Beitr. Ent.	Berlin	ISSN 0005-805X
43(1993)2	S. 441-443	18.06.1993

A new species of *Heteropsylla* CRAWFORD from Ecuador with new host-plant and distribution records for the genus (Homoptera, Psylloidea)

with 9 textfigures

IAN D. HODKINSON & STEPHEN B. MUDDIMAN[1]

School of Biological & Earth Sciences

Summary

Heteropsylla pulchella **spec. nov.** is described from Ecuador. Additional host-plant and distribution records are given for *Heteropsylla bidentata*, *H. cubana*, *H. truncata*, *H. obscura* and *H. spinulosa*.

Zusammenfassung

Heteropsylla pulchella **spec. nov.** aus Ecuador wird beschrieben. Wirtspflanze und Vorkommen von *Heteropsylla bidentata*, *H. cubana*, *H. truncata*, *H. obscura* und *H. spinulosa* wurden gegeben.

Members of the neotropical psyllid genus *Heteropsylla* CRAWFORD feed primarily on mimosoid legumes. Several species have recently received attention as introduced pests of tropical forage legumes or as biological control agents against alien weeds. MUDDIMAN, HODKINSON & HOLLIS (1992) give a full account of the genus, including a key to species. This paper describes a further new species from Ecuador and gives first host-plant records and new locality data for recently described species. Material is deposited in the Natural History Museum, London (BMNH) and the Snow Entomological Museum, University of Kansas (SEMUK).

Heteropsylla pulchella **spec. nov.** (Figs 1-9)

This species conforms to the revised generic diagnosis of MUDDIMAN, HODKINSON & HOLLIS (1992): the description below emphasizes the distinguishing features.

General body colouration reddish-brown; older specimens with abdominal sclerites and terminalia dark brown, with similar darker brown markings on dorsal surface of thorax; antennae dirty yellow basally, becoming dark brown apically; legs brown basally becoming dirty yellow apically; forewing membrane clear with characteristic brown pattern.

Head (Fig. 1) with genae smoothly rounded, only slightly expanded; antennae 1.85-2.04 times head width, with segment 8 the longest, suborbital lobes not developed; labium (Fig. 2) long and slender,particularly the apical segment; clypeus small and rounded (Fig. 2).

Forewing (Fig. 3) oblong oval, relatively broad, length/breadth ratio 2.11-2.29; with typical *Heteropsylla* venation; pterostigma with at most a very short petiole; vein R_s short, curved up towards

[1]Anschrift der Verfasser: Prof. Dr. I.D. HODKINSON & S.B. MUDDIMAN, School of Biological & Earth Sciences, Liverpool John Moores University, Byrom St., Liverpool L3 3AF, U.K.

DOI: 10.21248/contrib.entomol.43.2.441-443

costal margin; cell cu_{1a} small and weakly arched, vein cu_{1b} recurved apically towards wing base; brown pattern characteristic, comprising a darkening of the pterostigma, a broad transverse apical bandand a broad transverse band just before the mid-point of the wing; this latter band is often paler and may be incomplete in some specimens; surface spinules present throughout all cells except C+Sc, sparse, leaving broad spinule-free bands along the veins.
Metatibia with a small basal genual spine and with 1+(2-3)+1 thick black apical spurs; basal metatarsus usually with 2 similar spurs, although one may be absent in some specimens.
Male proctiger (Fig. 4) cylindrical; subgentital plate short, rounded. Paramere in outer lateral view (Fig. 4, 5) with outer lobe broad, parallel-sided apically, becoming broader towards point of attachment to shorter inner lobe; in inner view (Fig. 6) apex of inner lobe broadly recurved so that apex lies in front of outer lobe. Aedeagus (Fig. 7) with basal sheath, apex rounded and somewhat arched backwards, ductus ejaculatorius long and slender; apodeme (Fig. 8) with well-developed anterior process.
Female terminalia (Fig. 9) elongate wedge-shape; proctiger in lateral view with dorsal margin slightly concave, 0.69-0.85 times head width, setae distributed as in figure, circumanal ring 0.32-0.39 times length of proctiger; subgenital plate triangular, with an acute apex.
Size (in mm): Head width ♂ 0.56-0.62, ♀ 0.60-0.65; Antennal length ♂ 0.92-1.23, ♀ 1.18-1.21; Forewing length ♂ 1.41-1.53, ♀ 1.52-1.79; Proctiger length ♂ 0.21-0.23, ♀ 0.42-0.46; Paramere length ♂ 0.16-0.18; length of apical segment of ♂ aedeagus 0.20-0.22.
Holotype ♂: Ecuador (S.W.): Tambo Negro, on *Pithecellobium excelsum* (KUNTH) Hart ex Benth., 8 March 1991 (MUDDIMAN). - Paratypes 12 ♂, 8 ♀: same data as holotype except 2 specimens collected on 1 and 3 February 1991 respectively (all types in BMNH).

