

Mr. E. Saunders exhibited a good example of *Pachetra leucophæa*, taken by Mr. N. E. Brown from off a gas-lamp at the Red-Hill Station, on 14th May, 1868.

Mr. Horne (present as a visitor) narrated an account of the antagonism existing between rats and scorpions in India. He had confined the animals under a glass case, in order to observe their movements, and found that the rat invariably disabled the scorpions by seizing them by the tail, after which it proceeded to pull off the legs; but did not eat the creature.

Mr. Pascoe made some observations on the genera *Aprostoma*, *Mecedaneum* and *Gempylodes* regarding the possible identity of the genera. He exhibited a species of *Hemiptera* (perhaps an *Odontoscelis*) from Toulon, which he could not find described in any work.

The Secretary read a letter addressed to him by Dr. Butterfield, P. O. Box No. 1473, Indianapolis, Indiana, wherein the writer expressed his desire to give a tolerably complete collection of the *Lepidoptera* of his State, in exchange for a similar one of British species.

Mr. Butler communicated a description of a new species of *Hestina* from India, which he proposed to call *H. Zella*. It bears a strong mimetic resemblance to *Danaïs Juventa*.

Professor Westwood exhibited drawings of a minute insect belonging to the family *Aphida*, which was causing great damage of the vineyards of the south of France, and also occurs in England. He had first become acquainted with the creature in 1863, when he received some vine-leaves attacked by it. A puncture being made in the upper cuticle, the wounded part thickens, bulging out beneath, and forming a concavity above, round the edges of which small imbricated scale-like growths are produced, closing over the cavity; in this nidus the insect produces its young. In the spring of last year he read a paper on the subject before the Ashmolean Society, and applied the name of *Peritymbia vitisana*. But it is under other circumstances that the greatest damage is done. The same species (for he could detect no difference whatever) is subterranean also, then sucking the extremities of the young root-fibres, thus threatening the life of the plants. Under this condition the French had termed it *Rhizaphis vastatrix*. Dr. Signoret considered it to be a species of *Phylloxera*.

Mr. Smith mentioned that he had observed a parallel instance of great diversity of habit in *Cynips aptera*, which ordinarily makes more or less agglomerated masses of galls on the roots of the oak. But he had once found small galls formed of imbricated scales on the surface of the principal stem under-ground, and from them had bred an insect which he could in no way separate from the ordinary *C. aptera*.

BRITISH HEMIPTERA: ADDITIONS AND CORRECTIONS.

BY J. W. DOUGLAS AND JOHN SCOTT.

Section 6.—TINGIDINA.

FAMILY 2.—TINGIDIDÆ.

Genus 1.—MONANTHIA.

Species 9.—MONANTHIA SIMILIS, n. sp.

Ochreous-grey, with small black marks on the reticulation and

keels; side margins of the *pronotum* and anterior margin of the *elytra* wide, with four rows of meshes, the circumference of the former broadly rounded anteriorly.

In structure, marking, colour, and size, this species is very like *M. ampliata*, from which it differs in the following respects. The antennæ are perceptibly thicker, and much shorter, the spines on the head longer and sharper, the side margins of the *pronotum* more rounded at the front, the curve being continued regularly to the hood (in *ampliata* the margin *projects* anteriorly in an obtuse angle, and then goes in an oblique straight line to the hood).

Two specimens taken by Mr. Wollaston, but the place and date of capture are not recorded.

Section 9.—CAPSINA.

FAMILY 3.—MIRIDÆ.

Genus 2A.—TERATOCORIS, Fieb.

Species 2.—TERATOCORIS SAUNDERSI, n. sp.

Bright green, shining, sparingly clothed with short, sub-erect, yellow hairs.

3. *Head*—With a black central line extending throughout its entire length, widest at the posterior margin; round the insertion of the antennæ narrowly black. *Antennæ*, 1st joint green, clothed with short dark hairs; base with a narrow black ring, apex more or less pitchy-red; 2nd brownish-pink, apex brown; 3rd and 4th pitchy-black. *Eyes* reddish-black. *Rostrum* greenish-yellow, apex black.

Thorax—*Pronotum* green, with a black central line extending throughout its entire length; at the anterior angles a short, somewhat oblique black streak reaching to the callosities, the latter with a slight fovea near the centre; collar and posterior portion of the disc finely shagreened. *Scutellum* green, with a more or less distinct short black streak between the base and the transverse channel; at the basal angles a deep fovea. *Elytra* green, as long as the abdomen, finely shagreened. *Clavus*, inner margin very narrowly black. *Membrane* with only one cell, pale fuscous with a purple iridescence. *Cell* green, almost entirely subcoriaceous and finely shagreened; cell nerve green. *Sternum* green. *Prosternum*, on the sides towards the front, with a short, cuneate, black patch. *Legs* green, clothed with short, sub-depressed, dark hairs, *Thighs*, at the apex, more or less inclined to reddish; 1st and 2nd pairs, on the underside, with a row of erect hairs. *Tibiae* greenish or greenish-yellow, thickly clothed with short, sub-depressed, brownish-yellow hairs; 2nd and 3rd pairs frequently inclined to brownish-pink or yellow at the apex. *Tarsi* brownish-yellow, apex of 3rd joint black. *Claaws* brown.

