

LEOPOLDIUS CABRILSENSIS SP. N.: A NEW CONOPID SPECIES FROM SPAIN (DIPTERA, CONOPIDAE)

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ABSTRACT

A new conopid species, *Leopoldius cabrilsensis* sp. n., is described from Spain. Its more related species is *L. valvatus* Kröber.

Key words: Diptera, Conopidae, *Leopoldius cabrilsensis* sp. n., Spain.

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RESUMEN

Leopoldius cabrilsensis sp. n.: una especie nueva de conópido de España (Diptera, Conopidae). Se describe una especie nueva de conópido, *Leopoldius cabrilsensis* sp. n., de España. La especie más próxima a ella es *L. valvatus* Kröber.

Palabras clave: Diptera, Conopidae, *Leopoldius cabrilsensis* sp. n., España.

INTRODUCTION

During the study of conopid material collected in the Iberian Peninsula (Carles-Tolrá, 1999) some specimens of *Leopoldius* Rondani, 1843 belonging to both sexes were found. *Leopoldius* is a conopid genus characterized by its short and fleshy proboscis. In the palaeartic region 10 species are known (Chvala & Smith, 1988). Seven species are found in Europe, and up to now only 3, including the new one described below, are known to occur in Spain.

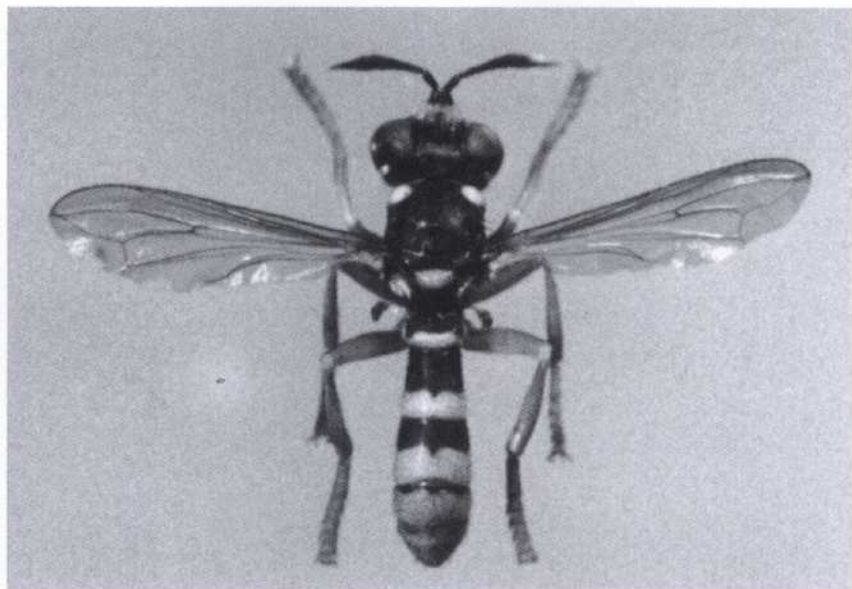


Figure 1. *Leopoldius cabrilsensis* sp. n. Habitus (6x).

***Leopoldius cabrilsensis* sp. n.**

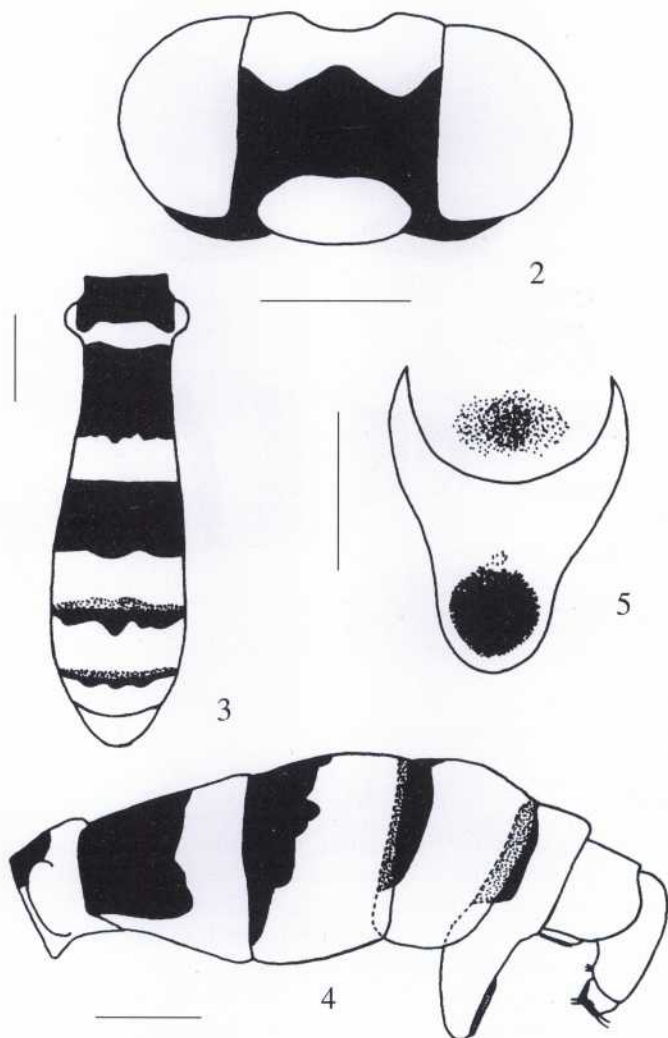
Female (Fig. 1). Head yellow. Frons (Fig. 2) yellow anteriorly and brown posteriorly, yellow part slightly narrower or as wide as the brown one, limit between both colours distinctly w-shaped. Lunula blackish brown. Occiput brown. Antenna: 1st joint brown, 2nd joint black, 3rd joint brown (blackish dorsally), antennal style blackish.

