to Olivier, as synonymous with the insect last mentioned:—the Linnean insect can scarcely be the same as he says, the size of Dermestes (Ne—
crobia) violacea.
Genus CCLXIII.—Dinoderus* mihi.

Antennæ inserted in front close to the eyes: the basal joint short, robust; the second subglobose; the five following minute, nodose, subcoarctate; the remainder forming an elongate perfoliated club, of which the two basal joints are conic-trigonate, slightly produced within, and the terminal one subglobose, compressed. Palpi short, terminal joint minute, conic: mandibles exserted, acute: head short, transverse, with the neck thick: eyes globose: thorax short, rounded, very gibbous, and rugose in front: elytra retuse posteriorly: body elongate, cylindric: tibiae compressed, denticulated externally; tarsi short, simple.

Compared with the insects of the foregoing genera, the insects included in this are pygmies, but they agree in having the three terminal joints of the antennæ distinct, the thorax muricated, &c.; as they not only differ in the relative proportions of the respective articulations of the antennæ, but in the structure of the palpi, their exserted mandibles, compressed denticulated tarsi, &c.


Apate substriata.—Paykul, F. iii. 142.?

Pitchy-black, opaque, slightly pubescent: head rugose-punctate, with a transverse impression between the antennæ; mouth ciliated with fulvous: thorax in front very globose and thickly tuberculated, the tubercles slightly acuminated and largest anteriorly: elytra inclining to castaneous, deeply and coarsely punctate, the punctures irregularly and closely placed, but rarely dis-

†Sp. 2. ocellaris. Nigro-piceus, subnitratus, antennis pedibusque piceis, elytris punctatis, punctis ocellatis in striis digestis. (Long. corp. 1½ lin.)

Di.? ocellaris mihi.

Pitchy-black, slightly glossy; thorax tuberculate in front, punctate posteriorly: elytra rather deeply punctate, the punctures disposed in striae, distinctly ocellated, and largest posteriorly: antennæ and legs piceous.

I have little doubt of this insect being congeneric with the foregoing, but the antennæ are broken.

Taken at "Little Chelsea in July last."—Mr. Westwood. It is probably exotic, having been found in a cup of coffee.

* Διον, magnus; μηχ, collum.
posed in striae: legs rufo-piceous, tibiae and tarsi paler; club of the antennæ rufescent.

This singular insect agrees with the Apate substriata of Paykul, excepting in not having the puncta on the elytra disposed in striae, and in being less pubescent.

I have a pair of this species from the New-forest.

Genus CCLXIV.—Trypodendron * mihi.

Antennæ rather slender; the basal joint very long, slightly bent, clavate; the second robust, obconic; the third to the eighth very short, coarctate; the remainder forming an ovate compressed, triarticulate, obliquely acuminated club. Palpi very short: mandibles acute, dentate: head small, deflexed: eyes sublunate: thorax very large, gibbous, wide anteriorly: body short, subcylindric: tibiae expanded at the apex and denticulated: tarsi very long, slender, simple, pentamerous.

The solid capitulum of the antennæ distinguishes this from the preceding genera, as does its acute termination from the following, excepting Hylesinus, from which it differs in having the tarsi simple:—the species are exceedingly destructive to trees, perforating deeply into the solid wood, but fortunately they are rare in Britain.


Pitchy-black, clothed with a long griseous pubescence: thorax large, suborbiculate, very convex in the female, anteriorly tuberculate: elytra brunneous, distinctly punctate-striate, the disc convex, sloping from the middle to the apex: femora piceous, with the apex testaceous: tibiae and tarsi of the latter colour: antennae pale testaceous. Female much larger than the male, with the thorax subglobose, the legs comparatively shorter, and the antennæ more slender.

My specimens of this insect I obtained from Mr. Bydder, who found them in the New-forest, near Lyndhurst.


Cylindric, black, nearly glabrous, punctulated: thorax very convex, tuberculate anteriorly: elytra narrower than the thorax, livid, or pale griseous, shining glabrous, obsoletely punctate-striate, the suture and lateral margins broadly fuscous-black: legs black: tarsi, and sometimes the tibiae at the apex, ferruginous: antennae dusky at the base, the club testaceous.

I have one example from the Marshamian collection, and a pair found in the New-forest: said to be partial to the alder.

**Genus CCLXVI.—Platypus, Herbst.**

*Antennae* composed of six joints, of which the terminal one forms a solid ovate, considerably compressed club: the three preceding joints are transverse, the second short, incrassated: the basal one elongate, robust, and curved. *Pulpi* short: *mandibles* exserted, acute: *head* globose, anteriorly flat: *eyes* ovate, entire: *thorax* elongate, cylindric, with a lateral excavation to receive the anterior femora: *body* cylindro-linear: *elytra* truncate: *legs* long, compressed: posterior pair remote: *tibia* short, anterior deeply striated transversely without: *tarsi* pentamerous, longer than the femora and tibiae united, very slender, the basal joint very long.

The singularly constructed six-jointed antennae, of which the last articulation forms a solid capitulum, exserted mandibles, excised thorax, remote posterior legs, striated short anterior tibiae, and elongated, slender, simple tarsi, form some of the leading characteristics of this singular genus.

**Genus CCLXV.—Rhyzopertha* mihi.**

*Antennae* with the capitulum triarticulate, the articulations sublamine: *head* small, deeply inserted in the thorax, the latter very convex, scabrous in front: *body* cylindric: *elytra* elongate, entire: *tibia* serrated.


Piceo-ferruginous: the thorax convex, scabrous in front: elytra glabrous, shining, punctate-striate: antennae ferruginous. Frequently taken by Marsham in roots and seeds from India; consequently it is not an indigenous species.

* &ζ, radix; τεφεω, perdo.


Brownish-black, slightly villose: head anteriorly punctured and finely rugose: thorax slightly punctulate, the back smooth, with an impressed line behind: elytra punctured, deeply striated, the interstices elevated: the apex retuse, dentate: antennæ and legs castaneous.

This singular insect was also discovered to inhabit Britain by that industrious collector, Mr. Bydder, who found it in some plenty in the New-forest: it has also, I believe, been found near Windsor; but it appears to be local.

Genus CCLXVII.—Tomicus, Latreille.

Antennæ with the club commencing at the seventh joint; the basal joint robust, elongate, clavate; the second stout, short, obconic; third small, slender at the base; the three following very short, coarctate; the remainder forming a compressed, suborbiculate, transversely annulated club, of which the basal joint is largest. *Polpi* very short, the terminal joint ovate: *mandibles* triangular, acute, dentate within: head much deflexed: *thorax* very large, gibbous, much broader than the head in front: *body* cylindric: *tibia* broad at the apex, and serrated; *tarsi* with entire joints.

