Orussus taorminensis (Trautmann, 1922) (Hymenoptera, Orussidae), new to Iberian Peninsula and to Africa

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ABSTRACT

The presence of Orussus taorminensis (Trautmann, 1922) in Iberian Peninsula and Africa is reported for the first time on the basis, respectively, of one female specimen collected in Algeciras (Cádiz), stored in the collection of the National Natural History Museum, Madrid (Spain), and one female specimen collected in Tizi n’Test (Morocco, High Atlas), stored in the collection of the Natural History Museum of Ferrara (Italy).

Key words: Hymenoptera, Orussidae, Orussus taorminensis, Iberian Peninsula, Africa: Morocco, first record.

RESUMEN

Orussus taorminensis (Trautmann, 1922) (Hymenoptera, Orussidae), especie nueva para la Península Ibérica y África.

Se cita por primera vez la presencia de Orussus taorminensis (Trautmann, 1922) en la Península Ibérica y en África, en base al estudio de una hembra capturada en Algeciras (Cádiz), depositada en la Colección del Museo Nacional de Ciencias Naturales de Madrid y de una hembra capturada en Tizi n’Test (Marueccos, Haut Atlas) y depositada en la Colección del Museo de Historia Natural de Ferrara.

Palabras clave: Hymenoptera, Orussidae, Orussus taorminensis, Península Ibérica, África: Marueccos, primera cita.

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INTRODUCTION

The Orussidae consists of a small group of highly specialized wasps comprising about 85 described species world-wide (Vilhelmsen et al., 2001). In Europe and N-Africa the family includes seven species in three genera (Guiglia, 1954; Kraus, 1998). Until know only three species were recorded for Iberian Peninsula, Canary Islands and N-Africa: Orussus abietinus (Scopoli, 1763), widespread through Palaeartic region; Orussus moroi Guiglia, 1954 and Orussus unicolor Latreille, 1811 (Berland, 1947; Ceballos Jimenez, 1963; Schedl & Baez, 1992; Kraus, 1998).

Orussidae are parasitoids of wood-boring Hymenoptera and Coleoptera (Burke, 1917; Gourlay, 1952; Rawlings, 1957) with an idiobiont ectophagous biology (Whitfield, 1998). They are not easily spotted in their natural habitat and are only rarely collected by most of the usual collecting methods. Consequently, they are rare in most collections, and the scarcity of available material is a serious limitation for studying the taxonomy and the faunistics of this family. Unfortunately, it must be noticed that several species are known only from a few localities or only from a single (type) locality, and that hosts are not certain for many species.

During recent researches carried out by one of the author (G.F. Turrisi) on the collection of the Museo Nacional de Ciencias Naturales, Madrid, a previously undetermined female of Orussidae from S-Spain was examined; in addition, a female specimen from N-Africa (Morocco) of the same species was found by the other author (F. Pesarini). They belong to an interesting species new both to Iberian Peninsula and to Africa.

Orussus taorminensis (Trautmann, 1922)


Short redescription. Body predominantly black; pronotum, mesonotum, mesoscutellum, mesopleurae (upper half) orange (fig. 1); cenchri brownish
yellow; fore tibia and tarsi brownish red; a dorsal yellow line is present on the proximal half of each tibia, less extensively on that anterior; fore wing slightly infuscated with a narrow hyaline transverse area present just posteriorly of pterostigma; fore wing with veins and pterostigma brown in the proximal half, hyaline in the distal half. Body covered with short and scattered silvery hairs, longer and more dense on legs.

Length 7.2 mm. Head without frontal carinae; anterior margin of frons incised in the middle; postocular carina present along the two third of the height of eye; ocellar region with five pairs of tubercles; posterior ocelli not touching eyes; occipital carina present from base of antenna to about middle eye level; 3rd antennomere 1.7 as long as 2nd; 9th antennomere 2.0 as long as wide and 2.3 as long as 10th; mesonotum with a slightly developed longitudinal median sulcus for the anterior one third of its length; notauli not well developed; parapsidial lines well developed; thorax with moderately coarse sculpture with mesoscutellum smooth and moderately punctured; mesoscutellar sulcus not developed; fore femur with a distinct ventral carina; fore tibia with one spur and a small dorsal and apical peg; median and hind tibiae with two spurs, the outer longer than the inner; hind tibiae with 5 dorsal pegs in single row; abdomen densely and finely sculptured; 8th tergite with posterior margin rounded with a distinct median projection; carina of 9th tergite straight.