Abdomen green underneath.

- ♀. Developed form. *Head* and *pronotum* as in the ♂, the central line of the head not so distinct. *Scutellum* without a central line; apical portion transversely wrinkled. *Elytra* longer than the abdomen. *Membrane* with two cells, the lesser one very narrow, and almost forming an isosceles triangle. All the other characters as in the ♂.
- ♀. Undeveloped form. *Head*, *pronotum*, and *scutellum* without the black central line; posterior margin of the callosities blackish. *Elytra* shorter than the abdomen. *Cuneus* not distinct from the corium. All the other characters as in the developed form. Length ♂ 2—2½; ♀ 2½—3 lines.

Most nearly allied to *T. antennatus*, Boh. (Fieb. Europ. Hem. 246, 1), but the absence of the streak along the margin of the abdomen, and the blood-red hinder tibiæ, will at once enable any one to separate them.

We have much pleasure in naming the species after Mr. Edward Saunders, its captor, who took a few examples at Deal, by sweeping among rushes, &c., at the end of June and beginning of July. He has also an undeveloped ♀, taken near Aberdeen.

Genus 3.—LOPOMORPHUS.

We now believe that the insect described in the "British Hemiptera," page 224, 1, as *Lopomorphus carinatus*, is only a small and curious variety of *L. ferrugatus*, to which the description must also apply.

FAMILY 4.—PHYTOCORIDÆ.

Genus 2.—PHYTOCORIS, Fall.

Species 2A.—PHYTOCORIS MARMORATUS, n. sp.

Pale green, with large irregular black patches, sometimes almost covering the entire elytra; at others, having somewhat of a banded appearance; clothed with depressed white hairs, slightly curled, and disposed in a confused manner, and interspersed with sub-erect black ones.

Head—pale yellowish or greenish-white at the posterior margin, and adjoining ear eye a small piceous or blackish spot. *Antennæ* black, as long as the body 1st joint a little more than half the length of the second, with one or two small, somewhat round white spots towards the base, and two or three oblong ones towards the apex on the upper side, and a few long, erect, black hairs; apex slightly piceous, 2nd with a narrow white ring at the base, and another, whitish or brownish-white, of about the same size beyond the middle; 3rd about two-thirds the length of the second, base narrowly white; 4th shorter than the 1st; below the eyes and beyond the side-lobes of the face a black streak. *Rostrum* pale-yellowish or greenish-white, apex piceous.

Thorax—*Pronotum* black, collar pale green except at the sides; posterior margin white, in the centre forming a triangular patch, and on either side, next the posterior angle, a lunate one; disc with an oblique green streak on each side of the centre, terminating in a round spot on the callosities; sometimes the entire centre is pale green, of a trapeziform shape, or having, in addition thereto, a black X-shaped patch between the callosities. *Scutellum* green, base as far as the transverse channel piceous or black, except a narrow streak within the basal angles; on each side, before the apex, a short, oblique black streak, becoming fuscous as it approaches the centre, from which it is separated by a pale narrow line; apex white. *Elytra* green. *Clavus* with a large irregular black patch next the suture, interrupted by about three short, oblique green streaks, sometimes dividing it into separate patches, or, almost entirely black with the exception of the three short streaks and a narrow line extending from the scutellar angle to the apex, which last is always black. *Corium*, anterior margin with four or five black spots of irregular size, sometimes fewer, apex broadly black; disc with an irregular broadish black band generally opposite to the apex of the scutellum, and more or less marbled with small green spots of irregular shape; below the band and next the claval suture a few more or less confluent black spots, the obtuse rhomboidal patch at the apex margined with black on its inner margin and along the membrane suture as far as the inner basal angle of the cuneus, where it terminates in a black spot, sometimes detached, between this and the apex of the anterior margin generally rosy. *Cuneus* broadly and irregularly black at the apex, in which are some minute green spots; extreme apex pale. *Membrane* pale, inner basal angle blackish; the entire lower half of the disc with irregular confluent blackish spots and patches, darker towards and at the apex of the anterior margin; below the apex of the cuneus a small triangular blackish patch. Cell nerves pale green; large cell nerve for about two-thirds its length blackish; lesser cell nerve black; base and apex of the large cell more or less and the lesser cell entirely blackish. *Sternum*—*Prosternum* on the sides broadly black, *xyphus* green. *Mesosternum* black or deep pitchy-black. *Metasternum* on the sides black. *Legs* greenish-white or yellow. *Coxae* at the base on the outside with a piceous spot. *Thighs* clothed with fine, short, depressed pale hairs, intermixed with long, erect brown ones; apex narrowly pale; 1st pair marbled with black for more than one-third of their length, generally leaving a narrow black ring before the apex, the colour carried along the upper- and under-side, in a more or less interrupted line, nearly to the base; 2nd with a narrow black ring before the apex, the marbling not encircling the limb generally, but interrupted on the inner and outer sides by the longitudinal furrow, the colour carried in a more or less interrupted line along the under-side nearly to the base; 3rd with a broad, oblique pale ring, and between it and the apex, next the under-side a round pale spot, the marbling carried along the upper- and under-sides somewhat broadly for about three-quarters of their length. *Tibiae*, all the pairs with three black rings, and clothed with long, erect, brown hairs; 1st pair, at the base on the inside with a small black spot, a ring a little distance from the base, a second in the middle, and a third