The genus Tomicus is principally to be distinguished by having a transversely annulated orbiculate club to the antennæ, the tarsi simple, and the body in general cylindric: it, however, contains insects of dissimilar form; I have, therefore, been obliged to divide it into sections.

A. With the elytra entire behind, rounded.

a. The thorax narrowed anteriorly.


Fusco-piceous, pubescent, somewhat rugose: elytra obsoletely striated; antennæ and legs pale testaceous; the capitulum of the former subacuminat. Slightly variable in colour; the To. affinis of my Catalogue being a pale (probably immature) variety.

This insect ill associates with the present genus. Rare; but has been captured near London.
b. The thorax anteriorly broader than the head.

Sp. 2. villosus. Brunnneus, subnitidus, longius pallido pilosus, thorace ovato, cre-brerrimæ aequalitêr punctato, elytris profundi punctato-striatis, interstitiis sub-titius scriato-punctatis. (Long. corp. 1½—1½ lin.)

Brunneus, slightly shining, clothed with elongate pale-griseous hairs: thorax ovate, thickly and regularly punctate: elytra deeply punctate-striate, the interstices flat, and each with a row of minute impressions: antennae and legs pale testaceus.

Also variable in colour, being more or less ferruginous, or pale testaceus.

Not very common in the vicinity of London: it also occurs in Somersetshire and Devonshire. "On the bark of oak, not uncommon (near Swansea)."—L. W. Dillwyn, Esq.

Sp. 3. micrographus. Ferruginus, nitidus, subpubescens, thorace oblongo, antice scabro, elytris subtillissimâ punctato-striatis, apice obtusis, muticis. (Long. corp. 1½ lin.)

Ferruginous, shining, slightly pubescent: thorax oblong, rough anteriorly and opaque, finely punctulated posteriorly, but towards the middle of the base nearly smooth and glossy: elytra very delicately punctate-striate anteriorly, the striae nearly evanescent posteriorly.

The oblong thorax, nearly naked body, and scarcely striated elytra, are the chief characters of this insect.

Not common: I have found it near Hertford.

† Sp. 4. flavus. Flavo-testaceus, subpubescens, thorace oblongo, crebrè punctato, elytris subtillissimâ punctato-striatis. (Long. corp. 1½ lin.)

Testaceous-yellow, slightly pubescent and glossy: the thorax oblong, produced anteriorly, the disc sprinkled throughout with rather coarse punctures: elytra faintly punctulate-striate, the interstices flat, each with a series of minute punctures: antennae and legs pale ochraceous, or testaceus.

I believe the only known examples of this species were taken either in Norfolk or in the New-forest.

B. With the elytra retuse behind, and frequently dentate.

a. The elytra not dentate posteriorly.

Sp. 5. fuscus. Fusco-piceus, longius pubescens, thorace antice, scabro, opaca, elytris cylindricis, confertissimâ punctato-striatis. (Long. corp. 1—1½ lin.)

Pitchy-brown, clothed with long hairs: thorax anteriorly rugose, opaque, posteriorly somewhat smooth, more shining and finely punctulated: elytra cylin-
dric, closely and delicately punctate-striate, the interstices having each a row of minute punctures, as in To. villosus; the apex retuse, unarmed: antennæ and legs testaceus, or rufescent.

Apparently rare: it has been taken in the neighbourhood of London, and in Devonshire and Cornwall. "Common (near Swansea)."—L. W. Dillwyn, Esq.

Sp. 6. pubescens. Niger, subpubescens, antennis pedibusque flavescentibus, fronte villosā. (Long. corp. \(\frac{1}{2}-\frac{3}{4}\) lin.)


Black, slightly pubescent, nearly opaque: thorax ovate, delicately punctulate; elytra fuscescent or somewhat testaceus, deeply crenate-punctate: antennæ and legs flavescent; head densely pubescent in front. The minute size, nearly pubescent black body, and densely pilose head, distinguish this from the foregoing insect.

Not common: found in old trees within the metropolitan district, and in Norfolk. "Kew."—Rev. T. T. Haverfield.

b. The elytra dentate posteriorly.

Sp. 7. bidens. Nigro-piceus, subnitidus, griseo-pubescentis, elytris cerbre subtiliter punctato-striatis, apice truncato-retusis, singulo dente supero elongato, hamato. (Long. corp. \(1\frac{1}{2}-1\frac{1}{2}\) lin.)


Pitchy-black, slightly shining; clothed with a griseous pubescence: forehead convex, punctate: thorax sebaceous and very pubescent in front, with an obsolete transverse impression in the middle, and somewhat glabrous and smoother behind: the back with a subcarinated longitudinal line: elytra closely and finely punctate-striate, the apex truncate-retuse, each with a single large slightly bent tooth on the upper edge of the excavation; antennæ and legs pale rufo-testaceus. Female with the elytra subretuse, and very obsolescetely dentate.

The most abundant species of the genus: found in several places within the metropolitan district.

Sp. 8. Laricis. Nigro-piceus, subnitidus, pallido-pilosus, elytris punctato-striatis, apice retusis, ambiti irregulāritōr dentato, interstitialibus striaturum striato-punctatis. (Long. corp. \(1\frac{1}{4}-2\) lin.)


Pitchy-black, a little glossy; clothed with pale hairs: forehead obsolescetely im-
pressed transversely: thorax rugose anteriorly, finely punctuated posteriorly; elytra cylindric, punctate-striate, the interstices flat, with a few remote and minute punctures disposed in striae, the apex retuse, the retuse margin with several irregular denticulations: femora pitchy-black; tibiae and tarsi pale brunneous: antennæ rufo-testaceous.

Frequents the larch, and is apparently scarce. "Windsor."—Mr. Waterhouse.

Sp. 9. monographus. Cylindricus, brunneo-testaceus, nitidus, pallido pubescens, elytris subtilissimè obsolete punctato-striatis, apice subretusis, singulo denticulis 3 aut 4, uno exteriori. (Long. corp. 1½ lin.)


Cylindric, testaceous-brown, shining, clothed with pale hairs: head small, obsolescently punctate: thorax finely granulated anteriorly, shining posteriorly, and delicately punctate: elytra obsolescently and faintly punctate-striate, with the apex somewhat retuse, bounded on each elytron with three or four denticulations: legs and antennæ testaceus.

Also rare: found near London.

