

## Description of *Cheilosia iberica*, new species, from the Iberian peninsula (Diptera, Syrphidae)<sup>1)</sup>

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Abstract. *Cheilosia iberica* sp. n. is described and figured, based on material from the mountains of northern and central Spain.

Key words. Diptera, Syrphidae, *Cheilosia iberica*, new species, Spain.

### Introduction

*Cheilosia* Meigen, 1822, comprises one of the largest genera of Syrphidae, to judge from the number of species known. It is predominantly Holarctic in its distribution (Hull & Fluke 1950), the greatest number of species (nearly 300) occurring in the Palaearctic region.

In the present text a new species of *Cheilosia* is described, from specimens collected by Ma Angeles Marcos-García in the Cantabrian mountain chain and in the western mountain ranges of the central Spanish system. This increases to nearly 40 the number of *Cheilosia* species known in the Iberian peninsula (Gil Collado 1930, Marcos-García 1985, 1986, 1987).

### Results

#### *Cheilosia iberica* sp. n.

Type-material: Holotype: ♂, Spain, Cáceres, Pto. El Torno, 4-IV-1981 (UZUS). Paratypes: Spain, Avila, Becedas, 27-IV-1980, 1 ♀ (Allotype, UZUS); Cáceres, Cabezabellosa, 4-IV-1981, 1 ♂ (MG); Cáceres, Pto. El Torno, 4-IV-1981, 1 ♂ & 3 ♀ (MG and CC); Cáceres, San Martín de Trevejo, 23-V-1980, 1 ♀ (ZFMK); Cáceres, Valverde del Fresno, 19-IV-1981, 2 ♀ (MG and CC); Leon, Murias de Paredes, 1-VI-1988, 2 ♂ (MG).

Remarks: The holotype and the allotype are deposited at the Unit of Zoology, Faculty of Biology, University of Salamanca, Spain (UZUS). Most of the paratypes are preserved in the Marcos-García collections (MG), currently deposited at the Department of Animal Biology and Parasitology, University of Salamanca, Spain, except for a couple in the collections of Claus Claussen (CC) and one female in the collections of the Alexander Koenig Institute and Museum of Zoology, Bonn (ZFMK).

The site locations from which *C. iberica* was collected are as follows:

Locality	Altitude	Mountain range	U. T. M.
Pto. El Torno	950 m	Montes Tras la Sierra	30TTK4546
Becedas	1 200 m	Béjar	30TTK7675
Cabezabellosa	650 m	Montes Tras la Sierra	29TQE5546
San Martín de Trevejo	700 m	Gata	29TPE8754
Valverde del Fresno	950 m	Gata	29TPE8057
Murias de Paredes	1 100 m	Cordillera Cantábrica	29TQH2948

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Description: Size: male, body length 14 mm; wing length 12 mm. Female, body length 14 mm; wing length 11 mm.

Male (figs. 1–5).

Head: face black, bare, entirely dusted greyish, except for broad, white-haired ocular margin; facial tubercle broad and blunt, with two small, lateral protuberances; frontal triangle black, undusted, strongly punctured, clothed in long, erect, whitish-yellow hairs and with a longitudinal median furrow; frontal lunule brown; vertical triangle black, with long, erect, yellow hairs; ocellar triangle equilateral; occiput black, entirely dusted, greyish with whitish-yellow, short hairs dorsally and longer, whitish-yellow hairs ventrally; eyes meeting for about two times the length of the frontal triangle; eyes with dense, white hairs; antennal segment 3 oval, dark brownish-black; arista black, approximately 1,7 times as long as the antenna, almost bare, with very short, reclinate hairs.

