

**A VIVIPAROUS NEMATODE, *PHILOMETRA* SP. IN THE OVARIES
OF *OTOLITHUS ARGENTEUS* (CUVIER)**

While engaged in the study of spawning periodicity of certain teleostean fishes of Mangalore area, a parasitic nematode was observed in the ovary of *Otolithus argenteus* (Cuv.). The fish measuring 203 mm. in total length and harbouring the parasite within its gonads appeared to be normal in its external body features. The parasitised ovaries of the fish presented dark red colouration and through the semi-transparent ovarian walls some of the coils of the parasite within could be seen. Except in the anterior one-third of the left ovary and the apical region of the right one where a few ovarian immature eggs measuring 0.019 to 0.134 mm. were found, the rest of the space in both the ovaries was occupied by the coils of the parasite. When the coils were unravelled, it was observed that in the region of the oviduct the part of the body of the parasite lying within the left ovary was continuous with that lying in the right ovary.

The parasite worm which is a female is long and slender measuring 537 mm. in length and 1 to 1.5 mm. in diameter in the anterior and middle regions respectively. In the posterior region, however, the diameter is only about 0.5 mm. The anterior

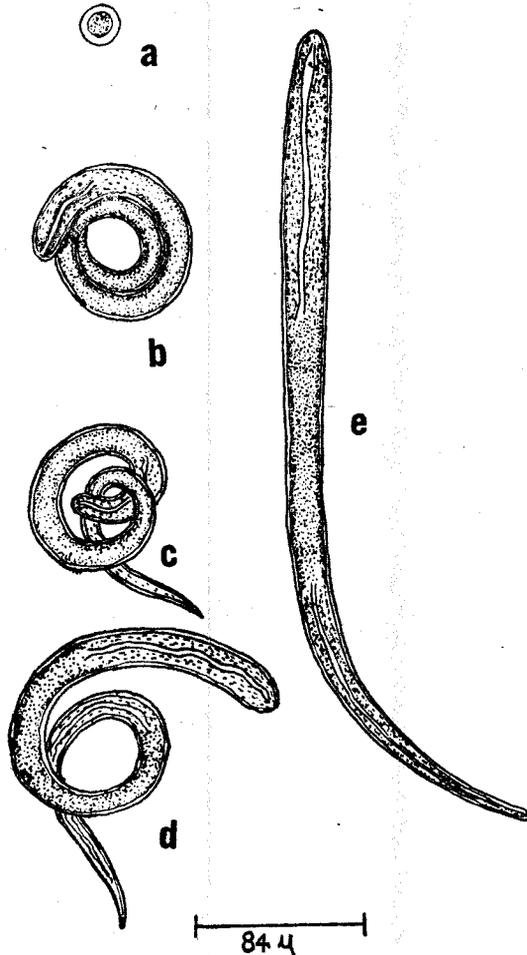


FIG. 1. Various stages of the developing stages of *Philometra* sp. (a) encysted egg; (b) coiled young parasite; (c, d) stage of the parasite emerging from the cyst; (e) completely uncoiled young parasite.

end is rounded having a mouth which is simple and without lip-like structures. The posterior end is bluntly rounded. The anal opening is sub-terminal. The uterine branches meet forming a continuous tube.

The parasite is viviparous and a large number of slender young ones varying in length from 0.30 to 0.67 mm. were found in the uterus. There were numerous encysted eggs in different stages of development. Some of the stages of the developing embryos are shown in Fig. 1 a to e.

The characters mentioned above agree very closely with those of the family Philometridae of the order Filarioidea, as given by Baylis (1939). The presence of a funnel shaped mouth, a short oesophagus and bluntly rounded short tail show that this form belongs to the genus *Philometra*, the adults of which are known to occur, 'in the body cavity, genital glands or connective tissues of fishes' (Baylis, 1939).

In all cases where the adult males have been recorded they are known to be much smaller than the females. No adult males of this parasite were obtained and hence it was not possible to ascribe it to any known species under the genus *Philometra*.

It may be of interest to note here that larval forms of *Porrocaecum* spp. have been recorded from *Otholithus maculatus* (Cuvier) as cited by Baylis (1936).

The presence of parasite in the gonads is undoubtedly harmful to the host fish as has been evidenced by the atrophy of the major part of the ovaries except the apical regions where alone a few but very immature eggs were found in the specimen examined.

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