Sp. 10. Typographus. Nigro-piceus, vel testaceus, subnitidus, longiùs flavescenti-pilosus, elytris profundè striato-punctatis, apice truncato-retusis, singuli ambitù sex dentato, dente quarto majore. (Long. corp. 3 lin.)


Pitchy-black or testaceous, slightly shining, clothed with long flavescent hairs: thorax large, produced and scabrous anteriorly, somewhat smoother and finely punctured behind and in the middle: elytra somewhat remote from the thorax, deeply punctate-striate, with the interstices convex, smooth, the apex deeply truncate-retuse, the retuse margin with six dentations, the fourth denticle largest; the base of the excavation rugose: antennae and legs pitchy-ferruginous or testaceous.

Very rare: found beneath the bark of firs, excavating various labyrinthiform passages, fancifully resembling letters and other typographical characters, whence its name. "Under bark (near Swansea)."—L. W. Dillwyn, Esq.

Genus CCLXVIII.—Hylesinus, Fabricius.

Antennæ with an obovate club, evidently acuminated to the apex, and composed of three or four distinct articulations; the basal joint elongate, slightly bent, and clavate: the second subglobose, the intermediate to the club transverse.
**BOSTRICHIDÆ.—HYLESINUS.**

Palpi very short: mandibles acute, stout, dentate within: head short, robust; eyes oblong: thorax stout, convex, situated behind: body short, ovate: tibiae compressed, denticulate at the apex: tarsi with the penultimate joint bifid.

Hyalesinus is a genus of rather variable aspect; nevertheless the species may be known by the bifid penultimate joint of their tarsi, united to their triarticulate, acuminated, club of the antennæ.

A. Body pubescent. a. Body somewhat elongate.


Black, punctured: thorax unequal, thickly and coarsely punctured: elytra piceous-black, very deeply crenate-striate, with the interstices rugose: femora and tibiae piceous: tarsi and antennae ferruginous or castaneous. Elytra sometimes rufo-ferruginous; the result of immaturity.

Found occasionally under the bark of old trees near the metropolis, in Kensington-gardens, &c. "In an old ash near Penllegare."—*L. W. Dillwyn, Esq.*

Sp. 2. hæmorrhoidalis. *Niger, capite glabro, antennis ferrugineis, elytris striatis postice rufis.* (Long. corp. 1½ lin.)


Black, opaque, punctured: head glabrous: thorax rather deeply punctured: elytra punctate-striate, black anteriorly, rufous at the apex: body beneath and legs black; tarsi and antennæ ferruginous.

Apparently scarce: I possess a specimen from the Marshamian cabinet, and others caught near London.

Sp. 3. picipennis. *Ater, thorace æquali obsolete punctato, elytris nigro-piceis, antennis pedibusque rufo-ferrugineis.* (Long. corp. 1½ lin.)


Deep black, somewhat opaque; head punctulate: thorax equal, obsoletely but finely punctured: elytra piceous, rather deeply crenate-striate, with the interstices punctate: antennæ and legs rufo-ferruginous.

Found near London; and in Lancashire.

**Mandibulata. Vol. III. 31st Dec., 1830.**

B B
b. With the body very short and broad.

Sp. 4. scaber. *Ater, antennis tarsisque rufis, elytris punctato-striatis hispidi-usculis.* (Long. corp. 1—1\(\frac{1}{4}\) lin.)


Deep black, slightly shining; very ovate, short: thorax rather coarsely and thickly punctulate; elytra rather deeply punctate-striated; with short rigid hairs in the interstices: abdomen deep black: legs black, with the tarsi beneath ferruginous.

Three or four examples only of this very distinct species have come beneath my observation: one I obtained from the Marshamian collection, and a second I captured at Ripley in July, 1827.—"Cobham."—A. Cooper, Esq.

B. With the body clothed with scales.

Sp. 5. Fraxini. *Niger, subtus densi cinereo-pubescentis, supra squamulis cinereis fuscisque variegatus, antennis ferrugineis, clavis magni acuminati fusci.* (Long. corp. 2—2\(\frac{1}{2}\) lin.)


Black; beneath densely clothed with an ashy pile, above variegated with cinereous and fuscous scales; antennæ ferrugineous, with a large acuminate fuscous club: legs piceous: tarsi ferruginous.

Extremely variable in colour, being of different hues of black, piceous, ferrugineous, or testaceous, sometimes ochraceous, with the legs and antennæ paler.


Sp. 6. furcatus. *Brevis, fusco-ferrugineus, elytris lineæ obliquæ furcatæ annuloque ad apicem albis.* (Long. corp. 1 lin.)


Dusky-ferruginous: thorax with three longitudinal, waved, interrupted whitish lines: elytra ferruginous; each with an oblique whitish line, terminating at the base, and furcate; at the apex is a whitish circle, and near the suture another whitish line: legs ferruginous.

Probably a variety of the foregoing; it is however much smaller.

From the Marshamian collection.

Sp. 7. coadunatus. *Fuscus, coleoptris rufescentibus, maculis obsoletofuscis coadunatis.* (Long. corp. 1 lin.)

Head and thorax fuscous or black: elytra rufescent, striated, with two or three obscure spots upon each, continued on the suture: antennæ totally and legs rufous.

Not uncommon near London; at Hertford, Ripley, &c. "Under bark of rails near Sydenham."—Mr. Ingpen.

Genus CCLXIX.—Scolytus, Geoffroy.

Antennæ with the club commencing at the ninth joint; the basal joint robust, a little elongate; second short, subglobose; the third to the eighth transverse; the remainder forming a compressed, ovate club, composed of closely united laminae. Palpi unequal, the terminal joint somewhat elongate, slender: mandibles triangular, entire: head subglobose: eyes elongate, curved: thorax large, narrowed anteriorly: elytra cylindrical, truncate: abdomen beneath obliquely and abruptly truncate: tibia compressed, simple, the external angle terminating in a curved spine: tarsi with the penultimate joint bifid.

The sublaminated, obscurely triarticulate, club of the antennæ of these insects, united to the bifid penultimate joint of the tarsi, the obliquely truncate, retuse, or submucronated abdomen, large thorax, &c., sufficiently characterize the present genus; of which the first species has become somewhat conspicuous from the injury it has recently created to the elm-trees in and about the metropolis.

Sp. 1. Destructor. Niger, nitidus, antennis tarsisque rufo-testaceis, thorace subtilissimo punctulato, elytris punctato-striatis, interstitiis vaga punctulatiis, abdomen subus retusus. (Long. corp. \( \frac{1}{2} \)-3 lin.)

