Redescription and taxonomic notes on three Pentastirini described as Cixius latifrons Walker, Moysella sinaitica Horvath and Mesoliarus malagensis Matsumura (Homoptera, Fulgoroidea, Cixiidae)

Autor(en): **Stalle, Jan van**

Objekttyp: **Article**

Zeitschrift: **Mitteilungen der Schweizerischen Entomologischen Gesellschaft = Bulletin de la Société Entomologique Suisse = Journal of the Swiss Entomological Society**

Band (Jahr): **58 (1985)**

Heft 1-4: **Fascicule-jubilé pour le 80e anniversaire du Prof. Dr. Paul Bovey = Festschrift zum 80. Geburtstag von Prof. Dr. Paul Bovey**

PDF erstellt am: **20.09.2024**

Persistenter Link: https://doi.org/10.5169/seals-402184

MITTEILUNGEN DER SCHWEIZERISCHEN ENTOMOLOGISCHEN GESELLSCHAFT
BULLETIN DE LA SOCIÉTÉ ENTOMOLOGIQUE SUISSE
58, 441–445, 1985

Redescription and taxonomic notes on three Pentastirini described as *Cixius latifrons* WALKER, *Moysella sinaitica* HORVATH and *Mesoliarus malagensis* MATSUMURA (Homoptera, Fulgoroidea, Cixiidae)

JAN VAN STALLE
Koninklijk Belgisch Instituut voor Natuurwetenschapen, sectie Entomologie, Vautierstraat 29, 1040 Brussel, Belgium.

Two mediterranean Cixiidae (Pentastirini) are redescribed by means of the male terminalia: *Mesoliarus malagensis* MATSUMURA and *Pentastiridius sinaiticus* (HORVATH) comb. nov.; a lectotype is selected for the latter and the genus *Moysella* HORVATH is synonymized with the genus *Pentastiridius* KIRSCHBAUM. *Cixius latifrons* WALKER is synonymized with *Pentastiridius leporinus* (LINNÉ).

During the course of revisional studies on Pentastirini (Cixiidae) the type material of several mediterranean species was re-examined. The opportunity has been taken here to redescribe two Cixiidae by means of the male terminalia, namely *Mesoliarus malagensis* MATSUMURA and *Moysella sinaitica* HORVATH. The male holotype of the species described by WALKER (1851) as *Cixius latifrons* from an unknown locality was re-examined as well. By the kind help of Prof. OSSIANNILSSON (Uppsala, Sweden) we were able to recognize this taxon as a new synonym of *Pentastiridius leporinus (L.)*. The male terminalia of the holotype, which is preserved in the British Museum (Natural History), are illustrated in fig. 1 to 5.; finally, the author wishes to express his sincere gratitude to Dr. M.D. WEBB (British Museum), Dr. S. TAKAGI (Hokkaido University, Sapporo) and Dr. T. VASARHELYI (Hungarian Natural History Museum, Budapest) for the loan of material in their charge.

Pentastiridius sinaiticus (HORVATH) comb. nov.
fig. 6 to 13

Moysella sinaitica HORVATH, 1913: 398
Material examined. – Lectotype ♂, «Arabia/Edom», Hungarian Natural History Museum.
Paralectotypes: 2 ♂ 1 ♀, same locality.

Description. – Colour uniformously ochreous; postclypeus and frons without a median keel, very broad (fig. 13); no border between frons and vertex, the anterior compartment of the vertex and the frons thus forming one single convex surface; the apical part of the vertex is only distinguishable by the presence of two obsolete submedian depressions. Submedian keel of the vertex blunt, connected to the posterior border by a short median longitudinal keel. Median and lateral ocelli present. Eyes very small, not visible in frontal view (fig. 13). Pronotum (fig. 12) with a blunt median keel and in total

