

***Platymetopius pavelitus* sp.nov. (Hemiptera: Auchenorrhyncha:
Cicadellidae), a new species from Italy**

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D'URSO V., BÜCKLE C. & GUGLIELMINO A. 2013: *Platymetopius pavelitus* sp.nov. (Hemiptera: Auchenorrhyncha: Cicadellidae), a new species from Italy. In: KMENT P., MALENOVSKÝ I. & KOLIBÁČ J. (eds.): *Studies in Hemiptera in honour of Pavel Lauterer and Jaroslav L. Stehlik. Acta Musei Moraviae, Scientiae biologicae* (Brno) **98(2)**: 229–234. – *Platymetopius pavelitus* sp.nov. is described from southern Italy (Calabria and Sicily). Its diagnostic characters lie in the structure of the male genitalia (aedeagus, pygofer appendages) and in the female pregenital sternite.

Keywords. Cicadomorpha, Deltocephalinae, taxonomy, Palaearctic Region, Sicily, Calabria

Introduction

The genus *Platymetopius* Burmeister, 1838 was originally established for the species *Cicada vittata* Fabricius, 1775 (= *Platymetopius undatus* De Geer, 1773, type species) and *Jassus rostratus* Herrich-Schäffer, 1834 (BURMEISTER 1838). Currently it includes more than 75 species distributed in the Palaearctic and Oriental regions. However, the genus as currently defined is probably not monophyletic. It is one of the largest and most complex genera of the Deltocephalinae and urgently in need of revision. At present, it is divided in two subgenera: *Platymetopius s. str.* (73 species) and *Quernus* Dlabola, 1974 (3 species) (ZAHNISER 2013). ABDUL-NOUR (2001) established five informal species-groups among the *Platymetopius* taxa present in the Near East, based on morphological characters (e.g. body shape, coloration, aedeagus morphology, structure of pygofer appendages and female pregenital sternite).

In 1977, R. Remane collected one male and two females of an unknown *Platymetopius* species on Mount Etna (Sicily). Subsequently, in 1985, one of the authors (V. D'Urso) found one male in the Peloritani Mountains (Sicily) and, in 2009, the other two authors (A. Guglielmino and Ch. Bückle) collected three females in the Sila Mountains (Calabria), all belonging to the same taxon. Based on external morphology and the structures of the male genitalia and the female pregenital sternite, these specimens are considered as belonging to a new species, here described as *Platymetopius pavelitus* sp.nov.

Material and methods

The specimens examined are deposited in the institutions abbreviated as:

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| ABUC | Department of Biological, Geological and Environmental Sciences, sez. Animal Biology, University of Catania, Italy (coll. V. D'Urso) |
| AFUT | Department of Agriculture, Forests, Nature and Energy, University of Tuscia, Viterbo, Italy (coll. A. Guglielmino) |
| SMTD | Senckenberg Naturhistorische Sammlungen Dresden, Museum für Tierkunde, Dresden, Germany (coll. R. Remane) |

The morphological terminology used in the description follows OSSIANNILSSON (1978). Measurements were taken with the aid of a micrometer attached to a Zeiss SV8 stereomicroscope.

Taxonomy

Platymetopius pavelitus sp.nov.