Black, very glossy: head black, longitudinally rugose: thorax large, very finely punctulated: elytra glabrous, pitchy-black, or piceous, sometimes rufescent or bright ferruginous, glossy, punctate-striate; the interstices irregularly punctate: abdomen beneath retuse, the first segment being very convex and
MANDIBULATA.—COLEOPTERA.

obscurely mucronated: femora and tibiae piceous black; tarsi and antennae rufo-testaceous.

A great pest to the elm-trees near the metropolis, many of which in St. James's Park, at Chelsea, &c., have been totally destroyed by the ravages of this little insect: it likewise occurs at Hertford and Ripley. "Swansea."—L. W. Dillwyn, Esq.

Sp. 2. picicolor. *Nigro-piceus, elytris confertissimè striatis, pedibus rufescens-tibus, abdomen inermi retuso.* (Long corp. 1½ lin.)


Pitchy-black, shining: thorax elongate, punctulate; elytra rufescent, closely striated, the striae obscurely punctate: abdomen retuse, unarmed: legs and antennae rufescent.

Thorax more coarsely punctured than in Sc. pygmaeus.

Found near London: also "taken by Mr. Wilmot in wood at Wittersham near Rye."—Marsham MSS.


Black, shining, glabrous: head robust, granulated: thorax with the anterior margin sometimes ferruginous; the disc rather coarsely punctulate, especially towards the sides: elytra rufo-ferruginous, closely punctate-striate, the interstices each having a series of minute punctures: abdomen retuse, mucronate in the male: legs rufo-piceous: antennae testaceous.

Much less abundant than the first species: found beneath the bark of oaks throughout the metropolitan district. "Under bark of elm, Copenhagen-fields."—Mr. Ingpen.

Genus CCLXX.—HYLURGUS, Latreille.

Antennæ with the club commencing at the eighth joint; the basal joint very long, bent, clavate, the second globose, third turbinate, four following transverse, the remainder forming a subglobose-ovate club. *Palpi* very short, terminal joint minute, subconic: *mandibles* acute, bidentate within: head more or less produced anteriorly: *eyes* elongate, narrow: *thorax* subcylindric-ovate, narrowed in front: *body* linear-cylindric: *tibiae* compressed, denticulate at the apex; *tarsi* pentamerous, short, with the third joint cordate, bifid.

There is evidently considerable affinity between the insects of this genus and the Rhyncolii in the following family: like those insects the head is rostriform, the basal joint of the antennæ very
much elongate, and its pabulum congenerous: from the preceding genera of the present family this may be known by having the club of the antennæ quadriarticulate, the third joint of the tarsi (which are pentamericous) bifid, &c.


Pitchy-black or testaceous, slightly pubescent: head and thorax very delicately punctured, the latter with the base a little waved, and having a transverse impressed line within: elytra subcylindric, faintly punctate-striate, with the interstices somewhat rugosely punctate: legs short, pitchy-black; tarsi pale testaceous: antennæ ferruginous.

Variable in colour; occurring of all intermediate hues from pale testaceous to nearly black, according to its state of maturity.

Frequents the Scotch fir, to the leading shoots of which it is exceedingly detrimental, the imago perforating them longitudinally and transversely, and also injuring the wood and bark of the trunk: it is abundant in fir woods near London. "Epping."—Mr. Doubleday. "Swansea."—L. W. Dillwyn, Esq.

Sp. 2. ater. *Elongatus, cylindricus, niger, nitidus, ferè glaber, antennis ferrugineis, rostro fronteque carinatis, thorace elongato, subcylindrico, vix carinato.* (Long. corp. 2\(^{-2}/\text{lin.}\))


Elongate, subcylindric, black, glossy, nearly glabrous: head much produced anteriorly, with a longitudinal carina extending to the forehead: thorax elongate, subcylindric, thickly punctured, without a dorsal carina: elytra cylindric, coarsely crenate-striate, the interstices flat and transversely rugulose; and towards the apex rather scabrous: legs pitchy-black; the apex of the tibiae, the tarsi, and antennæ rufo-piceous or castaneous.

Also common in fir plantations near London; in dry wood, under bark, &c.

Sp. 3. palliatus. *Brevior, nigro-piceus, subpubescens, thorace suprà, elytris, tibiis, tarsis, antennarumque basi rufo-ferrugineis, thorace brevi, lateribus dilatato, suprà carinato.* (Long. corp. 1\(^{1}/\text{lin.}\))


Short, pitchy-black, somewhat pubescent: with the thorax above, the elytra, tibiae, tarsi, and base of the antennæ, rufo-ferruginous: the thorax short,
with the sides dilated, the disc rugose-punctate, with a distinct carina down the middle: elytra somewhat deeply and coarsely crenate-striate: rostrum with an elevated carina.

Sometimes found of a pale testaceous, with the head above black, and the club of the antennae fuscos.

Less abundant than the foregoing, but found in similar situations.

Sp. 4. angustatus. Brevior, niger, subpubescens, antennarum basi tarsiisque testaceis, elytris pedibusque piceis, thorace subcylindrico, evidentur carinato. (Long. corp. 1½—1⅔ lin.)


Short, black, rather pubescent: rostrum not carinated: thorax subcylindric, a little narrowed in front, subopaque, punctulated, with a distinct longitudinal dorsal carina: elytra and legs piceous, the former opaque, deeply crenate-striate, with the interstices narrow, somewhat rugulose, and clothed with a few scattered cinereous depressed hairs: base of the antennæ and tarsi testaceous.

Also found of a pale rufo-testaceous hue, with the eyes brown, as in many of its congeners.

Not very common; it likewise frequents fir plantations. "Swansea."—L. W. Dillwyn, Esq.

Sp. 5. obscurus. Nigro-fuscus, elytris obscurè rubris profundè punctato-striatis, antennis pedibusque ferrugineis. (Long. corp. 1⅓ lin.)


Much less, and comparatively broader, than the foregoing species.

Found beneath bark, in fungi, &c.: not very uncommon. "Swansea."—L. W. Dillwyn, Esq.


Rather elongate; entirely of an obscure dull rufous; thorax cylindric, punctate, with an obscure dorsal carina: elytra rather deeply punctate-striate: antennae and legs pale rufo-piceous.

Larger than the foregoing species, but rarely broader; of a different tint of colour; with the thorax less evidently carinated.

Taken within the metropolitan district; but seemingly not common.
Sp. 7. rufus. *Ferrugineo-rufus, antennae pedibusque dilutioribus, capite nigricanti, thorace haud carinato.* (Long. corp. 1½ lin.)


Short, stout, dull rusty-red, pubescent: head slightly dusky or blackish: thorax punctured, but not carinated: the elytra very much punctulated, and rather deeply striated, the striae composed of punctures: antennae and legs pale rufescent.

