

## A HOLOTRICHOUS CILIATE FROM THE COELOM OF CHAETOGNATHS

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A HOLOTRICHOUS ciliate was observed from the body cavity of Chaetognaths, *Sagitta enflata* Grassi and *Sagitta bedotti* Beraneck. In coastal waters of India *S. enflata* and *S. bedotti* are common species<sup>1</sup>. Although thousands of Chaetognaths were examined for parasites and associates only a few specimens were found to be infected with the ciliate *Metaphrya sagittae*.

So far no work on the parasites of Chaetognaths has been recorded from Indian waters and hence the present study was undertaken.

Zooplankton samples collected with Bongo net of 0.5 mm mesh width were used for this study. Plankton samples were preserved in formaldehyde solution in sea water. Chaetognaths were sorted out and examined for parasites. The infested host specimens were separated for detailed study.

This ciliate was obtained from *S. bedotti* from off Tuticorin, latitude 8°10' north and longitude 78°56' east at 75 m depth and it was found from *S. enflata* from off Cape Comorin, latitude 7°53.5' north and 77°33' east at 40 m depth and from off Dwaraka, latitude 21°47' north and longitude 68°21' at 80 m depth. From the host *S. enflata* a maximum of 33 individuals were noticed from a single specimen.

The body of *M. sagittae* is pear-shaped, measuring about 0.25 mm by 0.13 mm. It is almost transparent

and quite colourless. The anterior end is distinctly narrower than the posterior end which is rather rounded (figure 1). The body appears to be symmetrical except the anterior end which is deflected towards one side. Body cilia are present in longitudinal rows. The organism is devoid of mouth or any other external structure. The cytoplasm is not sharply differentiated into ectoplasm and endoplasm. The meganucleus is large and reticular and the micronucleus is small rounded structure.

This ciliate was first observed by Ikeda in 1917 from *Sagitta* and described as a new genus and new species<sup>2</sup>. Since Chaetognaths are more or less transparent the associates or parasites were quantitatively recorded. The parasites reported in many papers have been summarised by Dolffus<sup>3</sup> and Alvarino<sup>4</sup>. Nagasawa and Marumo described this ciliate from Suruga Bay, Japan<sup>5</sup>.

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## ICHTHYOPHTHIRIASIS IN AQUARIUM FISHES—A NOTE ON THE PATHOGENICITY AND LIFE CYCLE OF THE PARASITE

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ICHTHYOPHTHIRIASIS or Ich disease, caused by *Ichthyophthirius multifiliis* was observed in aquarium fishes in Mangalore. The disease caused heavy mortalities of aquarium fishes in two tanks. The introduction of new fishes to the tank without quarantaining was believed to be the possible source of infection.

Infected fishes showed the presence of characteristic small white spots on fins and skin. The spots containing the developing and matured parasites were easily seen with the naked eye. Positive diagnosis was done

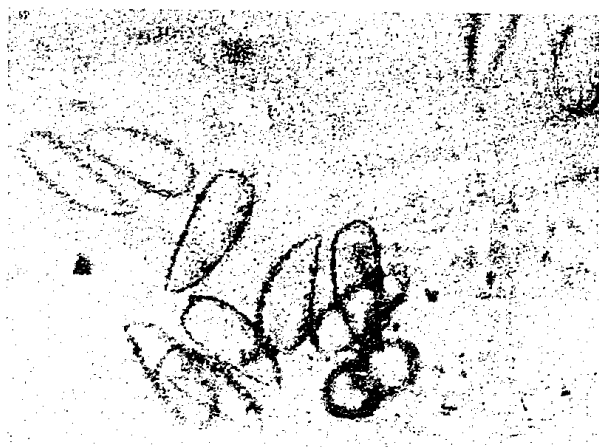


Figure 1. *Metaphrya sagittae* from the body cavity of *S. enflata*.