

edge is blackish on the 8th and 9th segments, the vulvar lamina with the lobes more pointed on the tip, and better separated at the base.

If *D. flavicosta*, as I believe, is merely a variety of *D. madida*, four smaller females from Victoria, Vancouver Island, July, can not be separated. The smallest is 31 mm. in length; alar expanse 50mm.; pterostig-

ma 2 mm. The wings are fumose, the anterior margin flavescent in one, another has the base to the nodus or only beyond the triangle flavescent; the anterior pale band on the sides of the thorax is plainly visible; a large black band on each side of the abdomen is complete; in one female the black extends from the end of the segments to the middle ridge.

### SYNONYMY OF THE HOMOPTERA DESCRIBED BY SAY, HARRIS AND FITCH.

BY E. P. VAN DUZEE, BUFFALO, N. Y.

In the *homoptera* as in other branches of our favorite science a solid foundation was laid by that illustrious pioneer of American entomology, Thomas Say, whose brief but concise descriptions of many of our native insects have elicited universal commendation from later students. Scarcely inferior to that of Say is the work done many years later by Asa Fitch most of whose numerous species may be readily recognized from his short, clear diagnoses. Intermediate in point of time comes the work of Thaddeus William Harris to whom, however, we owe the description of but very few homopterous insects. In the present paper I propose to give the corrected nomenclature of the *homoptera cicadinae* described by these honored leaders of American entomology so far as it is known to myself or has been made known by recent writers.

Many of these names have been in common use for years, but a number are to be found only in rare or little known papers, and not a few are now for the first time systematically placed. In a few cases where I still feel in doubt the reference is followed by a question point.

Of the 71 species described by Say 60 are known to me; all of those described by Harris, 6 in number, and all but 15 of the 74 species described by Fitch. Two of those described by Say, viz., *Fassus sanctus* and *Membracis subulata*, are, so far as I can learn, unknown to our later entomologists. In the *cicadidae* and *typhlocybidae* I have quoted all references from the studies of Messrs. Uhler and Woodworth whose valuable synonymical notes on these families may be found in Ent. Amer. v. 4, 21 and 81, and PSYCHE,

v. 5, p. 67 and 211. In these cases as in others where I have not personally studied the insect I have appended my authority for the name employed. To species still unknown to me in nature I have prefixed an asterisk.

The following species require no change of name to bring them into correspondence with our modern nomenclature.

## DESCRIBED BY SAY :

*Cicada dorsata*.

\* “ *marginata*.

\* “ *vitripennis*.

*Aphrophora 4-notata*.

*Tettigonia bifida*.

“ *hieroglyphica*.

## DESCRIBED BY FITCH :

\* *Anotia burnetii*.

\* “ *robertsonii*.

\* “ *westwoodi*.

*Bruchomorpha dorsata*.

*Ceresa brevicornis*.

“ *taurina*.

\* *Cicada superba* (auct. Woodworth).

\* *Cixius cinctifrons* (auct. Ashmead).

\* *Cixius coloepium* (auct. Ashmead).

*Cixius pini*.

*Clastoptera proteus*.

\* “ *pini* (auct. Ashmead).

\* *Clastoptera testacea* (auct. Ashmead).

\* *Cyrtosia fenestrata* (auct. Uhler).

*Eucanthus orbitalis*.

*Gypona flavilineata*.

“ *scarlatina*.

*Helochara communis*.

*Idiocerus alternatus*?

“ *lachrymalis*.

“ *maculipennis*.

“ *pallidus*.

“ *suturalis*.

\* *Naso robertsoni* (auct. Uhler).

*Otiocerus amyoti*.

\* “ *kirbyi*.

“ *signoreti*.

*Pediopsis trimaculata*.

“ *viridis*.

*Penthimia americana*.

*Telamona concava*.

“ *coryli*.

“ *fasciata*.

“ *reclivata*.

*Tettigonia tripunctata*.

*Thelia crataegi*.

Some of them will doubtless prove on further study to be but varieties of other forms and a few may yet have to be placed as synonyms of earlier described species.

The following names required to be changed.

## DESCRIBED BY SAY :

*Aphrophora bilineata* = *Philaenus lineatus* Linn.

*Cercopis bicincta* = *Monecphora* id.

*Cercopis obtusa* = *Clastoptera* id.

*Cercopis parallela* = *Aphrophora* id.

*Cercopis 4-angularis* = *Lepyronia* id.

\* *Cicada aurifera* = *Cicada marginata* Say (auct. Woodworth).

