



## *Holothuria (Selenkothuria) carere*, a new species of sea cucumber (Echinodermata: Holothuroidea) from the Mexican Pacific

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### Abstract

A new species of sea cucumber of the subgenus *Selenkothuria* Deichmann, 1958 is described. *Holothuria (Selenkothuria) carere* **n. sp.** was found in the Mexican Pacific, from intertidal to 6 m depth. The absence of ossicles in the body wall, as well as in the dorsal and ventral tube feet make this species unique among the species of this subgenus. Smooth straight rods with distal perforations and projections are present only in the dorsal and anal papillae, papillae at the base of the tentacles and in the tentacles. This species is distinctive within the subgenus. The shape of the ossicles shows some similarities with *H. (S.) glaberrima* Selenka, 1867.

**Key words:** Echinodermata, Holothuroidea, *Holothuria (Selenkothuria)*, new species, Mexico

### Resumen

*Holothuria (Selenkothuria) carere* **n. sp.** una nueva especie de holoturia (Echinodermata: Holothuroidea) del Pacífico Mexicano. Se describe una nueva especie del subgénero *Selenkothuria* Deichmann, 1958. *Holothuria (S.) carere* **n.sp.** se describe para México, a una profundidad desde la línea intermareal hasta 6 m. La ausencia de espículas en la pared del cuerpo, y en los pies ventrales y dorsales, hace a esta especie única entre las que conforman este subgénero. Barrotes lisos, rectos, con perforaciones y proyecciones distales se presentan únicamente en las papilas dorsales, anales, de la boca y en los tentáculos. Esta especie es característica dentro del subgénero. Sus espículas se asemejan a las de *H. (S.) glaberrima* Selenka, 1867.

**Palabras clave:** Echinodermata, Holothuroidea, *Holothuria (Selenkothuria)*, nueva especie, México

### Introduction

The Family Holothuriidae includes a large number of species of sea cucumbers distributed in tropical waters, several of which are of high commercial value. Currently, it consists of about 200 assumed valid species classified into five nominal genera: *Actinopyga* Bronn, 1860, *Bohadschia* Jaeger, 1833, *Labidodemas* Selenka, 1867, *Pearsonothuria* Levin, 1984 and *Holothuria* Linnaeus, 1767. The last includes about 80% of the species of the whole family and is highly variable in its morphology. This great diversity has led to different subdivisions of the genus and to the creation of new genera, in order to have more manageable groups of species.

During the XIX century, some authors proposed different classifications of the genus *Holothuria* and the family Holothuriidae. Pearson (1914) was the first to propose a subdivision of the genus *Holothuria* in five subgenera: *Bohadschia* Jaeger, 1833; *Actinopyga* Bronn, 1860; *Argiodia* Pearson, 1914, *Halodeima* Pearson, 1914 and *Thymiosycia* Pearson, 1914. Panning (1929, 1934a, 1934b, 1935a, 1935b) first recognized the classification of Pearson but noted that Pearson's *Argiodia* was the junior synonym of Brandt's (1895) *Microthele*, and that *Thymiosycia* was the junior synonym of *Halodeima*. So the subgenera proposed by Panning were the following: *Actinopyga*, *Bohad-*