

and apex black; the apical half of the tarsi black. Abdomen elongato-clavate, sub-compressed, black above, beneath yellow, with the edges of the segments broadly edged with dark testaceous, merging into black towards the apex; basal segment above smooth and shining for about two-thirds its length, the apical portion thickly but slightly punctured, the sides parallel for about two-thirds, when it grows suddenly wider; second segment twice as long as wide, and about two-thirds longer than the third segment. All clothed with a short whitish pile. Ovipositor testaceous, curved, about one millimètre in length.

I have four specimens of this species: I captured two by sweeping vetches in a field near Exeter, in June, 1881, the others I bred from a hedge at Lydford, on the border of Dartmoor. The description applies to both sexes, as do also the measurements.

This insect in general appearance and colouring might, at first sight, be taken for a small specimen of Gravenhorst's *Campoplex viennensis*; according to this author's arrangement, it would come in his second section, but naturally it would seem to be nearly allied to *C. viennensis*, on which account I have named it *affinis*.

Exeter: 8th March, 1882.

THE BRITISH *PSYLLINA*, WITH CORRECTIONS IN THE SYNONYMY.

BY JOHN SCOTT.

Some attention being now given to this interesting group by several students, perhaps it will not be out of place for me to lay before them a complete list of the genera and species found in the British Islands down to the present time, together with such corrections in the synonymy as have been made since the publication of my Monograph in the Trans. Ent. Soc. for 1876. From the time of the appearance of Dr. Förster's Monograph, in 1848, until lately, no attempt was made to alter or interfere with his arrangement generically or otherwise: probably, this may have arisen from a paucity of observers. In 1877, however, Prof. C. G. Thomson, in his "Opuscula Entomologica," fasciculus, 8, gave a Synopsis of the Scandinavian species, under the title of "Öfversigt af Skandinaviens Chermes-arter," wherein he desires to restore the name *Chermes*, originally given to some of them by Linné; no one, however, of late days has adopted it except Thomson, and whether he will have many followers remains to be seen. His further innovations as regards sections of the genera employed by Förster point in the right direction, and with respect to *Trioza Walkeri*, which he makes the type of a sub-genus, *Trichopsylla*, I would go further and give it generic rank; the structural dif-

ferences of the elytra alone being a sufficient reason for doing this. Next, Dr. Franz Löw, in his "Systematik der Psylloden," published in the "Verh. z.-b. Ges.," xxviii, pp. 605—609, divided the group into sub-families, and assigned to each division various genera, which are justifiable by the structural characters he points out; thus reducing the whole family into small groups easy of recognition.

The following list, prepared mostly in accordance with Dr. Löw's views, contains all the additions made to the British species since the publication of my Monograph. His sub-families are four in number, viz. :—*Liviinæ*, *Aphalarinæ*, *Psyllinæ*, and *Triozinæ*.

PSYLLINA.