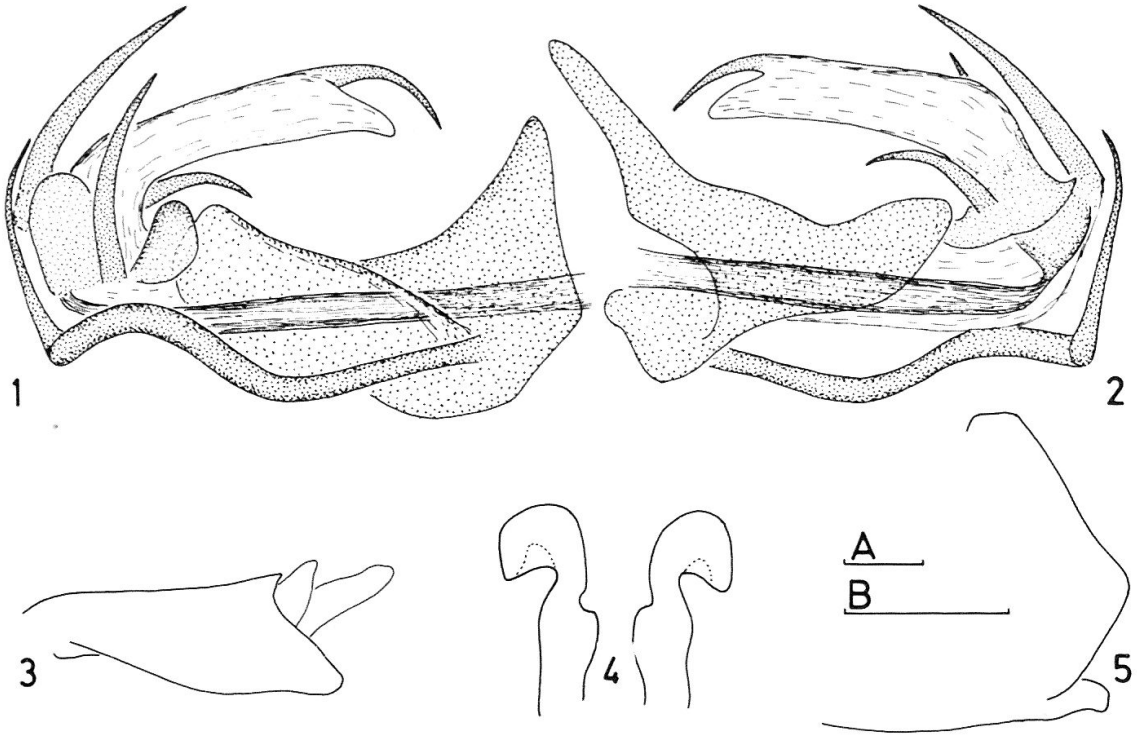


Fig. 1–5: *Cixius latifrons* WALKER, holotype 1 and 2: aedeagus, dorsal and ventral view; 3: anal segment, lateral view; 4: genital styles, ventral view; 5: pygofer, left lateral view.
Scale A (0.2 mm): fig. 3 to 5; B (0.2 mm): fig. 1 and 2

four lateral keels along its dorsal surface, two on each side, the outer ones curved inwards; lateral parts of the pronotum (pectoral plates) slightly curved upwards distally and thus forming a lamelliform border. Mesonotum devoid of keels, shiny. Tegmina as illustrated in fig. 8, hyaline, veins very broad and devoid of granules, apical part provided with a variable number of transverse veins. Hind-tarsi with a single row of six teeth on the first segment, five on the second.
Length: 6–7 mm.
Male terminalia: anal segment (fig. 10), pygofer (fig. 11) and genital styles (fig. 9) bilaterally symmetrical. Aedeagus (fig. 6 and 7) with three large spinose processes: one emerging from the base of the periandrium and reaching to the apex; the two others inserted apically and running parallel to the flagellum along the left side of the aedeagus. No spines on the flagellum. The figures are based on the genitalia of the lectotype; one of the two males of the paralectotype-series was dissected as well and proved to be totally identical.

Comments. – *Pentastiidius sinaiticus* is in many respects a remarkable species, showing many reductions in its external morphology and thus differing from most *Pentastiridius* species. These differences can be summarized as follows: (1) the head is very broad, the carinae highly reduced or totally absent; (2) the eyes are very small; (3) *Pentastiridius* species usually bear five longitudinal carinae on the mesonotum; this species is completely devoid of keels on the mesonotum; (4) the apex of the tegmina is reduced and shows many additional transverse veinlets; (5) both the first and second segment of the hind tarsi bear a single row of respectively six and five teeth, while usually a double row of theeth is present in the members of the genus *Pentastiridius.*

