SPECIMENS OF STEREOMASTIS PACIFICA (FAXON, 1893) COLLECTED DURING THE TALUD XVI-B CRUISE OFF THE WEST COAST OF THE BAJA CALIFORNIA PENINSULA, MEXICO

BY

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ABSTRACT

New records are provided for Stereomastis pacifica (Faxon, 1893) off the west coast of the northern portion of the Baja California Peninsula. Including previous records obtained during the TALUD survey and by other authors, this species is now known from a total of 12 localities along the Baja California Peninsula.

Key words. — Stereomastis pacifica, Mexican Pacific, new records

RESUMEN

Se proporcionan nuevos registros para Stereomastis pacifica (Faxon, 1893) frente a la parte norte de la costa oeste de la península de Baja California. Tomando en consideración los registros previos obtenidos durante el proyecto TALUD y citados por otros autores, esta especie es ahora conocida de un total de 12 localidades a lo largo de la península de Baja California.

INTRODUCTION

During a recent survey of deep-water decapod crustaceans occurring under the core of the Oxygen Minimum Zone (OMZ) in western Mexico, two species of Polychelidae were reported from off the west coast of the Baja California Peninsula (Hendrickx & Serrano, 2014). Based on these records and previous literature (Galil, 2000; Hendrickx, 2012), Stereomastis pacifica (Faxon, 1893), Pentacheles laevis Spence Bate, 1878, and Willemoesia inornata Faxon, 1893, are the only species of the deep-water lobster family Polychelidae with records in the Mexican Pacific.

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The distribution range of *Stereomastis pacifica* extends from California (SW of Punta Concepción), U.S.A., to Chile (25°S 70°40′W). According to Galil (2000), there were only two records of this species from off the west coast of Baja California Peninsula, Mexico: one in the southern portion, at 25°42′45″N 113°38′30″W, and the other in the northern portion, at 31°59.6′N 118°47.4′W, closer to the border between the U.S.A. and Mexico. Further records for *S. pacifica* were provided by Hendrickx & Serrano (2014) consisting of 12 specimens collected from 5 localities from the southern portion of the Baja California Peninsula. The single record for the northern portion of the peninsula provided by Galil (2000: one ovigerous female at 1110 m depth, identified as *S. sculptus pacificus* by M. K. Wicksten), however, remained the only one available from south of the U.S. border and north of Punta Eugenia (27°51′27″N 115°05′40″W).

During the TALUD XVI-B cruise off the northern portion of the Baja California Peninsula, specimens of *S. pacifica* were collected from under the OMZ with a benthic sledge and represent a significant addition to our knowledge of the distribution of this species in the area. This material is reported herein.

Abbreviations used are: St., station; M, male; F, female; CL, carapace length; BS, benthic sledge; EMU, Regional Collection of Marine Invertebrates, ICML, UNAM, Mazatlán, Mexico.

**TAXONOMIC ACCOUNT**

Family POLYCHELIDAE

*Stereomastis pacifica* (Faxon, 1893)

(fig. 1)

Material examined.— All from the TALUD XVI-B cruise. St. 3 (28°41.31′N 115°50.07′W), May 23, 2014, 1M (CL 36.5 mm), BS, 1350-1365 m (EMU-10494); St. 8 (29°23.8′N 115°45.2′W), May 31, 2014, 3M (CL 34.4, 36.5, and 35.5 mm), BS, 1416-1480 m (EMU-10492); St. 9 (29°20.89′N 115°39.14′W), May 30, 2014, 1F (CL 41.1 mm), BS, 1848-1860 m (EMU-10490); St. 26 (31°46.1′N 116°58.35′W), May 26, 2014, 1M (CL 35.1 mm) and 2F (CL 39.6-40.6 mm), BS, 982-989 m (EMU-10491); St. 27 (31°42.6′N 117°13′W), May 27, 2014, 2M (CL 35.1 mm), BS, 1394-1397 m (EMU-10493) (fig. 2).

Remarks.— All the males collected during the survey bear a spermatophore attached to the coxa 5 genital opening. One of the 2 females of St. 26 presented the left coxal opening normally open while the left was smaller and partially closed by a tegumental process.

Specimens captured during the TALUD XVI-B cruise were mostly collected in a depth range of 982 to 1480 m, which closely matches the range reported by Hendrickx & Serrano (2014) for the southern portion of the peninsula (i.e., 980-1465 m). One record, however (St. 9, 1848-1860 m), is much deeper and closer to
Fig. 1. Steromastis pacifica (Faxon, 1895). A, illustration of a male syntype (“Albatross” St. 3353), dorsal view, reproduced from Faxon (1895, pl. C fig. 1); B, dorsal view of a fresh male specimen (EMU-10492). This figure is published in colour in the online edition of this journal, which can be accessed via http://booksandjournals.brillonline.com/content/journals/15685403.

the maximum depth reported for this species (2712-3330 m), off Panama (Galil, 2000).

The capture of specimens of S. pacifica at five localities along the northern portion of the peninsula, combined with the five localities reported by Hendrickx & Serrano (2014) along the southern portion, indicates that this species is widely distributed in the area and relatively common.

Environmental factors associated with the capture of the material examined indicate tolerance to mild hypoxic conditions in four localities (0.48-0.90 ml O₂/l), while in the deeper sampling station (1848-1860 m) the oxygen concentration was much higher (1.52 ml O₂/l), as expected in the region (see Serrano, 2012).
Fig. 2. Stereomastis pacifica (Faxon, 1893). Sampling localities off the west coast of the Baja California Peninsula, TALUD XVI-B cruise. Solid circle, locality reported by Galil (2000).

Temperature at bottom level varied from 2.31 (deeper station) to 4.17°C (shallower station).

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REFERENCES


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