Uroptychus minutus Benedict, 1902 and a closely related new species (Crustacea: Anomura: Chirostylidae) from the western Atlantic Ocean

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Abstract

A new squat lobster, Uroptychus marissae, is described based upon two specimens taken associated with the antipatharian Tanacetipathes sp. from the northern Gulf of Mexico, at a depth of about 90 m. It closely resembles U. minutus Benedict, 1902, known only from the type material from off Trinidad. The original description is so brief that an opportunity is taken here to redescribe it to help discriminate between the two species.

Key words: Crustacea, Decapoda, Anomura, Chirostylidae, Uroptychus, western Atlantic, Gulf of Mexico

Introduction

Recently, Marissa Nuttall brought to us for identification a number of small specimens of the squat lobster genus Uroptychus Henderson, 1888, which were collected from the northern Gulf of Mexico at 89.3 m on antipatharian corals during the Deep Fish Habitat study of the Flower Garden Banks National Marine Sanctuary. The western Atlantic squat lobster fauna is very poor compared to the Indo-Pacific fauna (Baba et al. 2008; Macpherson & Baba 2011). The key paper of the western Atlantic species was presented a long time ago (Chace 1942), listing 14 species of Uroptychus. Since then no additional species of the genus have been described. He recognized four forms within Uroptychus nitidus A. Milne Edwards, 1880, giving the name “typical form,” “form A”, “form B” and “form C.” A preliminary study using collections in the Smithsonian Institution revealed that all these can be shifted to different species (KB, unpublished), pending examination of the original material now in the Agassiz Museum, Harvard University. Following the key to species provided by Chace (1942), the new material keys out to couplet 8, showing it to be close to U. minutus Benedict, 1902. Unfortunately, the original description of U. minutus is very brief and no longer meets the current standard. Examination of the type material of U. minutus made available on loan from the Smithsonian Institution disclosed that the new material represents an undescribed species, here described under U. marissae n. sp. In this paper, U. minutus is redescribed based upon the syntypes to elaborate on its species status.

Material and method

The type material of Uroptychus minutus now in the collections of the National Museum of Natural History, Smithsonian Institution (USNM), contains one male and four females, with all pereopods detached from the body: five left chelipeds, four right chelipeds, eight left walking legs, and five right walking legs. The largest cheliped belongs apparently to the male as can be interpreted by the original drawing of Benedict (1902) and all the others to the females. Walking legs, if not all, are described as classified to first, second and third walking legs, largely based on the length-breadth ratios of merus articles. This lot also contains two walking legs possibly of U. nitidus Variety A of Chace (1942) and one walking leg possibly of U. spiniger Benedict, 1902. The terminology follows Baba et al. (2009, 2011). The sizes of the specimens indicate the postorbital carapace length. The breadth of the rostrum is