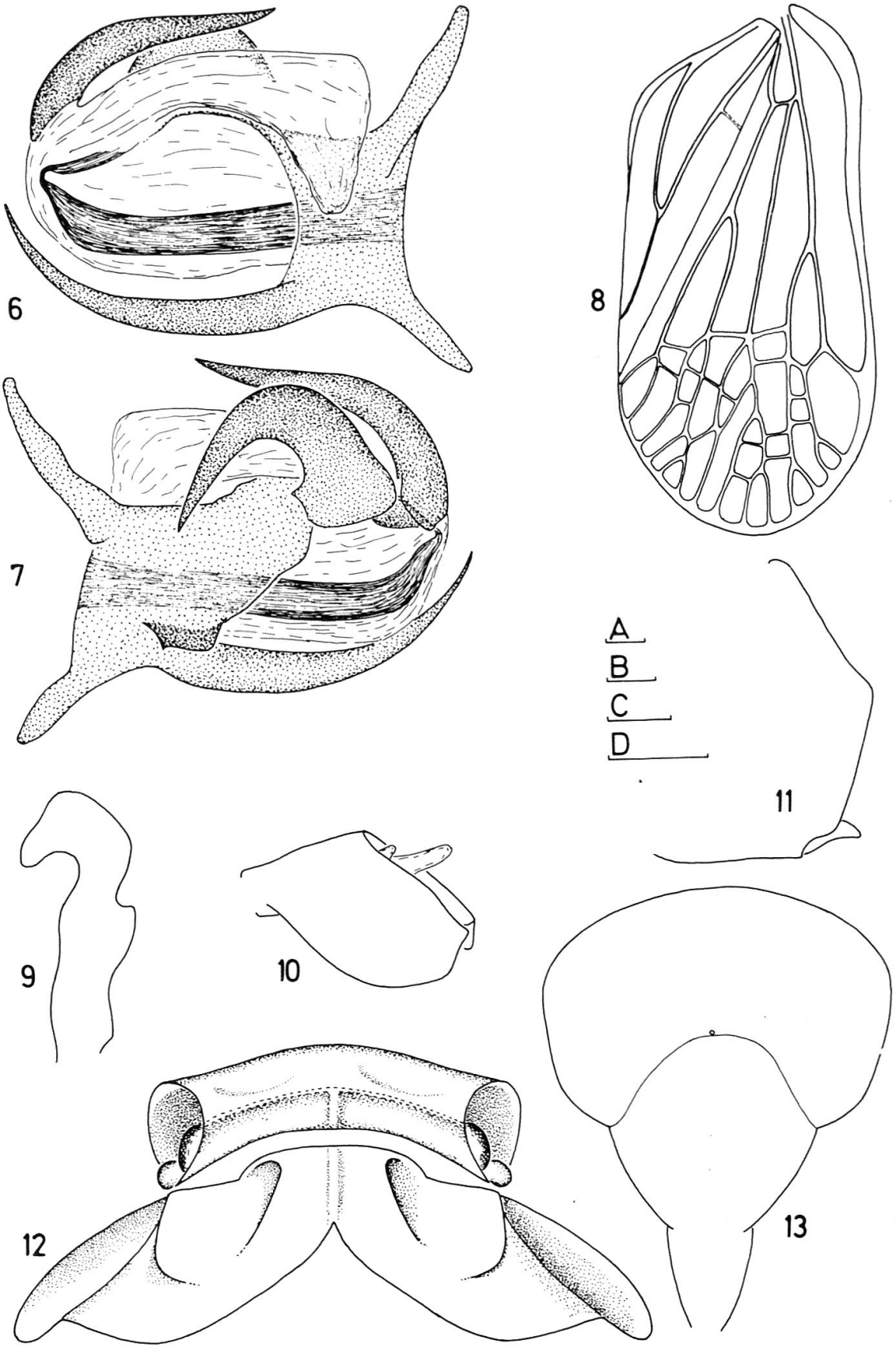


Fig. 6–13: *Pentastiridius sinaiticus* (HORVATH) comb. nov., lectotype 6 and 7: aedeagus, dorsal and ventral view; 8: right tegmen; 9: left genital style; 10: anal segment; 11: pygofer; 12: head and pronotum; 13: face. Scale A (0.2 mm): fig. 12 and 13; scale B (0.5 mm): fig. 8; C (0.2 mm): fig. 9 to 11; D (0.2 mm): fig. 6 and 7.

It is not surprising that this species was described in a separate genus because only external features were taken into account by HORVATH. However, the structure of the male terminalia and more particularly the aedeagus show that this species belongs to the genus *Pentastiridius*. The aberrant external features are, according to us, not sufficient enough to justify a separate generic status. One afrotropical species[1] collected on Mt. Nimba (Guinea) has the same kind of reductions. These two species however do not form a natural group and their similar characters have to be ascribed on account of a parallel evolution. Accordingly, a genus based on these characters would be polyphyletic and thus the genus *Moysella* HORVATH is synonymized with the genus *Pentastiridius* KIRSCHBAUM.

