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A Sipunculan *Themiste (Themiste) hennahi* Gray, 1828 (Golfingiiformes: Themistidae) first report from Pakistan

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Abstract

Sipunculans are exclusively marine unsegmented worms. Single specimens of Sipunculan *Themiste (Themiste) hennahi* Gray, 1828 [15] is collected from Sandspit (Lat. 24° 50' 24N Long. 66° 54' 24E). This is the first report of the species collected along the northern Arabian Sea (Pakistan). The species at hand is briefly describe and illustrated with a note on its distribution, ecology and habitat.

Keywords: *Themiste (Themiste) hennahi*, Pakistan, new record.

Introduction

The genus *Themiste* Gray, 1828 [15] comprises into two subgenera i.e; *Themiste (Themiste)* Cutler and Cutler, 1828 [15] and *T. (Lagenopsis)* Edmonds, 1980 and about 10 species worldwide. They are, (names). The species *T. (L.) lageniformis* Baird, 1868 was reported by Tahera & Ghory (2009) [14] from Pakistani waters and the another species *Themiste (Themiste) hennahi* Gray, 1828 [8] is now reported from here for the first time. Previously this species studied by Amor, 1965 [1] & 1970 [2]; Chamberlain, 1919 [3] (= *Dendorstoma zoslericulum*); Collin, 1892 [4, 15] (= *Dendorstoma peruvianum*); Cutler, 1994 [5]; Cutler & Cutler, 1988 [6]; Fischer, 1952 [7]; Gray, 1828 [8, 15]; Halder, 1991 [9]; Rice & Stephen, 1970 [10]; Stephen, 1964 [11] & 1967 [12]; Stephen & Edmonds, 1972 [13]; Tarifeno, 1975 [15]; Wesenberg-Lund, 1955 [16] (= *Dendorstoma peruvianum*).

Material examined

Specimens of *Themiste (Themiste) hennahi* was collected from Sandspit (Lat. 24° 50' 24N Long. 66° 54' 24E). It was preserved in 70% ethanol. Specimen is housed in the Marine Reference collection and Resource Centre (MRC&RC) under the Cat No, SIPU -05. The abbreviation TL is used for total length measured from the anterior (introvert) to posterior (end of trunk) and TW total width.

Size: TL= 59mm in length.

TW= 34mm in width.

Systematic

Phylum Sipuncula Stephen, 1964 [11]
Class Sipunculoidea Gibbs and Cutler 1987
Order Golfingiiformes Cutler and Gibbs, 1987
Family Themistidae Cutler and Gibbs 1985
Genus *Themiste* Gray, 1828 [15]
Subgenus *Themiste (Themiste)* Gray, 1828 [15]
Species *Themiste (Themiste) hennahi* Gray, 1828 [15]
(Figs. 1-5)

Results and Description

The body of *Themiste (Themiste) hennahi* is balloon shaped wrinkled with large number of grooves (Fig.1). Body wall with continuous muscle layer (Fig. 2). A pair of retractor muscles is present. Five asymmetrical tentacles surrounding the mouth, extending along branched stem like (Fig.3). Introvert hooks absent. Skin thick with small papillae (Fig.4). Contractile vessel with villi, which are unbranched and thread like. (Fig. 5). Oesophagus slender shape. Long coil intestine and nephridia are present, Gonads are present at the retractor bases.

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Distribution

Eastern Pacific Ocean and Indian Ocean (Halder, 1991 [9]; Cutler, 1994) [5]. Now first time reported from (northern Arabian Sea) Pakistan.

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Fig 1: *Themiste (Themiste) hennahi* Gray, 1828, entire specimen



Fig 2: *Themiste (Themiste) hennahi* Gray, 1828, dissected specimen



Fig 3: *Themiste (Themiste) hennahi* Gray, 1828. Asymmetrical tentacles

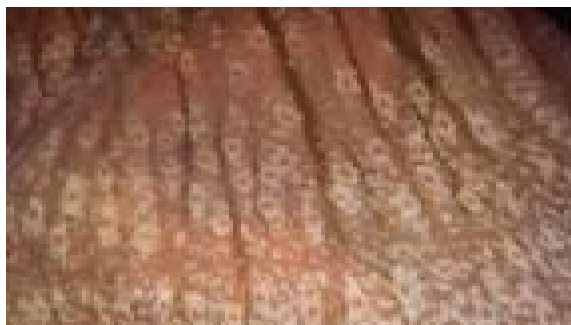


Fig 4: *Themiste (Themiste) hennahi* Gray, 1828, arrangement of papillae

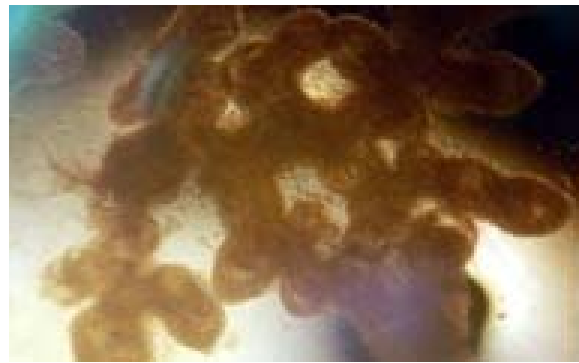


Fig 5: *Themiste (Themiste) hennahi* Gray, 1828, contractile vessel villi

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