at the apex, the latter piceous; 2nd, the knee on the under-side blackish or piceous, a ring a little way from the base, a second in the middle, and a third about its own width from the apex; 3rd, the rings placed as in the 2nd pair, the 1st ring generally continued to the base as a line on the under-side; upper-side with one or two pale spots. *Tarsi* piceous, 2nd joint yellowish. *Claws* brown.

Abdomen—Underneath black, with a broad green central streak.

♀ paler than the ♂.

Length $2\frac{1}{2}$ —3 lines.

This insect is very nearly allied to *P. tilia* and *dubius*, but it is most likely to be mistaken for the former. Its general darker appearance may serve to distinguish it from that insect and from *P. dubius* by its unicolorous head and black base of the 1st joint of the antennæ.

A few examples have been taken on palings at Blackheath, in Bexley Road, and round Lewisham, between the end of July and end of August.

FAMILY 6.—LITOSOMIDÆ.

Genus 1.—LITOSOMA.

Species 6A.—LITOSOMA OBSOLETUS.

ORTHOTYLUS OBSOLETUS, Pict. and Mey., Fieb., Europ. Hem., 289, 4.

Elongate, somewhat parallel. Greyish or yellowish-green, thickly clothed with short depressed white hairs, intermixed with longer, erect black ones. Cells of the membrane pale golden yellow.

Head—Posterior margin keeled. *Antennæ* pale yellow, 3rd and 4th joints brownish.

Eyes pitchy-black. *Rostrum* pale yellow, apex piceous.

Thorax—*Pronotum*, callosities prominent, the transverse channel behind them deep.

Elytra—*Membrane* very pale fuscous; cell nerves yellow. *Cells* pale golden yellow. *Legs* pale greenish-yellow. *Thighs* clothed with short, depressed, white hairs. *Tibiae* pale yellowish. *Tarsi* yellowish, 4th joint and claws brown.

Abdomen—Underneath fuscous-green.

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

This insect may be distinguished from *L. concolor*, to which it is closely related, by its larger size and duller appearance (*concolor* being of a deep, somewhat bluish-green colour, and having a much darker *membrane*), and its unicolorous cell nerves.

We have only seen a single example which we can refer with any certainty to this species. It was taken in Bexley Road, Kent, on the 5th August, and was probably beaten out of fallow.

FAMILY 12.—PSALLIDÆ.

Genus 3.—PSALLUS.

Species 8A.—PSALLUS WHITEI, n. sp.

Red or reddish-yellow, clothed with short, depressed, yellow and black hairs intermixed, the latter sub-erect. *Elytra* with a distinct trapeziform blackish patch.

Head—pitchy-black, posterior margin yellowish-white. *Antenna* pale yellowish, 1st joint at the base narrowly black, 4th at its insertion blackish. *Rostrum* yellowish, 1st joint and apex black.

Thorax—*Pronotum* broad, callosities red, disc posteriorly inclined to reddish-yellow. *Scutellum* red, flattish convex, anterior portion in the middle piceous. *Elytra*—*Clavus* reddish-yellow, inner margin at the base narrowly blackish, suture at the apex slightly piceous. *Corium*, anterior margin as far as the 1st nerve red, posterior margin narrowly white, disc reddish-yellow, next the first nerve very narrowly yellowish, below the centre a distinct trapeziform blackish patch, its lower side almost in a line with the apex of the clavus. *Cuneus* red, base narrowly white. *Membrane* black, between the apex of the cuneus and the lesser cell nerve a *white* triangular patch, to the apex of which is attached a short oblong whitish patch, in the middle of the disc, and extending from in a line with the apex of the large cell to almost the inner margin, a broad, curved, whitish patch; inner marginal nerve blackish. *Cell nerves* red, apical half of the large cell nerve black; lesser cell almost entirely black, large cell black at the apex. *Legs* red. *Thighs*, 1st pair narrowly yellowish at the apex, 3rd with a blackish patch in the middle of the inner side near the apex. *Tibiae* pale yellowish, with erect, somewhat spinose black hairs, 3rd pair in addition with black spots, apex narrowly brown. *Tarsi* brownish-yellow, 3rd joint and *claws* blackish.

Abdomen—Underneath red, with a piceous line along the sides as far as the genital segments.

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

Resembles *P. varians*, but is of a deeper red colour (more like *roseus*), and the blackish patch in the corium is of a different shape to that in the latter species, besides which the *black head* is sufficient to enable any one to distinguish it.

We have only seen a single specimen (♀), taken by Dr. Buchanan White at Rannoch, after whom we have much pleasure in naming it.

FAMILY 13.—CAPSIDÆ.

Genus 5.—ATRACOTOMUS.

