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ON A NEW GENUS AND NEW SPECIES OF TREMATODE OF THE  
FAMILY MICROSCAPHIIDAE LOOSS, 1900, FROM A MARINE TURTLE

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A new trematode, *Parangiodictyum satyabrati* n. g., n. sp. belonging to family Microscaphidas from marine turtle (*Chelone mydas*) of Orissa Coast of Bay of Bengal is described. The new genus is compared and contrasted from allied genera.

INTRODUCTION

In the course of study of digenetic trematodes, a specimen collected from (*Chelone mydas*) caught at Puri Coast, Orissa, India by Mr S.C. Verma, former Reader in Zoology of Allahabad University, was found to be of significant taxonomic interest. On examination, the parasite was found to represent a hitherto unknown genus and species belonging to the family Microscaphidae Looss, 1900. This new genus and new species, *Parangiodictyum satyabrati* is described herein.

*PARANGIODICTYUM SATYABRATI* n. g., n. sp.

(Fig. 1, pl. 1)

*Description*

Body foliate, of uniform width, having ventral dermal glands in anterior portion, measures 7.757 x 1.35. Pharynx elongate, divided in anterior and posterior parts, provided with eversible vestibule, measures 0.263 x 0.225. There are two pairs of glands at the lower part of pharynx; and outer pair is poorly developed while internal glands are compact and small. Acetabulum absent. Oesophagus begins with funnel shaped prolongation and narrows down with muscular wall; near the bifurcation it has muscular thickening and the lumen becomes horn shaped, measuring 1.5 in length. It is surrounded by oesophageal glands throughout its length. Caeca are sinuous with crenulated margins, end blindly some distance before the proximal end.

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Testes two, large, median, tandem, with crenulated margins, situated almost in the middle third of body, measuring 0.6 x 0.6 and 0.525 x 0.525 respectively. Cirrus sac absent. Vasa efferentia passes dorsal to oesophagus. Genital pore dorsal, just behind the pharynx and is guarded by a genital sucker. Ovary small, in posterior third of body, oval, measures 0.15 in diameter; oviduct arises from the dorsal aspect of the ovary. Laurer's canal present with dorsal pore. Receptaculum seminis absent. Vitellaria composed of large follicles arranged in three rows, two in lateral fields and one in intercaecal field; the outer rows are asymmetrical and start from anterior to anterior testis and terminate near the caecal end on one side but some distance posterior to caecal end on the other side. The third row of the vitelline follicles starts from behind the ovary and terminates near caecal ends. Uterus is confined to intercaecal space, extending from slightly posterior to ovary to genital pore. Eggs large elliptical, embryonate, operculate and measure 0.045 x 0.037.

Two excretory vessels start separately from the bladder and further bifurcate slightly posterior to ovary. Excretory bladder almost oval, pore surrounded by a rosette like structure on the posterior border of the bladder.

Lymphatic ducts are one pair with anastomosing branches, reaching the anterior extremity but remain separate.

<i>Host</i>	Marine turtle <i>Chelone mydas</i> (Linn)
<i>Location</i>	Intestine
<i>Locality</i>	Puri, Orissa, (Bay of Bengal)

#### DISCUSSION

Looss (1902) erected the family Angiodictyidae for his genus *Angiodictyum* and included the genera *Deuterobaris*, *Octangium*, *Microscaphidium* and *Polyangium*. However, he (1900) erected the subfamily Microscaphidinae for his genus *Microscaphidium* (new name for his preoccupied genus *Microscapha* Looss, 1899) which was accommodated in the new family. Stunkard (1943) added the genus *Dictyangium* to the family Microscaphidae. Yamaguti did not agree with this arrangement. Greschaff (1977) studied a series of specimens and followed Stunkard (1943) in upholding the validity of family name Microscaphidae and also held subfamily Angiodictyinae synonym of subfamily Microscaphidinae. He accepted three genera, *Angiodictyum*, *Microscaphidium*, and *Polyangium* under this subfamily. This classification has been followed in the present work.

The new genus *Parangiodictyum* combines the characters of both *Microscaphidium* and *Angiodictyum* but substantially differs from both. From the former in the absence of marginal bodies, weakly developed oesophageal pouch, position of the genital pore, presence of genital sucker; and from the latter genus it differs in having muscular pharynx with eversible vestibule, presence of pharyngeal glands and in having single pair of lymph ducts. These differences have been considered of generic importance and a new genus and species, *Parangiodictyum satyabrati* n.g., n.sp. is proposed. The species is named after my father Late Satyabrata Mukherjee.