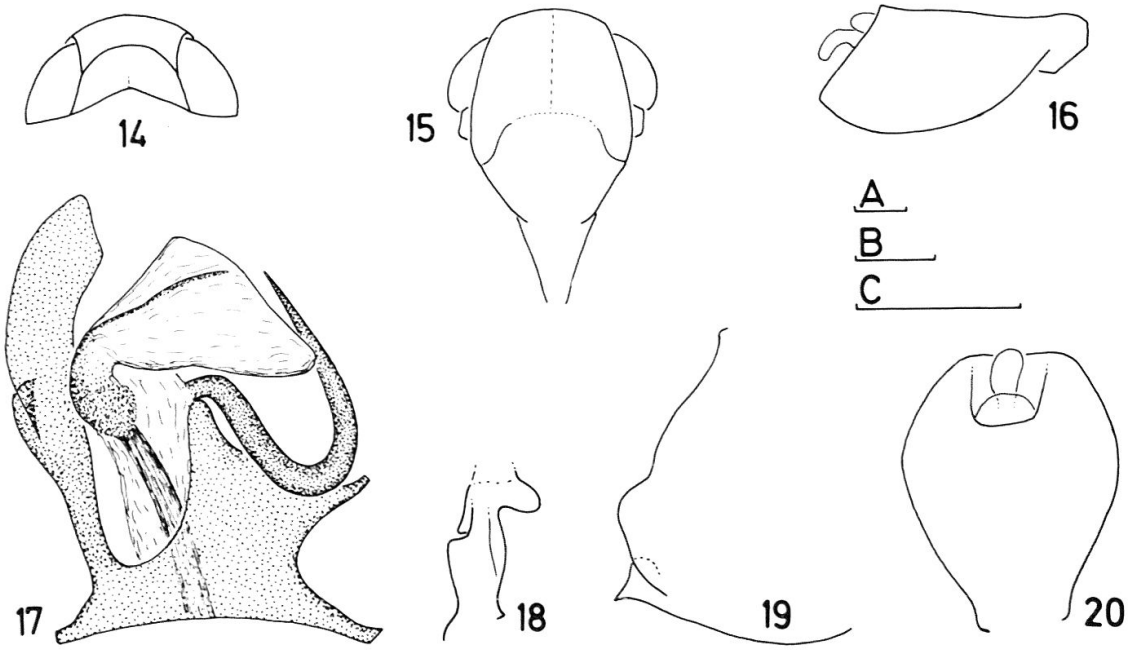
Mesoliarus malagensis MATSUMURA

Fig. 14–20

Mesoliarus malagensis MATSUMURA, 1910: 10

Material examined. – Holotype ♂, Spain, Malaga, Hokkaido University.

Description. – Basal part of the vertex yellowish, anterior part and face dark brown. Vertex shallowly incised basally, without a median keel. Junction between frons and vertex without keel, median carina on frons only visible by its paler colour; no median keel on the postclypeus. Median ocellus absent. Pronotum yellow, mesonotum dark



Fiog. 14–20: *Mesoliarus malagensis* MATSUMURA, holotype 14 and 15: head, dorsal and frontal view; 16 and 20: anal segment, right lateral and dorsal view; 17: aedeagus, dorsal view; 18: right genital style; 19: pygofer; Scale A: fig. 14 and 15; B: fig. 16, 18 to 20; C: fig. 17–0.2 mm

[1] This species will be desribed in a later paper; in accordance with the rules of zoological nomenclature we don't wish to name it here without a proper description.

brown. Tegmina hyaline, veins yellow, covered by a small number of concolorous granules; no granules along the costal margin between base and stigma, the latter triangular. Legs yellowish, femora fumated with brown, left hind-tibia with four lateral spines, right one with two. Hind tarsi with a double row of nine teeth on both the first and second segment.

Length: 4 mm

Male terminalia: left part of the pygofer and genital styles damaged; anal segment (fig. 16 and 20) devoid of ventral processi; pygofer as illustrated in fig. 19, with a sharp medioventral process; aedeagus (fig. 17) with a large spoon-like process inserted basally along the right side; furthermore, a large spinose process along the left side, inserted near the flagellum and bended over about 180°. Finally, a short process basally along the left side. Possibly, the first and third process are damaged.

REFERENCES

HORVATH, G. 1913. *Description d'un Fulgoride nouveau du Mont Sinai.* Ann. Mus. Nat. Hungarici *11:* 398–399.

MATSUMURA, S. 1910. *Neue Cicadinen aus Europa und dem Mittelmeergebiet (Schluss).* J. Coll. Sci. imp. Univ. Tokyo *27*(18): 1–138.

WALKER, F. 1851. *List of the specimens of Homopterous insects in the collection of the British Museum 2:* 361–636.

(received March 11, 1985)