Biotemas, 25 (2), 197-198, junho de 2012
ISSNe 2175-7925

doi: 10.5007/2175-7925.2012v25n2p197
Short Communication

Occurrence record of the copepod *Pontella marplatensis* in Arraial do Cabo, RJ – Brazil

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Submetido em 20/09/2011
Aceito para publicação em 30/01/2012

Resumo

Registro de ocorrência do copépode *Pontella marplatensis* em Arraial do Cabo RJ – Brasil. Esta comunicação científica representa o registro de copépode *Pontella marplatensis* Ramirez 1966, na estação próxima à Ilha de Cabo Frio localizado entre as coordenadas 22°59'86"S 42°00'28"W Arraial do Cabo RJ-Brasil. Esta espécie de copépode marinho ocorreu na amostra de zooplâncton no dia 15 de Setembro de 2010, obtido através de arrasto horizontal com rede de 100µm e 40cm de diâmetro.

Palavras-chave: Arraial do Cabo RJ – Brasil; Copépode; *Pontella marplatensis*; Zooplâncton

Abstract

This scientific communication reports the record of *Pontella marplatensis* Ramirez, 1966, from a costal station near Cabo Frio Island (22°59'86"S, 42°00'28"W), in Arraial do Cabo, RJ, Brazil. This species of marine copepod was found in zooplankton sampled on September 15th, 2010, which was obtained during a horizontal haul with a 100µm mesh plankton net that was 40cm in diameter.

Key words: Arraial do Cabo RJ – Brasil; Copepod; *Pontella marplatensis*; zooplankton

Copepods are small crustaceans that are mostly included in the mesozooplankton, i.e., the size fraction between 0.2 and 20mm (SIEBURTH; LENX, 1978). They occur in ocean, estuarine and freshwater habitats and the group includes approximately 10,000 species (DIAS; ARAUJO, 2006). Copepods are excellent indicators of the physicochemical characteristics of water (SILVA et al., 2003) and play an important role in the transfer of organic matter from phytoplankton to higher trophic levels (SILVA et al., 2003; CAVALCANTI et al., 2008).

Marine copepods belong to five orders (DIAS; ARAUJO, 2006), including the Calanoida. This order comprises 40 families that contain mostly holoplanctonic species (VEGA-PÉREZ; HERNANDEZ, 1997). The family Pontellidae (in the Calanoida) has large copepods, which are blue or purple (SILVA et al., 2003). *Pontella*

marplatensis, which is included in this family, was described from the Argentine Sea (Mar del Plata) by Ramirez in 1966; and has been found in Texas (Gulf of Mexico) (WAGGETT; BUSKEY, 2008). The presence of *P. marplatensis* in the state of Espírito Santo, Brazil, was recorded by Rocha & Fernandes (2009). However, until now, this copepod has not been recorded from Arraial do Cabo, despite several surveys made in this region between 1974 and 1975 and from 1995 until now.

The introduction of *P. marplatensis* to the coast of Espírito Santo may have been from ballast water; although this water is now exchanged in the open sea (more than 500m deep) to avoid the introduction of exotic species. In a study of the ballast water from ships working in Espírito Santo, most of the planctonic species found were species that occur along the coast of this region. (ROCHA; FERNANDES, 2009).

The Forno Harbour, located at Arraial do Cabo, operated without a license for seventeen years; an issue that was resolved in 2009 (MELO et al., 2009). In addition, exotic species, such as the bivalvia *Isognomon bicolor*, have been reported for Arraial do Cabo, which may have been artificially introduced by the incrustation on ships, oil rigs or ballast water (VILLAC et al., 2008). Therefore, we hypothesize that the introduction of *P. marplatense* to Arraial do Cabo Bay might have been from ballast water that was released before the activities of the port were regularized.

The occurrence of the copepod *P. marplatense* in Arraial do Cabo was recorded during a zooplankton survey (in September 2010) at a costal station near Cabo Frio Island (22°59'86"S, 42°00'28"W). The zooplankton samples were obtained during a horizontal surface haul (3 min) using a 100µm mesh plankton net that was 40cm in diameter. The water temperature was 20.4ºC and the salinity was 35.4 psu. The density (10 orgs m^{-3}) of the organism (one female specimen in the sample) was established from a subsample analyzed under a stereoscopic microscope. All specimens found in the sample during September were measured. The size of the females varied between 2.3 and 3.72 mm (2.97±0.6mm), while the males were between 2.5 and 3.07 mm (2.86±0.3mm).

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