Also found beneath bark, in fungi, &c., in the neighbourhood of London, Norfolk, &c.


Head and thorax black, opaque, slightly pubescent; the latter very thickly and coarsely punctate, with an elevated longitudinal line: elytra dull piceous, striated, the striae composed of very deeply impressed punctures: body beneath black: legs and antennae piceous.

Found near London; not common.


Narrow, fuscous black, obscure, somewhat pubescent, very thickly punctured: thorax without an elevated line: elytra deeply crenate-striated, the interstices rugose: legs black, with the tarsi rufescent: antennae testaceos.

Smaller than either of the foregoing species, and differs from the following by its greater bulk and dissimilar colour and sculpture.

I believe this insect was taken near London, but am not certain.

Sp. 10. rhododactylus. *Nigro-piceus, pilis rigidis cinereis seaber, antennarum basi tarsisque ferrugineis, elytris profundè punctato-striatis.* (Long. corp. ½ lin.)


Minute: black, or pitchy-black; clothed with rigid cinereous hairs: head piceous, punctate: thorax black, thickly punctate: elytra deeply punctate-striate, the interstices thickly clothed with pale rigid cinereous hairs: base of the antennae and the tarsi ferruginous.

This pretty little insect is occasionally met with on heaths and commons near London, and in Suffolk.
APPENDIX.


Page 6. Ptomaphagus Watsoni. "One specimen only taken near Nottingham."—Dr. Howitt.


Page 18. Necrophorus interruptus. "Rare; near Nottingham, specimens 12 lines in length."—Dr. Howitt. "Phillack, Cornwall, N. W. Hockin, Esq."—C. C. Babington, Esq.


It would scarcely be worth while to call the reader's attention to the great variations to which this insect is subject, were it not that the extreme varieties have been assumed to be distinct, and in the description thereof I allow sufficient cause so to consider them as apparent; but it is scarcely necessary to apprise the student that in every case where an animal is subject to great variation, a contrasted description of its more extraordinary varieties may give the semblance of specific difference: as an instance, the comparatively gigantic Lucanus Cervus may be mentioned;—in that insect, out of 50 examples, taken at random, the
probability is, that at least 5 or 6 differ greatly in points that in other groups of insects are dwelt upon almost with mathematical nicety, e. g.: the structure of the mandibles, which, in L. Cervus (exclusively of other important distinctions in the dentation) in their most developed state, have the apex strongly furcate, the notch between the forks being very deep, while the same part is not only obtuse in the extreme case, but the centre is absolutely more prominent than the sides, whence we have a depression in place of an elevation, than which nothing can be more diametrically opposite:—thus it is with Necrodes littoralis, an insect, in its most developed state, exhibiting in the male highly incrassated and dentate posterior femora, incurved hinder tibiae, dilated anterior and intermediate tarsi, various strongly sculptured impressions on the thorax, elevated elongate costae on the elytra, &c., while, in the opposite case, the posterior femora are slender and simple, the hinder tibiae straight, the intermediate tarsi less developed than the anterior, the sculpture on the thorax different, the costae on the elytra abbreviated, and, in fine, every character less evident than in the larger individuals; but in the extensive series of the insect which I possess every intermediate shade is to be found, so that if there be two species, it would necessarily follow that the intermediate examples could belong to neither, and must consequently form a third; added to which fact, it may be stated that no females have yet been found to associate with such undeveloped (if so they may be termed) males, although ordinarily equally abundant with the opposite sex, a circumstance perfectly inexplicable when it is stated that the males of the so-called second species have been captured in Scotland, Norfolk, Kent, Devonshire, Surrey, South Wales, &c., were not the inference manifest that the alleged species was a mere variety of the male, a parallel case with that of L. Cervus, the small varieties of which remain in our cabinets in a state of celibacy.


Page 27. Silpha laevigata. "Sea-shore, Marsden; not very abundant."—G. Wailes, Esq.


Page 34. Nitidula discoida. "Abundant in Notts."—Dr. Howitt.


Page 35. Nitidula rufipes. "Rare in Notts."—Dr. Howitt.


Page 42. Strongylus strigatus. Plate xvi. f. 5.—This figure having been taken from the original Marshamian specimen of Nitidula, but the reference to the plate was inadvertently attached to the following insect, which might have been readily seen had Mr. Curtis read the description of the two insects, instead of merely glancing at the figure.

Page 43. Strongylus imperialis, dele Plate xvi. f. 5.—Curtis, viii. pl. 339. "Under bark of aspen, Wanstead."—A. Cooper, Esq.

Page 44. Strongylus ferrugineus. The type of the genus Ostoma hairchart is Pelris ferruginea, not this insect. "Welbeck, Notts, 1828, Mr. Marlow."—Dr. Howitt. "Gibside."—G. Wailes, Esq.

Page 45. Campta lutea. "High Bickington, Devon."—T. Coeks, Esq. This species, as marked in my Catalogue, forms a portion only of the genus Cychramus of Kugellan.

Page 45. Meligethes rufipes. "Common in Notts."—Dr. Howitt.


Page 51. Cateretes bipustulatus. "Once taken by Mr. Marlow."—Dr. Howitt.

Page 55. Micropeplus porcatus. "Moss, Meldon Park, &c."—G. Wailes, Esq. "Once taken in Notts."—Dr. Howitt. "Holm-gate, and near the Deanery, Carlisle."—T. C. Heysham, Esq. "Lincoln's-inn-fields."—Mr. Ingpen. "Cobham Park."—A. Cooper, Esq. The concluding observation from Mr. Westwood should have been attached to the following insect.

APPENDIX.


Page 67. *Atomaria nigripennis.* "Very abundant in cellars, Nottingham."—Dr. Howitt.


Page 91. *Tetratoma Fungorum.* "In February, under willow bark, Walthamstow."—A. Cooper, Esq.

Page 92. *Engis rufifrons.* "Occasionally in profusion near Nottingham."—Dr. Howitt.

Page 95. *Nemosoma elongatum.* *Curtis, vii. pl. 327.* "One specimen beaten
out of a bramble-bush, in 1828, at Colwich, near Nottingham."—Dr. Howitt.
"Sometimes without the apical red spot on the elytra."—Mr. Ingpen.

"Under the bark of willows in the spring, in Notts."—Dr. Howitt.

Page 97. Tribolium castaneum. I have obtained this insect from India direct.

"Under the bark of felled beeches in Meldon Park, April, and in Dec. 1830."—G. Wailes, Esq.


Page 106. Corticaria pubescens. "In damp cellars, Nottingham."—Dr. Howitt.

