STUDY OF PSEUDOBATRACHUS (CAPINGENTIDAE: CARYOPHYLLIDEA)
TAPEWORM: A REVIEW ARTICLE
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ABSTRACT

Presently ten species of the genus Pseudobatrachus are recorded from the intestines of freshwater fishes of Bundelkhand region of India. The author in the present communication describes brief review of the genus along with the key to identification of various species of the genus.

Introduction

The unsegmented tapeworm, genus Pseudobatrachus, family Capingentidae, order Caryophyllidea was erected by two Indian Helminthologists in the year of 2005 with its type species Pseudobatrachus chandra. Later, many researchers included several species in the genus viz. Pseudobatrachus moochendra, Pseudobatrachus madhyapradeshensis, Pseudobatrachus chaitasasi, Pseudobatrachus kenensis, Pseudobatrachus ramchandra, Pseudobatrachus ramsagarasasi, Pseudobatrachus sengari, Pseudobatrachus chaitaensis and Pseudobatrachus govinrangsagarensis. Salient features of the genus are the presence of unsegmented body, partly cortical and partly medullary vitellaria, very long neck, H-shaped ovary and absence of postovarian vitellaria. The species, Pseudobatrachus ramchandra, Pseudobatrachus sengari and Pseudobatrachus govinrangsagarensis are reported from Heteropneustes fossilis while others from Claris batrachus.

Species Diagnosis

1- Pseudobatrachus chandra:


2- Pseudobatrachus moochendra:


3- Pseudobatrachus madhyapradeshensis:

Moderate sized, unsegmented worms. Scolex spoon shaped with apical sucker and accessory
TABLE-1: Comparison of the characters of the species of *Pseudobatrachus*

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Characters</th>
<th><em>P. Chandrali</em></th>
<th><em>P. moolchandra</em></th>
<th><em>P. madhyapradeshensis</em></th>
<th><em>P. chhatrali</em></th>
<th><em>P. keneandalii</em></th>
<th><em>P. Ramchandrai</em></th>
<th><em>P. ramsagarensis</em></th>
<th><em>P. Sengarii</em></th>
<th><em>P. chandlarensis</em></th>
<th><em>P. Govind-sagarensis</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scolex</td>
<td>Oval to round with groove</td>
<td>Spoon shaped without any hold fast organs</td>
<td>Spoon shaped with apical and accessory suckers</td>
<td>Spoon shaped with apical disc and bothridea</td>
<td>Simple and elongated without any hold fast organs</td>
<td>Simple blunt without any hold fast organs</td>
<td>Spoon shaped with groove, bothridea and rostellum</td>
<td>Spoon shaped with bothridea</td>
<td>Simple blunt with groove and two apical disc</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>External Seminal Vesicle</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td>Present</td>
<td>Present</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Internal Seminal Vesicle</td>
<td>Absent</td>
<td>Present</td>
<td>Present</td>
<td>Absent</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td>Present</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Vitellaria</td>
<td>Touches to ovarian lobes</td>
<td>Not touches to ovarian lobes</td>
<td>Not touches to ovarian lobes</td>
<td>Touches to ovarian lobes</td>
<td>Not touches to ovarian lobes</td>
<td>Not touches to ovarian lobes</td>
<td>Not touches to ovarian lobes</td>
<td>Not touches to ovarian lobes</td>
<td>Not touches to ovarian lobes</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Receptaculum Seminis</td>
<td>Absent</td>
<td>Absent</td>
<td>Present</td>
<td>Absent</td>
<td>Present</td>
<td>Present</td>
<td>Absent</td>
<td>Absent</td>
<td>Absent</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Eggs</td>
<td>Operculate</td>
<td>Operculate</td>
<td>Non-operculate</td>
<td>Operculate</td>
<td>Operculate</td>
<td>Operculate</td>
<td>Operculate</td>
<td>Operculate</td>
<td>Operculate</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Host</td>
<td><em>Clarius batrachus</em></td>
<td><em>Clarius batrachus</em></td>
<td><em>Clarius batrachus</em></td>
<td><em>Clarius batrachus</em></td>
<td><em>Heteropneustes fossilis</em></td>
<td><em>Clarius batrachus</em></td>
<td><em>Heteropneustes fossilis</em></td>
<td><em>Clarius batrachus</em></td>
<td><em>Heteropneustes fossilis</em></td>
<td></td>
</tr>
</tbody>
</table>

4- *Pseudobatrachus chhatrasali*[^4]


5- *Pseudobatrachus kenensis*[^5]


6- *Pseudobatrachus ramchandrai*[^6]


7- *Pseudobatrachus ramsagarenisis*[^3]


8- *Pseudobatrachus sengarii*[^9]


9- *Pseudobatrachus chandlaensis*[^10]


10- *Pseudobatrachus govindsagarenisis*[^2]

Key to the various species of the genus, *Pseudobatrachus*:

1. Scolex without any hold fast organs ———————————————————————————— 2
   Scolex with any hold fast organs ———————————————————————————— 4

2. Receptaculum seminis present, vitellaria touches to ovarian lobes —— —— —— ——
   Receptaculum seminis absent, vitellaria not touches to ovarian lobes ——— ——— 3

3. Spoon shaped scolex ———————————————————— — — — — — — — — — — — — — — — —
   Simple blunt scolex ———————————————————— — — — — — — — — — — — — — — — — — 7

4. Scolex with rostellum ———————————————————— — — — — — — — — — — — — — — — — — — 5
   Scolex without rostellum ———————————————————— — — — — — — — — — — — — — — — — — — 5


References


