



## ***Beroe gracilis* (Ctenophora) from the Humboldt Current System: first occurrence of this species in the southern hemisphere**

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### **Abstract**

*Beroe gracilis* Künne, 1939 is a small neritic ctenophore, previously recorded only from cold waters of the northern hemisphere. The present study provides the first record of the species in the southern hemisphere, found in the surface layer of the Humboldt Current System off the central Chilean coast (32°–36.5° S). A complete description of this material is provided.

**Key words:** Beroidae, ctenophore, comb-jelly, gelatinous zooplankton, southeastern Pacific

### **Introduction**

*Beroe gracilis* Künne, 1939 is a small, but important gelatinous predator in pelagic ecosystems. Naturally occurring in the North Atlantic, Baltic and North Seas and the northeastern Pacific, the species is responsible for population control of other swarming ctenophores, such as *Pleurobrachia pileus* (O.F.Müller, 1776) (Greve & Reinert 1988) and the invasive *Mnemiopsis leidyi* A. Agassiz, 1865 (Hosia *et al.* 2011). Based on its presence in the northern hemisphere, including in deep water off the Bahamas, Wrobel & Mills (2003) assumed the species would be distributed worldwide in cold water. There has, however, been no formal record for any southern ocean until now. This paper provides a record of *B. gracilis* from the southeastern Pacific, off the Chilean coast, and presents a description of the specimens observed.

### **Material and methods**

A few specimens of *B. gracilis* were collected off Central Chile (32°–33° S) in September 1989, using a Bongo net with 60 cm diameter and 350 mm-mesh in oblique tows up to 200 m deep (see Palma 1994).

In Valparaíso Bay (33° S), ten specimens were collected in October 1990 and seven specimens were collected in November 1990, using a Bongo net with 60 cm diameter and 350 mm-mesh in oblique tows up to 95 m deep. Sea temperature was 11–12°C at the time of collection (see Palma & Rosales 1995 for more details).

Eleven *B. gracilis* specimens were collected in November 2013 off Dichato, on the central coast of Chile (36°30' S, 73°05' W), in oblique plankton tows using a WP-2 net with 250 mm-mesh and mouth area of 0.25 m<sup>2</sup>. Sea temperature was 10–12°C. Some specimens were maintained in aquaria with seawater at ambient temperature (15–20°C) and photographed alive under a stereomicroscope. Other specimens were preserved in 4% neutralized formalin solution. Two vouchers were deposited in the Ctenophora collection of the ZooTaxa Millennium Institute of Oceanography at University of Concepción, Chile (access number ZOOTIMO201401).

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