Thorax: mesonotum black, notopleura and pleurae blackish brown. Metapleura black, brownish laterally. Humeral calli, metanotal protuberance and scutellum yellow.

Legs completely yellow, but hind coxa brownish basally and hind trochanter brownish internally.

Wing slightly brownish, anterior margin slightly darker. Haltere whitish.

Abdomen (Figs. 3, 4) with yellow and brown transversal stripes. Tergite 1: brown anteriorly; tergite 2: brown stripe wider than the yellow one; tergite 3: brown stripe variable (wider or narrower than the yellow one) and narrowing laterally; tergites 4 and 5: brown stripes narrow; tergites 6 and 7: yellow; syntergite 8+9: yellow, brown apically. Theca (Figs. 4, 5): narrower than segment 5; well developed, in lateral view distinctly longer than tergite 7 and syntergite 8+9 together; posterior spot of the theca round, formed by short, black and dense spines; sternite 6 with an oval transversal spot, also formed by short and black spines, but not so dense.

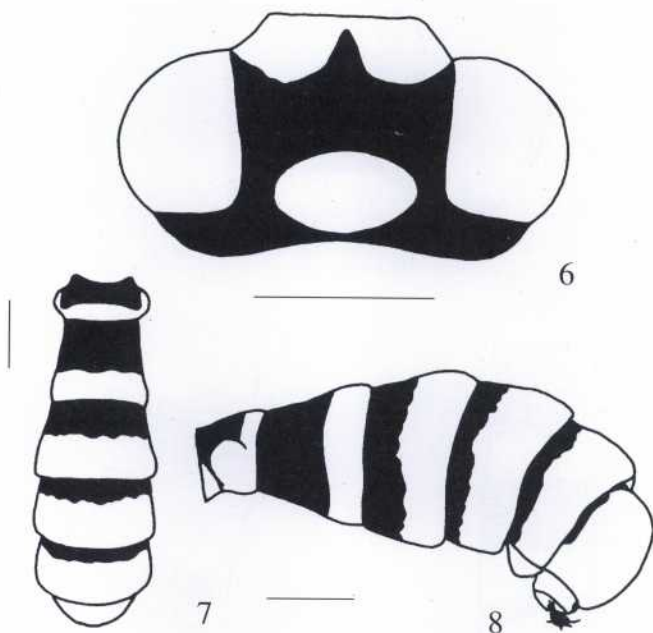


Figures 2-5. Female of *Leopoldius cabrilsensis* sp. n.: 2) head in dorsal view; 3) abdomen in dorsal view; 4) abdomen in lateral view; 5) theca in posterior and spot of sternite 6 in ventral views. Scales: 1 mm.

Male. Head as the female, except the facial keel, postgena and proboscis (posteriorly), which are brown. Frons (Fig. 6) with the characteristic «w» limit. Thorax as the female.

Legs as the female, but coxae brown (fore one clearer), hind trochanter brownish and hind femur with a wide mid posterior spot and another (sometimes absent) dorsomedial small one.

Wing as the female.