*Cicada hieroglyphica* = *Tettigonia* id. (auct. Uhler).

*Cicada parvula* = *Carineta* id. (auct. Uhler).

*Cicada pruinosa* = *Cicada tibicen*

- Linn. (auct. Woodworth), probably a variety.
- Cicada rimosa = Tibicen id. (auct. Woodworth).
- Cicada synodica = Tibicen id. (auct. Woodworth).
- Delphax tricarinata.
- No genus yet established seems properly to include this species.
- Flata bivittata = Amphiscepa id.
- Flata bullata = Thionea id.
- \* Flata conica.
- This name is not changed by Mr. Ashmead. (See Smith's Cat. Ins. of New Jersey, p. 438.)
- Flata humilis = Oliarius id.
- Flata nava = Phypia (?) id.
- \* Flata opaca = Helicoptera id. (auct. Uhler).
- Flata pallida = Helicoptera id.
- Flata pruinosa = Ormenis id.
- Flata 5-lineata = Oliaris id.
- Flata stigmata = Cixius id.
- Fulgora sulcipes = Scolops id.
- Jassus acutus = Platymetopius id.
- Jassus clitellarius = Thamnotettix id.
- Jassus immistus = Scaphoideus id.
- Jassus inimicus = Deltocephalus id.
- Jassus irroratus = Phlepsius id.
- Jassus novellus = Agallia id.
- Jassus olitorius = Jassus (as restricted by Stål) id.
- Jassus seminudus = Athysanus id.
- Jassus subbifasciatus = Jassus olitorius Say ♀.
- \* Jassus verticis.
- Mr. Uhler places this as congeneric with *Idiocerus pallidus* Fh. and *ramentosus* Uh. Possibly it will prove identical with *Idiocerus alternatus* Fh. which name it would then supercede.
- Membracis arquata.
- This is congeneric with an undescribed form placed by Mr. Uhler in *Ophiderma* Fairm., but the transverse apical cell of the elytra will perhaps entitle them to generic distinction.
- Membracis belligera = Platycotis id.
- Membracis binotata = Enchenopa id.
- Membracis calva = Acutalis id.
- Membracis concava = Publilia id.
- Membracis diceros = Ceresa id.
- Membracis festina = Stictocephala id.
- Membracis goniphora = Stictocephala inermis Fab.
- Membracis inornata = Atymna id.
- Membracis latipes = Campylenchia curvata Fab.
- Membracis marmorata = Carynota id.
- Membracis mera = Carynota id.
- Membracis 4-vittata = Platycotis id.
- Membracis semicrema = Acutalis id.
- \* Membracis tartarea = Acutalis id. (auct. Uhler).
- Membracis trilineata = Cyrtosia id.
- This may prove to be a synonym of *C. mutica* Fab.
- Membracis vau = Cyrtosia id.
- Tettigonia basilaris = Typhlocyba id. (auct. Woodw.)
- \* Tettigonia coagulata = Homalodisca id. (auct. Stål).
- Tettigonia comes = Typhlocyba id. (auct. Woodw.)
- Tettigonia limbata = Oncometopia id.

