

Papéis Avulsos de Zoologia

A NOTE ON A NEW SPECIES OF *STRONGYLOIDES* FROM THE TOAD (NEMATODA, STRONGYLOIDIDAE)

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ABSTRACT

Strongyloides bufonis, a new species collected in the intestine of *Bufo melanostictus* (type-locality, Hyderabad Deccan, India), is described. The structure of the body as well as its measurements, distinguish the new species from all other species included in the genus.

Strongyloides bufonis, sp. n.

(Figs. 1-4)

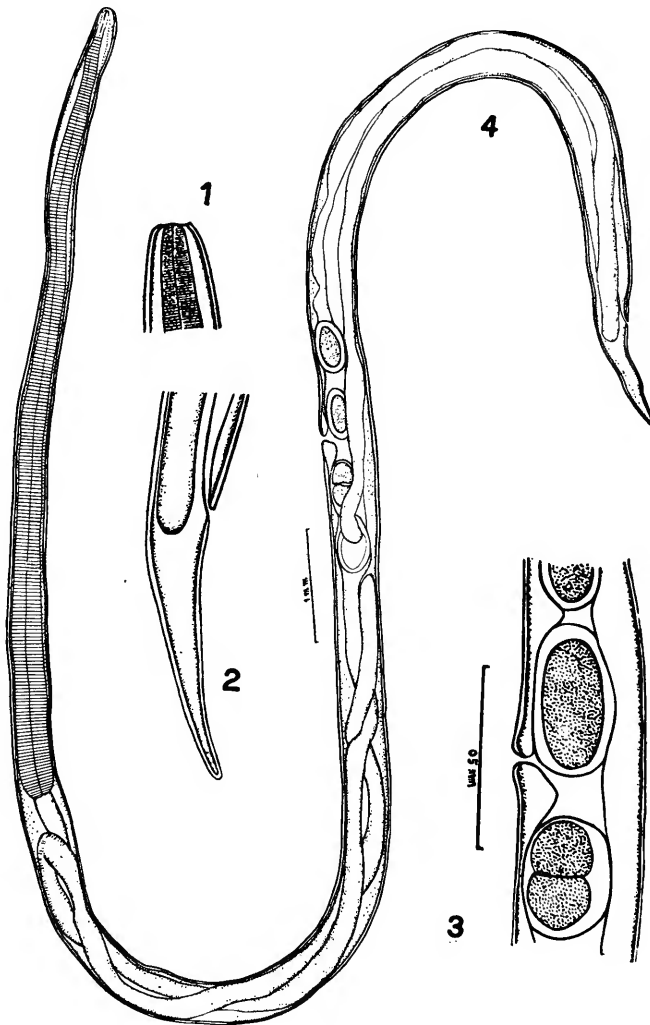
The account of the new worm is based on material collected on several occasions from the intestine of the common toad. These worms are very small in size, measuring 1.5 to 1.8 mm in length and 0.023-0.037 mm in maximum width (at the level of the vulva). The body is cylindrical in shape; it tapers gradually in its oesophageal region, whilst posteriorly it forms a conical and pointed tail measuring .06-.07 mm in length. The cuticle bears very fine transverse striations which can be seen only under high magnification. Distinct lips are absent. The head bears two pairs of submedian cephalic papillae and a pair of laterally situated amphids. The mouth opens directly into a cylindrical oesophagus, a distinct vestibule being absent. It varies in length from 0.37 to 0.51 mm and occupies roughly about 1/3 of the body length. It is followed by a narrow intestine which runs to the caudal end of the body where it communicates with a short and narrow rectum, the latter opening to the exterior at the anus. The vulva, which has prominent lips, is located at about the junction of the middle and posterior thirds of the body, and it opens by means of a short vagina into the divergent uteri. Both the gonads are reflexed forming two loops, one extending anteriorly to the oesophagus and the other reaching the anal region. Each loop can be differentiated into three regions; an uterus containing eggs, a narrow oviduct and a long filiform ovary. The tips of the two ovaries lie opposite to each other immediately anterior to the level of the vulva. As in other species of the genus *Strongylo-*

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loides, ovijector and seminal receptacles are lacking in this worm. The eggs contained in the uteri are segmented. Hatching takes place only after the eggs are voided with faeces of the host. They measure 0.057-0.076 x 0.028-0.039 mm. Cultures were made but it was not possible to obtain the free living males and females



Strongiloides bufonis, sp. n.: 1, lateral view of head-end; 2, lateral view of tail-end; 3, vulvular region; 4, female. (Figs. 1-3 in same scale).

since the development was direct. The larva hatching from the egg is a typical rhabditoid nematode possessing a double bulb oesophagus. After an active period of feeding it changes into a filariform larva which is the infective stage.

Host: *Bufo melanostictus*.

Location: Intestine.

Locality: Hyderabad Deccan (India).

Type specimens are deposited in the museum of the Zoology Department, Osmania University College of Science, Hyderabad-Dn.

The worm described herein differs from all the known species of the genus included the form described from an amphibian host in American, both in structure and measurements of the body.