Host plant: most probably *Pithecellobium excelsum.*

Heteropsylla pulchella **spec. nov.** can be separated from all other members of the genus by the following characters a) the distinctive forewing pattern, b) the small, characteristically shaped cell cu_{1a} of the forewing, c) the form of the male paramere and d) the characteristic-shaped sheathed aedeagus with the elongate ductus ejaculatorius. However, it is difficult to place the species in one of the existing generic subgroups defined by MUDDIMAN, HODKINSON and HOLLIS (1992).
Superficially *H. pulchella* resembles the maculate-wing members of the *texana*-group which also possess the sheathed aedeagal base and the genital apodeme with the anterior process. However, it lacks the diagnostic suborbital lobe and it still retains the basal genual spine on the metatibia. Amongst other *Heteropsylla* with a sheathed aedeagus it differs from the *puertoricoensis*-group in the presence of the genual spine and the anterior process of the apodeme. Similarly, it differs from the ungrouped *H. brevigenis* in possessing the anterior process of the apodeme and from the ungrouped *Heteropsylla tenuata* MUDDIMAN, HODKINSON & HOLLIS in having antennal segment 8, rather than 3, the longest and in possessing the genual spine.

Additional records for other species

Heteropsylla bidentata MUDDIMAN, HODKINSON & HOLLIS

Ecuador, on *Mimosa albida* 34 ♂, 30 ♀, 17 larvae, Tierra Colorada 10-19.II.1991, Pinas 26.II.-3.III.1991, Sozoranga 10.III.1991 (all in BMNH).

Heteropsylla cubana CRAWFORD

Ecuador, 12 ♂, 6 ♀, 3 larvae, Tambo Negro 1.II.1991, Pinas - Loja Road 3.III.1991, Catacocha 6.III.1991 (all in BMNH).

DOI: 10.21248/contrib.entomol.43.2.441-443

Heteropsylla truncata MUDDIMAN, HODKINSON & HOLLIS
Ecuador, 2 ♂, 2 ♀, 2 larvae, Tambo Negro 31.I.1991, Pinas 26.II.1991, Catacocha 6.III.1991 (all in BMNH).

Heteropsylla obscura MUDDIMAN, HODKINSON & HOLLIS
Ecuador, on *Prosopis* sp. and *Acacia macracantha*, 9 ♂, 12 ♀, 4 larvae, Tambo Negro 28.I.1991 & 7.III.1991, Pinas-Loja Road 3.III.1991, Catacocha 6.III.1991, Sozoranga 10.III.1991 (all in BMNH).

Heteropsylla spinulosa MUDDIMAN, HODKINSON & HOLLIS
Brasil, 12 ♂, 18 ♀, Nova Teutonia, 12.X.1949 (F. PLAUMANN) all in SEMUK).

Literature

MUDDIMAN, S., HODKINSON, I.D. & HOLLIS, D. 1992: Legume-feeding psyllids of the genus *Heteropsylla* (Homoptera: Psylloidea). - In: Bull. ent. Res. - London **82**, p. 13-117.

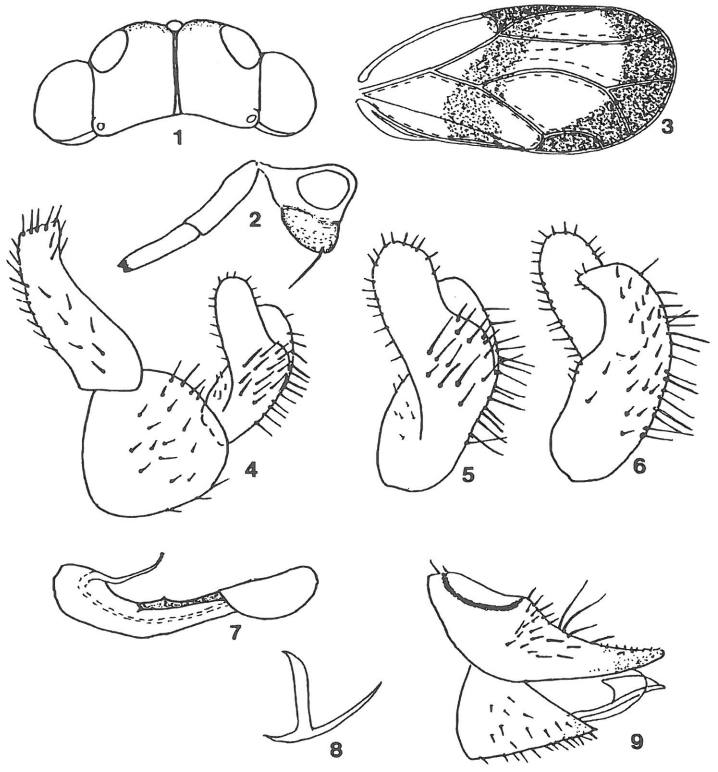


Fig. 1-9: *Heteropsylla pulchella* **spec. nov. 1**, Head, dorsal; **2**, Clypeus and labium, lateral; **3**, Forewing; **4**, ♂ terminalia, lateral; **5**, ♂ left paramere, outer view; **6**, ♂ right paramere, inner view; **7**, ♂ aedeagus; **8**, ♂ genital apodeme; **9**, ♀ terminalia, lateral view. Size measurements are given in text.

DOI: 10.21248/contrib.entomol.43.2.441-443