The male is entirely black with tibiae and tarsi reddish brown, a small distal yellow spot on femurs and a yellow line on the proximal half of each tibia; the yellow spots and lines could be reduced or nearly absent (Bella & Turrisi, 1998).

DISCUSSION

Among the European and N-African Orussidae the female of Orussus taorminensis could be easily recognized for the coloration, with an extensively orange colour on the thorax while the male could be distinguished from similar species on the basis of the characters reported in the key to species. The species was described on the basis of a single female collected in Taormina, Sicily (Trautmann, 1922). After the description, only a few records were added: Italy, Sicily, Taormina, Fontana Vecchia (Bischoff, 1928; Guiglia, 1946, 1954); S-France, Var, Saint-Paul-en-Foret (Chevin, 1989); Italy, Sicily, Monte Etna, Mascalucia, Massanunziata, m 500 (Bella & Turrisi, 1998, who have described the male; Pesarini & Turrisi, 2001); S-France, Lioux, Vaucluse, 5 Km N Roussillon, 300 m (Kraus, 1998); Italy, Liguria, Ventimiglia; Sicily, Palermo, Capaci-Portella; Italy, Sicily, Palermo, Pollina; Italy, Sicily, Monti Nebrodi, Messina, Biviere di Cesarò, m 1270; Italy, Sicily, Enna, dintorni di Piazza Armerina (Tomarchio & Turrisi, 2002). Orussus taorminensis is here reported for the first time from Iberian Peninsula and it is the second Orussidae recorded for this area (excluding Canary Islands); it is also reported for the first time from Africa. Based upon this new records this species presents a distribution covering the W-Mediterranean area, and confirm the faunistic affinities of the W-Mediterranean basin due to the paleogeographic and paleoclimatic history of this area (La Greca, 1984, 1990).
Very little is known on the biology of *O. taorminensis*: the potential hosts could be *Trichoferus holosericeum* (Rossi, 1790) and *T. fasciculatus* (Faldermann, 1837) (Coleoptera Cerambycidae) feeding on wood of *Pistacia terebinthus* Linnaeus (Bella & Turrisi, *l.c.*). As regard the habitat, on the basis of our knowledge, the species lives mainly in Mediterranean wood or shrubs; the record from Morocco at high altitude (2000 m above sea) is very interesting from an ecological viewpoint.

Based upon the present note the family Orussidae in Iberian Peninsula, Canary Islands and N-Africa is represented by a total of four species, three of which present in the Iberian Peninsula and Canary Islands. For these species the following key is proposed:

**Key to Iberian, Canary Islands and N-African species of Orussidae**

1. — Abdomen partially red .......................... *Orussus abietinus* (Scopoli)  
   (Distribution: Palaearctic Region)  
   — Abdomen entirely black ........................................ 2

2. — Postocular carina present; thorax black or orange............... 3  
   — Postocular carina absent; thorax entirely black................  
   .......................................................... *Orussus moroi* (Guiglia)  
   (Distribution: peninsular Italy, Balcanic peninsula, Canary Islands, N-Africa: Morocco)

3. — ♀ Thorax almost entirely orange; 9th antennomere 2,0 as long as wide.  
   ♂: antennae entirely black; 4th antennomere 1,5 as long as wide; 11th antennomere as long as 10th .......... *Orussus taorminensis* (Trautmann)  
   (Distribution: S-Spain, S-France, continental Italy, Sicily, N-Africa: Morocco)  
   — Thorax entirely black (♂, ♀); ♀: 9th antennomere 3,0 as long as wide.  
   ♂: 4-6th antennomeres dorsally whitish-yellow, rarely only 5th; 4th antennomere 2,5 as long as wide; 11th antennomere 1,4 as long as 10th ...................... *Orussus unicolor* Latreille  
   (Distribution: central and south Europe, Sicily, N-Africa: Algeria)

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