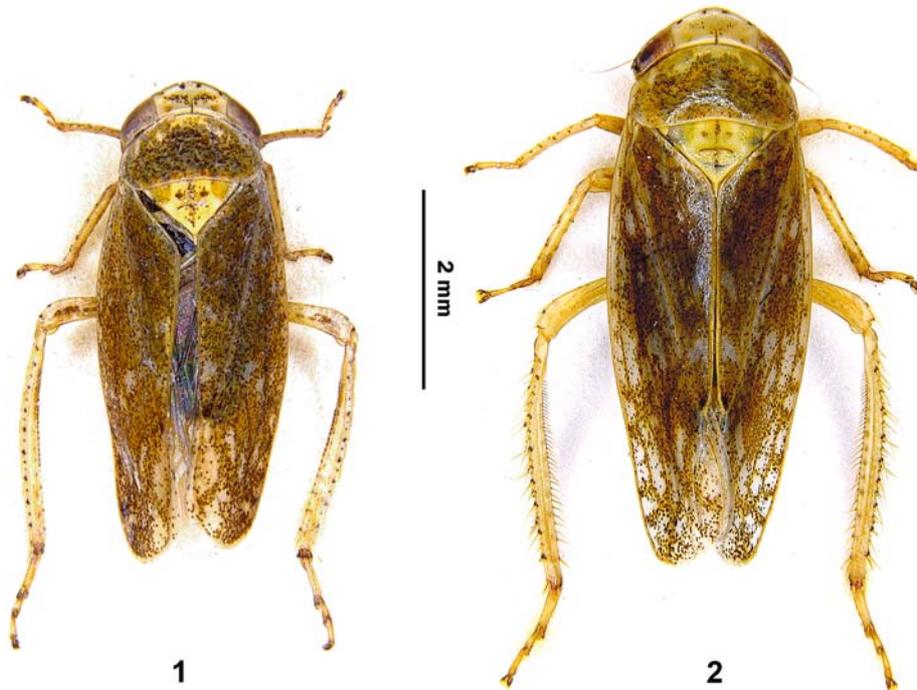
(Figs 1–9)

Type material. Holotype: ♂, Italy, Sicily, Etna, supra Linguaglossa (CT), 37°48'51"N 15°05'43"E, 1100 m, 21.09.1977, Leguminosae (*Cytisus?*), *Rubus*, *Quercus cerris*, *Q. pubescens*, Farn [fern], Weißdorn (lockerwüchsig) [*Crataegus* (sparse)], R. Remane leg. et coll. (SMTD). Paratypes: 2 ♀♀, same data as holotype (SMTD); 1 ♂, Italy, Sicily, Mt. Peloritani, Portella Fossa Lupo (Mandanici-ME), 885 m, 1.10.1985, clearing in *Quercus* forest, D'Urso leg. et coll. (ABUC); 3 ♀♀, Italy, Calabria, Sila, SS 660, km 35.5 (Acrici-CS), 1150 m, 13.08.2009, open area near *Pinus* afforestation, Guglielmino & Bückle leg., coll. A. Guglielmino (AFUT).

Description. Measurements. Males. Holotype. Total body length (including tegmina): 4.90 mm; vertex length: 0.32 mm; head width: 1.40 mm; pronotum length: 0.65 mm; pronotum width: 1.43 mm; length of vertex + pronotum + mesonotum: 1.60 mm. Paratype. Total body length (including tegmina): 5.06 mm; vertex length: 0.32 mm; head width: 1.44 mm; pronotum length: 0.68 mm; pronotum width: 1.44 mm; length of vertex + pronotum + mesonotum: 1.60 mm. Females. Paratypes. Total body length (including tegmina): 5.72–5.93 mm; vertex length: 0.36–0.38 mm; head width: 1.52–1.65 mm; pronotum length: 0.72–0.82 mm; pronotum width: 1.64–1.80 mm; length of vertex + pronotum + mesonotum: 1.60–1.80 mm.

All specimens examined are macropterous with the forewings longer than the abdomen and as long as the hind wings (Figs 1, 2). General coloration of body is yellowish-brown, mottled with dark brown dots and with hyaline spots on the forewings; the dark pattern is paler in the females (Fig. 2).

Head as wide as pronotum (male) or slightly wider (females). Vertex with rounded, slightly elevated anterior margin and a longitudinal median ridge in the posterior third; its width between the eyes twice the median length; four brown spots along the anterior margin, one near each ocellus. Frons slightly convex. Face yellowish, in males with light brown transverse stripes on frons. Gena with one small, brown spot near ocellus, usually with a small, dark brownish dot near lorum. Pronotum more than twice wider than long, mottled with brown dots. Scutellum yellowish, with two brown spots anterior to the brown cicatrix. Forewings densely mottled with brown dots and with large hyaline areas.



