

## *Periscelis pirircercus* sp. n.: A new periscelidid species from Spain (Diptera: Periscelididae)

M. CARLES-TOLRÁ<sup>1</sup>, A. VERDUGO PÁEZ<sup>2</sup>

<sup>1</sup>Avda. Príncipe de Asturias 30, ático 1; E-08012 Barcelona; Spain; E-mail: mcarlestolra@terra.es

<sup>2</sup>Héroes del Baleares 10, 3º B; E-11100 San Fernando (Cádiz); Spain; E-mail: averdugo@ono.com

### Abstract

A new periscelidid species, *Periscelis pirircercus* sp. n., is described from Spain. It was collected in southern Spain with a flight interception trap and is related to *P. annulata* (Fallén) and *P. kabuli* Papp.

**Key words:** Diptera, Periscelididae, *Periscelis*, new species, Spain.

### Resumen

***Periscelis pirircercus* sp. n.: Una especie nueva de periscelídido de España (Diptera: Periscelididae)**

Se describe una especie nueva de periscelídido, *Periscelis pirircercus* sp. n., de España. Fue capturada en el sur de España con una trampa de interceptación de vuelo y está relacionada con *P. annulata* (Fallén) y *P. kabuli* Papp.

**Palabras clave:** Diptera, Periscelididae, *Periscelis*, especie nueva, España.

### Laburpena

***Periscelis pirircercus* sp. n.: Periscelididoen espezie berri bat Espainiakoa (Diptera: Periscelididae)**

Periscelididoen espezie berri bat, *Periscelis pirircercus* sp. n., deskribatzen da Espainiakoa. Espainiaren hegoaldean harrapatu zen hegaldi-interzeptazio motako tranpa baten bidez eta *P. annulata* (Fallén) eta *P. kabuli* Papp espezieekin erlazionatuta dago.

**Gako-hitzak:** Diptera, Periscelididae, *Periscelis*, espezie berria, Espainia.

## Introduction

The family Periscelididae comprises minute to small flies. They are grey dark coloured, often with banded legs. There are about 70 species described, but only 6 are known from Europe, all belonging to genus *Periscelis* Loew, 1858. This genus is currently divided into two subgenera: *Myodris* Lioy, 1864 and *Periscelis* s. str. The first one is characterized by: (a) Prescutellar acrostichals moderately well-developed; (b) Crossvein dM-Cu straight and well-developed; and (c) Male genitalia lacking digitiform process at base of epandrium between surstylus and cercus (Mathis and Papp, 1998).

The larvae of this small family live in sap exuding from deciduous trees. The adults are often found near the larval sites and feed on tree sap (Oosterbroek, 2006).

In 2008 the first author (MC-T) received a lot of dipterological material for study. It had been collected in southern Spain by the second author (AVP). The results of part of that material have been recently published in Carles-Tolrá and Verdugo Páez (2009). For more details of the zone studied and collecting methods see this same paper. Among that material 3 specimens of a new species for science of *Periscelis* were found, as it is mentioned in that paper. Recently, during the preparation of this manuscript,

the first author received additional dipterological material (from the same place and collector) among which 5 more specimens of this interesting new species have been found.

They belong to subgenus *Myodris* and the new species is described below.

## Systematics

### *Periscelis (Myodris) piricercus* sp. n. (Figs. 1-4)

A mainly brown species with few yellow parts.

Head dark brown. Frons anteriorly, gena and face brownish. Face with a distinct carina. Antenna: joint 1 brown, joint 2 dark brown, lighter internobasally, joint 3 slightly brownish, apex lighter. Arista plumose, with long dorsal and ventral rays. Chaetotaxy: 1 reclinate ors, 1 vte, 1 longer vti, oc, pvt divergent. Face bulging below, with facial keel between antennae. 1 pair of upcurving facial hairs. Peristomals long.

Thorax dark brown. Chaetotaxy: 1 hu, 2 np, 0+2 dc (posterior one longer), 1 sa, 1 pa, ac in 8 irregular rows, prsc ac slightly to distinctly longer than other ac, 2 sc (apical one very long), 1 short supracoxal propleural, mesopleura bare, 2 st.

Legs yellow, tibiae with two distinct dark brown rings. Femora completely brown, preapically darker, apex yellow. Fore femur with long and thick posterodorsal and posteroventral bristles. Tarsi yellow, two last joints brown. First joint of mid tarsus brown proximally.

