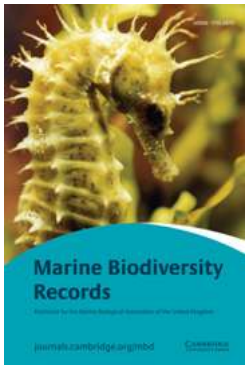

New observation of a sea cucumber, *Holothuria (Thymiosycia) impatiens*, from Larak Island (Persian Gulf, Iran)

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New observation of a sea cucumber, *Holothuria (Thymiosycia) impatiens*, from Larak Island (Persian Gulf, Iran)

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In Iran, sea cucumbers are not well known and they are not consumed as food. With this and the lack of scientific knowledge about them, this study has been conducted in order to identify the present species in the northern part of the Persian Gulf. Samples were collected in the sub-tidal zone of Larak Island (Persian Gulf) via SCUBA diving in August 2011. The literature review on the distribution revealed that this is the first report of Holothuria impatiens *from Larak Island (Persian Gulf). The species identification was made using morphological keys and review of their ossicles.*

Keywords: sea cucumber, *Holothuria impatiens*, Larak Island, Persian Gulf, Iran

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INTRODUCTION

Only about 10% of the species that occur in the Indo-Pacific are found in the Persian Gulf, and community species compositions substantially differ from assemblages that normally dominate the Indo-Pacific (Coles, 2003). The restrictive factors are temperature fluctuations, high salinities, extremely low tides, winter macroalgal blooms, pollution (Sheppard *et al.,* 1992; Burt *et al.*, 2008), and other factors which are globally prevalent. While the fishes and the corals are well documented, other groups especially invertebrates need further attention in this region. Holothuroids or sea cucumbers are an abundant diverse group of marine invertebrates; more than 1400 described and extant species constituting 160 genera occur in benthic environments (Conand, 2006). Sea cucumbers are an important component of the marine ecosystem. They are distributed in all oceans the world over, generally living near corals, rocks or seaweeds in warm shallow waters (Ridzwan, 2007). We report here one sea cucumber species of the class Holothuroidea (Echinodermata) at Larak Island on the north side of the Strait of Hormuz (Persian Gulf).

MATERIALS AND METHODS

Sea cucumber samples were caught around Larak Island (26°51′52″N 56°19′32″E) in August 2011 by SCUBA diving at depths of 15 m (Figure 1). The samples were transferred to a laboratory to photograph and extract their ossicles (Hickman, 1998). In order to identify the species we used valid identification keys (Conand, 1993; Samyn *et al.,* 2006). Also, for the correct identification some specimens were sent to Professor Gustav Paulay at the National Museum of Florida, United States.

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RESULTS AND DISCUSSION

SYSTEMATICS

Phylum ECHINODERMATA
Class HOLOTHUROIDEA
Order ASPIDOCHIROTIDA
Family HOLOTHURIDAE
Genus *Holothuria* (*Metriatyla*)
Holothuria (*Metriatyla*) *impatiens* Forskål 1775
(Figure 2)

DESCRIPTION

Ventral mouth surrounded by 20 tentacles which are in turn surrounded by a ring of very small conical papillae; anus terminal with five conical papillae. Thick Cuvierian tubules present but not readily ejected. Body wall is only a few mm thick and relatively smooth. The tube feet that stick out of verrucae are short and sparsely arranged on ambulacral and interambulacral areas, both the trivium bivium. In this species the body is bottle shaped with a long neck and rough surface, sandy to touch. It is covered with conical warts from which filamentous appendages emerge. It is light brown in colour with 4–5 dark brown transverse bands on the upper side near the anterior end. Background colour beige with brown dorsal spots more or less dark. Trivium