Figs 1–2. *Platymetopius pavelitus* sp.nov., paratypes, habitus. 1 – male (from Peloritani Mts.); 2 –female (from Sila).

Male genitalia. Pygofer (Fig. 3) with a deep semicircular notch on lateral portion of posterior margin of its lobes; notch in its dorsal portion with a short spine-shaped process. Each lobe with a group of about 15 long and short setae. Anal tube as in Fig. 3. Genital valve triangular (Fig. 4), less than twice as wide as long, with anterior margin slightly concave in its median portion, lateral margin slightly convex in its median portion. Genital plate as in Fig. 4, with median margin shorter than length of the genital valve and lateral margin convex in its basal half. Aedeagus slender with a pair of lateral appendages arising from the basal portion of the shaft (Figs 3, 5, 6); shaft and appendages slender, curved dorsad; appendages longer than shaft; aedeagus base anchor-shaped in posterior view (Fig. 6). Connective and styles as in Figs 7 and 8.

Female genitalia. Hind margin of pregenital sternite deeply concave with a median bifurcate process (Fig. 9).

Etymology. It is our pleasure to name the species in honour of Pavel Lauterer, a famous and excellent researcher of Hemiptera and a good friend of ours. The name “*pavelitus*” should be treated as a noun in apposition.

Differential diagnosis. *Platymetopius pavelitus* sp.nov. differs from the other species of the genus particularly in the morphology of the aedeagus, the pygofer appendages and the female pregenital sternite (see also Remarks).

Biological notes. The specimens were collected in summer and early autumn in low vegetation near pine (*Pinus*) and oak (*Quercus*) woods.

Distribution. Up to now, *P. pavelitus* sp.nov. has been collected only in Calabria and Sicily.

Remarks. *P. pavelitus* sp.nov. is characterized by the following characters: yellowish-brown coloration mottled with dark dots and with hyaline areas on the forewings; short and rounded vertex with four dark spots; pygofer lobes with semicircular notch and short spine-shaped process; slender aedeagus with one pair of long, lateral appendages arising from the base of the shaft; posterior margin of the female pregenital sternite deeply concave with median bifurcate process.

On the basis of those characters, the new species may be placed within the subgenus *Platymetopius s. str.*

