First record of a sclerodactylid sea cucumber, *Ohshimella ehrenbergii* (Selenka, 1868) from Iranian waters (Echinodermata: Holothuroidea: Sclerodactylidae)

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One specimen of a sclerodactylid sea cucumber was collected by snorkelling diving at depth 2.5 m from Farur Island in 2008 in Iranian waters of the Persian Gulf. This paper shows a morphological description of the specimen and the habitat characteristics.

**Keywords:** sclerodactylid sea cucumber, Iranian waters, *Ohshimella ehrenbergii*

**Introduction**
Six orders viz. Aspidochirotida, Elasipodida, Molpadiida, Apodida, Dendrochirotida and Dactylochirotida with 1400 species of holothurians have been known to science. In the waters around Iran, 19 species of Holothorians have been recorded. All of these species belonging to orders Apodida, Aspidochirotida and Dendrochirotida (Table 1). Few studies have been conducted on Holothorians in Iranian waters. The information on presence of Iranian holothurians only based on Danish Scientific Investigations in Iran. This record introduces *Ohshimella ehrenbergii* to Iranian waters.

**Materials and Methods**
The specimen was collected by snorkelling up to depth 2.5 m from betwixt cavities of the rocks. It was deposited at the Persian Gulf Molluscs Research Station (PGMRS), Hormozgan Province, Bandar-e Lengeh, Iran. Before Identification, the specimen was anaesthetized by magnesium chloride at concentration of 5% to extend the tentacles. To identify of the sea cucumber, ossicles of 3 positions including, dorsal and ventral body wall, tentacles and tube feet were examined. Household bleach was initially used to remove ossicles from the tissues. Finally, the precipitate ossicles were examined with a microscope at 40×magnification.

**Results**

**Taxonomy**
Order Dendrochirotida Grube, 1840
Family Sclerodactylidae Panning, 1949
Subfamily Cladolabinae Heding and Panning, 1954
Genus *Ohshimella* Heding and Panning, 1954
*Ohshimella ehrenbergii* Selenka, 1868

Urodeomas ehrenbergii Selenka, 1868: 114, Figs 6-8; Phyllophorus ehrenbergii, Phyllophorus ehrenbergi; Ohshimella ehrenbergii; Ohshimella ehrenbergii.

**Material examined**
One specimen, Iranian waters of the northern Persian Gulf, Farur Island, not recorded, 2.5 m, coll. S. A. Mohtarami, 2008.

**Morphology**
Specimen measured 8.5 cm long. Colour in alcohol was greyish-brown colouration similar to living condition; ventral side slightly lighter in colour. Mouth ventral, surrounded by 20. The tentacles extended measured 40 mm of whitish colouration. One polian vesicle was observed (5 mm). Cuvierian organ absent. The podia on the dorsal side scattered. The calcareous ring with the radial prolongations subdivided (Fig. 1H).

**Table 1** —Species of holothurians found in Iranian waters

<table>
<thead>
<tr>
<th>Species</th>
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<tbody>
<tr>
<td><em>Aphelodactyla irania</em> Heding</td>
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<tr>
<td><em>Colochirus loppenthini</em> Heding</td>
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<tr>
<td><em>Holothuria arenicula</em> Semper</td>
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<tr>
<td><em>H. Hilla</em> Lesson</td>
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<tr>
<td><em>Halodeima atrae</em> Jager 1</td>
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<tr>
<td><em>H. impatiens</em> Forskal 1</td>
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<tr>
<td><em>H. monacaria</em> Lesson</td>
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<tr>
<td><em>H. ocellata</em> Jager</td>
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<tr>
<td><em>H. paraldis</em> Selenka</td>
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<td><em>H. parva</em> Lampert</td>
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<tr>
<td><em>H. spinifera</em> Theel</td>
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<tr>
<td><em>H. leucospilota</em> Selenka</td>
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<tr>
<td><em>Protankyra magnihamulae</em> Heding</td>
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<tr>
<td><em>P. pseudo-digitata</em> Semper</td>
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<tr>
<td><em>Stichopus variegates</em> Semper</td>
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<tr>
<td><em>Stolus sacellus</em> Selenka</td>
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<tr>
<td><em>Thorsonia fusiformis</em> Heding</td>
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<tr>
<td><em>Thyone dura</em> Koehler and Vaney</td>
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<tr>
<td><em>T. festina</em> Koehler and Vaney</td>
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Fig. 1—Ophiothela ehrenbergii Selenka, 1868. A: Rods from Dorsal and ventral body wall; B: plate from ventral body wall; C: rosettes from ventral body wall and Tube feet; D and E: rods from Tube feet; G: Rods from tentacle; H: Calcareous ring.
Spicules of Dorsal body wall were rods, 55 µm (Fig. 1A). Spicules of ventral body wall were rods (50-55 µm) (Fig. 1A), perforated plates, 135 µm (Fig. 1B) and rosettes, 25-40 µm (Fig. 1C). Tube feet are also rods (70-110) (Fig. 1D, E), perforated plates (90 µm in diameter) (Fig. 1F) and rosettes, 30-40 µm (Fig. 1C). In the tentacles rods, 70-20 µm long (Fig. 1G).

Habitat characteristic
Habitat of *Ohshimella ehrenbergii* rocky shore, as the specimen was hidden inside cavity, whereas extending the tentacles. The specimen was collected at a depth of 2.5 meters.

Discussion
The spinous rods and rosettes of body wall and extended tentacles, are all characteristic of the species *Ohshimella ehrenbergii* 11-13. Presence or absence of the mulberry-like rosettes somewhat would relate to its distribution area in *O. ehrenbergii* 13. Cherbonnier 14 showed that those are abundant in the body wall. Furthermore Thandar 13 observed the tables in the ventral body wall and the ventral podia while in our specimen was observed. Massin 11 stated that the alignment of the tube feet can not be related to body sizes, but Thandar 13 demonstrated smaller specimens have an ambulacral restriction of the podia in 2–3 rows, while the largest specimen has the podia scattered.

*O. ehrenbergii* is usually found amongst fine sand, rock, stones, coral and has an extensive distribution in Indian Ocean 13.

*O. ehrenbergii* was already reported from the Arabian waters (Tarut Bay) of the Persian Gulf by price 14,15, but there is so far any description information about this. Whilst in this article, *O. ehrenbergii* is described for the first time from the northern Persian Gulf and Iranian waters of the Persian Gulf (Fig. 2).

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References