*Generic Diagnosis:*

Microscaphiidae, Microscaphidinae; Body uniform in width and with dermal glands in anterior region. Pharynx elongate, with protrucible vestibule. Oesophagus surrounded by oesophageal glands and having muscular born shaped lumen at the caecal bifurcation. Caeca sinuous with crenulated margins, reach near posterior end. Acetabulum absent. Testes two, in middle third of body. Genital pore dorsal, near pharynx, guarded by a genital sucker. Ovary post testicular, median, in posterior third of body. Laurer's canal present; receptaculum seminis absent. Vitellaria in three rows, two lateral and one intercaecal, extend from some distance anterior to anterior testis to caecal ends or beyond, not confluent in posterior field. Eggs embryonate. Excretory bladder oval; excretory pore surrounded by a rosette; lymph vessel one pair. Parasitic in marine turtles

*Type species:* *Parangiodictyum satyabrati* n g , n.sp

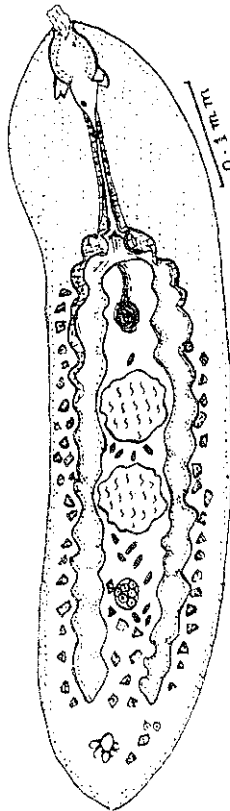


Fig 1 - *Parangiodictyum satyabrati* n g , n.sp - whole mount

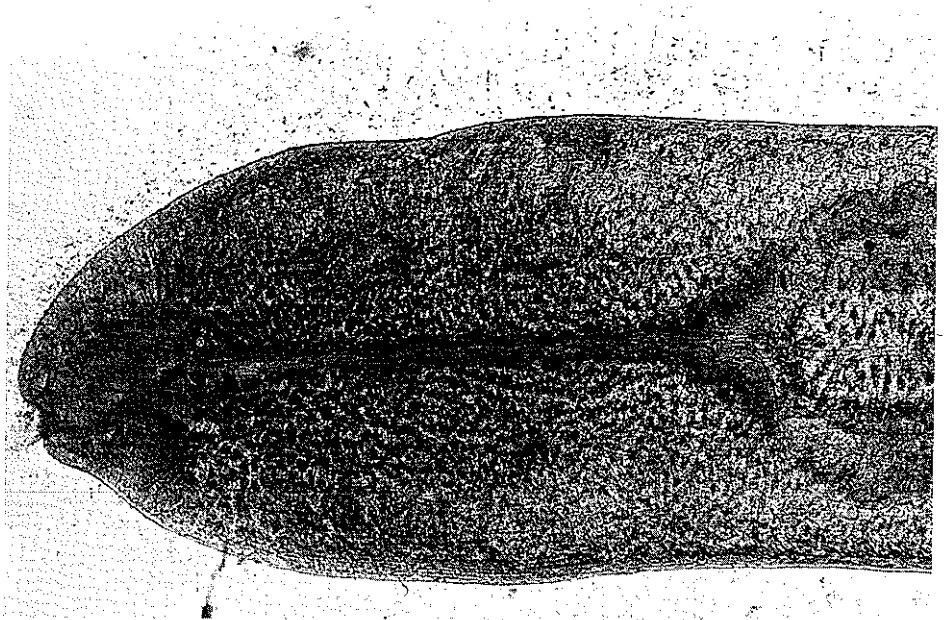


Plate 1 - Photo micrograph of anterior portion of *Parangiodictyum satyabrati* n. g., n. sp

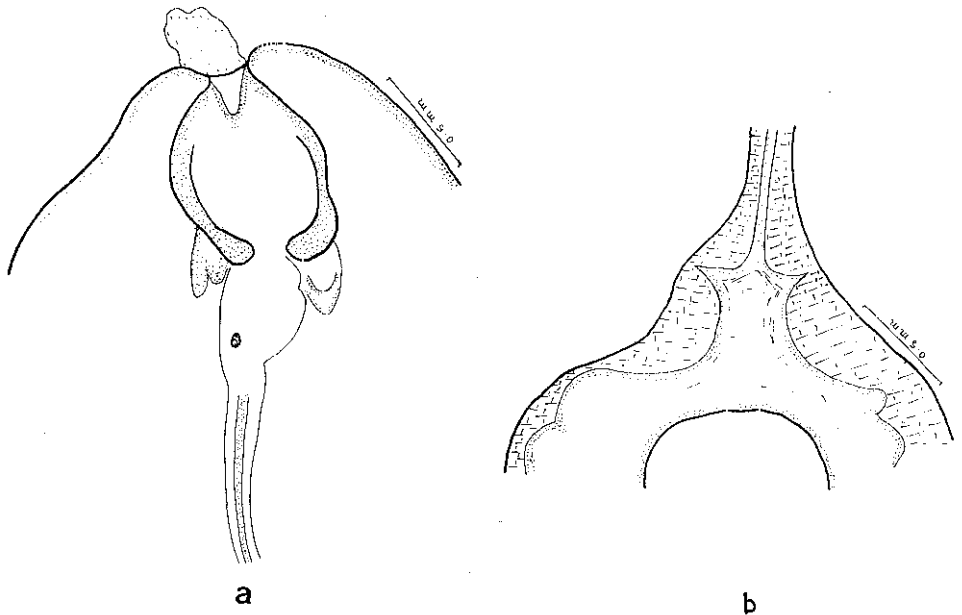


Fig. 2 - a - Showing genital pore and pharyngeal gland; b - Oesophageal horn

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