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## Occurrence of *Holothuria (Metriatyla) scabra* Jaeger, 1833 (Echinodermata: Holothuroidea) at Mu Ko Man, Rayong Province, Southeast Thailand

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**ABSTRAC.-** *Holothuria (Metriatyla) scabra* Jaeger, 1833 commonly known as a "sandfish," is the most highly esteemed among the consumers. In Thailand it is scarcely found, especially along the eastern coast of the Gulf, where only 2 reports of its occurrence have been known, and, specimens collected are imperfect in overall shapes. In 2006, a large-sized full-grown adult was encountered at Ko Man Nai area. This representing the 3<sup>rd</sup> finding of the eastern shore and the first record of Mu Ko Man.

**KEY WORDS.-** Holothuroidea, *Holothuria (Metriatyla) scabra*, Sandfish, Mu Ko Man, Southeast Thailand

### INTRODUCTION

Mu Ko Man, a group of small islands situating in Kram sub-district, Klang district, in Rayong province, is composed of 3 offshore islets namely, Ko Man Nai, Ko Man Klang, and Ko Man Nok, including the Farang Rock. Formerly the first one was belonged to the Private Property of HRH The Queen, who later on graciously gave to the Fisheries Department with her propose to use the area as the breeding and research station on sea turtles. At present, this station is under the responsibility of the Eastern Marine and Coastal Resources Research Center (EMCOR), the Department of Marine and Coastal Resources.

During the years 2006 - 2007, the National Science Museum (NSM) had a joint-project with the EMCOR to conduct intensive surveys on the existing biological diversity, both terrestrial and aquatic, in and around

Mu Ko Man. First-year survey results revealed a surprisingly rich bio-resources; some are treated as endemic species, while others, such as this sea cucumber, is first recorded from this inner gulf area.

The sandfish, known scientifically as *Holothuria (Metriatyla) scabra* Jaeger, 1833, is the most popular one for human consumption thus being the most economically important species in the local markets of the trading East Asian countries, such as China, Taiwan and Hong Kong. Because of this high popularity, this sandfish has been heavily harvested in great numbers resulting in the decreasing dramatically in nature. The populations of this marine animal in Thailand are also under this highly-exploited trend.

Its distribution in Thailand, as being recorded in the literature, are widely represented but in a low population number both in the Gulf of Thailand and in the Andaman Sea (Putchakarn & Sonchaeng, 2004). Dealing only to Eastern coast of the Gulf, there were many reports showing its occurrences in this particular area: in 1995 it was found among the trash fish

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at Laem Chabang pier; one stranded on Patthaya beach in 1995; and lastly another observed foraging in the coral reef at Ko Lan in Chon Buri province in 1999 (Mucharin, 2002). From then there is apparently no more records along the Eastern coast until December, 2006 the NSM survey team found this sea cucumber at low tide inside the nursery cage of the sea turtles on Ko Man Nai; it was a large-sized one lying submerged in a shallow cavity with slightly-diffusing sediment on muddy-sand substrate.

### DESCRIPTION

The obtained sand fish has a grayish body with paler venter; size 114.00 X 235.00 mm; body wall 4.50 mm thick; having 19 peltate feelers and tiny tube feet seen as scattered dark dots all over the ventral part; no defensive cuvierian tubes. After the disintegration of the body tissues to reveal the spicule types and shapes, it was found to possess 4 principal types: the rod type of 130.00 - 600.00 microns in sizes embedded in feeler tissues; the table type of 65.00 - 70.00 microns in sizes; the button type of 39.00 - 90.00 microns in sizes; and the

perforate plate type of 45.00 - 123.00 microns in sizes; all last three are found embedded in the body tissues.

This present finding of this kind of sand fish is noteworthy, because it is a definite first record of *Holothuria (Metriatyla) scabra* Jaeger, 1833 that strongly confirming its geographical presence in the area of Mu Ko Man in Rayong province.

