

Zeylanema spinosa sp. nov. (*Camallanidae*)
from a Malayan freshwater fish

[*Zeylanema spinosa* sp. nov. (*Camallanidae*)
chez un Poisson d'eau douce de Malaisie]

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Introduction

Six Camallanid Nematodes have previously been recorded from Malayan freshwater fishes (Fernando and Furtado, 1963). They are two species of the genus *Camallanus*, two of *Zeylanema*, and two of *Procamallanus*. A new Camallanid, *Zeylanema spinosa* sp. nov., is reported in this communication.

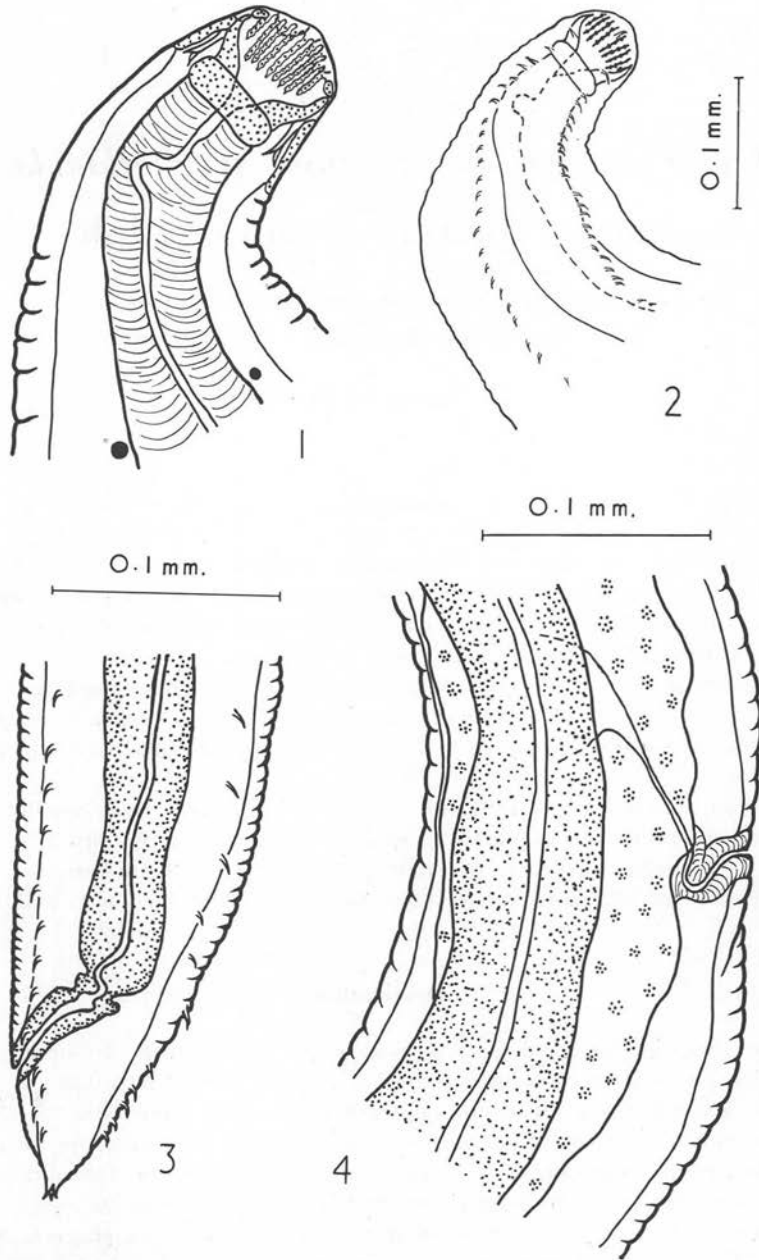
Two female specimens of this Nematode were obtained from the intestine of the anabantid fish, *Betta picta* (Valenciennes), collected from a stream in Sembawang, Singapore. The worms were fixed in 70 % alcohol and examined in Amman's lactophenol.

