

**A report on the marine cladoceran *Evadne spinifera* Müller
(Crustacea, Branchiopoda) in Guanabara Bay,
Rio de Janeiro, Brazil**

Andrea Marazzo¹

Jean L. Valentin¹

ABSTRACT. This note relates the occurrence of *Evadne spinifera* Müller, 1867 (Crustacea, Branchiopoda) in Guanabara Bay, Rio de Janeiro State, Brazil. The samples were obtained by vertical tows with a 200µm mesh-size conical net at different times over a four day period in September, 1995. *Evadne spinifera* densities was always low.

KEY WORDS. Cladocera, *Evadne spinifera*, zooplankton, Guanabara Bay, Brazil

Cladocerans are small crustaceans that mainly inhabit freshwater, with only eight truly marine species (ONBÉ 1977). As compared with the rest of marine cladoceran species, the ecological characteristics of *Evadne spinifera* Müller, 1867 are unfamiliar. This is probably due to its rare occurrence and low abundance in temperate and tropical neritic waters. However, its occurrence and distribution have been described in a number of papers [e.g. GIESKES 1971 (North Atlantic Ocean and the North Sea); DELLA CROCE & VENUGOPAL (1972) (Indian Ocean); LONGHURST & SEIBERT (1972) (eastern Pacific Ocean); CHENG & CHAO (1982) (Chinese waters); YOO & KIM (1984) (Yellow Sea); KIM *et al.* (1993) (waters adjacent to Korean Peninsula)]. According to these records, *E. spinifera* may be considered thermophile and stenohaline, preferring the high temperatures and salinities of warm oceanic waters.

During research work about the dynamics of planktonic communities, the occurrence of *E. spinifera* in Guanabara Bay, Rio de Janeiro State, Southeast Brazil (22°41' – 22°56'S and 43°02' – 43°18'W) was recorded. This bay has been classified as a coastal estuary with shallow and partially mixed waters. The climate is tropical humid with a rainy season occurring during summer (December – March).

The thirteen zooplankton samples were obtained at a fixed station in Guanabara Bay, with a 30m-depth. The collections were always made at different times between 12 and 15 September, 1995. Samples were collected by vertical tows using a conical net (0.6m diameter and 2.0m long) with 200 µm mesh size, and they were preserved with formaldehyde 4% neutralized with sodium tetraborate.

Temperature and salinity data were also obtained. Their values had low variation during the study period. Mean values for water column temperature varied between 22.7-23.1°C, and salinity from 32.3 to 34.4.

1) Laboratório de Zooplâncton, Departamento de Biologia Marinha, Instituto de Biologia, Universidade Federal do Rio de Janeiro. Rio de Janeiro, 21949-900 Rio de Janeiro, Brasil. E-mail: marazzo@netfly.com.br or jlv@biologia.ufrj.br

In the laboratory, sub-samplings were made with a Folsom plankton splitter, whenever the samples displayed a large number of individuals (MCEWEN *et al.* 1954). *Evadne spinifera* occurred only in seven samples, and this species was always the least abundant. Its highest density recorded was 0.30 ind.m^{-3} .

The presence of *E. spinifera* in Guanabara Bay is an unexpected fact, on account of the estuarine feature of the ambient. This bay has been intensely investigated in previous decades for its great social and economical importance, and high degree of pollution. Thus, most of the mesozooplanktonic organisms are well known, and *E. spinifera* had never been recorded. This fact suggests that this species does not comprise part of the local zooplanktonic community.

Evadne spinifera is a marine cladoceran species which occurs with relative abundance on Brazilian coast (e.g. ROCHA 1982; RESGALLA & MONTÚ 1993; BONECKER *et al.* 1995); thus, its presence in Guanabara Bay would be related to the inflow of coastal waters in this region caused by tidal currents.

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