

At low tide, during February-April and sometimes also in August and October, the intertidal zone of the sandy beach is often found to exhibit widespread dull green colour which develops under the brilliance of the sun. Examination of this coloured sand revealed the presence of dense populations of *Aphanocapsa littoralis* Hansg. var. *macrocoeca* Hansg. adhering to the sand grains with the help of their mucilaginous envelope.

Individual cells varied from 3.5-6.0 μ in diameter and isolated individual cells kept in watch glasses showed active wriggling movement when agitated. Kept undisturbed, the cells clustered around the water margin in groups and adhered to the glass and the grains of sand.

During day time at low tide these organisms appear in thick, evenly spread, green patches in the sandy beach. At the time of high tide these green patches disappear and therefore, the occurrence of the colour seems to synchronize with the tidal periodicity.

It is observed, that no such colour develops in the beach when the low tide is exclusively confined to the night. However, the green patches that develop during day time at low tide continue to exist in the beach at night as long as that low tide remains. It shows that the development of the colour has some relation to light also and a more detailed study on this will throw light on the probable causes of this behaviour of the alga.

I am grateful to Dr. R. Prasanna Varma for identifying the alga. I wish to express my sincere thanks to Dr. R. Raghu Prasad, Research Officer (Marine Biology), Central Marine Fisheries Research Institute, Mandapam Camp, for helpful criticism.

Central Marine Fisheries Research Unit,
Karwar.

A. NOBLE

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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

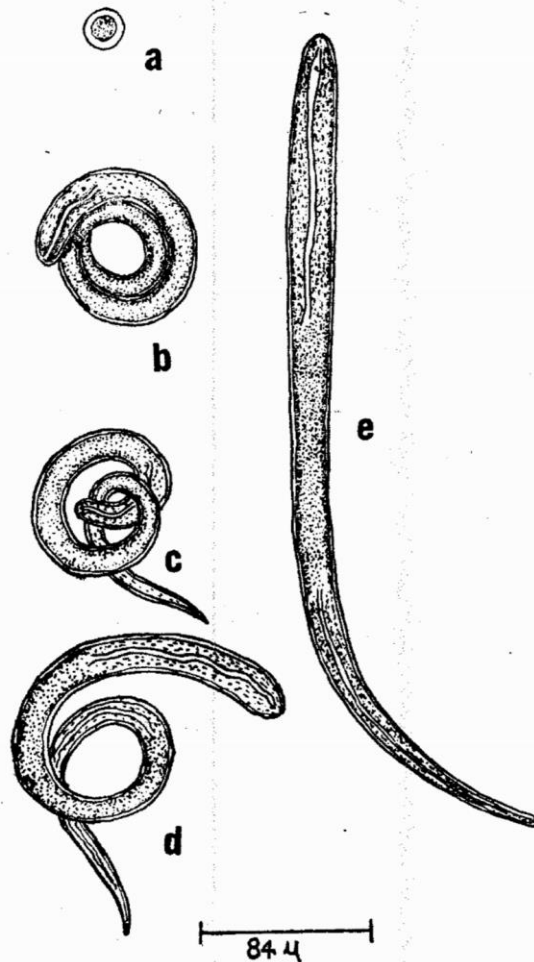


FIG. 1. Various stages of the developing stages of *Philometra* sp. (a) encysted egg.; (b) coiled young parasite; (c, d) stage of the parasite emerging from the cyst; (e) completely uncoiled young parasite.

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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Central Marine Fisheries Research Unit,
Bolar, Mangalore-1.

G. G. ANNIGERI

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A NOTE ON AN ABNORMAL *LEONNATES JOUSSEAUMEI* GRAVIER (FAMILY NEREIDAE—POLYCHAETA)

The power of regeneration of lost or damaged parts in polychaetes is very well known. In most of the Nereidiform polychaetes new segments replace the lost segments and they can be generally recognised by being smaller than the rest at first. Moreover, not only can new segments arise at the hind end, but a new head can be formed at the anterior end. These regenerated heads are smaller at first than the rest of the body, but soon grow to a normal size. This extensive power of regeneration generally remains latent till injury provides the stimulus and is of extreme value to the polychaetes.

On 14-10-1961, a worm measuring 75 mm. (97 setigers) was collected by breaking open a dead coral stone taken from Palk Bay near Mandapam at a depth of 1 metre and was identified as *Leonnates jousseumei* Gravier. Plate I shows the anterior end of the animal which exhibited an interesting type of abnormality. A dorso-lateral split has occurred at the anterior end affecting the first three setigers only, as a result of which it is divided into two unequal members. The smaller member on the right side carries four tentacular cirri and a single poorly developed palp. The