

**Research Article**

**On a New Record of *PSEUDOLIGORCHIS* ( EUCESTODA:  
HYMENOLEPIDIDAE) from *SOREX ARANEUS*  
from Parbhani M.S. India.**

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**ABSTRACT**

A new species of cestode genus *Pseudoligorchis* Johri, 1934 from host *Sorex araneus* Linnaeus 1758 is described taxonomically & anatomically. On a detailed examination of the specimens, it allowed us to erect a new species of genus *pseudoligorchis alii* sp.nov. to accommodate the worms. It shows the remarkable difference from the *pseudoligorchis magnireceptaculus* in the no. of testes, size of ovary, position of genital pore, size of receptaculum seminis and from reported host.

**Key Words-** *Pseudoligorchis*, *Sorex araneus*, Cestode, Parbhani.

**INTRODUCTION**

The genus *Pseudoligorchis* was erected [1] from Bat in Lucknow, India as *Pseudoligorchis magnireceptaculus*. Later on no species is added to this genus.

**MATERIALS AND METHODS**

Two specimens of cestode parasites were collected from the intestine of *Sorex*, *sorex araneus*, (Linnaeus 1758), preserved in 4% formalin, stained with Harri's hematoxylin, passed through various alcoholic grades, cleared in xylene, mounted in D.P.X. and whole mount slide were prepared for further anatomical studies[2]. Drawings are drawn with the aid of camera lucida. All the measurements are given in millimeters.

**DESCRIPTION ( Based on fig. A & B)**

The worms were long, with very thin musculature, whitish in colour, consisting scolex, immature and mature segments. The scolex is small in size, globular in shape, as like pin head, minute, muscular, distinctly marked off from the strobila and measures 0.046 in length and 0.043 (0.038-0.048) in width.

The suckers are four in number, oval in shape, highly muscular, prominent, situated at both side of scolex, two in a each pairs, not overlapping to each other, smaller and larger in size, smaller suckers measures 0.014 (0.013-0.014) in length and 0.014 (0.013-0.015) in width. The larger suckers measures 0.013 (0.014-0.015) in length and 0.015 (0.014-0.017) in width.

The rostellum is poorly developed, crescentric in shape, not protrusible, unarmed and measures 0.001 in length and 0.007 in width. The rostellar sac is well developed, prominent, big in size, cylindrical in shape, elongated, extends upto posterior margin of the suckers, distinctly marked in middle portion of scolex, and measures 0.024 in length and 0.008 (0.006-0.01) in width.

The neck is long in size, broad anteriorly and narrow posteriorly and measures 0.168 in length and 0.030 (0.02-0.041) in width. The mature segments are broader than long, almost two times broader than long, acraspedote, with convex lateral margins, each with a single set of reproductive organs and measures 0.767 in length and 2.178 in width [3].

The testes are medium in size, oval in shape, 10-11 in number beyond the ovary, in two fields of segments, post-ovarian, bounded laterally by longitudinal excretory canals, evenly distributed in each field, and measures 0.080 (0.071-0.089) in length and 0.098 (0.089-0.107) in width.

The cirrus pouch is medium in size, distinct, muscular, cylindrical, elongated in shape, anteriorly directed, crosses the longitudinal excretory canals and measures 0.55 (0.540-0.560) in length and 0.035 in width, cirrus thin tube, contained within cirrus pouch, unarmed, medium in size and measures 0.544 (0.535-0.553) in length and 0.357 in width.

The vas deferens is a short tube, very thin, slightly coiled, and measures 0.303 in length and 0.017 in width. The vagina arises from common genital atrium, thin tube, runs parallel to cirrus pouch, takes a slight turn, forms receptaculum seminis and opens into ootype and measures 0.607 in length and 0.017 in width.

The receptaculum seminis is medium in size, thick, distinct, muscular, oval in shape and opens into ootype and measures 0.303 (0.285-0.321) in length and 0.107 in width. The ootype is smaller in size, rounded in shape, postovarian and measures 0.053 in diameter [4].

The ovary is medium in size, prominent, compact, in single mass, highly muscular,

slightly elongated, oval in shape, situated at anterior or just middle portion of the segment and measures 0.383 (0.374-0.392) in length and 0.160 (0.142-0.178) in width.

The common genital atrium is small in size, just in the middle portion of segment and measures 0.160 in length and 0.089 in width. The genital pore is small in size, marginal, oval in shape, situated at posterior 1/3<sup>rd</sup> of the segment, unilateral, regular in position and measures 0.071 in length and 0.035 in width [5].

