

# **CALLIGYPONA SAHLBERG 1871 IS A REAL AND VALID GENUS. REVISION OF THE TYPE DELPHACODES MULSANTI FIEBER (HOM. AUCHENORRH.)**

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In the family *Delphacidae* in the foreground of the nomenclatorial interest is a rather numerous group of species published under different generical names, sometimes split in two or more genera, but nevertheless the redescription of the species *Delphacodes mulsanti* Fieber has not yet been undertaken, which is—as the genotype fixed by Muir—the key to the nomenclature of a great number of species dispersed nearly all over the world.

In the past 15 years this problem has been solved mostly by considering the genus *Delphacodes* as a generically different smaller complex of species, separated from the genus *Delphax* auctt. nec Fabricius. The remainder of the species could neither be called *Delphax* nor *Liburnia* auctt. nec Stål, and was replaced by Ossiannilsson, 1942 under the name *Calligypona* Sahlberg 1871 with the type *reysi* Fieber 1866 = *albicollis* Sahlberg 1871. For many years this name has been used especially by European homopterologists as valid for all the remaining species with arched pronotal keels.

After the publication of China 1954, where the opinion is voiced that *Calligypona* is only a synonym of *Delphacodes*, the number of workers using the name *Calligypona* has become progressively smaller. I supported already in the year 1957 (and independently Linnavuori in the same year) the validity of both genera, but without having the possibility of adding and proving these statements by revising Fieber's authentic material.

The last publication on this subject comes from England, by Lequesne, 1960, who described all species considered before as real *Delphacodes* in Ribaut's 1954, Linnavuori's 1957 and Dlabola's 1957 sense, under the new generic name *Megamelodes*. It has inspired me to redescribe the species *Delphacodes mulsanti* Fieber, which seemed to me during the whole time to become more and more mysterious; I should like to know what morphology is like, if it has the habitus of a "*Calligypona*" species. The other reason for these studies is the circumstance that this group of species contains some Delphacids of highly economic importance—as vectors of plant virus diseases (for ex. *Calligypona* = *Delphacodes* auctt. nec Fieber *pelucida* Fabricius and *striatella* Fallen). Very suspicious was the circumstance, that Fieber's species of *Delphacodes* has not been discovered and published with a more complete description since Fieber's time, but

Fieber's description of both male and female specimen permits the supposition that this species is not so rare.

For the opportunity of studying the type and other Fieber's material of *Delphacodes mulsanti* Fieber I am very grateful to the authorities of the National Museum of Natural History in Paris, particularly to Mr. A. Villiers, deputy Director of the Entomological Department. I also wish to thank all other homopterologists for the exchange of letters and for the discussion on this subject in the past years, Dr. W. Wagner, Prof. Dr. H. Ribaut, Prof. Dr. H. Lindberg, Dr. R. Linnavuori, Dr. W. J. Lequesne and others.

### ***Delphacodes mulsanti* Fieber**

The cited material of this species, deposited in the National Museum of Natural History in Paris contains 2 female specimens and one male specimen. One of the female specimens has the number 1588 on a red label, and also a large determination label with the inscription in indian ink. "Type. *Delphax mulsanti* (Fieb.) coll. Nouahlier." (sic!: Noualhier).

As is known, the type material of Fieber is marked in this manner, glued onto a similar small paper-label the same as the other female specimen, which is marked "Hyères". The male specimen differs in the preparation, being pinned on a minute pin, with the sign "♂", on the regular pin bearing a small label of green color.

Studying this material I found at first sight that these 3 specimens belong to the same species, and this species differs generically from the unit called *Calligypona*. The main reason for this is not only the whole habitus of this species and the coloration pattern on the fore wings, but especially the lateral keels on the pronotum, which have a different direction as they are joined to the hind margin of the pronotum and are not arched behind the eyes. This is the reason for the validity of the genus *Calligypona*, which has arched lateral keels on the pronotum.

Description. Vertex, face and pronotum uniformly testaceous, pronotum darker only behind the eyes, tegulae darker, on the margins testaceous, mesonotum castaneous with a fine microsculpture, on the scutellum somewhat better visible and more coarsely defined. Remainder of the whole body testaceous, not so dark brown as the mesonotum, extremities inclusive tarsi of one colour, testaceous. Vertex quadrangular, of the same length as the pronotum, roundedly bent towards the front, head with eyes much narrower than pronotum. Frons with parallel keels, slightly emarginated toward the top of the head, two time longer than broad, with one median keel, prolonged on the clypeus, which is dark brown and yellowish delimited against the front. Antennae testaceous, joint II two times as long as the first. Wings in both pairs well developed, the fore wings  $\frac{2}{3}$  longer than the abdomen of the female specimen, enlarged towards the top, maximum width in relation to length of elythra 25:77. Apex nearly regularly rounded. The nervation is darker, browned and granulated. The inner and outer nerve on the same level bifurcated, apical nervation formed by the simple median nerve, by the inner apical

nerve which is bifurcated almost at the base, and by the outer apical nerve which is bifurcated in about the basal third. The inner 3 apical cells browned in the form of a tape, prolonged up to the distal ending of the media.

♂ Coloration the same as in female specimen, but clypeus paler, extremities yellowish. Genital segment oval, anal tube yellowish, broad, with very small, almost invisible, lateral keels imitating lateral spines situated on the ventral border of the anal tube.

In fig. 32 in Fieber 1966 and according to the description in Fieber 1879 this species is marked by the lack of spines on the anal tube, as Lequesne 1960 pointed out, but it is only a further case of an oversight by Fieber, due to the insufficient microscoping technique at this old classical time, just the same as we have seen in the species *Calligypona albifrons* Fieber 1879, mentioned already by Melichar 1897:188, which according to Fieber's original description is, without lateral appendices on the anal tube, too. Style yellowish, s-formed, apically sharpened, with fine silver pilosity. Fore wings are lacking on this specimen.

Total length of Fieber's female specimen 2,96 mm.

Against *Delphacodes audrasi* Ribaut 1954 it differs by the paler coloration of the fore body, which is not black. Whether the aedeagus might supply any other characteristics, I cannot say, as I dared not examine it on hand of a single male specimen represented in Fieber's material.

As I can see now from the correspondence with Dr. Wagner and from my South and Central-European *Delphacodes*-species, previously thought to be *D. mulsanti* — this sp. is very near or identical with *D. audrasi* Ribaut. Studying now my collection material I see that the coloration of the body is slightly variable, from testaceous to a dark brown colour, but the fore wing pattern is rather constant. If they are identical, then *D. mulsanti* would be living in an area extending from northwards exposed locality in S. Slovakia, in many places in the Balkan, in the Mediterranean Sub-region (South Europe, especially Italy and France) and Anatolien, up to its eastern localities in Irak. These species are certainly very near, as can be seen from fig. 4 of the aedeagus in the description of *D. audrasi* in Ribaut 1954. The figure is seen only in a different direction by axis moved 90° from fig. 1 C in Linnavuori 1957 for *D. mulsanti* Fieber. A very minute denticulation or other differing characteristics may be found in the future, and I suppose it will be more accurate to retain these species as valid, and other faunistical material from a larger area may bring further evidence regarding this complicated question.

The task of my study of the status of the genus *Calligypona* has been positively solved in my publication and other questions concerning the identity or validity of some of the mentioned species and of the genus *Megamelodes* Lequesne remain open.

## LITERATURE

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