



A new deep-water species of *Odontozona* (Decapoda: Stenopodidea: Stenopodidae) from the East Pacific, and new record of *O. foresti* Hendrickx, 2002

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Abstract

A new species of the stenopodid shrimp *Odontozona* is described from deep-water off the west coast of Mexico. It is distinguished from the three other species of the genus known in the area, from *O. rubra* Wicksten, 1982, and *O. foresti* Hendrickx, 2002, by the absence of a series of spines on the posterior half of the carapace, behind the post-cervical groove, and from *O. spongicola* (Alcock & Anderson, 1899) by the presence of spines on the ventral margin of somites 1–5 (smooth in *O. spongicola*) and by the much slender third pair of pereopods in the new species. A new record is provided for *O. foresti*, and the first male specimen, the third specimen on record, is compared with the female holotype.

Key words: *Odontozona*, Stenopodidae, East Pacific, new species, new record

Introduction

The stenopodid genus *Odontozona* Holthuis, 1946, is currently represented worldwide by 16 species (De Grave & Fransen 2011; Anker & Tavares 2013; Goy & Cardoso 2014) of which three have been recorded in the East Pacific: *O. rubra* Wicksten, 1982, *O. spongicola* (Alcock & Anderson, 1899) and *O. foresti* Hendrickx, 2002. Deep-water stenopodideans are poorly known and species of *Odontozona* recorded at depth greater than 50 m depth are particularly rare (Anker & Tavares 2013).

The large *O. foresti* (total length 60.6 mm) was collected within the Gulf of California and described as a new species in 2002, representing the second species known from the Mexican Pacific and the only member of the genus found below 200 m depth in that area at that time (Hendrickx 2002; Wicksten & Hendrickx 2003; Hendrickx 2008).

During an exploratory cruise off the west coast of Baja California, Mexico, a series of small-sized specimens of *Odontozona* was collected between 650 and 850 m depth by the R/V "El Puma" of the "Universidad Nacional Autónoma de México". This material belongs to a new species, which is described herein as *O. joegoyi* n. sp. In addition, a third specimen of *O. foresti* was collected during the same cruise, representing a new geographic record and the first known male for this species.

The specimens examined are deposited in the collections of the Invertebrate Reference Collection of the Mazatlan Marine Station, UNAM, in Mazatlan, Mexico. Abbreviations used: CL, postorbital carapace length (in mm); TL, total length (in mm).

Taxonomic account

Stenopodidae Claus, 1872

Material examined. One male, CL 14.0 mm, TALUD XV cruise, St. 5F (23°18'40"N, 111°19'37"W), 6 August 2013, benthic sledge, 1035–1108 m depth (EMU-10087).

Colour. From a fresh specimen. Body light salmon, with flush or orange on posterior half of abdominal somites, telson and uropods; pereopods dark orange; distal portion of antennal flagellae light pink; major cheliped light salmon, except for distal 2/3 of chela which is whitish. Eyes opaque, yellowish (Fig. 5).

Distribution. Presently known only from three localities in the East Pacific, off the west coast of Baja California (this contribution), off western Mexico (Hendrickx 2008), and in the Gulf of California (type locality), between 1035 and 1270 m depth. Environmental data recorded close to bottom at the sampling site are 3.5°C and 0.46 mg O₂ ml/l, which is about half the oxygen concentration recorded at the type locality (TALUD VI, St. 34; 3.5°C; 0.86 O₂ ml/l).

Remarks. *Odontozona foresti* was originally described based on a single female (CL 16.5 mm) collected in the Gulf of California at 1240–1270 m depth. Another female specimen was later reported at 1058–1088 m depth, off western Mexico (18°32'02"N, 103°57'45"W) by Hendrickx (2008). The male examined herein is very similar to female holotype in carapace, abdomen and telson armature. The third pereopod (Fig. 6A) (right missing) of the male, however, is much longer than in the female, about 3.8 times carapace length (vs. 2.2 in the holotype), and its armature is much different compared to the female holotype; a strong, subrectangular, finely denticulate tooth is projecting from the fixed finger (Fig. 6B) into a rounded cavity in the dactylus; there are 3 spines (plus 2 spinules) on the upper margin of the dactylus, two rows of strong spines on the dorsal (submarginal) and ventral (marginal) faces of the carpus, one dorsal and one ventral rows of marginal teeth on merus, and one dorsal row of strong spines on the ischium, which also bears a few spinules on the ventral margin. These variations are related to sexual dimorphism. A moderately long, ventral spine is present on somites 1–4, which is also characteristic of male specimens within the genus. Pleopod 1 as illustrated (Fig. 6C).

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