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|---|--|
| Sub-family. 1. LIVIINÆ. | PSYLLA, F. Löw (Geoff., Latr., &c., <i>partim</i>). |
| LIVIA, Latr. | 1. <i>pruni</i> , Scop. |
| <i>juncorum</i> , Latr. | <i>fumipennis</i> , Först. |
| Sub-family. 2. APHALARINÆ. | 2. <i>costatopunctata</i> , Först. |
| [EUPHYLLURA, Först. | <i>ferruginea</i> , Först. |
| no British representative.] | <i>cratægi</i> , Schrk. (<i>nec</i> Scop., Först.). |
| RHINOCOLA, Först. | <i>annulicornis</i> , Boh. |
| 1. <i>ericæ</i> , Curt. | <i>triozoides</i> , Leth. |
| <i>callunæ</i> , Boh. | <i>quercus</i> , Thomson (<i>nec</i> Linn.). |
| 2. <i>aceris</i> , Linn. | <i>puncticosta</i> , Thomson. |
| APHALARA, Först. | 3. <i>costalis</i> , Flor. |
| 1. <i>picta</i> , Zett. | <i>nobilis</i> , M.-D. |
| <i>flavipennis</i> , Först. | <i>picta</i> , Först. ? |
| <i>sonchi</i> , Först. | 4. <i>simulans</i> , Först. |
| <i>innoxia</i> , Först. | <i>pyri</i> , Scott (<i>nec</i> Linn., Curtis).?* |
| <i>alpigena</i> , M.-D. | 5. <i>pyricola</i> , Först. |
| 2. <i>nebulosa</i> , Zett. | 6. <i>pyrisuga</i> , Först. ? |
| <i>radiata</i> , Scott. | <i>pyri</i> , Schdbg. (<i>nec</i> Linn.). |
| <i>graminis</i> , Thomson (<i>nec</i> Linn.). | <i>aurantiaca</i> , Gour. |
| 3. <i>exilis</i> , Weber et Mohr. | <i>austriaca</i> , Flor. |
| 4. <i>calthæ</i> , Linn. | <i>rutila</i> , M.-D. |
| <i>polygoni</i> , Först. | <i>rufitarsis</i> , M.-D. |
| 5. <i>artemisiæ</i> , Först. | 7. <i>peregrina</i> , Först. |
| 6. <i>nervosa</i> , Först. | <i>carpini</i> , Först. ? |
| Sub-family. 3. PSYLLINÆ. | <i>cratægicola</i> , Flor (<i>nec</i> Först.). |
| PSYLLOPSIS, F. Löw (<i>Psylla</i> , auct. <i>partim</i>). | 8. <i>mali</i> , Schdbg. |
| 1. <i>fraxinicola</i> , Först. | <i>ulmi</i> , Först. (<i>nec</i> Linn.). |
| 2. <i>fraxini</i> , Linn. | <i>æruginea</i> , Först. |
| [CALLOPHYA, F. Löw (<i>Psylla</i> , auct. <i>partim</i>). | <i>cratægicola</i> , Först. (<i>nec</i> Linn.). |
| contains no British species.] | <i>rubida</i> , M.-D. |
| | <i>claripennis</i> , M.-D. |
| | <i>viridissima</i> , Scott. |

* I only discovered that the insect described by me as *Ps. pyri* ought to be referred to the *Ps. simulans*, Först., after receiving specimens of the true species from Dr F. Löw. As far as the outward appearance of the two species goes, they are extremely like each other, but the falcate form of the processes in *Ps. pyri* at once settles the question, yet we are left in doubt whether Curtis's species was not the *Ps. simulans*, Först., and whether we possess the true *Ps. pyri* in England.

9. *visci*, Curtis.
ixophila, F. Löw.
10. *cratægi*, Först.
pityophila, Flor.
oxyacanthæ, M.-D.
similis, M.-D. (*partim*).
11. *pineti*, Flor.
similis, M.-D. (*partim*).
occulta, Först. ?.
ornata, M.-D.
12. *ramnicola*, Scott.
13. *salicicola*, Först.
rufula, Först.
14. *stenolabis*, F. Löw.
15. *Hartigii*, Flor.
sylvicola, Leth.
16. *Loewii*, Scott.
17. *hippophæes*, Först.
18. *betulæ*, Linn.
elegantula, Zett. ?.
ambigua, Först.
19. *Försteri*, Flor.
alni, Först. (*nec* Linn.).
20. *alni*, Linn.
fuscineris, Först.
Heydenii, Först.
21. *buxi*, Linn.
22. *spartii*, Guer.
spartiophila, Först.
- [SPANIONEURA, Först.
not yet discovered in Britain.]
- [AMBLYRHINA, F. Löw.
contains one species not yet found in Britain.]
- [DIAPHORINA, F. Löw.
contains no British representative.]
- LIVILLA, Curtis.
1. *ulicis*, Curtis.
- ARYTENA, Scott (Först., *partim*) = (*Atænia*, Thoms.).
1. *genistæ*, Latr.
ulicis, Curtis, Scott.
spartii, Hartig.