Species 1.—ATRACOTOMUS MAGNICORNIS.

The description (without the synonyms) at page 435 of the "British Hemiptera," and figure 4, plate 14, of the same work, will both require to be transferred to *A. mali*, Mey. The latter insect literally swarmed on apple-trees during the past season, and from a careful comparison of a long series of specimens with the insect described under the former name we have satisfied ourselves that it is an error.

With two exceptions, the distinctness of the following species, determined more than a year ago, has been confirmed by Dr. Fieber.

AQUATILIA.

Section 5.—CORIXINA.

FAMILY 1.—CORIXIDÆ.

Genus 1.—CORIXA, Geoff.

CORIXA VENUSTA, n. sp.

Broad, oval, dark brown with ochreous markings, delicately ras-trate; *pronotum* with 6—7 straight yellow lines, *corium* with very fine transverse yellow lines interrupted by black longitudinal streaks, of which one across the posterior inner angle and one at the angle are the most conspicuous.

Head ochreous; *crown* brownish; facial depression in the ♂ oval, deep, extending the whole length of the face, far up between the eyes.

Thorax—*Pronotum* with 6—7 straight, entire yellow lines, the dark intervals scarcely reaching the sides; disc in front with a very small carinate elevation. *Elytra*—*Clavus* with narrow, oblique, parallel yellow lines, those in the middle a little shortened inwardly. *Corium* with very fine, somewhat contorted, transverse yellow lines, and broad, dark intervals, traversed longitudinally by a long broad black vitta across the posterior inner angle, a short line at the angle, narrow long line just within the anterior margin, all black, and an indistinct dark interruption down the centre of the disc; marginal channel pale livid yellowish, somewhat infuscated outwardly and at the base, apex yellow. *Membrane* with small, hieroglyphic, ochreous and black markings, on the inner margin straight and parallel lines; the disc traversed longitudinally by two more or less distinct black lines. *Sternum* ochreous, fuscous in the middle, *scapula*, *pleura*, and *parapleura*, pale yellow. *Legs* brownish-yellow; *pala* of the ♂ short, broad, roundly cultrate; 2nd pair, *tibia* and *tarsi* black at the apex, 3rd pair, cilia of *tarsi* brown-black.

Abdomen ochreous, fuscous at the base.

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

Allied to *C. semistriata*, Fieb.

Of this pretty and well-marked species, two examples were taken in small streams near Rothsay, Isle of Bute, in September, 1866 (Doug. & Scott); and one was captured near Carlisle, in 1868 (J. Hunter).

CORIXA DECORA, n. sp.

Narrow, parallel-sided, brown-black, rastration of *pronotum*, *clavus*, and *corium* very fine. *Pronotum* with seven fine undulating lines; *Clavus* and *corium* with fine, broken, yellow lines; marginal channel pale, infuscated at the base.

♂. *Head* fuscous-brown, facial depression slight, flat, with a fine ridge in front.

Thorax—*Pronotum* short, rounded behind, in front with a very small elevation, disc with seven transverse, narrow, entire, yellow lines, the front ones undulating, the black intervals of about equal width. *Elytra*—*Clavus* with narrow

yellow lines scarcely reaching the inner margin, three or four of them at the base broader, oblique, and entire, the rest less regular, shorter, and interrupted, some outwardly furcate. *Corium* with short, interrupted, transverse, yellow lines, forming on the inner margin a longitudinal row of small linear spots, exterior to which is a narrow longitudinal black line, the posterior discoidal markings finer and somewhat twisted; marginal channel pale, infuscated on the base and edge, posteriorly with faint transverse lines; membrane suture yellowish, narrow, ill defined. *Membrane* covered with hieroglyphic markings, outer margin black. *Sternum*, *scapula*, *pleura*, and *parapleura* ochreous. *Legs* pale yellow; *pala*, ♂, short, roundly cultrate; 2nd pair, apex of *tibia* and *tarsi*, and the cilia of the posterior *tarsi*, black.

Abdomen fuscous-black, indistinctly ochreous in the middle. Length $2\frac{1}{2}$ lines.

Allied to *C. limitata*, Fieb.

A single ♂ taken in September, 1866, in a small stream running into Loch Fad, Isle of Bute (*Scott*).

CORIXA DUBIA, (*Fieb.*), n. sp.

Black with yellow markings. *Pronotum*, *clavus*, and *corium* finely rastrate; *pronotum* with a distinct short keel, and 6—7 alternate, narrow, irregular, black and yellow lines; *clavus* with straight lines throughout; *corium* with interrupted unparallel lines; marginal channel pale, black at base.

♂. *Head* yellow, brownish on the posterior margin of the crown; facial depression flat, extending just beyond the angle of the eyes.

