

Embryology S. Curtis May 4. 1888

CAPSUS HIRTUS.

ORDER Hemiptera.

FAM. Coreidæ.

*Type of the Genus, Capsus Danicus Fab.*CAPSUS *Fab., Lat., Hahn., Curt.*—*Lygæus Wolff.*—*Cimex Linn.*

Antennæ inserted before and close to the eyes, twice as long as the rostrum, pubescent, pilose, geniculated and 4-jointed, basal joint elongate, 2nd very long and clavate, the remainder slender and capillary, articulated at the middle, with one or two other indications of joints or fractures (4).

Labrum about half as long as the basal joint of the labium, broad at the base and attenuated (3).

Mandibles and *Maxillæ* long slender setæ.

Labium incurved and extending to the hinder coxæ; slender, attenuated and 4-jointed, basal joint stout, 2nd a little longer, 3rd scarcely so long, 4th very slender, as long as the 2nd (2).

Head rhomboidal, the forehead trigonate, neck very short or concealed: eyes lateral, very prominent: ocelli 2, remote, minute, placed at the base of the head, close to the hinder angles of the eyes (1 the head in profile). Thorax twice as broad as the head at the base, trigonate, anterior margin truncated, the base convex: scutel moderate, triangular. Elytra with the costa notched before the stigma, the apex membranous, with 2 nervures at the base, united and rounded at the apex (9). Wings ample, nearly as long, and broader than the elytra (*). Abdomen ovate, very convex beneath, with a long channel in the female, embracing the ovipositor. Legs moderate, hinder long: thighs simple, hinder the thickest: tibiæ slender and linear, hinder the longest: tarsi short and triarticulate, terminal joint the longest: claws incurved at the base; pulvilli minute (6† hinder tarsus).

HIRTUS *Curt.*—*Guide, Gen.* 1109 and 1120.

Slate-black, pilose and sparingly clothed with short depressed yellow hairs: antennæ $\frac{2}{3}$ as long as the body, 2nd joint slightly clavate: head as broad as the base of the thorax; neck none: thorax transverse, a little narrowed before: elytra slightly convex, membrane and wings none: hinder legs very long: tips of thighs, excepting the hinder which are very stout, and the tibiæ, ferruginous, base and apex blackish.

In the Author's Cabinet.

THE type of the genus *Capsus* is well characterised by the clavate 2nd joint of the antennæ and the slenderness of those that follow: my genus *Chlamydatus* is distinguished from *Capsus* by the antennæ, the 2nd joint being scarcely clavate, by the elytra wanting the membranous apex, and by the absence of the wings. The species figured seems to be so intermediate that I doubt whether it will be necessary to retain the genus; this however will be best ascertained by dissection.

For the present, therefore, I shall give sections for the British species contained in my cabinet.

1. CAPSUS, with a membrane to the elytra and perfect wings.

* Neck very narrow.

1. tricolor Linn.—Wolff. pl. 4. f. 35.

On nettles in the summer.

2. Danicus Fab.—Wolff. 4. 34.—Hahn. pl. 2. f. 9.

Found also on nettles with the former species.

** Neck broader.

3. semiflavus Linn.—flavicollis Fab.—Wolff. 4. 32.—ater Hahn. pl. 20. f. 65.

June, sandy places, Isle of Portland; m. July, Dover.

4. ater Linn.—Wolff. 15. 146. var.—tyrannus Fab. var.—croceus Geoff. var.

May, common in grassy places; June, Darent; August, sand hills, Sandwich.

5. unicolor Hahn. 59. 179. A.

Opaque black, with scattered short yellowish hairs: membrane fuscous, iridescent: antennæ short, basal joint elongate, pyriform, 2nd stout fusiform: length $1\frac{3}{4}$ lines.

Taken near Oxford in July.

2. CHLAMYDATUS, membrane and wings wanting.

6. hirtus Curt. Brit. Ent. pl. 693.—saltator Hahn. pl. 76. f. 236.?

Whether Hahn's figure be intended for my insect I cannot determine, for he has not indicated the yellow hairs upon it; the hinder thighs are much thicker than in my specimens, the tibiæ are entirely ochreous, and the tarsi are very short.

I took 3 specimens off grass in dry meadows near Sandwich, the middle of last August.

7. marginatus Curt.

Olive-black, with short ochreous pubescence; head and thorax shining, the former ochreous at the base; elytra with a broad ochreous space at the base and a narrow margin, sometimes all round, of the same colour: abdomen black: hinder legs very long and the thighs very thick; legs ochreous, thighs black, the tips and anterior tibiæ ferruginous: 1 line long.

