

MELANOPLEUROIDES DOMINICANUS, A NEW LYGAEINE GENUS AND SPECIES FROM THE DOMINICAN REPUBLIC (HETEROPTERA: LYGAEIDAE)

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ABSTRACT

Melanopleuroides dominicanus is described from the Dominican Republic. Characteristics to separate it from similar taxa, genitalic drawings, and a brief discussion of its phylogenetic relationships are provided.

Key Words: West Indies, new genus, new species, Heteroptera, Lygaeinae

RESUMEN

Melanopleuroides dominicanus es descrito de la Republica Dominicana. Los caracteristicas que lo separan de taxa similar, dibujos genitales, y una discusión breve de sus relaciones filogenéticas son proveidas.

The Western Hemisphere members of the lygaeid subfamily Lygaeinae were revised and their phylogenetic relationships discussed at the genus level by A. Slater (1992). Specimens of this species failed to key to any genus in the key provided in that paper. As the general appearance is very similar to members of the genus *Melanopleurus* Stål it was first thought that a revision of the key might be necessary. Inspection of the genitalia shows sufficient differences from those of *Melanopleurus* and other described genera to warrant treatment as a new genus. There are over 270 species of Lygaeidae known from the West Indies with 112 from the Dominican Republic including 18 Lygaeinae of which 7 are endemic.

All measurements are given in millimeters.

Melanopleuroides A. Slater and Baranowski,

New Genus

Type species: *Melanopleuroides dominicanus* A. Slater and Baranowski. Monobasic.

Moderately robust; impunctate except immediately before and behind callus and on propleuron and sternum; hairs short, longest on hemelytra, semidecumbent, moderately dense except nearly absent at base of corial disc. *Head* fairly strongly declivent; vertex convex; ocellus small, slightly raised above surface, distance between ocelli about 10 times distance from ocellus to eye; bucculae moderately produced, ventral margin slightly convex. *Pronotum* with posterior width about one and one half times anterior width; medial length slightly less than anterior width; anterior margin concave, very slightly raised laterally, not beaded, separated from callus by coarsely punctate but not depressed area; pos-

terior margin slightly convex, with shallow but distinct depression laterally; lateral margin slightly sinuate; callus indistinct, defined primarily by punctate areas immediately before and behind, callar impressions unbranched, sinuate, angled towards anterior pronotal angles; depression behind callus shallow, coarsely punctate, interrupted medially by indistinct carina, reaching lateral margin. *Scutellum* slightly more than half as long as wide; stem and arms of median carina broad; lateral fovea distinct basally becoming indistinct apically, bottom grooved. *Hemelytron* slightly surpassing apex of abdomen; corial veins indistinct; membrane opaque. *Propleuron* divided into three parts by dorsoventral impressions, anterior and posterior parts coarsely punctate, median part impunctate, slightly convex. *Meso-pleuron* divided into anterior and posterior parts but shallow dorsoventral impression, impunctate. *Metapleuron* impunctate; posterior margin distinctly concave; ostiolar peritreme with anterior and posterior margins about equally high and with apical button distinctly separated from surrounding pleuron dorsally and posteriorly; evaporative area restricted to base of peritreme. *Abdomen* without anterolateral scars; sternum II fully exposed; sternum VI of female about as long medially as laterally; sternum VII of female cleft to base.

Clasper (Fig. 1c) with blade at slightly oblique angle to shank, curved, flattened, inner face only slightly ventrally directed; posterior projection distinct, conical; shank flattened, without rooflike interior projection; pair of sharply defined ridges separated by groove on interior side at base of blade. *Aedeagus* (based on very incomplete inflation) bent before telescoping into phallosome; con-

junctiva with lateral lobe on each side bearing broad flat sclerite; at least two large lobes bearing single heavy apical spines either apical on conjunctiva or on vesica; gonoporal process short, thick, without secondary process; phallosome without apical flange, process, process a short c-shaped flange broadest dorsally. *Spermatheca* (Fig. 1d) with basal tube short, without distinct swollen area; apical tube swollen, without distinct bulb, continued as very thin tube apically. *Ovipositor* short; first valve (Fig. 1a) with connecting membrane extending beyond apex of valvula, median cleft reaching almost to base, without Y-sclerite, strongly pigmented or lightly sclerotized area from membrane apex almost to base parallel to valvula; second valve (Fig. 1b) with connecting membrane cleft almost to base, heavily pigmented or lightly sclerotized mesad of valvula.