- Tettigonia mixta* = *Acocephalus* id.  
*Tettigonia mollipes* = *Diedrocephala* id.  
*Tettigonia obliqua* = *Typhlocyba* id.  
 (auct. Woodw.)  
 \* *Tettigonia occatoria*.  
 Dr. Stål does not change this combined name in his *HEMIP. MEXICANA*.  
*Tettigonia octolineata* = *Gypona* id.  
*Tettigonia 4-vittata* = *Diedrocephala coccinea* Forst.  
*Tettigonia trifasciata* = *Typhlocyba* id.  
 (auct. Woodw.)  
 \* *Tettigonia versuta* = *Diedrocephala* id. (auct. Woodw.)
- DESCRIBED BY FITCH:
- Acocephalus vitellinus* = *Selenocephalus* id (auct. Ashmead).  
*Amblycephalus curtisii* = *Athysanus* id.  
*Amblycephalus melsheimeri* = *Deltocephalus* id.  
*Amblycephalus sayi* = *Deltocephalus* id.  
 \* *Aphrophora signoreti*.  
 Doubtless correct.  
*Athysanus abietis* = *Bythoscopus variabilis* Fh. ♂.  
 \* *Athysanus fagi*.  
 Certainly a species of *Bythoscopus*.  
*Athysanus fenestratus* = *Bythoscopus* id.  
*Athysanus minor* = *Bythoscopus* id.  
*Athysanus nigrinasi* = *Bythoscopus* id.  
*Athysanus variabilis* = *Bythoscopus* id.  
*Aulacizes novaeboracensis* = *Diedrocephala* id.
- Bythoscopus strobi* = *Phlepsius* id.  
*Bythoscopus tergatus* = *Grypotes* id.  
 (auct. Uhler).  
*Bythoscopus unicolor* = *Grypotes* id.  
 (auct. Uhler).  
*Cicada robertsoni* = *Cicada dorsata* Say. (auct. Woodw.)  
*Cixius impunctatus* = *Myndus* id.  
*Delphax arvensis* = *Liburnia* id.  
*Delphax dorsalis* = *Stenocranus* id.  
 \* *Empoa coccinea* = *Typhlocyba* id.  
 (auct. Woodw.)  
*Empoa querci* = *Typhlocyba* id.  
 (auct. Woodw.)  
*Erythroneura affinis* = *Typhlocyba* id.  
 (auct. Woodw.)  
*Erythroneura tricincta* = *Typhlocyba* id.  
 (auct. Woodw.)  
*Erythroneura vitifex* = *Typhlocyba* id.  
 (auct. Woodw.)  
*Erythroneura vulnerata* = *Typhlocyba* id.  
 (auct. Woodw.)  
*Jassus fulvidorsum* = *Phlepsius* id.  
*Lepyronia saratogensis* = *Aphrophora* id.  
 \* *Monecphora ignipecta* = var. of *Monecphora bicincta* Say.  
*Poeciloptera vulgaris* = *Lamenia* id.  
*Smilia auriculata* = *Archasia galeata* Fab.  
*Smilea castaneae* = *Atymna inornata* Say ♂ (?).  
 (See under *Telamona unicolor*)  
*Smilia querci* = *Atymna* id.  
*Telamona fagi* = *Heliria scalaris* Fairm.  
*Telamona querci* = *Telamona monticola* Fab.  
*Telamona tristis* = *Telamona coryli* Fh. ♀.

These forms I have taken *in coitu*. I have never met with a ♂ *tristis* nor a ♀ *coryli*.

Telamona unicolor=Telamona fasciata Fitch. ♀ (?).

These forms always occur together and of the large number I have examined the former are always females and the latter males. On the strength of this I have placed them as a single species and am confident that future observations will justify me in so doing. The case is the same with *Smilia castaneae* Fitch. and *Membracis inornata* Say.<sup>1</sup>

Tragopa dorsalis=Acutalis id.

Uroxiphus caryæ=Microcentrus id.

DESCRIBED BY HARRIS:

Cicada canicularis=var. of Cicada tibicen Linn. (auct. Woodw.)

Membracis ampelopsidis=Telamona id.

<sup>1</sup> The following is the correct synonymy of this genus so far as I can make out:

- Telamona reclinata Fitch.
- monticola Fab.
- querci Fitch.
- ampelopsidis Harr.
- cissi Harr. (List.)
- cyrtops Fairm.
- concava Fitch.
- ornata Emmons.
- coryli Fitch ♂.
- tristis Fitch ♀.
- fasciata Fitch ♂.
- unicolor Fitch ♀.
- \*mexicana Stål.
- \*excelsa Fairm.
- \*pyramidata Uhler.

Membracis univittata=Thelia id.

Tettigonia vitis = Typhlocyba id. (auct. Woodw.)

Tettigonia rosæ = Typhlocyba id. (auct. Woodw.)

Tettigonia fabæ = Typhlocyba id. (auct. Woodw.)

The *Centrotus acuminatus* of Fabricius has been placed by Say, Harris and others as the ♀ of his *Membracis bimaculata*. I have however both sexes of both of these species; the females scarcely differ from the males in form. Our described species of this genus are.

Thelia bimaculata Fab.

uhleri Stål.

\*turriculata Emmons.

crataegi Fitch.

univittata Harr.

acuminata Fab.

*Carynota* Fitch. Dr. Stål is mistaken in placing this genus as a synonym of *Ophiderma* Fairm. It is quite widely separated from that genus but is very near his *Optilete* of which *Thelia porphyrea* Fairm., a species unknown to me, is the type. It is possible that Stål was unacquainted with the *Membracis mera* Say, which is properly the type of Fitch's genus, and hence was deceived by Dr. Fitch's erroneous reference of *Membracis arquata* Say to his *Carynota*.