A brief account of this Helminth was incorporated in a paper entitled « Some studies on freshwater fish Helminths », which was presented at the first Unesco Symposium on Scientific Knowledge of Tropical Parasitology of South-East Asia, held at the University of Singapore during 4-9th November, 1962 (Fernando and Furtado, 1962).

Description

The worms are large and fusiform, possessing a finely transversely-striated cuticle. The cuticle possesses four longitudinal rows of cuticular spines which occur at irregular intervals, and which are distributed in two rows on each lateral side (fig. 2). The buccal capsule consists of two heavily sclerotised lateral valves, each possessing nine armed longitudinal ridges (fig. 1). There are about seven hooks per buccal ridge. The median ridges extend the whole length of the buccal valve, whereas the outermost ones are shorter. The buccal capsule leads into a heavily sclerotised pharynx, which is followed by a straight claviform muscular oesophagus and a straight cylindrical glandular oesophagus. There is a pair of tridents measuring about 0.03* in length.

* All measurements in millimeters.



Zeylanema spinosa sp. nov.

FIG. 1. — Anterior end showing alimentary structures
(Extrémité antérieure montrant l'appareil digestif)

FIG. 2. — Anterior end showing the distribution of cuticular spines
(Extrémité antérieure montrant la disposition des épines cuticulaires)

FIG. 3. — Posterior end exhibiting the tail and cuticular spines
(Extrémité postérieure avec l'appendice caudal trifide et les épines cuticulaires)

FIG. 4. — Vulvular region in the female
(Région vulvaire chez la femelle)

FEMALE :

One specimen was measured. It is 6.996 long and 0.231 broad. The buccal capsule measures 0.054 in longitudinal length and 0.057 in dorsoventral length. The pharynx has a length of 0.012 and a breadth of 0.048. The muscular oesophagus measures 0.231 in length and 0.066 in maximum breadth. The glandular oesophagus is 0.891 long and 0.072 broad. The nerve ring surrounds the muscular oesophagus 0.180 from its anterior end, and 0.240 from the anterior end of the worm. The tail is conical and short, and terminates in three digits (fig. 3). The anus is 0.099-0.132 from the tip of the tail. The vulva is anterior of mid-body, dividing the worm in the ratio of 1.0 : 1.4. The lips of the vulva are prominent (fig. 4).

Discussion

This species is characterised by the possession of nine armed longitudinal buccal ridges per valve, the presence of tridents, the distribution of cuticular spines in four longitudinal rows, the presence of a trifid tail, and the position of the vulva anterior of mid-body. It is the first Camallanid known to possess cuticular spines. It is markedly different from other species of *Zeylanema*.

The species is named *Zeylanema spinosa* sp. nov. since it bears cuticular spines.

Types : Deposited in the helminthological collection of the United States National Museum, Washington, D. C. (Cat. No. 60.305).

Type Host : *Betta picta* (Val.).

Locality : Sembawang, Singapore.

Habitat : Intestine.

Summary

A new *Camallanidae* is recorded from a Malayan freshwater fish. It is *Zeylanema spinosa* sp. nov. from the anabantid *Betta picta* (Val.).

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Résumé

Un spécimen de *Camallanidae*, provenant d'un Poisson d'eau douce originaire de Malaisie, a été étudié. Il s'agit d'une espèce nouvelle, *Zeylanema spinosa*, récoltée chez le Poisson « anabantide » *Betta picta* (Val.). L'espèce est décrite et figurée.

Z. spinosa est caractérisé par la présence de neuf crêtes longitudinales armées par valve latérale de la capsule buccale, des tridentés et des épines cuticulaires disposées en quatre rangées longitudinales, une queue trifide et une vulve en position anté-équatoriale. C'est le premier *Camallanidae* connu possédant des épines cuticulaires.

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