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Collection of a Sea Cucumber, *Holothuria* (*Mertensiothuria*) Hilla Lesson, 1830 Specimen from Farur Island (Persian Gulf, Iran)

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Abstract: A sea cucumber specimen was collected at depth of nearly 14 m off Farur Island in the Iranian waters of the Persian Gulf and identified as *Holothuria (Mertensiothuria) hilla* Lesson, 1830. This paper describes the spicules, characteristics of the habitat, as well as distribution within the Persian Gulf.

Key words: Sea Cucumber · *Holothuria hilla* · Farur · Persian Gulf

INTRODUCTION

Of 1400 know h olothurians within six orders [1], just 20 species have been reported in Iranian waters (Dabbagh and Sedaghat, in press). However, several researchers have mentioned holothurians in Persian Gulf and Iranian waters [2-7]. This report is the first to note the presence of *H. hilla* on Farur Island and additionally describes the spicules.

MATERIALS AND METHODS

The specimen was collected from under the rocks through diving from Farur Island (South of Bandar-e Lengeh). Specimen was subsequently deposited at the Persian Gulf Molluscs Research Station (PGMRS) in Hormozgan Province, Bandar-e Lengeh, Iran. All methods were derived from Samyn *et al*., (2006). For further identification, the ossicles from dorsal and ventral body wall, tentacles and tube feet were examined after removal from the tissues using household bleach. Finally, the precipitate ossicles were examined with a microscope at 40X magnification.

RESULTS

Taxonomy:

Order Aspidochirotida Grube, 1840
Family Holothuriidae Ludwig, 1894
Genus *Holothuria* Linnaeus 1767
Subgenus *Mertensiothuria* Deichmann, 1958

Holothuria (Mertensiothuria) hilla Lesson, 1830
Samyn [9]: 45. Massin [10]: 30.

Material Examined: One specimen, Farur Island, Persian Gulf, South of Bandar-e Lengeh, 26° 17' N, 54° 32' E,14 m, coll. S.A. Mohtarami, 2009.

Morphology: The specimen measured 15 cm long and were brownish (Fig. 1). The spicules of the papillae were buttons with three or five pairs of holes (60- 100 μm) and tables (80 μm across) as depicted in Fig. 2A, 2B. The spicules of podia were similar to those within the papillae (Fig. 2C, 2D). The spicules of the body wall were tables (80 μm across) and buttons (100 μm). The spicules of the tentacles rods were 130-200 μm long (Fig. 2E).

Habitat Characteristic: The habitat of *H. parva* is a rocky shore including sand. This is where we found the specimens. They were hidden under rocks.

DISCUSSION

The body wall included tables and buttons, as well as distinct papillae. These are all characteristics of the species *Holothuria (Mertensiothuria) hilla* [10].

Some authors have described *H. hilla* previously [9, 10]. Although *H. hilla* was formerly placed in subgenus Thymiosycia [10]. However, due to the presence of C-shape ossicles, it is now placed in the subgenus *Mertensiothuria* [9]. *H. hilla* is usually found under rocks in coral reefs [6] and muddy sand substrata [11].

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Fig. 1: *Holothuria (Mertensiothuria) hilla* Lesson, 1830 from Farur Island

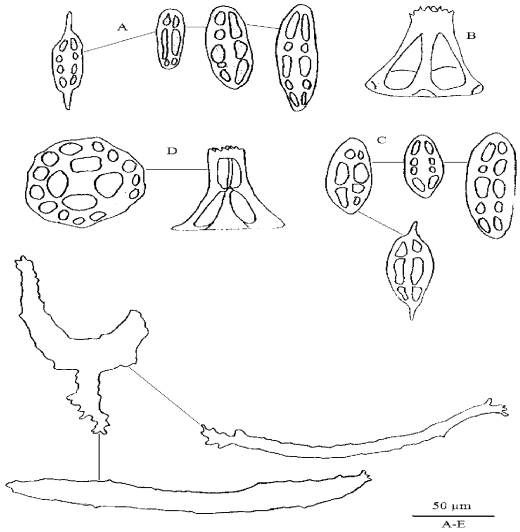

Fig. 2: *Holothuria (Mertensiothuria) hilla* Lesson, 1830. A: Buttons From papillae; B: Table from papillae; C: Buttons from podia; D: Tables from podia; E: Rods from tentacles

Fig. 3: Distribution of *Holothuria (Mertensiothuria) hilla* Lesson, 1830 in the Persian Gulf (Red: Reported previously; Yellow: Farur Island)

As noted previously, *H. hilla* has been found previously in the Arabian waters of the Persian Gulf [6] (Fig. 3). It has even been found throughout the tropical Indo-West Pacific waters from the Red Sea to Japan, Hawaii and New Caledonia [10].

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