



New records of *Stenopus hispidus* Olivier (Stenopodidae) and *Enoplometopus antillensis* Lütken (Enoplometopidae) in the Southeastern Brazilian coast

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Abstract. This investigation provides new records extending southward the distribution of two important aquarium trade species in Brazil, *Stenopus hispidus* and *Enoplometopus antillensis*. Four specimens of *S. hispidus* were captured, two from Couves Island, a location at the north shore of São Paulo State (23°25'25"S and 44°52'03"W), and two from Cabo Frio, Rio de Janeiro State (22°52'46"S and 42°01'07"W). One specimen of *E. antillensis* was captured during a snorkeling dive in Cabo Frio coast. The most southern limit of these two species was previously described as the coast of Espírito Santo State, located north from the sampling sites of the present study. Thus, our current records provide a significant enlargement of the known zoogeographic distribution of these crustaceans.

Keywords: zoogeographical range, new occurrence, ornamental species, Crustacea, Decapoda.

Resumo. Novos registros de *Stenopus hispidus* Olivier (Stenopodidae) e *Enoplometopus antillensis* Lütken (Enoplometopidae) na costa Sudeste do Brasil. Este trabalho apresenta uma ampliação da área de distribuição de duas espécies de interesse ornamental, *Stenopus hispidus* e *Enoplometopus antillensis*. Quatro espécimes de *S. hispidus* foram obtidos, dois na ilha das Couves, litoral norte do estado de São Paulo (23°25'25"S e 44°52'03"W), e dois na costa da cidade de Cabo Frio, estado do Rio de Janeiro (22°52'46"S and 42°01'07"W). Apenas um espécime de *E. antillensis* foi capturado durante mergulho livre na costa de Cabo Frio. O conhecimento prévio sobre a distribuição de ambas espécies menciona o estado do Espírito Santo como limite sul de distribuição. O presente trabalho apresenta novos registros sobre a distribuição geográfica destes dois crustáceos.

Palavras-chave: distribuição zoogeográfica, nova ocorrência, espécies ornamentais, Crustacea, Decapoda.

The species *Stenopus hispidus* Olivier, 1811 (Decapoda, Stenopodidae), commonly known as "clown shrimp", is the most popular shrimp in the aquarium trade due to its body coloration and because they are easily kept in marine aquaria (Zhang *et al.* 1998). Couples have been observed in shallow water in a variety of reef habitats where fishes are abundant (Limbaugh *et al.* 1961), including under coral ledges and at natural depressions in rock formations (Colin 1978). It occurs throughout the Indo-Pacific region from the Red Sea and South Africa to the Hawaiian and Tuamotu Islands. In the Western Atlantic, it is found

from Bermuda and North Carolina coast, Gulf of Mexico and South Florida, to the North coast of South America (Holthuis 1946, Kruczynski & Jenner 1969, Lukens 1978). In Brazil, this species has been recorded from Ceará to Espírito Santo States and in the Fernando de Noronha Archipelago (Coelho and Ramos-Porto 1998).

Ecological information about *Enoplometopus antillensis* Lütken, 1865 (Decapoda, Enoplometopidae) is scarce in the literature. This reef lobster commonly inhabits shallow waters and coral reefs. It has no fishery relevance (except in the Santa Helena Island, where they are eaten by local

fishermen when they reach larger sizes). This species is commonly found in aquarium trade due to its bright coloration (Poupin 2003), rusticity and because they are easily maintain in captivity. It occurs in the East Atlantic, being the first records to the Canary and the Cape Verde Archipelagos provided by Wirtz *et al.* (1988). Further records to Madeira, Ascención, São Tomé, Santa Helena Islands and Gabón were given by González Perez (1995), Wirtz & Herrera (1995) and Poupin (2002). In the West Atlantic region, this species has been found in the Bahamas and Bermuda Archipelagos and from Florida to north of Brazil. In the Brazilian coast, it has been recorded from Rio Grande do Norte to Espírito Santo States, including also Atol das Rocas and Fernando de Noronha Archipelago (Melo 1999).

This paper provides new information that enlarges the distribution of these two decapod species, which are important in aquarium trade and are largely collected from natural habitats.

In December 2004, one mating pair of *S. hispidus* and only one adult male of *E. antillensis* were captured in Cabo Frio, Rio de Janeiro State (22°52'46"S and 42°01'07"W) during a four meters deep snorkeling dive. It was collected by hand in a rock's burrow under a zoanthid colony. In March 2005, other mating pair of *S. hispidus* were caught by hand among seaweeds in the Couves Island, Ubatuba region, São Paulo State (23°25'25"S and 44°52'03"W) during SCUBA diving at approx. eight meters deep.

