

Some taxonomic observations on the British Delphacidae (Hemiptera)

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SYNOPSIS

The identity of the genus *Delphacodes* is discussed and 30 British species formerly referred to that genus are transferred to 12 different genera; of these, two are redefined, each comprised of two subgenera; the characters distinguishing these are given in two keys. The British species of the genus *Criomorpha* are regrouped under four genera. The status of the British forms of *Kelisia* is discussed.

DURING the construction of a check-list of the British Auchenorrhyncha it was found necessary to collate two recent papers on the family Delphacidae, one by Fennah (1963) and one by Wagner (1963), and to relate their work to the British species. Other work by Dlabola (1961) and Vilbaste (1960) has also affected the nomenclature of this group.

IDENTITY OF THE GENUS *Delphacodes* FIEBER

Dlabola (1961*a*) has re-examined the type material of the type species of the genus *Delphacodes*, *D. mulsanti* (Fieber, 1866), and finds that the side keels of the pronotum reach the posterior margin, in contradiction to the findings of China (1954). In another paper (1961*b*), he remarks that *Delphacodes* is distinct from *Megamelodes* Le Quesne, 1960. Wagner (1963) has followed the same arrangement as Dlabola and so I feel it better to change my earlier opinion (1960*a*, 1960*b*) on the identity of *Delphacodes*.

Wagner (1963 : 168*n*) has re-examined the type of *Delphax quadrimaculatus* Signoret, 1865 and found it identical with *Liburnia fieberi* Scott, 1870, and he has renamed *quadrimaculatus* sensu Edwards et Britt. auctt. as *lequesnei*.

As a result of these changes, the British species of *Delphacodes* sensu Dlabola and *Megamelodes* become as follows:

<i>Megamelodes</i> Le Quesne, 1960 <i>sensu stricto</i>	<i>Delphacodes</i> Fieber, 1866
<i>lequesnei</i> Wagner, W., 1963	<i>capnodes</i> (Scott, 1870)
= <i>quadrimaculatus</i> : (Edwards, J., 1894) et	<i>venosus</i> (Germar, 1830)
auctt. nec (Signoret, 1865)	
<i>quadrimaculatus</i> (Signoret, 1865)	
= <i>fieberi</i> (Scott, 1870)	

GENUS *Calligypona* SAHLBERG *sensu lato*

The concept of the genus *Delphacodes* as defined above would involve the transfer of 30 British species, which I referred to that genus in 1960, into *Calligypona* Sahlberg, J., 1871. However, both Fennah (1963) and Wagner (1963) have recently published papers showing that this group is a complex consisting of a number of genera. Fennah's paper, which was published in February, defines five new genera of economic importance, of which three are actually represented in Britain. Wagner's work, though in a journal bearing the date "Dezember, 1962", was published in April, 1963 and reallocates the Central European species formerly regarded as belonging to *Calligypona* into 18 genera.

After valuable discussion with Mr. Fennah and correspondence with both the above named authors, I propose the scheme below for the British species. This must be regarded as a temporary arrangement, pending a revision of the world species of this very difficult complex.

- Muellerianella* Wagner, W., 1963
brevipennis (Boheman, 1849)
fairmairei (Perris, 1857) G
Laodelphax Fennah, 1963
 = *Callidelphax* Wagner, W., 1963
elegantulus (Boheman, 1849) **comb. n.**
striatellus (Fallén, 1826) G
 = *marginatus*: auctt. nec (Fabricius, 1794)
lavasella Fennah, 1963
 = *Weidnerianella* Wagner, W., 1963
discolor (Boheman, 1849) **comb. n.**
dubia (Kirschbaum, 1868) **comb. n.**
forcipata (Boheman, 1849) **comb. n.**
obscurilla (Boheman, 1849) **comb. n.**
pellucida (Fabricius, 1794) G
Nothodelphax Fennah, 1963
 = *Muirodelphax* Wagner, W., 1963 partim
distinctus (Flor, 1861) **comb. n.**
Ribautodelphax Wagner, W., 1963
angulosus (Ribaut, 1953)
imitans (Ribaut, 1953)
pallens (Stål, 1854)
pungens (Ribaut, 1953)
Calligypona Sahlberg, J., 1871 *sensu stricto*
reyi (Fieber, 1866)
 = *albicollis* Sahlberg, J., 1871 G
Xanthodelphax Wagner, W., 1963
flaveolus (Flor, 1861) G
stramineus (Stål, 1858)
Paradelphacodes Wagner, W., 1963
paludosus (Flor, 1861) G
Muirodelphax Wagner, W., 1963
 = *Kosswigianella* Wagner, W., 1963
 Sg. *Muirodelphax* Wagner, W., 1963
 = *Kosswigianella* Wagner, W., 1963 partim
aubei (Perris, 1857) G
exiguus (Boheman, 1849) **comb. n.**
 Sg. *Acanthodelphax* Subgen. n.
denticauda (Boheman, 1849) **SG comb. n.**
Gravesteiniella Wagner, W., 1963
boldi (Scott, 1870) G
Paraliburnia Jensen-Haarup, 1917
 = *Struebingianella* Wagner, W., 1963
 Sg. *Paraliburnia* Jensen-Haarup, 1917
adela (Flor, 1861)
 = *jacobseni* Jensen-Haarup, 1917 G
clypealis (Sahlberg, J., 1871)
 Sg. *Struebingianella* Wagner, W., 1963
dalei (Scott, 1870) **comb. n.**
leptosoma (Flor, 1861) sensu (Vilbaste, 1960) **comb. n.**
 = *albofimbriata* (Signoret in Fieber, 1866)
litoralis (Reuter, 1880) **comb. n.**
lugubrina (Boheman, 1849) **SG comb. n.**
paryphasma (Flor, 1861) sensu (Vilbaste, 1960) **comb. n.**
 = *niveimarginata* (Scott, 1870)
 = *leptosoma*: (Linnavonri, 1951) et: (Le Quesne, 1960) nec (Flor, 1861)
Oncodelphax Wagner, W., 1963
pullula (Boheman, 1852) **G comb. n.**

