

A new species of the genus *Vampirolepis* (Cestoda: dilipididae) from Aurangabad (M.S.) India

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ABSTRACT

Vampirolepis fotedarae sp. Nov. is distinct from other known species of the genus. *Vampirolepis* which is having scolex is well developed and marked off from the neck. The rostellum is large, well developed having two rows of armed hooks, each row containing 16 hooks. The mature segments are two times broader than long. The testes are three in number; cirrus is narrow, thick and coiled. Ovary is large, bilobed placed in the central medulla.

KEYWORDS: *Vampirolepis*, cestode parasites, *Micropus affinis*.

INTRODUCTION

The genus *Vampirolepis* is erected by spassky, 1954 with a type species *Vampirolepis semenovi* from *Erythrina erythrina* at Smolensk, Oblast. Later on Malhatra and Capoor added *V. somariensis* from *Turdoides striatus*, 1980 at Allahabad, U.P., India. The present communication deals with the description of a new species of the genus *Vampirolepis* of Aurangabad, M. S., India, from the intestine of swift, *Micropus affinis*.

DESCRIPTION

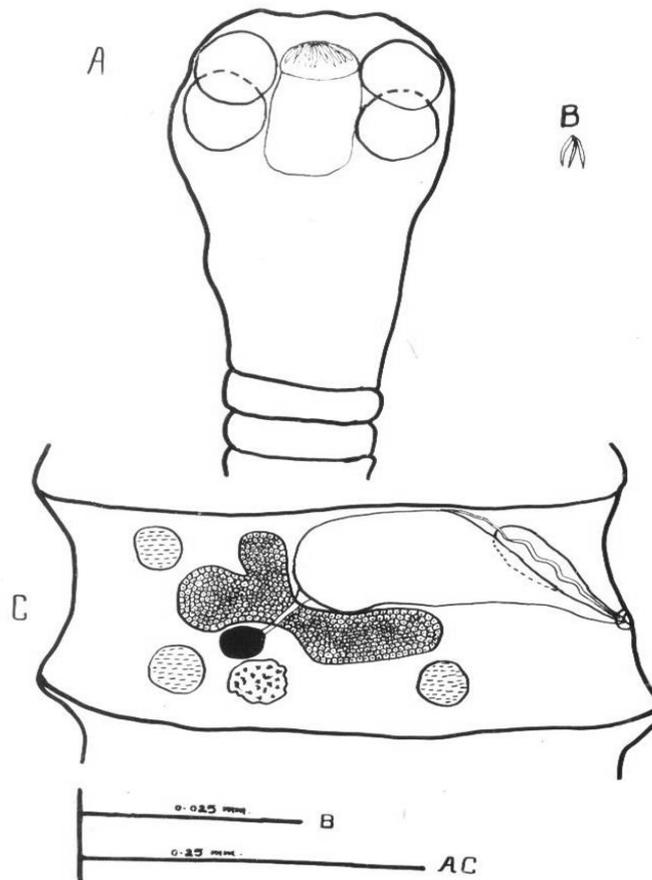
The present species *Vampirolepis fotedarae* n. sp. is reported from the intestine of swift, *Micropus affinis* collected in the month of February, 2008 at Aurangabad, M.S., India. The tapeworms were of medium size and with thick musculature. The scolex is well developed, almost globular and measuring 0.17 x 0.22 mm in length and breadth and marked off from the neck. The rostellum is large, well developed and measures 0.03 x 0.06, in length and breadth. The rostellar sac is oval, elongated, extends upto the posterior margin of suckers with muscular band in the centre and measures 0.12 x 0.07 in length and breadth. The rostellum is armed with two rows of hooks, each row containing 16 hooks. All hooks are similar in shape and size and measure 0.01 x 0.002 in length and breadth. The suckers are large, oval; four in number, in two pairs, each pair overlap each other and measure 0.07- 0.06 x 0.07 - 0.06 in length and breadth.

The mature segments are broader than long, almost two times broader than long, with

concave lateral borders and measure 0.13 - 0.12 x 0.30 - 0.28 in length and breadth. The testes are three in number, large, round to oval in shape, in central medulla, one in poral and two in aporal half of the segment and measure 0.02 x 0.02 in length and breadth. The cirrus pouch is oval, elongated, obliquely placed, extends beyond the longitudinal excretory canals and measure 0.02 x 0.01 in length and breadth. The cirrus pouch is broader at posterior end, the cirrus is spiral, unarmed, contained within the cirrus pouch and measures 0.07 x 0.02- 0.01 in length and breadth. The cirrus narrow coiled and measures 0.08 x 0.002 in length and breadth. The vas deferens is narrow, short and measures 0.02 x 0.001 in length and breadth.

The ovary is large, bilobed, placed in central medulla, with small, short, round, blunt acini and measures 0.13 x 0.05 - 0.02 in length and breadth. The left lobe of the ovary is horse-shoe shaped. The vagina is a thin tube, posterior to cirrus pouch, runs transversely, crosses the longitudinal excretory canal, enlarges into a oval, transversely placed, large, receptaculum seminis, which measures 0.13 x 0.05 in length and width. The vagina runs posteriorly reaches and opens into the ootype, and measures 0.03 x 0.007 in length and breadth. The ootype is small, oval, placed in the curved posterior region of the ovary and measures 0.02 x 0.01 in length and breadth. The vitelline gland was round, with irregular margin, located at the midposterior lateral side of the segment and measures 0.02 x 0.02 in length and breadth. The genital atrium is oval, marginal, 0.01 in length and 0.006 in breadth.