Wing brownish. Haltere brownish.

Abdomen brown. Tergites 2-6 with a pair of anterolateral silvery spots.

Remark: One male paratype distinctly clearer than all other specimens.

Male genitalia brown. Sternite 6 (pregenital sternite) (Fig. 1) rectangular, with posterolateral hairs, laterally darkened, somewhat desclerotised anteromedially. Epandrium small, with long hairs. Cercus pear-shaped (Figs. 2a-d, 3a-b): proximally dilated, with long hairs, distally narrow, seemingly bare, apically with some thorns (2 very big). Surstyli (Figs. 2a-d) symmetrical, triangular, seemingly bare, pointed. Gonopods (Figs. 3c-d) symmetrical, subtrapezoidal, apex pointed and somewhat curved. Aedeagus very long, ribbon-like,

narrow, transparent. Ejaculatory apodeme long, dilated apically.

Female genitalia: Tergite and sternite 7 fused and forming a complete ring. Sternite 8 (Fig. 4) almost circular, posteriorly concave, with a transverse, posterior dark stripe; anteriorly somewhat darkened in the middle.

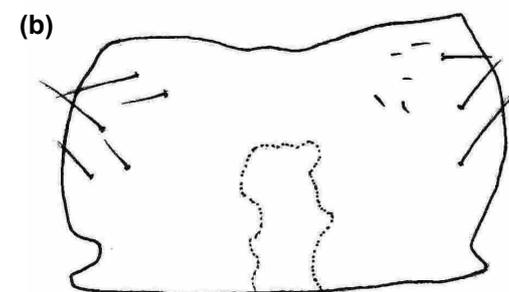
Total body length: Males: 2.5–3.1 mm, wings: 2.0–2.4 mm; females: 2.6–3.2 mm, wings: 2.0–2.3 mm.

**Type material** (4 ♂♂ and 4 ♀♀):

Holotype ♂: SPAIN: Cádiz: Los Barrios (U.T.M. 30STF61), 28.7.2009, flight interception trap near Valdeinfierno stream, aprox. 150 m, A. Verdugo Páez leg.

Paratypes: As the holotype but 29.5.2008 1 ♂ 1 ♀, 17.6.2008 1 ♀, 9.4.2009 1 ♂, 9.6.2009 1 ♀, 28.6.2009 1 ♀ and 22.7.2009 1 ♂ (right wing absent).

Holotype not dissected. Abdomen of one male paratype detached and cleared with KOH (10%),



**FIGURE 1.** *Periscelis piricercus* sp. n.: (a)-(b) Male sternite 6 in ventral view (Scale bar = 150  $\mu$ m).

genitalia dissected and stored into its own abdomen and this stored in a small tube with the other corporal parts. Type material preserved in alcohol (70%) and deposited in the collection of the first author (MC-T).

**Discussion:** *Periscelis piricercus* sp. n. is closely related to *P. annulata* (Fallén, 1813) and *P. kabuli* Papp, 1988 and distinctly differ from them on genital characters (Papp, 1988: Figs. 1-6 and 8-13), as well as on male sternite 6 (Papp, 1988: Figs. 7 and 14).

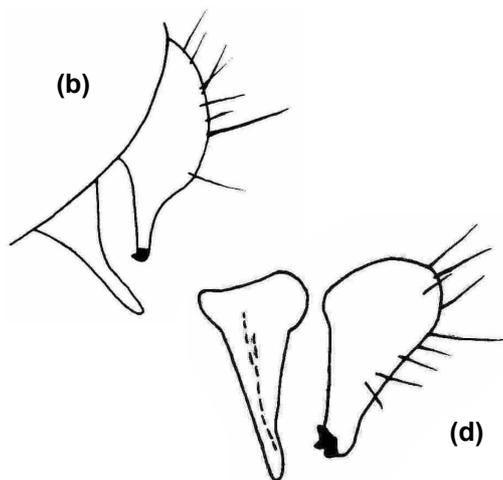
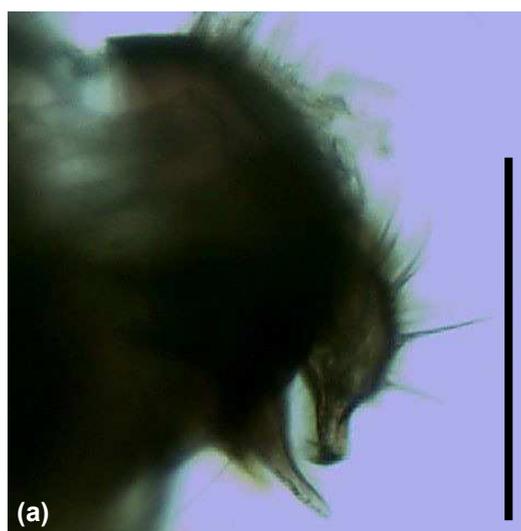
**Biology:** Unknown. The specimens were collected with a flight interception trap placed near a stream in a forest of cork oak.