Type species of genera and subgenera have the symbols G and SG, respectively.

The genus *Delphax* and names derived from it are treated as masculine nouns in accordance with Opinion 602 of the International Commission for Zoological Nomenclature (1961) (even though the majority of classical Greek authors and nineteenth century entomologists regarded it as feminine!).

It will be seen from the above check-list that I am using the genera *Paraliburnia* and *Muirodelphax* in a wider sense than Wagner; my definitions of these genera, together with a key to the subgenera that I allot to them, are given below:

Muirodelphax Wagner, 1963

Vertex one to one and a quarter times as long as broad. First and second antennal segments short. Frons one and a half to one and three-quarter times as long as broad. Vertex and frons pale. Posterior margin of male genital segment in side view entire; lower margin of anal tube without well developed appendages visible from behind, although small backwardly-directed spines often present; diaphragm extending distinctly more than half height of genital segment. Parameres seen from behind tapering to more or less acuminate apex. Spur at apex of posterior tibiae with a series of distinct teeth along posterior margin.

Key to Subgenera

Genital segment in side view with sharp upturned median tooth below base of parameres. Parameres short, not reaching level of aedeagus support (*i.e.* centre of upper margin of diaphragm) . . . *Acanthodelphax* subgen. n.
 (type-species *Delphax denticauda* Boheman, 1849)

Genital segment in side view without concavity and without sharp teeth. Parameres long, reaching above level of aedeagus support

Muirodelphax Wagner

Paraliburnia Jensen-Haarup, 1917

Vertex one to one and a quarter times as long as broad. First and second antennal segments short. Frons one and a half times to twice as long as broad. Posterior margin of male genital segment in side view entire; lower margin of anal tube with well developed appendages visible from

behind, which are parallel or divergent but not closely approximated; diaphragm at most half height of genital segment. Genital segment less than one and a half times as high as broad. Spur at apex of posterior tibiae with a number of distinct teeth along posterior margin.

Key to Subgenera

- Frons more parallel-sided, about twice as long as broad. Parameres of almost same width throughout or widened somewhat at extreme apex, curved and somewhat convergent apically . . . *Paraliburnia* Jensen-Haarup
 Frons more convex-sided, distinctly less than twice as long as broad. Parameres either of varying width or almost straight, divergent throughout
Struebingianella Wagner

Dr. Wagner has kindly examined specimens of *P. dalei* and *P. litoralis*, two species not listed in his recent paper. He expressed the opinion (*in litt.*) that a new genus should be erected for *dalei*, but I prefer to leave it in *Paraliburnia* pending a full revision of the group on a world-wide basis. The allocation of *elegantulus* to *Laodelphax* must also be regarded as tentative, but it seems to me more closely related to *sriatelus* than it is to *lugubrina*, with which Dr. Wagner regards it as congeneric.

GENUS *Criomorphus* CURTIS

Earlier I (1960*a*) used the name *Criomorphus* in a wide sense, with the feeling that I was also using the genus just previously discussed in an equally wide sense. In that work I divided *Criomorphus* into three subgenera, which China (1950) had regarded as separate genera. Wagner (1963) divides the group into four genera and following this scheme, the group can be classified as follows:

<i>Ditropis</i> Kirschbaum, 1868	<i>Criomorphus</i> Curtis, 1831
<i>pteridis</i> (Spinola, 1839) G	<i>albomarginatus</i> Curtis, 1833 G
<i>Eurybregma</i> Scott, 1875	<i>moestus</i> (Boheman, 1849)
<i>nigrolineata</i> Scott, 1875 G	<i>williamsi</i> China, 1939
<i>Stiroma</i> Fieber, 1866	
<i>affinis</i> Fieber, 1866 G	
<i>bicarinata</i> (Herrich-Schaeffer, 1836)	

Kelisia pannonica Matsumara, 1910

Kelisia pannonica Matsumara, 1910 (= *sabulicola* Wagner, W., 1952)

Kelisia pannonica form *ribauti* Wagner, W., 1938

The synonymising of *Kelisia pannonica* with *K. sabulicola* follows Wagner (1963); he regards this and *K. ribauti* Wagner, 1938, as separate species. As previously stated (Le Quesne, 1960*a*), I prefer to regard these two as forms of a single species, which will now have to be called *pannonica*.

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