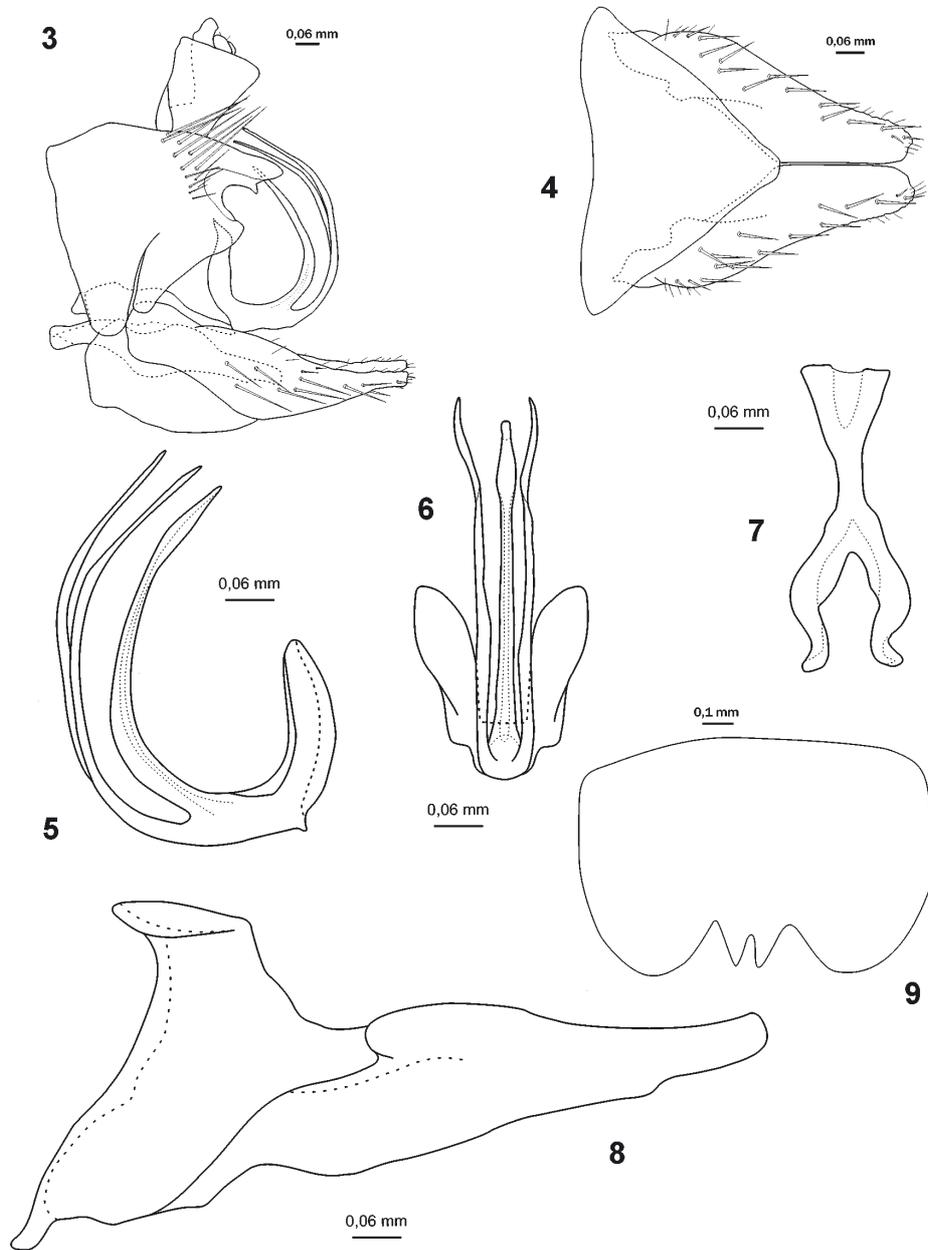
P. pavelitus sp.nov. resembles *P. exhereditus* Diabola et Heller, 1962, known from Iran, in the shape and coloration of the vertex, the short pygofer appendages and the slender aedeagus with only one pair of long appendages. It differs from that species in the antero-ventral direction of the pygofer process (directed dorso-caudad in *P. exhereditus*), the semicircular notch below the pygofer process (pygofer margin is convex in *P. exhereditus*), the subapical position of the pygofer process (apical in *P. exhereditus*) and the shorter aedeagus appendages not covering the shaft in lateral view (longer than the shaft and covering it for most of its length in *P. exhereditus*).

The new species shares some characters with the *Platymetopius obsoletus* group as defined by ABDUL-NOUR (2001). In particular, *P. pavelitus* resembles *P. obsoletus* (Signoret, 1880) sensu Haupt, 1927 and other closely-related species (*P. ferrarii* Haupt, 1927, *P. cruentatus* Haupt, 1927 and *P. retamae* Linnavuori, 1972) in the general habitus (forewing coloration without zig-zag pattern, vertex rounded and quite short with dark spots along its anterior margin) and in the presence of only one pair of aedeagus appendages. However, *P. pavelitus* sp.nov. differs in the shape of the pygofer appendages (slender and long in the species of the *obsoletus* group sensu ABDUL-NOUR (2001), except for *P. retamae* which, however, presents a different shape of pygofer appendages with respect to the new species), in the slender base of the aedeagus and in the female pregenital sternite with a median bifurcate posterior process (trilobate posterior margin in the species of *obsoletus* group).

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Platymetopius pavelitus sp.nov.



Figs 3–9. *Platymetopius pavelitus* sp.nov. 3–8 – Paratype, male (from Peloritani Mts.): 3 – genital block, lateral view; 4 – genital plates and genital valve, ventral view; 5 – aedeagus, right lateral view; 6 – aedeagus, posterior view; 7 – connective, dorsal view; 8 – left stylus, dorsal view. 9 – Paratype, female (from Sila), pregenital sternite, ventral view.

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