It opens by the genital pores, which are unilateral, located at the midlateral side of the segment. It measures 0.005 x 0.001 in length and breadth. The gravid segments were not available.



***Vampirolepis fotedarae* n.sp.**

A. Scolex

B. Hooks

C. Mature Segment

RESULTS AND DISCUSSION

The worm under discussion comes under the genus *Vampirolepis* Spassky, 1954:

1. The worm under discussion differs from *V. semenovi* which is having the rostellar hooks 8-10 in number, testes 3, overlap each other, in a transverse row; cirrus pouch comparatively short, reaches upto the longitudinal excretory canal and the ovary and the vitelline gland median.

2. The present tapeworm differs from *V. somariensis* which is having the rostellar hooks 8-18 (13) in number, testes 3, do not overlap, in a transverse row; cirrus pouch elongated, narrow, extends beyond the longitudinal excretory canal, reaches upto the centre of the segment; ovary bilobed, in the centre of the segment and vitelline gland triangular.

3. The present form differs from *V. singhi* n.sp. (described earlier), which is having the rostellar hooks 6 - 8 in number, scolex large, quadrangular; testes 3, large, do not overlap, almost in a transverse, curved row; cirrus pouch elongated, large, cylindrical, extends far beyond the longitudinal excretory canal, reaches 1/3 of the segment medially; ovary bilobed, large, transversely placed, occupying the major portion of central medulla, situated in the posterior 2/3 middle half of the segment, lobes triangular, compact; vitelline gland small, almost dumb-bell shaped, located near the midposterior margin of the segment and the genital pores at 1/4 from the anterior margin of the segments, some additional differentiating characters are given in the comparative chart at the end.

Though the author is not in favor of erecting a new species on the evidence of a single worm, there does not appear to be any alternative and he accordingly proposes the name *Vampirolepis fotedarae* n. sp to this worm, in honor of Dr. D. N. Fotedar, Professor and Head, Post-graduate department of

Zoology at Srinagar, University of Kashmir, (J and K) India.

Type species: *Vampirolepis fotedarae* n. sp.

Host: *Micropus affinis*.

Habitat: Intestine.

Locality: Aurangabad, M.S., India.

Date of collection: February, 2008.

Comparative chart showing the characters of the species of the genus *Vampirolepis* Spassky, 1954.

Characters	<i>V. semenovi</i> Spassky, 1954.	<i>V. somanensis</i> Malhotra and Capoor, 1980
Rostellar hooks	8-10	8-18 (13)
Scolex	-	-
Testes	3, overlap each other, in a transverse row.	3, do not overlap, in a transverse row.
Cirrus pouch	Comparatively short, reaches upto longitudinal excretory canal	Elongated, narrow, extends beyond the longitudinal excretory canal, reaches upto the centre of the segment.
Ovary	Median	Bilobed, in the centre of the segment
Vitelline gland	Median.	Triangular,
Genital pore	-	-
Host	<i>Erythrina erythrina</i>	<i>Turdoides striatus</i>
Locality	Smolensk, Oblast .	Allahabad, U. P., India.

Characters	<i>V. singhi</i> n. sp.	<i>V. fotedarae</i> n.sp.
Rostellar hooks	6-8	30 – 32
Scolex	Large, quadrangular	Small, globular .
Testes	3, large, do not overlap, almost in a transverse, curved row.	3, Small, do not overlap, in a triangle.
Cirrus pouch	Elongated, large, cylindrical extends for beyond the longitudinal excretory canal, reaches 1/3 of the segment medially.	Speculate, extends slightly beyond the longitudinal excretory canal, reaches 1/4 of the segment.
Ovary	Bilobed, large, transversely placed, occupying major portion of the central medulla, situated in the posterior 2/3 middle of the segment,lobes,transangular, compact.	Trilobed, of medium size, obliquely placed, in the centre of the segment, lobes 3, with irregular margin,.
Vitelline gland	Small, dumb-bell shaped, located near the midposterior of the segment.	Round,large,with irregular margin, located in aporal, posterior half of the segment.
Genital pore	At ¼ form the anterior margin of the segment	Just posterior to the meddle of the segment.
Host	<i>Turdoides caudatus</i>	<i>Micropus affinis</i>
Locality	Aurangabad, M.S. India	Aurangabad, M.S. India

Key to the species of the genus *Vampirolepis* Spassky, 1954.

- Vitelline gland round1
Vitelline gland triangular2
1 Rostellar hooks 8-10, testes in transverse row. *V. semenovi* Spassky, 1954.
Rostellar hooks 30-32, testes in triangle*V. foteclarae* n . sp.
2 Rostellar hooks 8-16 testes do not overlap in a transverse row,
cirrus pouch reaches up to the center of the segment.....*V. somariensis*
Malhotra and Capoor, 1980.
Rostellar hooks 6-8, testes almost in a transverse row,
cirrus pouch reaches upto 1/3 of the segment..... *V. singhi* n.sp

ACKNOWLEDGMENT

I am very much thankful to principal, Shri. Shivaji Science & Arts College, Chikhli, Dist. Buldana for providing necessary laboratory facilities.

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