**Distribution:** Hitherto only known from southern Spain.

**Etymology:** The specific name refers to the pear-shaped cerci (pirum = pear in Latin). It is a noun in apposition.

## Acknowledgements

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**FIGURE 2.** *Periscelis piricercus* sp. n., male genitalia: (a) In lateral view; (b) Left cercus and surstylus in lateral view; (c) In lateroventral view; (d) Left cercus and surstylus in lateroventral view (Scale bars = 150  $\mu$ m).

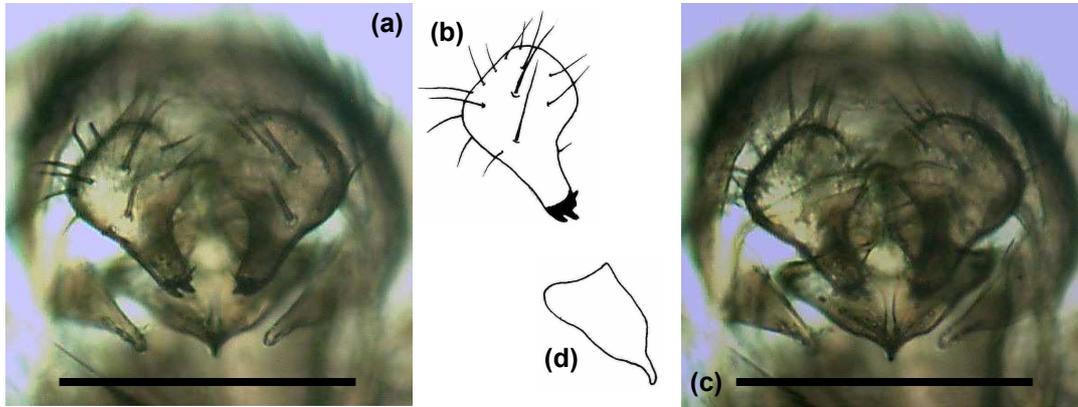


FIGURE 3. *Periscelis piricerus* sp. n., male genitalia in ventral view: (a) Surstyli; (b) Left surstylus; (c) Gonopods; (d) Left gonopod (Scale bars = 150 µm).

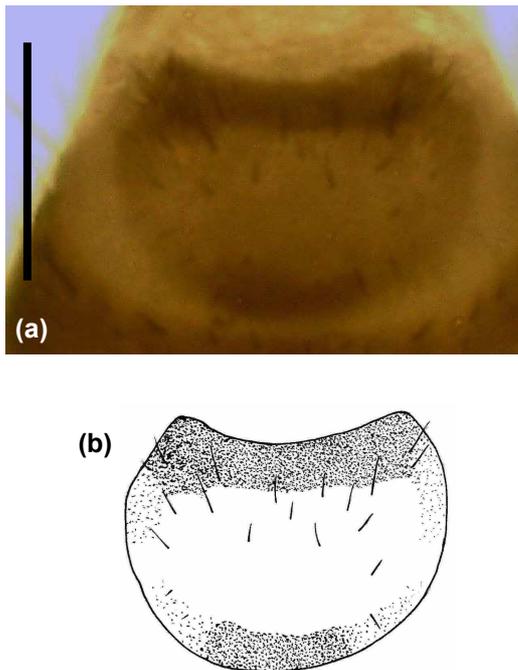


FIGURE 4. *Periscelis piricerus* sp. n.: (a)-(b) Female sternite 8 in ventral view (Scale bar = 150 µm).

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