All specimens were transported alive in plastic bags filled with water from the sampling site, labeled and fixed in 70% alcohol. Taxonomic identification of both species followed Holthuis (1946). A stereoscopic microscopy equipped with a drawing tube was used to carry out the identification. The carapace length (CL) was measured from the rear margin of the eye orbit to the median posterior edge of the carapace, with a digital caliper (0.01 mm).

All specimens were deposited in the Museu de Zoologia, Universidade de São Paulo (MZUSP 16202 and MZUSP 16203).

Examined material: *Stenopus hispidus* (Figure 1) from Cabo Frio coast: the male (18 mm CL) was larger than the female (14 mm CL), whereas in the Couves Island an opposite pattern was found (male, 11 mm CL and female, 13 mm CL). In both sites, specimens were mating pair, apparently living together. *Enoplometopus antillensis* (figure 2): only one adult male was captured, with 37 mm CL. Despite the fact only one individual was caught, local aquarists and collectors mentioned that these

species are common in the region.

Increasing in the range distribution of marine decapods has been evident in the last years (Nucci & Melo 2000, Cobo *et al.* 2002, Torchin *et al.* 2002, Thresher *et al.* 2003, Ráz-Guzman *et al.*

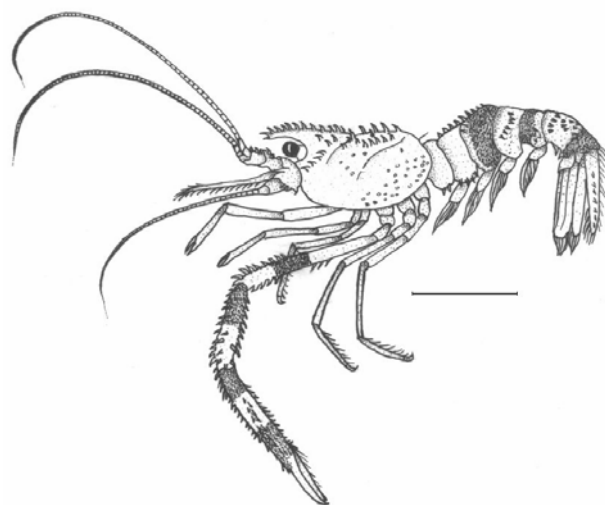


Figure 1. *Stenopus hispidus*, adult male in lateral view (scale = 10 mm).

2004). It results from a higher sampling effort made by the scientific community in order to better understand the biodiversity and to help the maintenance of natural stocks.

Higher range distributions and new records of marine invertebrates represent an important argument to investigate the environment and the

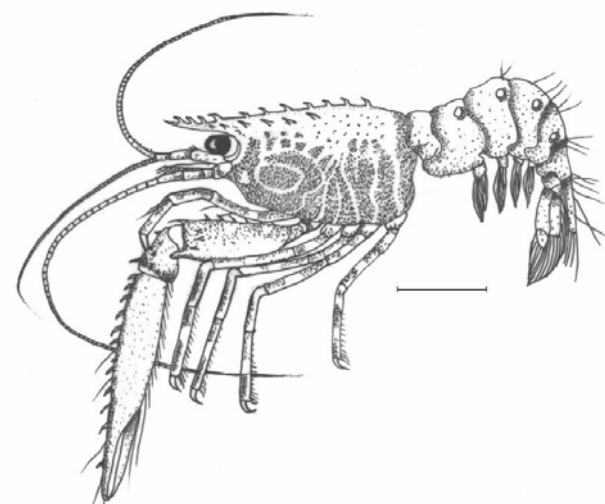


Figure 2. *Enoplometopus antillensis*, adult male in lateral view (scale = 20 mm).

community dynamics in order to establish the base for better understand larval migration mechanisms (Wolff 1954, Góes *et al.* 1998). Nevertheless, the occurrence of *S. hispidus* in the coast of São Paulo State may suggest a non-natural way to cross the resurgence area in Cabo Frio coast. Aquarium trade

could provide an efficient way of dispersal for these species.

Studies showing enlargement of species range distribution and new records of marine species represent an important tool for understanding the environment. The current study could provide a base for future ecologic studies or impact evaluation about these two important Brazilian aquarium trade species.

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