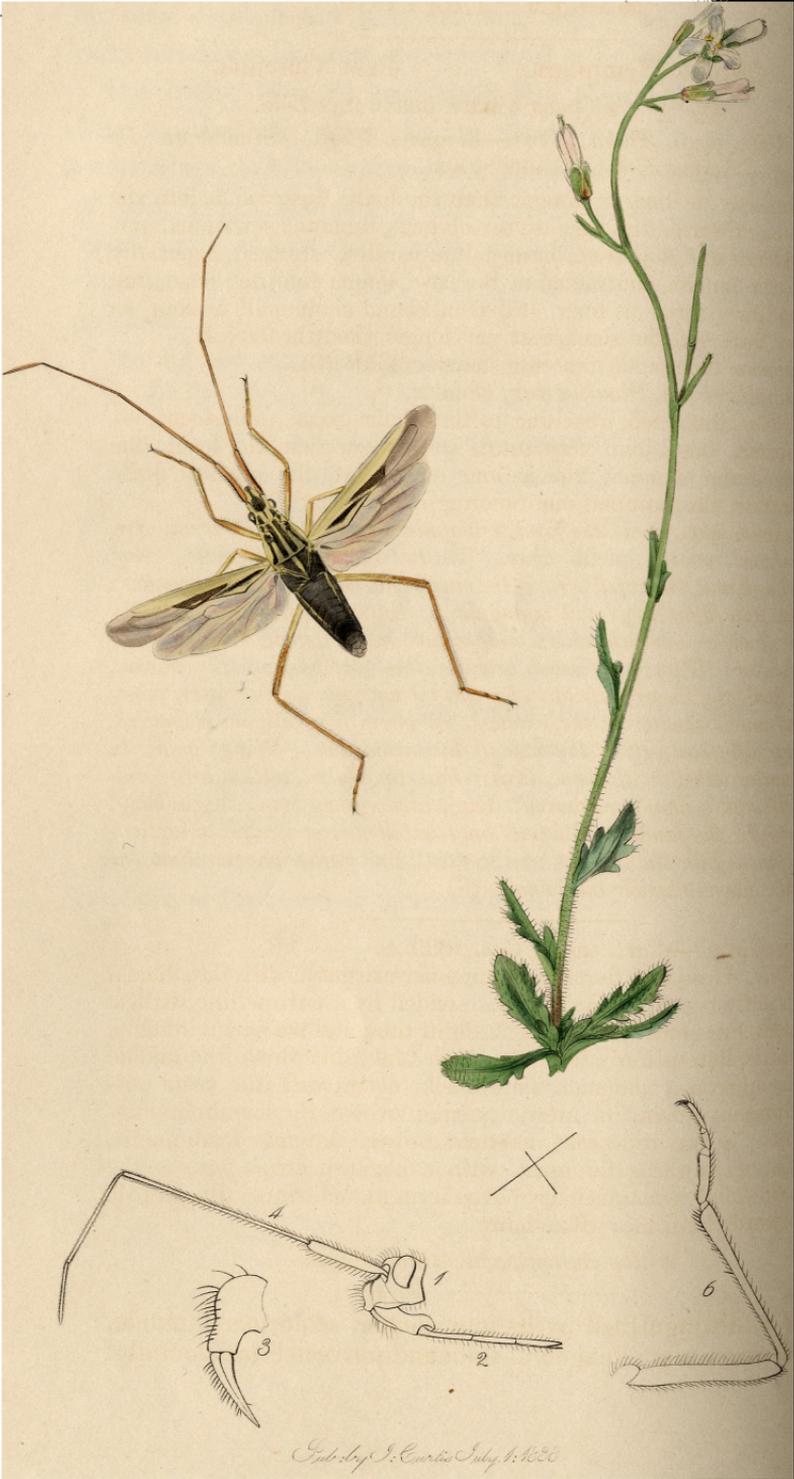
Not uncommon on the sand hills at Lowestoft the beginning of June. It resembles the *Cimex grylloides* Linn. in colour, but it is much smaller, and the antennæ are quite different.

8. ochripes Curt.—ambulans? Hahn. 108. 337. pupa of ♀.

Shining black, legs pale yellow, tips of tarsi fuscous: 1 line long.

I took a single specimen during my last visit to the Western Isles of Scotland.

The Plant is *Inula Helenium*, Elecampane, from Ryde in the Isle of Wight, communicated by Dr. Bromfield.