Page 111. Latridius lardarius. "City walls, Carlisle, near the Deanery."—T. C. Heysham, Esq.


Page 113. Latridius porcatus. "Under bark and in cellars at Nottingham, common."—Dr. Howitt.


Page 116. Xylotrogus brunneus. "One specimen captured in a shop window in Nottingham, 1829."—Dr. Howitt.


Page 125. Megatoma undata. "Once taken in an old ash-tree near Nottingham by Mr. Smith."—Dr. Howitt.


"Gibside, on flowers."—G. Wailes, Esq.

Page 136. *Byrrhus pilula.* "Very common in Notts."—Dr. Howitt.

Page 137. *Byrrhus fasciatus.* "Also common in Notts."—Dr. Howitt.

Page 138. *Byrrhus sericeus.* "Nottingham in the autumn."—Dr. Howitt.


Page 143. *Onthophilus striatus.* "Meldon Park."—G. Wailes, Esq. "Very abundant in the spring of 1830 in Nottingham Forest."—Dr. Howitt.

Page 143. *Onthophilus sulcatus.* "Coombe-wood, in June."—Mr. Ingpen. "Has twice occurred in Notts."—Dr. Howitt.

Page 144. *Hister merdarius.* "Occurs occasionally in the Forest."—Dr. Howitt.


Page 147. *Hister 12-striatus.* "Rather frequent in the Forest."—Dr. Howitt.


Page 150. *Hister neglectus.* "Two specimens taken on the sand in the Forest."—Dr. Howitt.


Page 152. *Hister castanipes.* "A few specimens taken during the last season."—Dr. Howitt.
Page 153. **Hister nitidulus.** "Very abundant."—Dr. Howitt.


Page 157. **Hister virescens.** "Once taken by Mr. Marlow at Welbeck."—Dr. Howitt. "Sea-shore, Marsden."—G. Wailes, Esq.

Page 159. **Dendrophilus punctatus.** "I have one specimen of this species, taken in a dead bird in the Forest in 1828."—Dr. Howitt.

Page 165. **Dorcus parallelipipedus.** "Extremely abundant in the roots of decayed ashes in the spring."—Dr. Howitt. "Bath."—C. C. Babington, Esq.

Page 166. **Lucanus Cervus.** Very common at Shorne in Kent, and known by the name of the "Shorne Bug."

Page 167. **Sinodendron cylindricum.** "Common in decayed ash and willow trees all the year."—Dr. Howitt. "Meldon Park, Wallington, &c."—G. Wailes, Esq.

Page 172. **Onthophagus medius.** "Mansfield Forest, one specimen."—Dr. Howitt.

Page 173. **Onthophagus ænobeita.** "Farningham, in Kent."—Mr. Ingpen. "Rare near Nottingham."—Dr. Howitt.

Page 175. **Onthophagus nuchicornis.** "Abundant in the spring; and in the autumn of 1830."—Dr. Howitt.

Page 176. **Onthophagus ovatus.** "Mansfield; not found near Nottingham." Dr. Howitt. "Farningham, in Kent."—Mr. Ingpen.

Page 180. **Typhæus.** The genus Ceratophyus (Cerophayus Lat.) Fischer is scarcely synonymous with the present, Sc. dispar, Fab., being the type.

Page 180. **Typhæus vulgaris.** "Common throughout the Forest district of Notts."—Dr. Howitt.

Page 182. **Geotrupes vernalis.** "In profusion on the side of Skiddaw."—G. Wailes, Esq. "Mansfield Forest, very abundant last spring, but local."—Dr. Howitt.

Page 182. **Geotrupes laevis.** "Whinlath, Cumberland."—G. Wailes, Esq.

Page 183. **Geotrupes niger.** "Common in the Forest near Nottingham."—Dr. Howitt.

Page 184. **Geotrupes puncticollis.** "Nottingham Park and Forest, but not common."—Dr. Howitt.


APPENDIX.


Page 188. Aphodius hemorrhoidalis. "In Notts, common."—Dr. Howitt.


Page 204. Aphodius merdarius. "Newcastle, Dilton, &c. common."—G. Wailes, Esq. "Very common during the summer months."—Dr. Howitt.


Page 221. Amphimalla solstitialis. "Extremely abundant towards the end of June and beginning of July, in Nottingham Park, and the field to the north of the town."—Dr. Howitt.

Page 222. Melolontha vulgaris. "Common in Notts, and the neighbouring counties."—Dr. Howitt.

Page 224. Phyllopertha Horticola. "Very common: the dark varieties not uncommon during the summer of 1830."—Dr. Howitt.

Page 227. Anisoplia Agricola. "The abdomen and elytra of this species were once found on the sea-shore near South Shields."—G. Wailes, Esq.

Page 227, note. The re-discovery of Chrysomela cerealis is due to the Rev. S. Hey, who, as he informs me, directed his friend and neighbour Mr. Fox to the locality.
Page 228. Hoplia argentea. "Rare near Nottingham."—Dr. Howitt.

Page 232. Valgus hemipterus. The communication from Mr. Wailes should have been placed to No. 1203 (instead of 1202, as given by a slip of his pen).


Page 244. Elateridae. My friend J. E. Gray, Esq. informs me that Eschscholtz has recently given a new arrangement of this family, in which he has divided it into several genera, giving types of each; but I have hitherto been unsuccessful in obtaining a view of the work, which Mr. Gray saw in Germany:—he also informs me that in another work of the above writer he quotes E. muscicus, fasciatus, and varius as belonging to the genus Lepidotus, Megerle.


