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A new species of *Megaselia* Rondani (Diptera: Phoridae) attracted to a bracket fungus (Polyporaceae) in Spain

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Abstract

Megaselia pagolacartei sp. n. is described from a male attracted to the bracket fungus *Fomes fomentarius* on the trunk of an old beech (*Fagus sylvatica*) in northern Spain.

Key words: Phoridae, *Megaselia*, new species, Spain.

Resumen

Una nueva especie de *Megaselia* Rondani (Diptera: Phoridae) atraída a un hongo yesquero (Polyporaceae) en España

Se describe *Megaselia pagolacartei* sp. n. sobre la base de un macho atraído al hongo yesquero *Fomes fomentarius* sobre el tronco de una vieja haya (*Fagus sylvatica*) en el norte de España.

Palabras clave: Phoridae, *Megaselia*, nueva especie, España.

Laburpena

***Megaselia* Rondani (Diptera: Phoridae) espezie berri bat Espainian, ardagai batera (Polyporaceae) erakarria**

Megaselia pagolacartei sp. n. deskribatzen da, Espainiaren iparraldeko pago zahar baten (*Fagus sylvatica*) enborreko *Fomes fomentarius* ardagaira erakarritako ar batean oinarrituta.

Gako-hitzak: Phoridae, *Megaselia*, espezie berria, Espainia.

Introduction

A report of scuttle flies (Diptera: Phoridae) attracted to the fungus *Fomes fomentarius* (L.) J.J. Kickx (Polyporaceae) on the trunk of a beech tree, *Fagus sylvatica* L. (Fagaceae) listed 15 species (Disney and Pagola-Carte, 2009). This included 4 species given code numbers as they were represented by females only, of species that have not yet been linked to their males. One *Megaselia* male was omitted as in the keys to the Palaearctic members of Abteilung VI (Schmitz and Delage, 1981) it runs out as *M. giraudii* (Egger, 1862) at couplet 41. The latter species belongs to a complex

that has been considerably revised since the key of Schmitz and Delage (Buck and Disney, 2001). However, the problem species had 3 bristles on the notopleuron, in contrast to the species of the *M. giraudii* complex. Furthermore, the Spanish specimen showed more resemblance to *M. picta* (Lehmann, 1822) and *M. aequilateralis* Schmitz, 1936. However, the recognition of these two species was problematical at the time. In the case of *M. aequilateralis* the name refers to the supposed quadratic dimensions of the frons. Indeed this feature is employed in the key of Schmitz and Delage. This feature has since been found to be an error of observation (Disney *et al.*,

2010). In the case of *M. picta*, supposedly occurring in the Holarctic, Neotropical and Oriental Regions, the suspicion grew that more than one species was involved. The recognition of the species was clarified following the designation of a neotype (Disney, 2009). With these clarifications, it is concluded that the problem specimen from Spain is indeed a new species, which is described below.

Systematics

Megaselia pagolacartei Disney sp. n.

(Figs. 1-2)

MALE. *Head.* Frons yellow to orange, clearly broader than long, with 80-100 hairs and dense but very fine microtrichia. In the only specimen available the left side lacks a lower supra-antennal bristle (SA) and the right side has an extra antial bristle. The lower SA is almost as robust and only a little shorter than the upper SAs. The antials lower on frons than anterolaterals, and (the normal ones) situated almost directly below the ALs. Pre-ocellars only slightly further apart than either is from a mediolateral bristle, which is a little higher on frons. Cheek with 4 bristles and jowl with 2 that are longer. The subglobose postpedicels yellow, without subcutaneous pit sensilla (SPS) vesicles. Palps yellow, at most a third as broad as postpedicel but slightly longer than breadth of latter, with 4-5 longer and 3-4 shorter bristles and 3-5 hairs. Labrum pale yellow and at most three quarters the width of postpedicel. Labella coloured as palps, with their combined width almost 1.5 times that of a postpedicel. Their lower faces with numerous microtrichia in their basal halves and with densely packed short spinules in their distal halves.

Thorax. Thorax orange yellow to yellow. Three notopleural bristles and no cleft in front of these. Mesopleuron bare. Scutellum with four bristles of equal strength and length.

Wings. 2.6–2.7 mm long. Costal index 0.51. Costal ratios 3.75:1.91:1. Costal cilia (of section 3) 0.09–0.10 mm long. No hair at base of vein 3. With 6 axillary bristles, all shorter than costal cilia. Sc not reaching R1. Thick veins and vein 7 yellowish grey, veins 4-6 grey. Membrane tinged grey (evident to naked eye when viewed against a white background). Haltere knob yellow.