MIRIS TRITICI.

ORDER Hemiptera.

FAM. Coreidæ.

*Type of the Genus, Cimex dolabratus Linn.*MIRIS *Fab., Lat., Hahn., Curt.*—*Lygæus Wolff.*—*Stenodema De Lap.*—*Lopus Hahn.*—*Cimex Linn.*

Antennæ as long or longer than the body, inserted before the eyes, towards the base of the clypeus, remote, setaceous, pubescent and 4-jointed, basal joints parallel, stoutest, especially in the female, contracted at the base, longer than the head, 2nd capillary thrice as long, 3rd slender and about half as long as the 2nd, 4th the slenderest, not longer than the 1st (4).

Labrum elongated, tapering, hairy outside (3).

Mandibles and *Maxillæ* very slender.

Labium inflected, reaching to the hinder coxæ, pubescent, 4-jointed, basal joint very stout, not longer than the head, the remainder slender, 2nd as long as the 1st, the others a little shorter, the terminal one tapering at the apex (2).

Head rhomboidal, small, the front triangular: eyes small, lateral, very prominent, ovate: ocelli none. Thorax elongate-trigonate, being narrowed and truncated before, the base broad with the angles rounded; scutel tolerably large and triangular. Abdomen flat and margined above, convex beneath with a long suture in the female to receive the ovipositor. Elytra not much broader than the base of the thorax, very long and linear, extending beyond the abdomen in the males, sometimes much shorter in the females, nervures few, stigma elongated, a long elliptical cell at the base of the membrane. Wings ample in the males, lobed at the base, larger than the elytra, with a large costal cell and 4 simple nervures. Legs, hinder very long: thighs long, especially the hinder: tibiæ as long but slenderer: tarsi triarticulate, basal joint the longest and stoutest, 2nd rather shorter than the third: claws slender and simple (6).

TRITICI Kirby?—*Curt. Guide, Gen.* 1099. 8.

Male. Head and thorax sulphureous variegated with slate black, the latter with 2 black stripes divided by a narrow line, with 2 black lines outside inclosing 2 slight tubercles before the middle, scutel slate-colour, with the edges and a line down the middle sulphureous: abdomen slate-black, elytra with the costa sulphureous-green, the interior portion brown, the membrane fuscous: wings iridescent, nervures brown: antennæ ferruginous, fuscous towards the apex, with a blackish stripe outside the basal joint, which is hairy: legs ferruginous-ochre; thighs pale towards the base: tibiæ hairy.

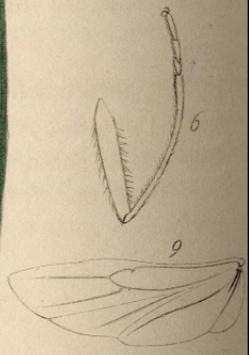
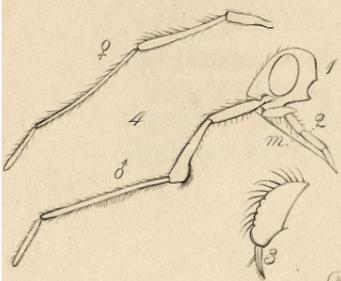
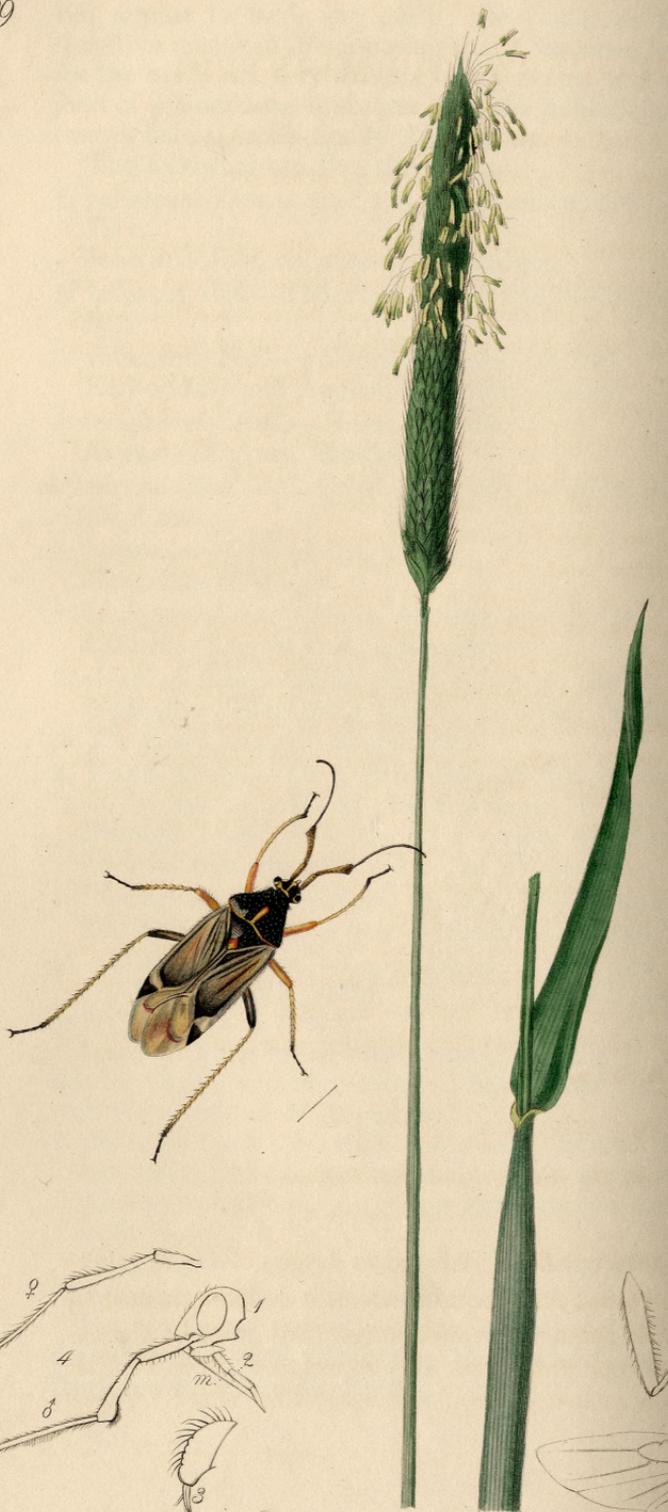
In the Author's and other Cabinets.

