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Presencia de *Leptocerus interruptus* (Fabricius, 1775) (Trichoptera, Leptoceridae) en la península ibérica: nuevos datos de Andalucía

Three species of the genus *Leptocerus* Leach, 1815 (Leptoceridae, Trichoptera) are reported in Europe (MALICKY, 2013): *Leptocerus tineiformis* Curtis, 1834, *Leptocerus lusitanicus* (McLachlan, 1884) and *Leptocerus interruptus* (Fabricius, 1775). *Leptocerus tineiformis* and *L. interruptus* are basically distributed in Central and Eastern Europe, while in the Iberian Peninsula is confirmed the presence of *L. lusitanicus* and the recent detection of *L. tineiformes* (Northern Spain, MARTÍNEZ et al., 2017). However, less is known about the presence of *L. interruptus* in Western Europe, especially in the Iberian Peninsula, where its occurrence has been considered doubtful and needing further and specific research (GONZÁLEZ & MARTÍNEZ, 2011).

The checklist of the caddisflies of the Iberian Peninsula contains more than 340 species (GONZÁLEZ & MARTÍNEZ, 2011) while the number of Trichoptera species detected in Andalusia Region amount to 136 species (RUIZ-GARCÍA et al., 2016). In both cases, the Leptoceridae is among the most species-rich families (e.g., RUIZ-GARCÍA et al., 2016).

During a biomonitoring sampling campaign through the Guadalquivir river basin (South Spain), 2 larvae of the genus *Leptocerus* were detected and identified as *L. interruptus*. The larvae (Instars IV-V, approx. 5mm, Fig. 1) were found on June 16th 2016 in the Retortillo stream (Andalusia Region, UTM coordinates: 287672E / 4197270N 30S, 296 m. a.s.l., Fig. 2) and preserved in 96% ethanol.

During this sampling campaign, the stream reach presented a reduced discharge and the following physicochemical conditions: conductivity= 461 µS/cm; pH= 8.2; water temperature= 15.7 ºC. The sampled stream reach represents a natural Mediterranean stream with dense riparian vegetation (mainly *Alnus glutinosa* (L.) Gaertn, *Salix* spp. and *Fraxinus angustifolia* Vahl) and a forested/natural basin. Following the IBMWP index and
the WFD ecological status classification system in Spain (Real Decreto 817/2015, BOE 219), the site is classified in “Very Good” status and the same condition was obtained applying the QBR index related to the riparian vegetation-hydromorphological status.

Individuals of Leptocerus genus are easily identifiable by the hook-shaped tarsal claw of the 2nd leg, while specific keys proposed by WALLACE et al. (2003) and WARINGER & GRAF (2011) are necessary to identify the last instar larvae at species level. Characteristics related to the number of setae in the central region of the mesonotum (2-3 setae, Fig. 1A), the protocantin central region (pale coloration, see Fig. 1B), case composed of secreted material with embedded sand grains (Fig. 1C), the number of setae in anal prolegs (5 long setae only (ventral view); E) Metaventer with more than 1 setae on each side.

Fig. 1. Details of the larva of Leptocerus interruptus: A) Mesonotum with 2-3 setae in the central region; B) Protocantin, pale coloration in central region; C) Individual with case made from secreted materials and sand grains; D) Anal proleg with 5 long setae only (ventral view); E) Metaventer with more than 1 setae on each side.

This record confirms the presence of this species in the Iberian Peninsula and should be added to caddisflies checklists. The presence of this species was considered doubtful because it was recorded only once in 1986 (Jarama...
river, Madrid, by PRIETO & GARCÍA DE JALÓN, 1988; GONZÁLEZ et al., 1992). The importance to improve our knowledge on invertebrate fauna for zoological research and conservation management purposes must be emphasized in Mediterranean streams. This seems particularly necessary for freshwater ecosystems along the Sierra Morena system (South of Spain), where the presence of a singular and endemic faunal component with a high conservation value has been already stressed (e.g., ANTORÁN-PILAR et al., 2017; RUIZ-GARCÍA et al., 2016; SÁNCHEZ-FERNÁNDEZ et al., 2008).

Future research to determine the persistence of this species and to assess its populations will be necessary with specific sampling activities in the area. Sampling should focus on the detection of Leptocerus in order to improve our limited knowledge on its distribution. In this sense, the detection of other aquatic stages (mature pupae or pharate males) and adults, together with specific genetic analysis, would be of scientific interest.
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BIBLIOGRAPHY