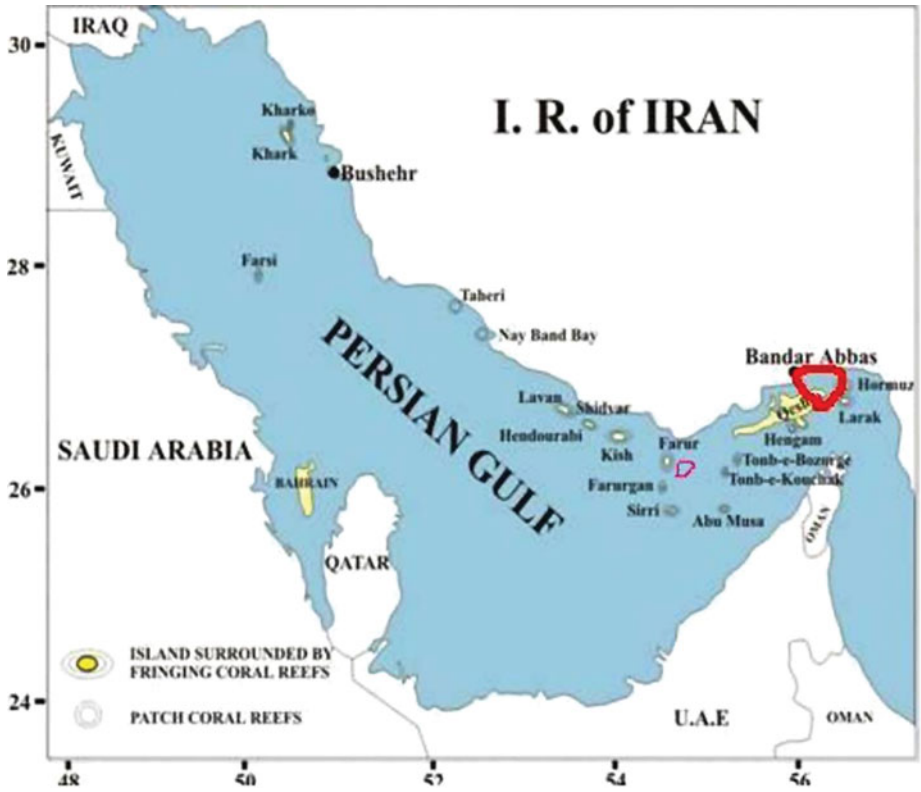

Fig. 1. Sampling site of *Holothuria impatiens* around Larak Island (Persian Gulf).

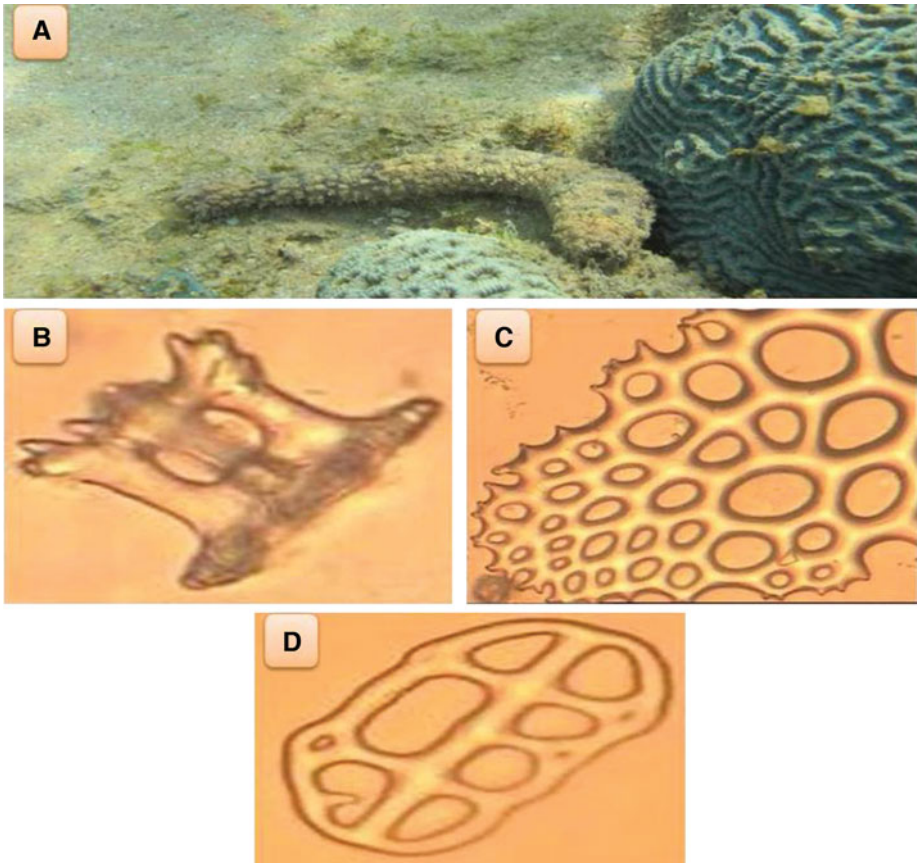

Fig. 2. (A) *Holothuria (Thymiosicia) impatiens* (Forskål, 1775); (B) ossicles of dorsal tegument; (C) ossicles of the wall of a podium; (D) ossicles of ventral tegument. Scale bars: A = 12 cm; B = 20 μ; C = 60 μ; D = 20 μ.

has light brown with some lighter areas corresponding to the basis of the tube feet. Bivium has somewhat darker with dark brown areas more or less connected to form transverse bands. Tentacles with curved sticks and rough to ends, the dorsal and ventral body wall with buttons, and tables to disc angular pillars topped by very short and terminated with a thorny crown. Podia with tables identical to that of the seed coat, buttons perforated elongated sticks. Spicules, a uniform layer of tables with almost squarish disc with eight large lllarginal holes and squat spire with numerous teeth on top, and an inner layer of buttons with three pairs of large holes. Species that usually lives among rocks in shallow water (0–2 m) but can be observed up to 30 m. Species widespread throughout the tropical Indo-Pacific and sub-tropical regions (including in the Red Sea and Persian Gulf) and known from the Mediterranean Sea (Samyn *et al.,* 2006).

Holothuria (*Metriatyla*) *impatiens* has long shape similar to that of *H. surinamensis* but more warty and rougher to the touch. When touched or disturbed, the animal very quickly contracts in size, an adaptive response to escape from predators and living in confined spaces. Colour various shades of grey and brown and it is up to 15–20 cm long (Clark, 1942). At present it is not used for processing because it is a secretive form found under dead coral stones (James, 2001). A few specimens have been taken at low tide but apparently most specimens live concealed among rocks a little deeper than most collectors are able to reach. At night it extends its anterior end from its hole to feed on nearby sediment. *Holothuria* (*Metriatyla*) *impatiens* was previously recorded from the Persian Gulf (Farour Island) by Heding (1940) but our record is a first record of this species around Larak Island.

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