MIRIS is distinguished by its long slender setaceous antennæ, with the basal joint elongated, stout and porrected horizontally;

this is stouter in the females, and often very hairy. *Miris* does not appear to have any ocelli; the *Count de Castelnau* is therefore mistaken in supposing that *Chorosoma* is allied to it, for the ocelli are very distinct in my genus, and the terminal joint of the antennæ is stouter than the penultimate, so that it cannot belong to his family *Astemmites*.

The following are British species.

1. *pallescens* *Don. v. 3. pl. 101. f. 5. 6. and pl. 102?*—*Marshami Turt.*
June and July, on grass under hedges.
2. *holsatus* *Fab.—Hahn. pl. 85. f. 256.—albidus Hahn. 53. 162.*
3. *ruficornis* *Fall.—pulchellus Hahn. 66. 200.*
End of July and August, Tollsbury, Essex.
4. *longicornis* *Fall.—Hahn. 85. 258.*
August, off grass, Sandwich.
- 4^b. *virens* *Linn.—Hahn. pl. 54. f. 165.—ruficornis Hahn.? pl. 71. f. 220.*
5. *hortorum* *Wolff. pl. 16. f. 154.*
June, Isle of Wight.
6. *lævigatus* *Linn.—Hahn. 85. 259. and 53. 161. var.?*
Pastures, August and September.
7. *erraticus* *Linn.—Hahn. pl. 54. f. 163. ♂. 164. ♀.*
September, Blackgang Chine; October, in New England, on the Essex shore in abundance.
8. *Triticum Kirby?*—*Curt. Brit. Ent. pl. 701. ♂.* As it has been sent to me by a friend with this name, I have retained it, although I suspect it is only a variety of *M. erraticus*. I have taken it, the end of July, at Tollsbury.
10. *ferrugatus* *Fab.—Hahn. 86. 263. ♂.—dolabratus Fab.*
Beginning of June, grass in meadows, Oxford, &c.
11. *dolabratus* *Linn.—Lopus Hahn. 261. ♂. 262. ♀. and 53. 160. ♂.—lateralis Wolff. pl. 11. f. 109. ♂.—abbreviatus Wolff. pl. 11. f. 110. ♀.*
June, on grass in hay-fields round London in abundance; also in August and September: I have taken the male paired with the female of *M. ferrugatus*.
9. *picticeps* *Curt.* Having now a series of this insect, I am inclined to believe that it is only a pale purplish variety of *M. dolabratus*, with the yellow stripe on the thorax dilated at the base.
July, Dover; August, Sandwich, off dried grass.
12. *calcaratus* *Fall.—dentata Hahn. pl. 2. f. 8.*
For specimens of *Arabis stricta*, Bristol rock cress, I am indebted to G. H. K. Thwaites, Esq., who found them last April, on St. Vincent's Rocks.