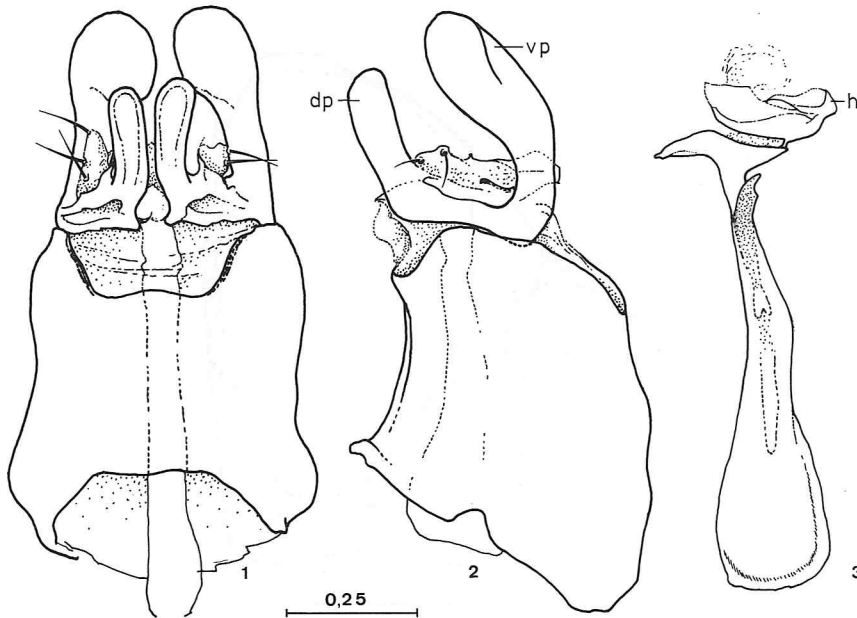
Thorax: mesonotum moderately finely punctured, black, shiny, with a bronze tinge, undusted, with long, yellowish hairs and some black, bristly hairs present on the post-alar calli and on the lateral margins just anterior to the wing-base; humeral calli greyish dusted; scutellum shiny, the same colour as the mesonotum, clothed in long, yellowish hairs as the mesonotum and with some long, black hairs on the posterior margin, these black hairs not thick and bristle-like; pleura blackish-olive, slightly grey-dusted and with long, whitish-yellow hairs; sternopleuron, pteropleuron and posterior part of the mesopleuron continuously pilose; metathoracic spiracle with golden fringe; squama white, with whitish margin and fringe. Wing: slightly brownish, with brown veins; stigma yellowish-brown; membrane entirely covered in microtrichia. Legs: mainly black, with yellow hairs; coxae black, grey-dusted and dull, entirely whitish-grey haired; femora black, with orange-brown distal end; front femur with long, black hairs posteriorly; middle femur with yellow hairs, that are longer ventrally; hind femur with short, yellow hairs and ventrally with some short, spinose, black hairs; front and hind tibiae black, with the basal half of the length orange-brown and the distal end orange-brown, yellow haired; tarsi black dorsally and orange-brown ventrally; tarsi of front and middle legs black haired; tarsi of hind legs with black hairs dorsally and pale hairs ventrally.

Abdomen: tergites black, shining but lightly dusted on the disc, entirely or almost entirely orange haired (some short, black, adpressed hairs toward the mid-line along tergites III and IV); sternites black, entirely dusted greyish and pale yellowish-haired.

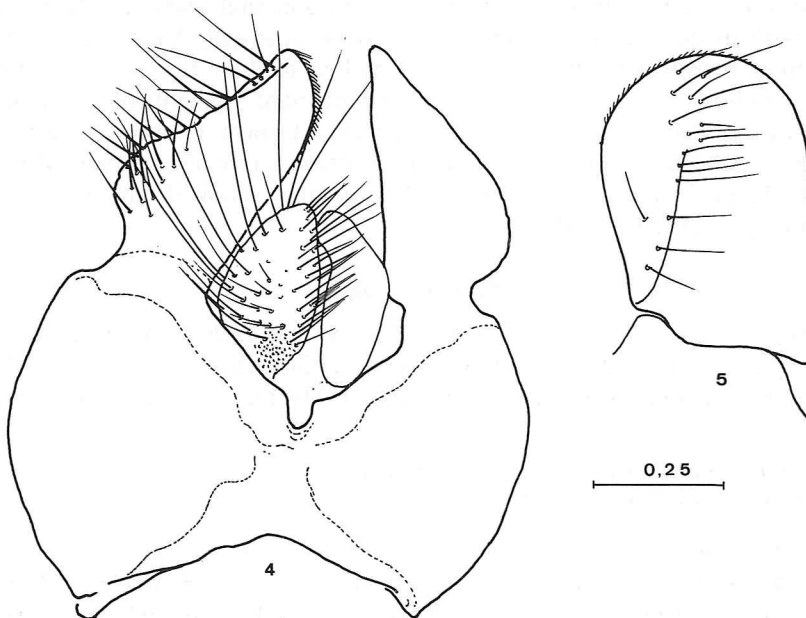
Terminalia: cercus rounded, slightly projecting, pale haired; surstylus short and broad, less than 1,5 times as long as broad, with distinct lateral carina; superior lobes with ventro-apical prong (vp in fig. 2) elongate, rounded and broader apically; dorso-apical prong (dp in fig. 2) slightly shorter and narrower, also apically rounded; between the ventro-apical prong and the dorso-apical prong a weakly sclerotised projection carrying a group of bristly hairs; aedeagal apodeme elongate, broader at basal extreme; aedeagus with basal portion short, elongate dorso-ventrally, distal portion of aedeagus also elongate dorso-ventrally, with a latero-apical hook (h in fig. 3).

Female (fig. 6).

Similar to the male except for normal sexual dimorphism and the following



Figs. 1—3: *Cheilosia iberica* sp. n. (paratype: Pto. El Torno), male genitalia. — 1) Hypandrium, dorsal view. 2) Hypandrium, right lateral view, vp = ventro-apical prong, dp = dorso-apical prong of superior lobe. 3) Aedeagus and associated structures, right lateral view, h = latero-apical hook. Scale in mm.