Legs. Yellow apart from brown tips to hind femora and brown patches on mid coxae. Fore tarsus with posterodorsal hair palisade on segments 1-5 and 5 at most as long as 4. Dorsal hair palisade of mid tibia extends about three quarters of its length. Some hairs below basal half of hind femur longer than those of anteroventral row of outer half. Hind tibia with a dozen differentiated posterodorsal hairs, the first 2-3 being fine, the rest robust and the last the longest; and spinules of apical combs simple.

Abdomen. Tergites with T1 yellow, T2-T6 brown with the front and hind margins yellow and T3-T5 with a narrow median yellow band linking these marginal yellow bands. All with hairs, which are longest posterolaterally and at the rear of T6 (Fig. 1). Venter yellow, and with hairs on segments 3-6. Hypopygium (Figs. 1 and 2) with a brown epandrium, a pale brown anal tube, yellow brown hypandrium apart from a colourless right lobe which has small scales below and fine microtrichia at the sides.

Type material:

HOLOTYPE ♂: Spain: Gipuzkoa province: Oiartzun: Oieleku beech forest (Aiako Harria P. N.), 500 m altitude, 30TWN9689, Kaila trap on *Fomes fomentarius*, vii.2007, S. Pagola-Carte (University of Cambridge, Museum of Zoology).

Recognition:

Apart from not running down correctly in the key of Schmitz and Delage (1981) (see Introduction), in the key to the males of *Megaselia* species recorded from the British Isles (Disney, 1989) it runs to couplet 150, where neither option applies, but the combination of its yellow thorax, 3 bristles on the notopleuron and details of the hypopygium will exclude other species running to Lead 1. If one follows Lead 2 one runs to the *M. giraudii* species complex, all of which have only 2 bristles on the notopleuron.

Etymology:

Named after the collector Santiago Pagola-Carte.

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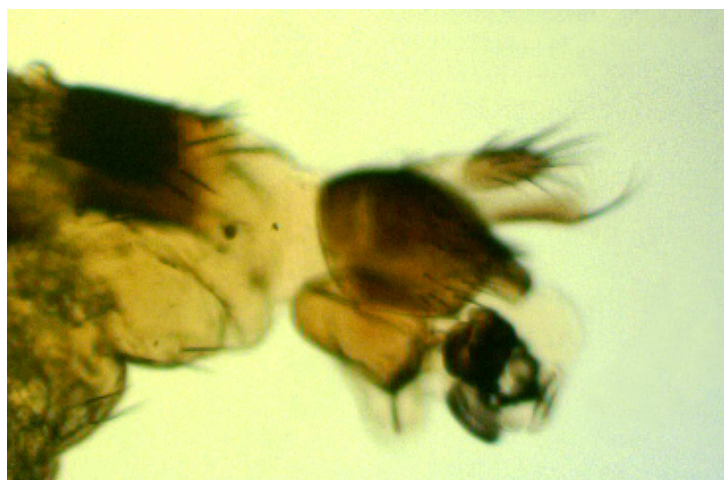


FIGURE 1. *Megaselia pagolacartei* sp. n. ♂: Left face of abdominal segment 6 and hypopygium.

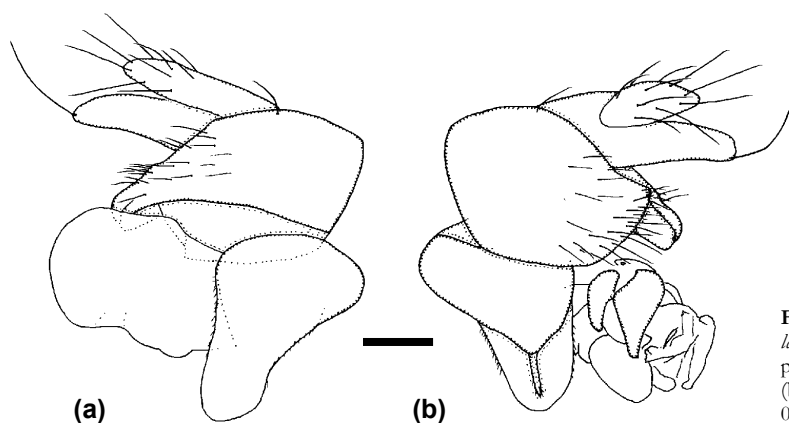


FIGURE 2. *Megaselia pagolacartei* sp. n. ♂: Hypopygium: (a) Right face; (b) Left face (Scale bar = 0.1 mm).

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