A pair of longitudinal excretory canals are thin, situated on each side of segments and measures 0.035 in width.

## **DISCUSSION**

The genus *Pseudoligorchis* was erected by Johri in 1934 from *Bat* in Lucknow, India as *Pseudoligorchis magnireceptaculatus*. The present worm under discussion, comes closer to known species of the genus *Pseudoligorchis* in general topography of the organs but differs due to many characters from *Pseudoligorchis magnireceptaculatus*.

- 1) The present tapeworm, differs from *Pseudoligorchis magnireceptaculatus* Johri, 1934 in having testes 8-12 in number, surrounding the ovary laterally and posteriorly, but in the present form having testes 10-11 in number, beyond the ovary and in two fields of segments.
- 2) The present tapeworm, differs from *Pseudoligorchis magnireceptaculatus* in cirrus pouch which is small in size and reaching to ventral excretory stem but in present form the cirrus pouch is medium in size, distinct, cylindrical and elongated in shape.
- 3) The present tapeworm, differs from *Pseudoligorchis magnireceptaculatus* 1934 in ovary is lobed and sac like; whereas in the present tapeworm the ovary is compact, slightly elongated and oval in shape.
- 4) The present cestode, differs from *Pseudoligorchis magnireceptaculatus* Johri, 1934 in genital pore having unilateral in position, whereas in the

present form it is small, marginal and situated at posterior 1/3<sup>rd</sup> of the segment.

- 5) The present form, differs from *Pseudoligorchis magnireceptaculatus* Johri, 1934 in receptaculum seminis is large in size, whereas in the present form it is medium in size.

The *Pseudoligorchis magnireceptaculatus* Johri, 1934 is reported from the host, *Bat* in Lucknow in India where as the present tapeworm is being reported from *Sorex, sorex araneus* at Parbhani, M.S. India.

As the above noted characters are valid enough, to erect a new species *Pseudoligorchis alii* sp.nov. is proposed in honour of Mehdi Ali, Ex. Professor and Head, Department of Zoology, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad who had contributed much in the field of Parasitology in India.

#### **TAXONOMIC SUMMARY**

Genus : *Pseudoligorchis* Johri, 1934.

Species : *Pseudoligorchis alii* sp.nov.

Type Host: *Sorex araneus* (Linnaeus, 1758).

Habitat : Intestine.

Type Locality : Kadrabad Plot, Parbhani, M.S. India.

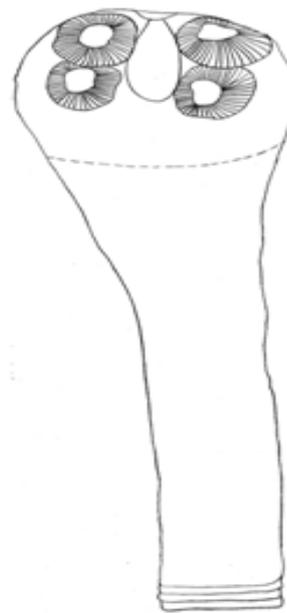
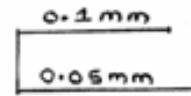
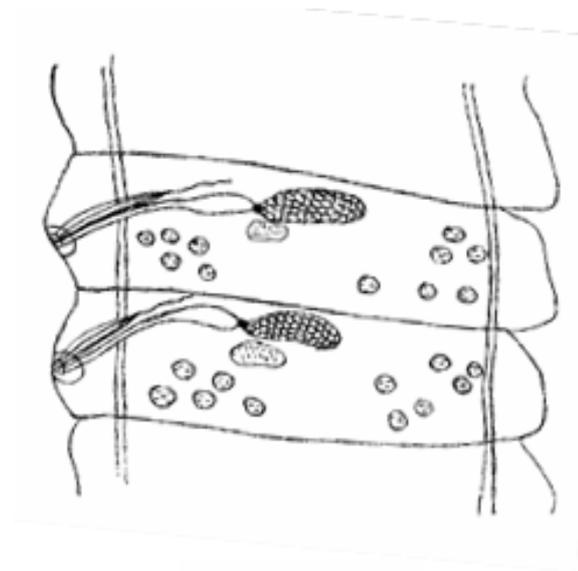
Date of collection: 10<sup>th</sup> March, 2007.

Etymology: The name is proposed in honour of Dr. Mehdi Ali, a well known parasitologist and Ex. Professor and Head, Department of Zoology,

Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

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