

Ten thousand kilometres away and still the same species? The mystery of identity of *Scopelocheirus* sp. (Amphipoda: Scopelocheiridae) from the South Atlantic

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ABSTRACT. During two campaigns, one in the Kattegat (Denmark) in 2018, and the other off Namibia in 2019, the same fish baited trap was applied to catch scavenging amphipods at two stations each. The water depths in both areas were between 50 and 130 m. In addition to very few individuals of other species (Isopoda and Amphipoda), the samples consisted mainly of *Scopelocheirus* sp. The species from the Kattegat was identified as *S. hopei*. The question arises as to whether it is possible that the same species could dominate scavenging communities in sea areas more than 10,000 km apart. At first glance, the scopelocheirid amphipods of the northern and southern hemispheres appear identical, but subtle morphological and large genetic differences led to the conclusion that we are dealing with a previously undescribed species off Namibia. We have named it *Scopelocheirus sossi* sp. nov.

Introduction

Scavenging amphipods have a widespread distribution and occur mainly in the deep sea. Most of them belong to the Parvorder Lysianassidira, which includes the family Scopelocheiridae Lowry & Stoddart, 1997. It is a small family of scavenging amphipods containing two subfamilies, Scopelocheirinae Kilgallen & Lowry, 2015 and Paracallisominae Kilgallen & Lowry, 2015. The Scopelocheirinae contains three genera (*Aroui* Chevreux, 1911; *Paracallisomopsis* Gurjanova, 1962; *Scopelocheirus* Spence Bate, 1857), and eight species that live in temperate and boreal waters and, unlike many other scavenger species, live mainly in shallow waters of the Mediterranean, the North and South Atlantic, and the Pacific. They are scavengers feeding on carrion at the sea bed, with only few exceptions

(Lowry & Stoddart, 1989). One of the most common representatives of this subfamily is *Scopelocheirus hopei* (Costa in Hope, 1851). It has a wide geographical distribution in the Atlantic (Kilgallen & Lowry, 2015), with records ranging from the Barents Sea (Gurjanova, 1951) in the North to Guinea-Bissau (Mateus & Mateus, 1986) in the South. It has been recorded in the North Atlantic Ocean (Stebbing, 1906; Chevreux & Fage, 1925; Palerud & Vader, 1991), in the English Channel (Dauvin, 1988), around the British Isles (Stebbing, 1906; Chevreux & Fage, 1925; Lincoln, 1979; Nickell & Moore, 1991), in the North Sea and the Norwegian Sea (Sars, 1895; Stebbing, 1906; Palerud & Vader, 1991) and in the Baltic Sea (Stebbing, 1906; Zettler & Zettler, 2017). It is also present in the Mediterranean Sea (Costa, 1851; Stebbing, 1906; Chevreux & Fage, 1925; Diviacco & Ruffo, 1989; Albertelli *et al.*, 1992; Kaim-Malka, 2003). This

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