Figs. 4—5: *Cheilosia iberica* sp. n. (paratype: Pto. El Torno), male genitalia. — 4) 9th tergum and associated structures, dorsal view. 5) Surstyle, right lateral view. Scale in mm.

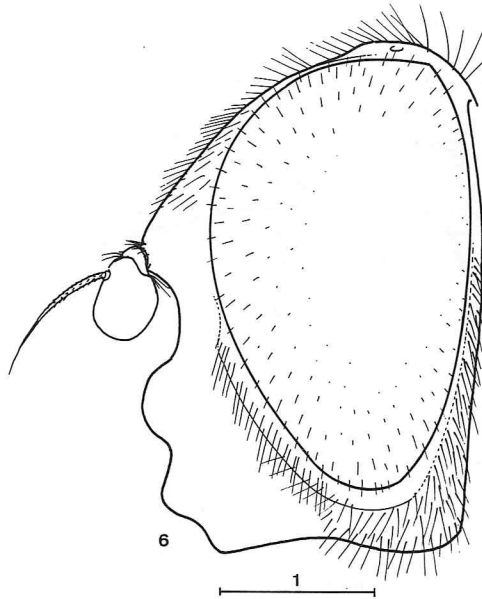


Fig. 6: *Cheilosia iberica* sp. n. (paratype: Valverde del Fresno), head of female, lateral view. Scale in mm.

characteristics: pile shorter, hardly visible on the antennal arista; frons at level of antennal insertion 3,5 times as wide as the third antennal segment, black, entirely dull, greyish dusted, clothed in short, reclinate whitish-grey hairs, with a shallow, longitudinal furrow laterally and a very shallow median furrow; facial tubercle rounded, without lateral protuberances; third antennal segment more angular and paler-coloured than in the male; post-alar calli brown; mesonotal hairs short, reclinate; scutellum without black hairs on posterior margin; abdomen with short, adpressed hairs, except for a pair of patches of long, yellowish-grey hairs laterally on each tergite, on tergites II, III and IV.

#### Biological data

Specimens were caught flying between 8.45 a. m. and 17.30 p. m., at altitudes between 650 and 1200 m above sea level, where the influence of the Atlantic is considerable and the dominant tree is oak (*Quercus*). The plants visited by *C. iberica* are as follows:

<i>Doronicum plantagineum</i> L.	2 ♂ and 2 ♀
<i>Halymium alyssoides</i> (Lam.) C. Koch	3 ♀
<i>Stellaria media</i> (L.) Vill.	1 ♂
<i>Chaerophyllum hirsutum</i> L.	2 ♂

During 1980–81, when most of the specimens of *C. iberica* were collected, a systematic study of Syrphidae was carried out in these localities which involved site visits each month. From this it may be inferred that the period of maximum flight activity for *C. iberica* is early spring (April in this region).

### Discussion

*Cheilosia iberica* can be consigned to "group D" of Sack (1928–1932). But this can be difficult to decide upon, because the posterior margin of the scutellum carries only weak black hairs in the male and no black bristles in the female. Using Sack's (1928–1932) keys the male of *C. iberica* partly keys out to *C. strigillata* Becker, 1894, but differs significantly in size, shape of third antennal segment, facial profile (with facial tubercle broad and blunt in *C. iberica*, noselike elongated in *C. strigillata* — vide Becker 1894, Pl. XVI, fig. 68) and other features given in the description. The female of *C. iberica* keys to *C. gerstaeckeri* Becker, 1894, but differs in having the mesonotal pile strongly reclinate (erect in *C. gerstaeckeri*) and the base of the hind tibia broadly yellow (narrowly brownish in *C. gerstaeckeri*). The female holotype of *C. gerstaeckeri* cannot be found in the ZMHU collections (H. Schumann, pers. comm.).

In its general morphology (eyes white-haired, sternopleuron continuously pilose, venter grey-dusted) *C. iberica* most resembles a group of European *Cheilosia* species near to *C. proxima* (Zetterstedt, 1843), but the male terminalia of *C. iberica* differ strikingly from those of the "*proxima*-group" species in bearing a group of distinct bristles on the superior lobe (figs. 1 and 2).

### Acknowledgements

We are indebted to Dr. H. Schumann, Zoologisches Museum, Museum für Naturkunde der Humboldt-Universität zu Berlin (ZMHU) for his kind information on the type of *Cheilosia gerstaeckeri* Becker. We also thank Dr. M. C. D. Speight, Forest and Wildlife Service, Bray, Co. Wicklow, for helpful comments on the manuscript and the revision of the English language of the text.

### Zusammenfassung

*Cheilosia iberica* sp. n. wird nach Tieren aus den Gebirgen Nord- und Zentralspaniens beschrieben.

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