Thorax.—*Pronotum* in front with a fine, distinct, sharp keel, extending about one-third of the length; disc with 6—7 narrow, irregular, yellow lines, separated by as many similar black ones, the former being interrupted in places by the confluence of the points of the latter, some of the black lines being also abruptly shortened. *Elytra*.—*Clavus* with narrow, oblique, parallel, yellow lines throughout, all more or less shortened inwardly, sometimes two or three furcate outwardly; *corium* with transverse, not parallel, subfurcate yellow lines, twice interrupted—first near the inner margin, leaving there a longitudinal row of short lines; second, in a less degree and less regularly, just within the outer margin; marginal channel pale, black at the base, and somewhat infuscated posteriorly; membrane-suture yellow, distinct; *membrane* covered with twisted, hieroglyphic characters, straight and parallel on the inner margin; outer margin black. *Sternum* black, *scapula*, *pleura*, and *parapleura* pale yellow, black inwardly. *Legs* yellow; *pala* of the ♂ rather broad, roundly cultrate; 2nd pair, *tibia* and *tarsi*, at the apices black; cilia of the posterior *tarsi* brown.

Abdomen black.

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

Allied to *C. limitata*, Fieb. A single ♂ taken in September, 1866, in a small stream running into Loch Fad, Isle of Bute (*Scott*).

CORIXA PERPLEXA, n. sp.

Broad, ochreous with black markings; *pronotum*, *clavus*, and *corium* finely rastrate; *pronotum* with 7—9 very fine, irregular, confluent lines; *clavus* with oblique, irregular lines; *corium* with short, twisted lines interrupted on the inner posterior angle; marginal channel livid ochreous.

♂. *Head* ochreous, brownish at the base of the crown, facial depression shallow, flat, reaching to the angles of the eyes.

Thorax—*Pronotum* wide, rounded behind, in front a very short keel, disc with 7—9 very fine, irregular black lines, confluent in places, the ochreous intervals rather wider. *Elytra*—*Clavus* with oblique black lines; those at the base narrow, straight, with clear ochreous intervals, the remainder broader, irregular, undulating, sometimes furcate outwardly; *corium* throughout with irregular, abbreviated, twisted, transverse, black lines, their outer ends more or less joined together; inwardly, on the inner posterior angle, the lines are traversed by, and joined to, a short, irregular, longitudinal black line, and there is a still shorter one at the apex of the clavus; marginal channel livid ochreous; membrane suture distinct, ochreous; *membrane* covered with short, twisted hieroglyphic markings, the inner and posterior margins with short, straight close, parallel black lines. *Sternum*, *scapulae*, *pleurae*, and *parapleuræ* pal ochreous. *Legs* pale ochreous; *palæ*, ♂, narrow, roundly cultrate; 2nd and 3rd pairs, *tibiæ* rather infuscated; 3rd pair, *tarsi*, cilia black.

Abdomen black, posterior segments fusco-ochreous in the middle.

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

Allied to *C. limitata*, Fieb.

Two specimens taken in a small stream at the road-side, near Rothsay, Isle of Bute, in September, 1866 (*Douglas*).

CORIXA FABRICII.

CORISA FABRICII, Fieb., Spec. Coris., 33, 38, t. 2, fig. 16 (1851). Flor, Rhyn. Liv., i, 796, 9 (1860).

CORISA FABRICII, Walleng., Oefv., K. Vet. Akad., 149, 16 (1854). Fieb., Europ. Hem. 93, 31 (1861).

? CORISA ABDOMINALIS, Fieb., Syn. Coris., No 22 (1848).

Brown-black. *Pronotum*, *clavus*, and *corium* rastrate. *Pronotum* with 7 yellow lines, marginal channel of the elytra black, the basal inner half yellowish.

Head yellowish, with the crown brown, or entirely brown; facial depression in the ♂ extending a little beyond the lower angles of the eyes, flat, not hollowed out, on the front margin carinate.

Thorax—*Pronotum* rounded behind, in front a small keel, disc with seven, mostly straight, yellowish lines, sometimes interrupted or obscured. *Elytra* with a

few whitish hairs; *clavus*, as far as the middle, with entire, straight, rather oblique, parallel, yellowish lines, posteriorly the lines are slightly undulating, and sometimes shortened on the inner side; *corium* with fine undulating, or broken and angularly confluent, transverse yellowish lines, interrupted near the inner margin, and there forming a longitudinal series of very short marks, posterior inner angle narrowly black; marginal channel black, the basal inner half and the apex yellowish; membrane-suture narrowly yellow; *membrane* covered with small, irregular pale markings; exterior margin black. *Sternum* black; *scapulae*, *pleurae*, and *parapleurae* black inwardly, more or less broadly pale yellow outwardly. *Legs* yellow or brown, anterior *thighs* with a fuscous blotch at the base; *palae* in the ♂ short, roundly cultrate, in the ♀ narrower, longer, and more acute. Length $2\frac{1}{4}$ — $2\frac{3}{4}$ lines.

Allied to *C. mæsta*, Fieb.

Taken at Rannoch, by Mr. E. C. Rye and Dr. F. Buchanan White; also in Fifeshire, by Dr. Power.

NOTE.—Fieber described this species in 1848 (Synopsis Corisarum Europæ) under the name of *Corisa abdominalis*, but in 1851 (Species Generis Corisæ) he redescribed it under the name of *C. Fabricii*, without giving any reason for the change. Wallengren and Flor have since adopted the latter name, as also has Fieber again in the "Europäischen Homiptera," so that as the species has become generally known as *C. Fabricii*, we have not revived the prior name, prefixed to a short and somewhat meagre description, although in strictness the latter should be the name used.