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HARPOCERA BURMEISTERI.

ORDER Coleoptera. FAM. Coreidæ.

Type of the Genus, Harpocera Burmeisteri.

HARPOCERA Curt.

Antennæ inserted before and a little below the eyes, shorter than the body, pubescent, 4-jointed, 2 basal joints long and stout in the male (4 ♂), 1st subcylindric, 2nd hatchet-shaped, being dilated beneath near the apex and densely ciliated, 3rd and 4th linear, the former very long, curved and densely hairy beneath near the centre, the latter not half so long, the apex compressed; shorter in the female (4 ♀), basal joint much shorter than in the male, 2nd longer and simply clavate.

Labrum small, lanceolate and pubescent (3).

Mandibles and *Maxillæ* slender filaments (2 m).

Labium rather short, not half so long as the antennæ, attenuated, composed of 4 nearly equal joints (2).

Head *small, transverse-ovate*; neck *none*: eyes *lateral, very prominent and ovate*: ocelli *none*. Thorax *trigonal, very narrow and truncated before*; the base *broad, concave in the middle, the angles rounded*: scutellum *much smaller than the thorax, triangular*. Abdomen *soft, the apex compressed and horny in the male, with a ridge beneath in the female, reaching nearly to the base*. Elytra *ample, with a large portion of the apex membranous, with an oval cell and 2 longitudinal nervures on the basal portion*: wings *as large, with a long oval costal cell and 4 longitudinal nervures* (9). Legs, *hinder the longest*: thighs *compressed, hinder the stoutest*: tibiae, *anterior long, slender, curved towards the apex in the male* (6), *nearly straight in the female, the others slender, with numerous short spiny bristles, the hinder considerably the longest*: tarsi *short and triarticulate*; basal joint *the shortest, the others elongated, nearly of equal length*: claws and pulvilli *minute*.

BURMEISTERI Curt. *Guide, Gen.* 1105?

In the Author's and other Cabinets.

THIS pretty insect is nearly related to *Lygus* of Hahn and to my genus *Pantilius*, from both of which it is distinguished by the shorter 2nd joint, and much longer 3rd joint of the antennæ. The same characters also separate it from *Pœcilosoma*, which it otherwise very much resembles, which induced

me to locate it close to that genus ; and although it seems in that situation to intersect two natural groups, yet it is difficult to find a place where it interferes less with the natural affinities of the allied groups.

It is remarkable that this curious and striking species should never have been figured or described ; but it does not appear to be known upon the continent, otherwise Wolff or Panzer would have figured it, and it has not yet been published in any of Hahn's fasciculi in my possession. It is probably the insect called *Azinecera dispar* in Stephens's Catalogue, and as such I marked it in the Guide ; but as I have no means of ascertaining that they are identical, I have named it *Harpocera*, in allusion to the antennæ, which resemble a reaping-hook or sickle, and the specific name is given in honour of Professor Burmeister of Berlin, whose talents are now devoted to the investigation of the Homoptera.

It does not seem to be a rare species, for I have met with it in several localities ; in May in Coomb-wood, Surrey, upon grass ; on the foliage of oak-trees in the plantations at Arno's Grove, Southgate, in abundance ; also in a garden near London, as well as in Bagley-wood or at Shotover near Oxford in July. The following is the description of *H. Burmeisteri* *Curt. Brit. Ent.* pl. 709.

Male dark piceous, with short ochreous pubescence ; a line down the crown yellow, a broader one on the disc of the thorax not reaching the anterior margin, orange ; apex of the scutellum orange and yellow, base of abdomen ochreous : antennæ dull pale brown, darkest at the apex : elytra fuscous-ochre a little clouded ; stigma piceous, the internal margin whitish ; the membrane iridescent and pale fuscous, with a red spot or line at the apex of the cell : thighs orange, hinder piceous, except at the base ; tibiæ ochreous, the tips, bristles and tarsi piceous.

Female lighter : head yellow with 2 shining oval black spots on the crown : thorax ochreous, the sides more orange, with 2 transverse oval black rings in front : abdomen entirely ochreous : hinder thighs slightly fuscous only at the apex.

The plant is *Alopecurus pratensis*, Meadow Fox-tail-grass.