



## ***Politolana sanchezi* sp. nov. (Crustacea: Isopoda: Cirolanidae), a new benthic bioturbating scavenger from bathyal soft-bottoms of the southern Bay of Biscay (northeastern Atlantic Ocean)**

INMACULADA FRUTOS<sup>1,2,4</sup> & JEAN CLAUDE SORBE<sup>3</sup>

<sup>1</sup>Instituto Español de Oceanografía, C.O. Santander, P. Box 240, 39080 Santander, Spain. E-mail: inma.frutos@st.ieo.es

<sup>2</sup>Departamento de Zoología y Antropología Física, Universidad de Alcalá, 28871 Alcalá de Henares, Spain

<sup>3</sup>Station Marine (UMR 5805, CNRS UBI), 2 rue Jolyet, 33120 Arcachon, France. E-mail: jc.sorbe@epoc.u-bordeaux1.fr

<sup>4</sup>Corresponding author

### **Abstract**

A new species of the genus *Politolana* (Crustacea, Isopoda, Cirolanidae) is described, based on specimens collected from the Le Danois Bank ('El Cachucho' fishing ground), southern Bay of Biscay, northeastern Atlantic Ocean. *Politolana sanchezi* **sp. nov.** can be distinguished from *P. microphthalma* (the only *Politolana* species recorded in boreal European waters) by larger eyes, presence of chromatophores on pereon and pleon, antennae reaching to the middle of the second pereonite, lateral margin of the frontal ridge dividing eyes, superior meral lobe of pereopod 1 reaching midpoint of the propodus, distal end of uropodal endopod subacute and pleotelson apex broadly convex with small medial point. An identification key to the world species of *Politolana* is presented. The new species has been found living on muddy-fine sandy bottoms of the southern Bay of Biscay and western Galicia, between 480 and 791 m depth. According to the present findings, it belongs to the benthic scavenger guild recognized on continental slopes. Its scavenging and bioturbating behaviour at the sediment-water interface are described from *in situ* trophic experiments with a fish-baited trap combined with a time-lapse recording camera.

**Key words:** Isopoda, Cirolanidae, *Politolana*, taxonomy, new species, scavenging and bioturbating behaviour, deep-sea, Bay of Biscay

### **Introduction**

*Politolana* Bruce 1981 is one of the 62 genera within the family Cirolanidae (see Schotte *et al.* 2010), and contains nine species (*Politolana* sensu stricto, see Riseman and Brusca 2002). It is primarily a North Atlantic genus but has now two species in the southwestern Atlantic and another one in the northeastern Pacific. It differs from the *Natatolana* genus (represented in European waters by the common species *N. borealis*) by the structure of the uropod endopod and the ornamentation of the pereopod 7 basis (Wetzer *et al.* 1987).

This paper deals with the description of a new *Politolana* species from the southern Bay of Biscay, the second one to be described in Atlantic European waters after *P. microphthalma* (Hoek 1882), which is characterized by a more northern geographical distribution. A new identification key is proposed for all species of *Politolana*. Comments on the geographical distribution, autoecology and benthic behaviour of the new species are presented and these increase previous knowledge of the lifestyle of *Politolana* species.

### **Material and methods**

The specimens examined in the present study were collected with four different sampling devices during several cruises (ESSAIS, ECOMARG and PROSECAN cruises; see Fig. 1 and Table 1) carried out in the