(To be concluded in our next.)

DESCRIPTION OF A NEW SPECIES OF BIBIO.

BY G. H. VERRALL.

On the wings of this and allied species of *Bibio*, only two blackish, strongly-marked veins reach the margin, the first of these (the sub-costal) ends in the stigma, the other (the cubital) springs from the first at about two-thirds of its length, and ends before the tip of the wing. From the base of the wing another blackish vein (the discoidal) starts, which becomes indistinct about the middle, shortly afterwards forking and ending in two indistinct veins below the tip; this vein, at the end of its blackish portion, is connected with the base of the cubital by a blackish oblique transverse vein,—which I call *the* transverse vein, as in the whole order of *Diptera* it is the chief connecting vein between the front and hinder portions of the wing.

B. ANGLICUS; ♂ *ater, pedibus concoloribus, nigro-pilosus*; ♀ *rufa, nigro-pilosa, capite, pleuris, scutello, pedibusque nigris; nervo transverso parte nervi cubitalis basali longiori*. Long. corp. 3 — $3\frac{1}{2}$ lin.

The only described European species with black males and red females having black legs are the common *hortulanus*, Lin., and *siculus*, Lw. From *hortulanus* it differs as follows:—

II *e* = *cratægella*. II *f* = *truncicolella*. III *g* = *resinea*. III *h* = *murana*. III *i* = *gracilalis*. IV *k* = *alpina*. Four groups yet remain to be separated:—

Firstly—*dubitalis* and *ingratella*, the latter being separable from the former by its larger size, broader fore-wing, and by the almost entire absence of black markings.

Secondly—5 species, of which *ambigualis* is the type, namely, that species *cembrae*, *basistrigalis*, *Zelleri*, and *atomalis*. *Cembrae* is pretty easily distinguished from *ambigualis* by its fuscous tints and indistinct markings; *basistrigalis* by the first line being produced along the costa, towards the base of the wing; *Zelleri* by its large size; *atomalis* by its small size.

Thirdly—3 species, of which *mercurella* is the type. From the latter *ulmella* is at once separated by the form of its renal stigma, which is as in group I *b* (cut C); *phæoleuca* by the whiteness of its ground colour and pretty rounded fore-wings.

Fourthly—2 species, *lineola* and *angustea*, the latter having very narrow fore-wings, and otherwise differing much from the former.

For the rest the reader is referred to the plate.

EXPLANATION OF PLATE.

Fig. 1. *Scoparia pallida*, Stp.

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| 2. | <i>ingratella</i> , Zell. |
| 3. | <i>dubitalis</i> , Hüb. |
| 4. | <i>cembrae</i> , Haw. |
| 5. | <i>ambigualis</i> , Treits. |
| 6. | <i>basistrigalis</i> , Knaggs. |
| 7. | <i>Zelleri</i> , Wocke. |
| 8. | <i>atomalis</i> , Dbld. |
| 9. | <i>resinea</i> , Haw. |
| 10. | <i>phæoleuca</i> , Zell. |

Fig. 11. *Scoparia mercurella*, Linn.

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| 12. | <i>ulmella</i> , Dale. |
| 13. | <i>cratægella</i> , Hüb. |
| 14. | <i>truncicolella</i> , Stainton |
| 15. | <i>murana</i> , Curt. |
| 16. | <i>gracilalis</i> , Dbld. |
| 17. | <i>lineola</i> , Curt. |
| 18. | <i>alpina</i> , Dale. |
| 19. | <i>angustea</i> , Stp. |

BRITISH HEMIPTERA: ADDITIONS AND CORRECTIONS.

BY J. W. DOUGLAS AND JOHN SCOTT.

(Concluded from page 268.)

CORIXA BOREALIS, n. sp.

Black, shining; *pronotum*, *clavus*, and *corium* finely rastrate; *pronotum* with 8–9 obscure yellowish lines; all the other yellowish markings obscure.

♀. *Head* and *eyes* tawny. *Pronotum* short, rounded behind, in front with a slight, short keel, disc with 8–9 interrupted or confluent, obscure yellowish lines, the black intervals with a depressed line on each. *Elytra*—*clavus* and

corium with a few short, whitish hairs. *Clavus* with obscure transverse lines, 3 or 4 at the base straight, the rest irregular, and rarely reaching the inner margin. *Corium* with transverse lines, straight at the base, then becoming more and more irregular to the apex, on the inner margin forming a longitudinal row of short punctures; posterior angle clear black; marginal channel pale livid tawny; suture very narrow, yellow. *Membrane* filled with short, curved yellowish marks, inner margin broadly black. *Sternum* black, *pleurae*, and *parapleurae* pale yellow. *Legs* brown-black; *thighs* to base; *pala* narrow, round-cultrate.

Abdomen tawny-black.

Length

♂. Unknown.

Allied to *C. Fabricii*, Fieb.

Two specimens, received by Mr. Brewer, were captured in 1866, by Mr. E. Smith.

