

***PHASCOLOSOMA SCOLOPS* (SELENKA AND DE MAN, 1883)
(PHASCOLOSOMATIFORMES: PHASCOLOSOMATIDAE) FIRST TIME
RECORDED IN PAKISTAN**

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Abstract

Three specimens of *Phascolosoma scolops* (Selenka and de Man, 1883) were collected from Buleji (Lat.24° 50' 12"N Long.66° 49' 12"E) on 18th February, 2009. This species is first time reported along the northern Arabian Sea (Pakistan).

Introduction

Up till now two species of sipunculate are reported from Pakistani waters, *Golfingia* sp. reported by Ghani (1996) and *Themiste (Longenopsis) lageniformis* studied by Tahera and Ghory (2009).

Eighteen species and sub species of genus *Phascolosoma* have been recorded (Cutler & Cutler, 1990). In Indian coast 10 subgenus of *Phascolosoma* have been reported (Halder, 1991), *P. (P.) stephensoni*; *P. (P.) pacificum*; *P. (P.) perlucens*; *P. (P.) nigrescens*; *P. (P.) japonicum*; *P. (P.) granulatum*; *P. (P.) albolineatum*; *P. (P.) arcuatum*; *P. (P.) agassizii*; and *P. (P.) scolops*.

Phascolosoma species live in tropical and temperate waters, in shallow habitat. Generally their Introvert is narrower than trunk, nearly one and a half to four times as long as trunk. Skin is covered with irregularly arranged papillae and has body wall with continuous muscle layers. *Phascolosoma scolops* previously reported by Selenka, *et al.*, 1883; Shipley, 1898 from London; Ikeda, 1904 from Japan; Leroy, 1942 from Paris; Edmonds, 1956 & 1980 from Australia; Wesenberg-Lund, 1957 from Red Sea; Stephen, 1965 from Israel; Stephen & Edmonds from London, 1972; E. Cutler, 1977 from United States; E. Cutler & Cutler, 1979 from Indian Ocean; Saiz, 1984a,b from Spain; N. Cutler & Cutler, 1990 from United States; Halder, 1991 from India; and E. Cutler, 1994 from United States. In Pakistani waters this species is first time reported.

Materials and Methods

Specimens of *Phascolosoma scolops* were collected by hand in the intertidal zone of Buleji (Lat.24° 50' 12"N Long.66° 49' 12"E) at low tide. Specimens were kept in aquaculture laboratory for further study. Salinity was maintained at 35- 37 ppt, pH 7.9 and were preserved in 70% ethanol. All the materials were housed in the Marine Reference Collection and Resource Centre (MRC&RC) (Cat. No. SIPU-04). The abbreviation TL is used for total length measured from the anterior (introvert) to posterior (end of trunk) in mm.

Size Range: TL = 25mm - 50mm.

Systematics: Phylum Sipuncula
Class Phascolosomatidae
Order Phascolosomatiformes
Family Phascolosomatidae
Genus *Phascolosoma*
Species *Phascolosoma scolops* (Figs.1- 6)

Results and Discussion

All introverts of *Phascolosoma scolops* were variable in length, ranging less than twice the trunk length, (Fig.1) hooks were arranged in rings from around the distal portion of the introvert, each with a curved tip and a wide triangular base (Fig -2). Tentacles were situated dorsally to the mouth, ranging from 12-16 in number. Contractile vessels were present without true villi (Fig-3). Longitudinal muscle layer of body wall was joined by numerous anastomoses bands, 15 anteriorly, 25 mid-trunk region, and 11 posteriorly (Fig- 4). Skin was covered with irregularly arranged dome-shaped, dark papillae (Figs-5 &6). The present study reports *Phascolosoma scolops* first time from Pakistan.

Habitat: Inhabits muddy sand/gravel, in the intertidal and shallow subtidal areas. Intertidally it occurs under stones, in crevices and in burrows made by boring clams.



Fig.1. *Phascolosoma scolops* (Selenka & de Man, 1883) entire specimen.

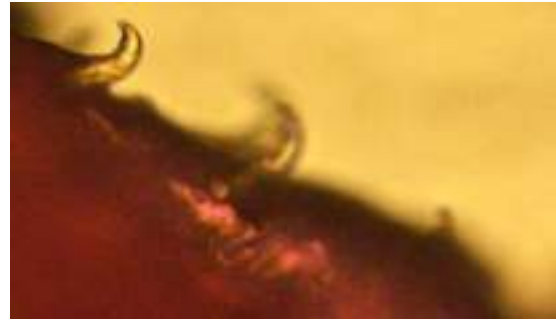


Fig.2. *Phascolosoma scolops* (Selenka & de Man, 1883) introvert hooks.

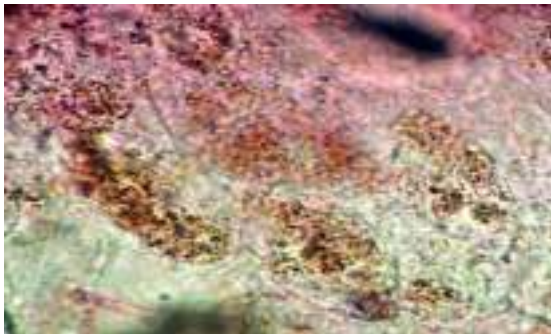


Fig.3. *Phascolosoma scolops* (Selenka & de Man, 1883) Contractile vessel villi.

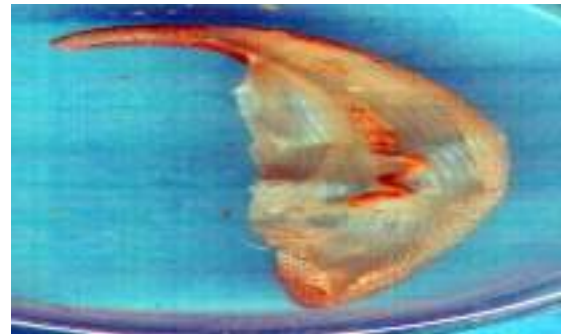


Fig.4. *Phascolosoma scolops* (Selenka & de Man, 1883) dissected Specimen.



Fig.5. *Phascolosoma scolops* (Selenka & de Man, 1883) papillae.



Fig.6. *Phascolosoma scolops* (Selenka & de Man, 1883) papillae (enlarged).

Distribution: According to (Cutler, 1994) the species ranges from the coastal waters of Indo-West Pacific region, including the Red Sea, north to northern Japan, south to northern Australia, and east to Hawaii and now for the first time it is recorded from northern Arabian Sea, Pakistan.

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