### LITERATURE CITED

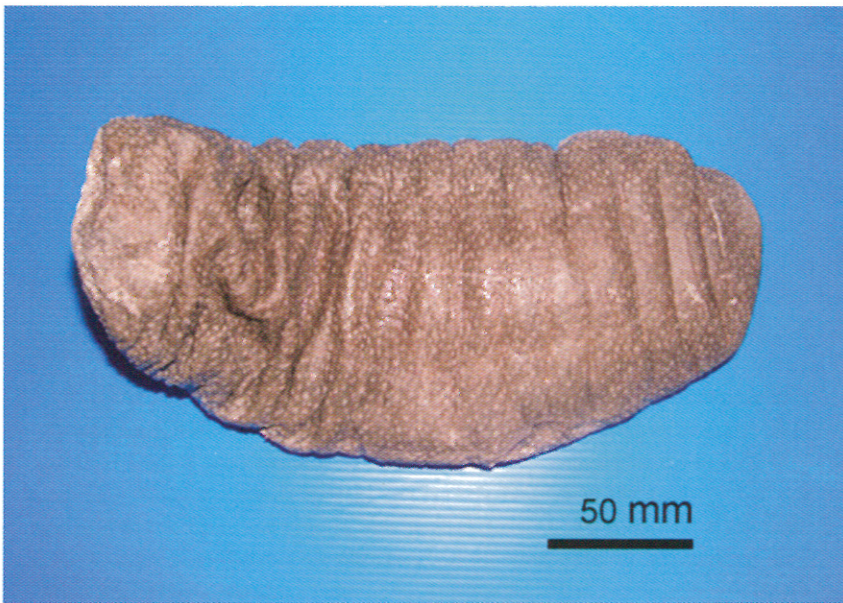
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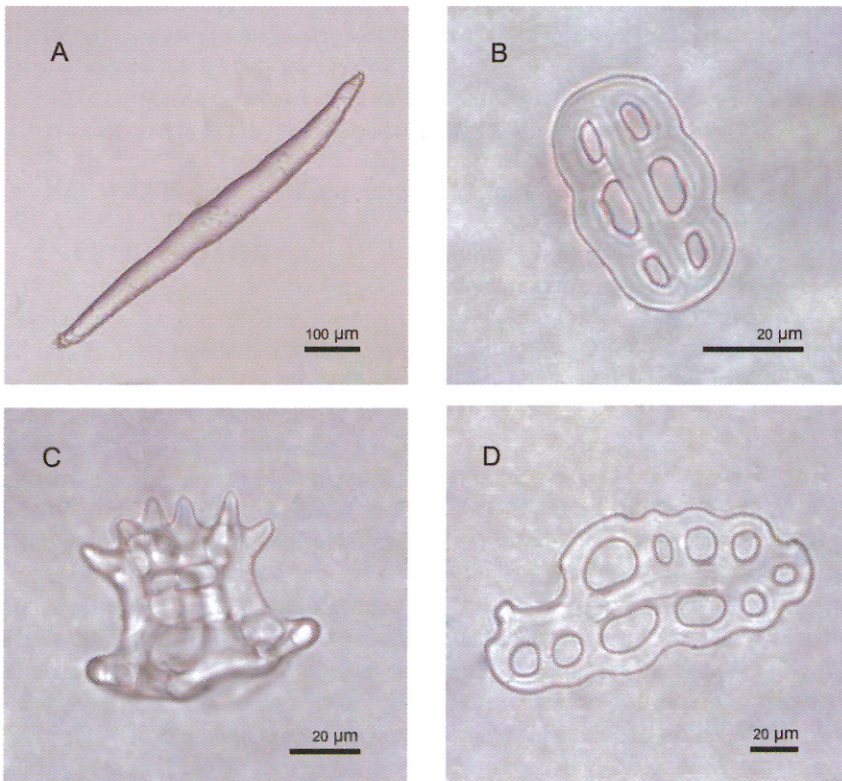
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**Figure 1** showing (as a star) a site where the sea cucumber was found in the turtle nursing cage, Ko Man Nai, Rayong Province. Photo : EMCOR



**Figure 2** an encountered sand fish, preserved in 70 % ethyl alcohol. Photo: Wanchai Sukkasem.



**Figure 3** Various spicule types seen in this sandfish; A: a rod type in feeler; B: a table type in body wall; C: a button type in body wall; and D: a perforate plate type in ventral body wall. Photos: Wanchai Sukkasem.