CORIXA WHITEI, n. sp.

Tawny-black, with obscure yellowish markings, shining *notum*, *clavus*, and *corium* finely rastrate. *Pronotum* with 7—perceptible yellowish lines, the middle ones interrupted; *corium* with indistinct, fine, yellowish lines, on the former much shortened inwardly, on the latter short and sinuous; channel pale. *Sternum* entirely pale ochreous.

Head—*Crown* brown, posteriorly raised into a sub-acute point, on each elevation a row of 4 or 5 punctures; face yellowish.

Thorax—*Pronotum* in front with a short keel; disc with 7—8 obscure lines, straight, except 2 or 3 in the middle, which are interrupted at the junction of the narrow, incised, intervening black lines. *Elytra* with fine, distant, oblique, straight yellowish lines, all visible on the outer margin, but so much abbreviated inwardly that the disc appears almost entire. *Corium* with short, sinuous, interrupted, transverse yellowish lines, 5 times connected by longitudinal streaks; inner posterior angle with a narrow marginal channel pale; membrane-suture distinct, yellowish. *Membrane* with very fine, short, hieroglyphic markings. *Sternum*, *scapulae*, *parapleurae* pale ochreous. *Legs* tawny-brown; *thighs* paler at the base; 1st pair, *pala*, ♀, narrow, roundly cultrate; 2nd pair, *tibiae* black, apex; 3rd pair, cilia of *tarsi* dark brown.

Abdomen fuscous, ochraceous at the sides.

Length :

Intermediate between *C. Fabricii* and *C. moesta*. A single specimen, received by Dr. F. Buchanan White, at Rannoch, in 1867.

The next two species belong to the section of the genus in which the *pronotum* has a long middle keel—not hitherto represented in the collections by British examples.

CORIXA SHARPI, n. sp.

Black-brown, shining. *Pronotum*, *clavus*, and *corium*, at the base, finely rastrate; *pronotum* carinate nearly throughout the length, with 10—12 yellow transverse lines, the posterior ones obliterated. *Elytra* with very fine, short, yellowish lines in longitudinal series.

♀. *Head* above, black-brown, face yellow.

Thorax—*Pronotum* long, rounded behind, disc with a slight middle keel nearly throughout the whole length, and 10—12 narrow, transverse, yellow lines, several of the posterior ones obliterated by the dark ground colour. *Elytra*—*Clavus* and *corium* with many long, distant hairs; *clavus* with fine, hieroglyphic, yellow markings, straight at the base; *corium* with very fine, twisted, transverse, yellowish lines, broken into longitudinal series, of which 4 are visible at the widest part; marginal channel dull, pale brownish-yellow; membrane-suture broadly clear. *Membrane* with very fine, short, twisted, yellowish lines, on the inner margin especially disposed in a parallel series. *Sternum* black; *scapulae*, *pleurae*, and *parapleurae* pale yellowish outwardly. *Legs* brownish; *thighs* paler at the base; *palae* long, narrow, cultrate; cilia of the 3rd pair of *tarsi* black.

Abdomen brown, paler at the sides, basal segments black.

Length 4 lines.

Male unknown.

Of this fine, distinct species, a single ♀, captured by Dr. Sharp, and presented by him to us, is the only example known. Allied to *C. carinata*, Sahlb.

CORIXA INTRICATA, n. sp.

Shining, black-brown with ochreous markings, and many fine, light, decumbent hairs. *Pronotum* distinctly rastrate, a middle keel on the anterior half, and 8—9 fine, black, transverse lines, which, except 2 or 3 in the middle, are entire. *Elytra* wholly covered with similar close, fine, irregular, twisted lines, broken by 3 fine longitudinal black lines; *clavus*, and *corium* at its base, very delicately rastrate, marginal channel pale.

Head ochreous, *crown* brownish, posteriorly raised sub-angularly, on each side of the elevation a short row of close punctures; facial depression wide, ovate, reaching beyond the lower angle of the eyes.

Thorax—*Pronotum* long, with a middle keel extending perceptibly on the anterior half, but only indicated posteriorly, and 8—9 transverse, fine black lines straight and entire, except 2 or 3 in the middle, which are abbreviated and confluent. *Elytra* entirely covered with similar, close, fine, short, angularly twisted, transverse yellow lines. *Corium*, viewed lengthwise, the fractures of the lines appear as 3 longitudinal, fine, irregular, jagged, black lines; at the apex the transverse lines are more straight and parallel; marginal nerve (next the channel) black. Marginal channel pale yellow, infuscated slightly

at the lower end of the embolium; membrano-suture obliterated by the markings. *Membrane* covered with longer and more angular yellow lines, less closely in the middle, on the inner margin the lines are straight and parallel; outer margin narrowly black. *Sternum*, *coxae*, *scapulae*, *pleurae*, and *parapleuræ* entirely pale yellow. *Legs* pale yellow; 1st pair, ♂, *tibiæ* thickened to the apex, curved; *pala* long, narrow, round-cultrate; ♀, *tibiæ* not thickened, *pala* narrower than in the ♂; 2nd pair, end of the *thighs*, *tibia*, and *tarsi* brown or blackish; 3rd pair, cilia of the *tarsi* black.