This species keys to *Melanopleurus* in A. Slater's (1992) key. The general appearance is similar to some of the smaller members of that genus. The two genera can be easily separated by the presence in *Melanopleurus* of a distinct pale macula on the vertex of the head and by the distinctly concave posterior metapleural margin of *Melanopleuroides* which contrasts with an almost straight posterior margin in *Melanopleurus*.

In view of the very incomplete inflation of the aedeagus exact placement on A. Slater's (1992) proposed phylogenetic tree seems inappropriate at this time, some characteristics of the genitalia are worthy of mention. The general development of the conjunctival and vesical lobes and spines places this genus in the group containing the genera *Latochrinnus*, *Lygaeospilus*, *Melacoryphus*, *Dalmochrinnus*, *Achlyosomus*, *Craspeduchus*, and *Melanopleurus*. Within that grouping the apparent development of the conjunctival and vesical spines and the shape of the phallosome flange are similar to those of *Melanopleurus* and *Craspeduchus*. The lack of a Y-sclerite on the first valve of the ovipositor is shared with *Latochrinnus* and *Achlyosomus*. The ovipositor is similar in general fascies to that of *Latochrinnus* but that genus lacks sclerotized or heavily pigmented areas on the membrane. The position of the interior ridges and groove on the clasper is unique, they may be homologous with the ridges and grooves present on the shank of the clasper in other lygaeines. The long thin apical tube on the spermatheca is also unique though there is some resemblance to the spermathecae of *Dalmochrinnus* and *Achlyosomus* in which the apical tube is much thicker at its base than at its apex. It could be argued that there is a progression from the distinct basal swelling in *Melanopleuroides* through a basal thickening in *Dalmochrinnus* and *Achlyosomus* to a completely thin apical tube in *Craspeduchus* and *Melanopleurus*.

Known only from the Dominican Republic.

Etymology: Named to show the external similarity to *Melanopleurus*.

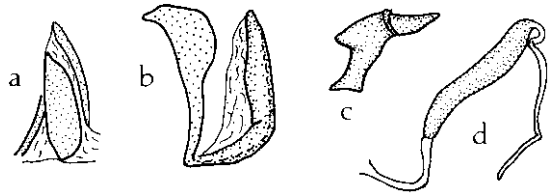


Fig. 1. a. Ovipositor, 1st valve, ventral view; b. Ovipositor, 2nd valve, lateral view; c. Right clasper, interior view; d. Spermatheca.

Melanopleuroides dominicanus

A. Slater and Baranowski, **New Species**

Head black except for pale yellow ventral margin of bucculae. Pronotum and scutellum black. Clavus and corium dark brown to black except for base and outer two thirds of apical margin orange yellow. Membrane dark brown with a pale macula on lateral margins. Thoracic pleura black except margins pale yellow. Posterolateral metapleural angle orange yellow. Abdomen dark brown to black. Legs and antennae black except for antennal segment IV blackish brown.

Body, legs and antennae with silvery appressed hairs.

Length head 0.80, width 1.13, interocular space 0.70. Pronotum trapezoidal, anterior margin concave. Length pronotum 0.88, width 1.55. Scutellum with T-shaped callosity. Length scutellum 0.43, width 0.86. Length claval commissure 0.48. Midline distance apex clavus-apex corium 1.03. Midline distance apex corium-apex membrane 1.03. Labium extending between metacoxae. Length labial segments I 0.45, II 0.55, III 0.50, IV 0.25. Length antennal segments I 0.30, II 0.63, III 0.53, IV 0.65. Total body length 4.60.

Holotype: Male. Dominican Republic: Pedernales, Parque Nacional del Bahoruco, 10 July 1996, R. Turnbow. In Florida State Collection of Arthropods.

Paratypes: 1 ♂, 3 ♀♀, DOMINICAN REPUBLIC: Monte Cristi, 8.2 km N Villa Elisa, 31 May 1994, R. Turnbow; 2 ♀♀, Monte Cristi, 8.6 km N villa Elisa, 26 May 1992, R. Turnbow; 1 ♂, 1 ♀, La Vega Prov. Hotel Montana, 25 May 1992, R. Turnbow; 1 ♂, 1 ♀, Pedernales, 23-24 km N Cabo Rojo, 535 m, 1 July 1996, R. Turnbow. In University of Georgia, James A. Slater and Richard M. Baranowski collections.

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