<table>
<thead>
<tr>
<th>INDEX</th>
</tr>
</thead>
</table>

| ABRÆUS | 141 | An. paniceum | 340 | Ap. lucens | 196 | At. atricapilla | 66, 369 |
| gobobus | 142 | pertinax | 339 | luridus | 201, 373 | basella | 65 |
| minutus | 143 | rupeps | 339 | marginalis | 263 | carbonaria | 68 |
| ACANTHURUS | 220 | striatum | 310 | melanoopium | 198 | castanea | 66, 369 |
| tessellatum | 211 | marginatus | 341 | manducatus | 204, 373 | diminutata | 67 |
| ÉGIALIA | 212 | Asomala | 219, 225 | muticus | 260 | dorsalis | 67 |
| globosa | 213 | Donovani | 226 | niger | 197 | evanescent | 65 |
| AGRILUS | 235, 239 | Frischii | 225 | nigripes | 201 | fulvicollis | 64 |
| amethystinus | 240 | Vitis | 226 | nitidulus | 192 | fusiceps | 68 |
| biguttatus | 239 | Antherophagus | 58 | nitidus | 196 | hirta | 66, 369 |
| chrysis | 240 | 9-maculatus | 72 | obscurs | 195 | linearis | 70 |
| 9-maculatus | 240 | glaber | 73 | ochraceus | 191 | mesomelas | 67, 369 |
| Rubi | 241 | pallens | 72, 369 | Pecari | 264 | nigripennis | 67, 369 |
| viridis | 239 | silaceus | 73 | phaeopterus | 264 | nigrostriatus | 69 |
| AGYRTES | 16, 29 | Anthrenus | 138 | plagatus | 267 | nigriventer | 66, 369 |
| castaneus | 20 | Museum | 129, 370 | porcus | 153, 373 | phaeogaster | 65 |
| AMPHIMALLA | 219 | Pimpinella | 150 | prodromus | 263 | ruicorns | 68 |
| 221 | Scrophularia | 150 | puipillus | 265 | rupeps | 68 |
| Fellenii | 221 | verrucosus | 150 | 4-guttatus | 266 | testacea | 66 |
| Solstitialis | 221, 373 | Verbacis | 129 | 4-maculatus | 266 | thomica | 65 |
| ANAPHROTUS | 245, 273 | Apate | 349, 350 | rupeps | 190, 373 | Attagenuis | 119, 126 |
| amuralis | 277 | muriatica | 351 | rupeps | 169 | Pellio | 126, 370 |
| elongatus | 276 | sinuata | 351 | rupeps | 200, 373 | trisacticus | 127 |
| haemorrhoidalis | 275 | Aphanisticus | 235 | Scrofa | 207 | Atopa | 291 |
| longicollos | 277 | 241 | Scutator | 169 | cervina | 290 |
| niger | 274 | emargiatus | 241 | scyllabarius | 130, 373 | Biphyllus | 58, 67 |
| nigrinus | 274 | pallasius | 130 | seriolus | 131 | leucon | 60 |
| pheoblescheni | 274 | Aphodide | 169, 186 | sphectolus | 203, 373 | Bitum | 59, 165 |
| subfuscus | 276 | Atherium | 167 | stigma | 193 | crenata | 165 |
| varius | 275 | arenarius | 207 | subterraneus | 168, 273 | Bolocerus | 177 |
| vittatus | 276 | ater | 195 | sus | 208 | mobilicornis | 178 |
| ANISARTHERIA | 58, 61 | bimaculatus | 197 | terces | 195 | 4-dens | 179 |
| brunnea | 64 | borealis | 193 | terestris | 194 | testaces | 178 |
| MELAS | 63 | castaneus | 101 | testinarius | 268 | Bostrichidae | 278 |
| minissima | 62, 369 | cenusus | 265 | tessulatus | 194 | lindus | 348 |
| nitida | 63 | conspectus | 192 | trestis | 266 | Bostrichus | 349 |
| nitidula | 63 | contaminatus | 202, 273 | villus | 206 | capucinus | 350 |
| perpencilla | 62 | depressus | 200 | Aplonocerus | 311, 316 | Buprestis | 234 |
| pilosella | 63 | emarginatus | 196 | floralis | 317 | Buprestis | 235 |
| punctata | 62 | eratus | 183, 373 | impressus | 317 | anca | 236 |
| ANISOPHIA | 219, 227 | funerarius | 169, 373 | 4-pustulatius | 317 | chrys-ostigma | 235 |
| Agricola | 227, 373 | fetus | 169, 373 | Aplonturus | 245, 271 | flavomaculata | 237 |
| Donovani | 226 | Fosor | 197, 372 | ochraeus | 272 | munca | 238 |
| ANOSBIA | 330, 333 | fulvirus | 190 | Quercus | 272 | nitidula | 236 |
| Abietis | 341 | granarius | 197, 373 | rupeps | 272 | 5-guttata | 237 |
| castaneum | 333 | granum | 265 | testaceus | 271 | 4-punctata | 238 |
| denticola | 336 | haemorrhoidalis | 136 | Aspidiphora | 138 | rustica | 238 |
| erythrorum | 342 | | | | | | |
| FUGR | 340 | heemorrhous | 196 | orbiculatus | 131 | Salisius | 236 |
| moll | 341 | inquintatius | 193 | Atomaria | 58, 64 | SPLENDA | 237 |
| nitidum | 340 | lividus | 192 | atra | 67 | tarda | 236 |
INDEX.