- [FLORIA, F. Löw.
contains no British representative.]
- [ALLÆONEURA, F. Löw., = (*Arytaina*, Först., *partim*).
contains no British representative.]
- [HOMOTOMA, Guér., = (*Anisostropha*, Först.).
contains no British representative.]

Sub-family. 4. TRIOZINÆ.

TRICHOPSYLLA, Thoms.

1. *Walkerii*, Först.

TRIOZA, Först.

1. *urticæ*, Linn.
eupoda, Hartig.
forcipata, Först.
protensa, Först.
crassicornis, Först.
bicolor, M.-D.
2. *viridula*, Zett.
simplex, Hartig.
apicalis, Först.
3. *galii*, Först.
velutina, Först., Flor. ?.
thoracica, Flor. ?.
4. *acutipennis*, Zett. (*nec* Först.).
Saundersi, M.-D.
5. *remota*, Först.
cinnabarina, Först.
hæmatodes, Först.
dryobia, Flor.
6. *salicivora* (Reuter), Scott.
7. *albiventris*, Först.
sanguinosa, Först.
8. *munda*, Först.
munda, Flor.
9. *ramni*, Schrk.
abieticola, Först.
argyrea, M.-D.
10. *abdominalis*, Flor.
11. *Dalei*, Scott.

- [BACTERICERA, Puton.
not yet discovered in Britain.]

I may add that I do not hold with Dr. F. Löw in the position he assigns to the genera *Livilla* and *Spanioneura* in his sub-family *Psyllinæ*. Although the neuration of the elytra of the former is

similar to that of *Psylla*, yet the peculiarity of the form and length of the face-lobes seem to indicate that it ought to be dealt with as a member of a sub-family, to be called *Livillinae*. As for the latter (*Spanioneura*), it is somewhat remarkable in its structure, partaking, as it does, of the characters of *Psylla* and *Trioza* combined. From *Psylla* it differs in having lanceolate elytra, as in *Trioza*; and from *Trioza* in having a petiolate cubitus, as in *Psylla*. Here, also, I think are sufficient grounds for the formation of a new sub-family, under the name of *Spanioneurinae*.

In the "Meddel. af Soc. pro Fauna et Flora fennica," 5 (1880), Dr. O. M. Reuter, in his enumeration of the *Hemiptera* of Åbo and Åland, observes the nomenclature of Dr. Löw in respect of the *Psyllina*, which are mostly the same species as in Britain.

Lee, S.E.: 2nd January, 1882.

ENTOMOLOGICAL NOTES FROM TENERIFFE, ST. VINCENT, &c.

BY GERVASE F. MATHEW, R.N., F.L.S., F.Z.S., &c.

We arrived at Teneriffe on the 17th December, and on the following afternoon I went for a walk, taking the road from Santa Cruz towards Laguna, in the interior, the ancient capital of the island. The country passed through was very rough, dry, and rocky, the small fields being divided by loose stone walls, reminding one of Malta. The only things under cultivation, at this time of the year, appear to be spring onions and prickly pears. There were a great many acres of the latter, which are grown for the purpose of rearing the cochineal insect. In one place there were a number of women busily engaged covering the leaves with muslin. The parent insects, so I was told, are kept in sheds, built for the purpose, and deposit their ova on the muslin, which is then cut into pieces about six inches square. These pieces are then wrapped round a leaf of the prickly pear, and their ends fastened to the leaf with the sharp thorns picked from the plant itself. The little creatures when they are hatched crawl from the muslin on to the leaf, and the muslin afterwards serves as a protection from wind and rain. The insects take three or four months coming to maturity, when they are shaken off, baked, and dried, and are then ready for exportation. There are two "crops" in the year, but the first is generally a light one.