Abdomen pale ochreous, first 3 segments fuscous-black, posteriorly pale.

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

Three ♂ and one ♀ taken by Dr. Power, in Loch Gelly, Fifeshire, August, 1868.

Allied to *O. Germari*, Fieb., which is 4 lines long, has the facial depression extending scarcely beyond the angles of the eyes, the middle of the sternum and the inner side of the scapulae and pleurae black, the anterior tibiae swollen, the hairs of the posterior tibiae (? tarsi) yellowish, the membrane suture yellowish, &c.

FAMILY 2.—SIGARIDÆ.

Genus 1.—SIGARA, Fab.

Species 2.—SIGARA POWERI, n. sp.

Ochreous, with well-defined black-brown markings, dull.

Head ochreous; *crown*, in the middle, with a large wedge-shaped brown mark, its widest part at the base of the head.

Thorax—*Pronotum* brown-black, in the middle an ochreous line widened posteriorly into the pale hinder margin, the sides also broadly pale ochreous. *Scutellum* black. *Elytra*—*clavus* black-brown, a small spot posteriorly, and the entire inner margin, ochreous; claval suture narrowly pale. *Corium* ochreous, at the base a dentate patch, across the middle another, more irregularly dentate, the longest lobe on the inner side, followed by two curved, sublinear spots, all brown-black; marginal channel pale, with two long, dark streaks opposite the large brown patches. *Membrane* infuscated, gradually darker to the apex. *Legs* yellow.

Length 1 line.

Very like *S. minutissima*, but by its general habit, larger bulk, and definite markings, appears to be distinct.

A single specimen was captured by Dr. Power, in the New Forest, in 1866, in company with *Agabus brunneus*.

Species 3.—SIGARA SCHOLTZI.

SIGARA SCHOLTZI, Fieb., Europ. Hem. 90, 4 (1861).

Pale ochreous with ill-defined fuscous spots, shining.

Head, including the large black eyes, wider than the pronotum; *crown* in the middle of the posterior margin raised to a point, which is brown; front, on the curve, with 3 brown longitudinal streaks.

Thorax—*Pronotum* in the middle and on the posterior margin pale ochreous, the remainder of the disc fuscous. *Scutellum* pale, sometimes with an oblique fuscous streak on each side. *Elytra* delicately punctulate. *Clavus* fuscous, the base broadly, the inner margin narrowly, and the claval-suture indistinctly, pale ochreous. *Corium* with 3 long, fuscous, longitudinal streaks, of which the longest is on the posterior inner angle, the other 2 shorter, less distinct, on the middle of the disc, all 3 more or less confluent; anterior margin pale, with a long fuscous streak in the middle, and one before the apex. *Membrane* pale, fuscous in the middle and inwardly. *Legs* ochreous, posterior *tarsi* with brown cilia. Length rather more than 1 line.

Distinguished from *S. minutissima* especially by its larger size, greater breadth of the head, and lighter colour. Varies according to maturity in the darkness of the markings, very young examples being almost wholly pale.

A few examples were taken by Dr. Power, at St. Leonard's Forest, Sussex, in 1866.

ERRATUM.

At page 261, 10th line from the bottom, insert a comma after "white" and erase the one after "margin."

Page 263, 15th line from the bottom, for "4th" read "3rd."

Lee, April, 1869.

Note on the oviposition of Octotemnus glabriculus.—Last autumn, I had a portion of a thick white tough fungus (*Polyporus* — —?) containing this beetle abundantly, several of them being engaged in oviposition. The female beetle by herself makes a sinuous gallery of rather more than her own width; the eggs, each of which is of a somewhat flattened ovoidal form, its longest diameter being about one-fifth the length of the beetle, are laid at the bottom of little cavities, irregularly disposed along the sides of the burrow. The egg, laid on its flattened side, just fits the bottom of the cavity; the remainder of the cavity, which is wide towards the burrow, is filled up level with its wall with the finely comminuted fragments of fungus removed from the end of the burrow, and so firmly packed, as easily to come out in one mass; six was the largest number of eggs I found so placed along one burrow, but I had no reason to suppose this to be the full number, as the beetle was still at work. Having placed some beetles on a fresh portion of fungus, I found, at the end of a week, that a newly-formed burrow contained three eggs.—T. ALGERNON CHAPMAN, M.D., Abergavenny, April, 1869.

Note on the pairing of Cheilopachus quadrum.—Some months ago I picked up a few branches broken from an apple tree, which were completely infested by *Scolytus rugulosus*;* beneath the bark were numerous Chalcididous larvæ, which had preyed on the *Scolyti*, so numerous, that they must have destroyed quite half of them. Having kept them in a warm room, though the *Scolytus* is only just beginning to appear (April 8th), the parasites emerged during February; they were chiefly *Cheilopachus quadrum*, of which a dozen or two came out every day for some time. As the opportunity of making the following observation cannot be frequent, I think it is probably worth recording.

* I shall be happy to send the *Scolytus* to any one who will enclose return postage.—T. A. C.