PELTIS 15, 29 SCAPHIDIIUM 2 Te. cantianus 312 Tr. aphodioides 214
ferruginea 24 4-maculatum 3 eleyptus 309 Tribolium 215, 59
PERIMEXIS 245, 263 SCAPHISOMA 2.3 confinis 320 castaneum 97, 217
detritus 263 Agriicicnus 3 cyanus 300 TRICHOPHYTIS 58, 3
PETALOCEA 243 Boleti 4 discoidus 299
PHILOCHELIUS 58, 81 minuta 1 dispar 299 atomaria 60
bimaculatus 82 SCABRIDEIDE 163 flaviabris 293 minima 60
Cooperi 82 SCIRITES 281 fulvicolis 294 minuta 61
Edwardsi 81 hemisphaerius 282 fuscinoris 297 nana 60
PHOSPHIGA 16, 28 pallescens 283 fusus 291
atra 26, 336 SCULXITUS 349, 361 lateralis 295 pusilla 61
subrotundata 29 Destructor 361 lituratus 303 TRICHIUS 229
PHYLLOPTHEMA 219, piccolor 362 livida 302 fasciatus 230
223 ptygmeus 362 longiconis 298, 300 nobilis 231
errans 224 SELATOSOMUS 245, 238 marginatinus 296 sucineatus 230
Horticola 224, 373 venus 238 melanurus 297 variableis 230
PLATYCEUS 164 bimaculatus 239 nigricans 299 TRINODES 129, 182
caraboides 164 crucatus 238 castaneus 239 hurus 129, 370
PLATYSOMA 141, 161 SERICOSNI 219 ochropus 296 TRIPHYLIUS 58, 82
depressa 162 brumnea 219, 373 pallidus 297 ptygmeus 82
oblonga 162 SILPHA 16, 24
PLATYPUS 349, 354 Griesbachiana 26 pellucidus 301 TRIPLAX 58, 88
cylindrus 355 fawigata 27, 367 pilopus 298 aenea 89, 369
PRIA 30, 49 nigrita 26, 367 pilicinus 298 bicolor 89
truncatella 50 obscura 25, 367 pulicinus 298 castaneus 309
POMMODUS 187, 355 opuscula 27, 367 rusus 303 rusticus 90
aspen 211 4-punctata 21, 367 rufulus 302 rufulus 90
casus 210 reticulata 26, 367 testaceipes 303 russica 88, 369
elongatus 209 tristis 25, 367 testaceus 296 TROGIDE 169, 213
porcaus 210 SILPHIDE 1, 15 thoracicus 293 TROX 212, 214
Sabletii 210 SINODENDRON 164, violaceus 300 arenusus 215
salicola 211
PLINIUS 330, 331 cylindricum 167, 372 TETRATOMA 57, 369 TRYPDENDRON 349,
contus 332 SINAXYON 349 anconia 90 scarab 215
pectineicornis 331 bisphoinum 349 Funigorum 90, 369 TRYPDENDRON 349,
PINUS 330, 332
Cerevisiae 334 concolor 139, 371 fornicarius 325 domesticum 334
crenatus 334 cupreus 140 Throsicus 119 TYPHAEA 48, 70
Fur 334 semistriatus 140, 371 derneostoides 119 ferruginea 51, 369
germanus 333 SERICOSNI 235 oblius 129 Sparganium 70
imparis 333 STRONGYLIUS 30, 42 THYMYLUM 30, 31 testace 71
Lichenum 333 ferruginus 43, 366 limbatus 31 tomentosa 71, 369
Muscum 333 servoidus 42 TILLIDE 279, 321 TYPHAUS 177, 179,
rufipes 333 imperialis 42, 368 TILLUS 321, 322
6-punctatus 333 striatus 42, 328 ambulas 322 vulgaris 139, 372
similis 333 SYLVANUS 58, 164 elongatus 323 VALGIS 325
PSEUDOMATUS 33, 35 detusus 104 unifasciatus 325 hemipius 232, 374
anisotomoides 7 Surinamensis 104 TOMICUS 349, 355 XILETINUS 330
Davisi 7 umidentatus 105 affinis 355 ater 331
fumatus 6 SYNCAULYPTA 128, bidens 357 striatus 330
truncatus 5, 366 133 flavus 356 XYLOTROGS 59, 116
velox 6 arenaria 133 fusus 356 brunnneus 117, 370
Watsoni 6, 366 cretiera 133 Lasius 357
Synnili 7 maritima 134 micrographus 356 English Names.
RHYPZOPHERA 349 setiger 358 BEEF.
pusilla 349 SYNCHITA 58, 95 polygraphus 355 Mimic 144
RHYPZOPHAGUS 58, 99 Juglandis 266, 357 Bug.
bipustulatus 101, 370 TELEPHORIDE 279, villosus 356 Shorne 372
cylindricus 100 272 Typographus 358 Death-watch 338
dispar 101 TELEPHORUS 202 TRACHYS 235, 242 Glox-worm 290
ferrugineus 100, 370 affinis 294 minuta 213 Wireworms 247, 250
pavus 101 albinus 294 nana 241
rufus 100 ater 294 pygmaeus 242
SCAPHIDIIUM 1, 2 bicolor 304 TRACHYSCELS 212, 213
LIST OF PLATES.

<table>
<thead>
<tr>
<th>PLATE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>XVI. f. 1. Necrophorus Sepultor .</td>
<td>17</td>
</tr>
<tr>
<td>2. — Interruptus .</td>
<td>18</td>
</tr>
<tr>
<td>3. Phosphaga subrotundata .</td>
<td>20</td>
</tr>
<tr>
<td>4. Nitidula 4-pustulata .</td>
<td>35</td>
</tr>
<tr>
<td>5. Strongylus strigatus .</td>
<td>42</td>
</tr>
<tr>
<td>6. Mieropoulos Staphylinoides .</td>
<td>55</td>
</tr>
<tr>
<td>XVII. f. 1. Mycetia fumata .</td>
<td>81</td>
</tr>
<tr>
<td>2. Triphyllus punctatus .</td>
<td>82</td>
</tr>
<tr>
<td>3. Biphylus lunatus .</td>
<td>87</td>
</tr>
<tr>
<td>4. Triplax bicolor .</td>
<td>89</td>
</tr>
<tr>
<td>5. — Rufipes .</td>
<td>90</td>
</tr>
<tr>
<td>6. — Ruficollis .</td>
<td>ib.</td>
</tr>
<tr>
<td>XVIII. f. 1. Pholophillus Edwardsii .</td>
<td>81</td>
</tr>
<tr>
<td>2. Euthelia Scydmaenoides .</td>
<td>115</td>
</tr>
<tr>
<td>3. Latridia testaceus .</td>
<td>114</td>
</tr>
<tr>
<td>4. Xylotragus brunneus .</td>
<td>117</td>
</tr>
<tr>
<td>5. Hister Marshami .</td>
<td>144</td>
</tr>
<tr>
<td>6. Onthophagus Dillwynii .</td>
<td>174</td>
</tr>
<tr>
<td>XIX. f. 1. Anisoplia Agricola .</td>
<td>227</td>
</tr>
<tr>
<td>2. Agrilus ? 9-maculatus .</td>
<td>240</td>
</tr>
<tr>
<td>3. Malonechi productus Q .</td>
<td>315</td>
</tr>
<tr>
<td>4. (Dolichosoma) linears .</td>
<td>320</td>
</tr>
<tr>
<td>5. Clerus apiarius .</td>
<td>326</td>
</tr>
<tr>
<td>6. Ape Arius .</td>
<td>351</td>
</tr>
</tbody>
</table>

ERRATA.

Page 6, line 18, for equal, read subequal.
21, — 17, for Curtis, read Curtisii.
50, — 5 from bottom, for larger, read longer.
59, in table, for n comprend, read Moundbule.
— 11 from bottom, for min ut, read minute.
84, — 3, for Heniault, read Hainault.
113, — 10 from bottom, for Kybes, read Kyber.
120, — 15, for Megatoma, read Ctesias.
134, — 3 from bottom, for fasciolated, read fasciculated.
157, — 4, for His. maragdulus, read Hi. smaragdulus.
165, — 5 from bottom, for elytra, read labrum.
183, — 21 and 22, for siticus, read stigmaticus.
278, — last line, for fovea, read fovea.
291, — 9 from bottom, for festiva, read festivus.
317, — 12, dele griexis.
351, — 18 from bottom, for terebraus, read tercbras.
— bottom line, for violacea, read violaceus.

END OF VOL. III.
LONDON
PRINTED BY THOMAS DAVISON, WHITEFRIARS.
J. F.    (Mandibulata)

<table>
<thead>
<tr>
<th>British Entomology</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>