

# *Stereomastis sculpta* (Smith, 1880) (Decapoda: Polycheloidea: Polychelidae) in Brazilian waters

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## Abstract

*Stereomastis sculpta* (Smith, 1880) was collected off Para State, in depths between 455 and 621m. The material studied was obtained with commercial shrimp nets, without information on bottom type. The current registration enlarges the knowledge of the distribution of this species, in South Atlantic, until Para, Brazil.

**Key words:** Decapod Crustaceans; Systematic; REVIZEE North Program.

## Introduction

The research Program REVIZEE of Brazilian Government has the aim of surveying the living resources of Brazilian Exclusive Economic Zone. In this way, the Research Vessel "Almirante Paulo Moreira" conducted oceanographic expeditions off Brazilian continental shelf. This collecting effort show the occurrence of several animal groups, mainly crustaceans, mostly gathered in depths until then not surveyed by a great number of oceanographic expeditions. Some are no economic importance, as is the case of *Stereomastis sculpta* (Smith, 1880), aim of present article. From the zoological viewpoint, however, they are of great value, being a portion of the deep-sea fauna, little studied in Brazil.

This oceanographic research program offered the possibility to catalogue species not previously found in Brazilian waters, or cited in very old works resulting of oceanographic expeditions of XIX century.

Deep-sea lobsters of the family Polychelidae are extremely interesting members of the abyssal fauna, both in their general morphology as in their widespread geographical distribution. About 40 species in 3 genera are presently recognized in the family, and nearly all inhabit depths greater than 200 m on the continental shelves, slopes, and abyssal basins of the world oceans (Gore, 1984).

## Material and Methods

The specimens reported upon here were collected during the oceanographic research accomplished by the Research Vessel "Almirante Paulo Moreira", as part of the activities of the REVIZEE North Program, under the responsibility of the "Centro de Pesquisa e Extensão Pesqueira do Norte do Brasil" (CEPNOR / IBAMA / MMA).

The material utilized for this study was obtained by commercial shrimp nets, without information on the bottom type.

The identification was accomplished to the light of the works of Bouvier (1925; 1940), Griffin and Stoddart (1975), Takeda (1983) and Holthuis (1991). The classification obeyed the one that recommend Udeken d'Acoz (1999).

The studied material is deposited in the Carcinological collections of CEPNOR and Departamento de Pesca, Universidade Federal Rural de Pernambuco (UFRPE).

## Results

Infraordem Eryonidea de Haan, 1841

Superfamily Polycheloidea Wood-Mason, 1875

Family Polychelidae Wood-Mason, 1875

*Stereomastis* Bate, 1888

This genus contains twelve species, of which only three are known from the Western Atlantic: *S. nana* (Smith, 1884), *S. submi* (Bate, 1878), and *S. sculpta* (Smith, 1880) (Griffin and Stoddart, 1995).

*Stereomastis sculpta* (Smith, 1880)

*Polycheles sculptus* Smith, 1880.- Bouvier, 1917: 35 (key), 51, pl. 3, fig. 1; 1925: 438, figs 11, 12, pl. 7, fig. 1. *Pentacheles sculptus* - Smith, 1882: 23, pl. 3,4; 1884: 358; 1887: 650. *S. sculpta* - de Man, 1916: 7 (key). *Pentacheles spinosus* Milne Edwards, 1860: 66 - *S. sculpta* - Takeda, 1983: 75.- Holthuis, 1991: 88, fig.169.- Griffin and Stoddart, 1995.

Diagnostic characters - Rostrum bifid, orbital notches broad, U-shaped, with a single spine on the inner orbital angle. The anterior margin of the ocular peduncle bears only a minute, barely-discernible blunt spine. There are two spines on the basal antennular segment. The mid-dorsal carina of the carapace, behind the rostral spines, has spinal formula 1, 2, 1 before the cervical groove and 2, 2, 2, behind it. The posterior margin of the carapace is granular. The spinal formula of the lateral margins of the carapace is 6: 3: 7-8. There are five spines on the slightly sinuous sub lateral ridge of the branchial region; the last spine is larger than the others.

The median carina of abdominal segments 1 to 5 is produced into a spine, that of the fourth segment being the largest. The double carina of segment 6 is low, smooth and united posteriorly. There is a single blunt nodule on the anterior portion of the telson. There is no spine on the anterior midpoint of the second abdominal pleura (Griffin and Stoddart, 1995).

Material - Pará: Cruise IV, 2° 44'N - 47° 40'W, station 1, one specimen, 621 m depth, 12-07-1996; Cruise VII, 02° 39'N - 47° 43'W, station 8, one specimen, 455 m depth, 03-20-1998.

Geographic distribution - Western Atlantic, from Canada to the Lesser Antilles. Suriname. East Atlantic, from the Cape Verde Islands to Guinea Bay. Western Indian Ocean and the Malay Archipelago, 458 - 2.865 m deep (Takeda, 1983). Mediterranean Sea; Indo-West Pacific Ocean: Indonesia, eastern Australia (Griffin and Stoddart, 1995).

## Discussion

*Stereomastis sculpta* has been found mainly in northern latitudes. Its presence in Southern Hemisphere, however, has been signalled in Australia. In Brazil, it was found in northern latitudes, in compatible depths with that signalled in literature.

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