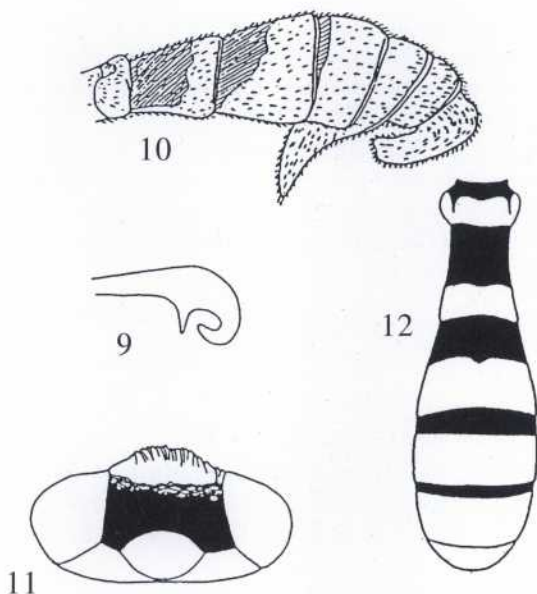
Figures 6-8. Male of *Leopoldius cabrilsensis* sp. n.: 6) head in dorsal view; 7) abdomen in dorsal view; 8) abdomen in lateral view. Scales: 1 mm.

Abdomen (Figs. 7, 8) with yellow and brown transversal stripes: limit between both colours entire, continuous, more or less straight. Width of the brown stripes decreasing gradually to the abdominal tip. Sternites brown. Epandrium yellow, brownish dorsally; cerci small and brown (Fig. 8).

Total body length: females: 9.7-10.6 mm; males: 9.8-10.8 mm.

Type material: holotype female: Spain, Prov. Barcelona, Cabrils, 4.VIII.1990, drowned in a swimming-pool surrounded by dense wooded vegetation, M. Carles-Tolrà leg.

Paratypes: as the holotype: 1973 1 ♀, 6.IX.1979 1 ♀, 31.VIII.1987 1 ♀, 17.VII.1989 2 ♀, 18.VII.1989 1 ♂, 3.VIII.1990 1 ♂, 1 ♀, 4.VIII.1990 1 ♀, 6.VIII.1991 2 ♂, 2 ♀, 14.VIII.1991 1 ♀, 18.VIII.1993 1 ♀, 15.VII.1994 1 ♂, 17.VII.1994 1 ♂, 3 ♀, 23.VII.1994 1 ♂, 25.VII.1994 1 ♀, 27.VIII.1996 1 ♂, 2.IX.1996 1 ♂, 1 ♀, 21.VII.1997 1 ♀, 4.VIII.1997 1 ♂, 15.VIII.1997 2 ♀, 16.VIII.1997 1 ♂, 2 ♀. All the specimens but the two first females were collected drowned in a swimming-pool surrounded by dense wooded vegetation. Type material preserved in alcohol, except the two first female paratypes which are pinned, and deposited in the author's collection; 1 ♂, 1 ♀ paratypes in the Museo Civico di Zoologia, Roma.



Figures 9-12. *Leopoldius valvatus* Kröber: 9) abdomen in lateral view (after Kröber, 1914); 10) abdomen in lateral view (after Kröber, 1925). *Leopoldius coronatus* (Rondani): 11) head in dorsal view (after Rivosecchi, 1996); 12) abdomen in dorsal view (after Chvala, 1961).

Discussion: following Kröber's (1914, 1925) and Rivosecchi's (1996) keys the females of *L. cabrilsensis* sp. n. keyed out to *L. valvatus* Kröber, 1914. This last species was described on the female sex only and the male is up to now unknown. A detailed comparison of the genitalia of our specimens and Kröber's figures (Figs. 9, 10) allows to distinguish clearly both species. Unfortunately, it has not been possible to study the type material of *L. valvatus*.

On the other hand, using the same keys, the males of *L. cabrilsensis* sp.n. keyed out to *L. coronatus* (Rondani, 1857) and following Séguy's (1928) key to *L. macrus* (Séguy, 1928) (only male known).

Unfortunately, we couldn't study *L. coronatus* specimens, but we do have excellent figures of the head (Fig. 11) by Rivosecchi (1996) and of the abdomen (Fig. 12) by Chvala (1961). When comparing these figures with our own material we checked that there were no distinct differences in the abdominal stripes, as they are variable in width, but there really are in the frons. In *L. coronatus* the anterior yellow band of the frons is distinctly narrower than the posterior brown one, and furthermore, the limit between both colours is more or less straight (Fig. 11). In *L. cabrilsensis* the anterior yellow band of the frons is slightly narrower or as wide as the posterior brown one and, furthermore, the limit between both colours is not straight, but it has a distinct «w» form (Figs. 2, 6).

Finally, when comparing the male abdomen of *L. cabrilsensis* sp.n. with the description of *L. macrus* we observe that it has the black abdominal stripes very wide, not so in the new species. Unfortunately, it has not been possible to study the type material.

Biology: unknown, all specimens, except two, were collected drowned in a swimming-pool surrounded by dense wooded vegetation.

Distribution: hitherto known only from northeastern Spain.

Etymology: the specific name comes from the locality, Cabrils, where all the type material was collected.

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