



The genus *Limnoria* (Limnoriidae, Isopoda, Crustacea) in Europe, including a key to species

JOSÉ CASTELLÓ

Departament de Didàctica de les Ciències Experimentals i de la Matemàtica, Universitat de Barcelona; Passeig de la Vall d'Hebron, 171; 08035 Barcelona, Spain. E-mail: josep.castello@ub.edu

Abstract

A new species of *Limnoria* inhabiting seaweed from the Alborán Island (western Mediterranean) is described. This is the seventh record of the genus from European coasts. *L. turae* n. sp. is mainly distinguished by the unique dorsal sculpture of its pleotelson, with 3 pairs of longitudinal carina without puncta, and the absence of the mandibular rasp. *L. carinata* is redescribed from a neotype. A key to European species is provided, and two comparative tables of the European species are included.

Key words: Isopoda, Limnoriidae, *Limnoria turae* n. sp., neotype of *L. carinata*, redescription of *L. carinata*, European species

Introduction

The species of Limnoriidae bore into submerged wood, marine algae, and seagrasses (Cookson, 1991). They are distributed in three genera (*Paralimnoria* Menzies, 1957, *Limnoria* Leach, 1814, and *Lynseia* Poore, 1987), only one of which (*Limnoria*) is found along the European coastline. Six species are known: *L. carinata* Menzies & Becker, 1957 from Naples and La Spezia (Italy); *L. lignorum* (Rathke, 1799) from North America, Japan, Korea, Norway, Russia, Iceland, Ireland, United Kingdom, Germany, The Netherlands, and Spain; *L. mazzellae* Cookson & Lorenti, 2001 from Castello Ischia, Ustica, Noli, and Otranto (Italy); *L. quadripunctata* Holthuis, 1949 from the North Sea, The Netherlands, France, Portugal, Trieste (Italy), California, Chile, New Zealand, and southern Australia; *L. tripunctata* Menzies, 1951 from northern and central America (Atlantic and Pacific), Argentina, Ghana, India, Hawaii, New Zealand, Australia, southern England, European Atlantic coast, and Mediterranean (although possibly confused with *L. tuberculata*); and *L. tuberculata* Sowinsky, 1884 from Black Sea, Aegean Sea, southern England, and possibly Massachusetts. An Arctic species (*L. borealis* Kussakin, 1963) was found in Iceland by Svavarsson (1982), probably carried in driftwood from the Siberian region. In this study, *L. turae* n. sp. from the Alborán Island (western Mediterranean) is presented and compared with the remaining European species.

Material and methods

Freshly collected specimens were fixed in 70% ethanol. These and the loaned material were examined in glycerine. Drawings were prepared with a Wild M5A stereoscopic microscope and an Olympus CH-2 microscope, both equipped with camera lucida. Due to the importance of the dorsal sculpture of pereonite 5 and the pleotelson, at least one specimen of each species was observed under the SEM. The specimens were prepared using the standard technical procedure: after dehydrating and drying, they were placed on a self-adhesive disc fixed to the sample stub, covered with C (graphite) or gold. A Quanta 200 (FEI company) microscope was used. The terminology defined by Cookson (1991) was used.

The following acronyms or abbreviations are used in this paper: BAM (Federal Institute for Materials Research and Testing, Berlin), BMNH (Museum of Natural History, London), CICYT (Comisión Interministerial de Ciencia