

On new species of the genus *Polypocephalus*, Braun, 1878 with its new species

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Abstract

Present research communication deals with new species of the genus *Polypocephalus*, Braun, 1978.

Keywords: Cestode, *Polypocephalus*, New species.

INTRODUCTION

Braun (1878) [1] erected a new genus polypocephalus with its type species *P. radiates* which was characterized by the presence of tentacles and suckers on the scolex. Linton (1889) [2] obtained a new species of the cestode from the intestine of trygon centrura which he named *Parataenia medusia*. The scolex of linton's species bears a close resemblance to that of Braun's *P. radiates*, Shipley and Hornell (1906) [3] described two new species of cestode *Rhysanobothrium uarnakense* and *Anthobothrium pulchrum* from *Trygon uarnak* and *Trygon sephen* respectively. Both these resemble the genus *Polypocephalus* Braun (1878) [1] in the characters of their scolices. It seems evident that these authors had not seen either Braun's or Linton's work, for they refer to the tentacles on being very curious and as far as we know unique amongst cestode. In 1912 Southwell [4] described a new cestode *Parataenia elongata* from the intestine of *Trygon kuhli*. Woodland (1930) [5] made a detailed study of *Parataenia elongata* Southwell and *Parataenia medusia* Linton and confirmed southwell's view that the two genera *Polypocephalus* and *Parataenia* were synonymous. Southwell considered *Thysanobothrium uaranakense* Shipley and Hornell and *Parataenia elongata* southwell, to be synonymonymous with *Polypocephalus radiatus* Braun but as neither Braun nor Shipley and Hornell have described the genital organs. It is doubtful whether these three species are synonymous. Subhpradha (1951) [6] redescribed *P. radiata* Braun and *P. medusia* Linton from *Rhynchobatus granulatus* respectively. She reported five new species i.e. *P. rhinobatidis* from *Rhinobatus granulatus*, *P. vitellaris* from *Rhynchobatus dieddensis*, *P. lintoni* from *Rhynchobatus dieddensis*, *P. corooatus* from *Rhynchobatus dieddensis* and *P. affinis* from *Rhinobatus granulatas* from madras (East Coast to India). Shinde (1976) [7] redescribed *P. rhinobatidis* Subhpradha (1951) [6] from *Trygon* Species, from west coast of India. In 1986 Jadhav et al. (1986) [8] added one new species i.e. *P. ratnagiriensis* from *Trygon zugei*.

The present communication deals with a new species i.e. *Polypocephalus waltairensis* n.sp. from *Carcharias acutus* at

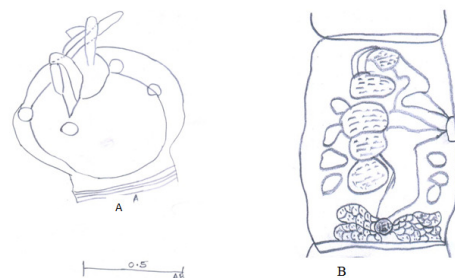
Kakinada *Rhynchobatus djeddensis* at Kakinada, A.P., (East coast of India).

DESCRIPTION

Five specimens of the cestodes were collected from the spiral valve of *Carcharias acutus* at waltair, A.P. (East coast of India), India, in the month of April, 1988.

The scolex medium size, almost oval in shape broader in the middle and measures 0.893 in length 0.412 – 0.898 in breadth. scolex divided two regions, anterior and posterior, anterior region semicircular, small from which a crown of five tentacles arises and measures 0.733 in length, 0.364 – 0.703 breadth, posterior region large, having four, small, round accessory suckers, situated in two pairs, measure 0.082-0.092 in dia, the neck in absent.

The neck is absent. Mature segments longer than broad, almost two times longer than broad, almost two times longer than broad and measure 0.0776 – in length and 0.407 – 0.509 in breadth, testes large in size, oval, six, in the central medulla of the segment, prevovarian, from the ovary to the anterior margin of the segments and measure 0.116 – 0.155 in length and 0.087 – 0.101 in breadth, cirrus pouch medium, oval, obliquely placed, almost at 1/3rd of segment, opens marginally, extends medially upto the centre of the segment, measures 0.189 – 0.199 in length, 0.067 – 0.106 in breadth, cirrus thick, wide proximally, narrow distally, situated within the cirrus pouch, measures 0.160 in length, 0.048 in breadth, vas deferens thick, a wide tube, runs towards, anterior side of the segments coiled, measures 0.271 length, 0.024 – 0.038 breadth, ovary bilobed, small, butterfly shaped, in appearance with 3-4 acini, placed near the posterior margin of the segments, measures 0.320 in length and 0.106 – 0.121 in breadth, vagina a wide tube, posterior to the cirrus pouch starts from the genital pore, takes a posterior turn, runs obliquely, reaches and opens into the ootype, measures 0.412 – 0.509 in length, 0.082 – 0.097 breadth. Ootype small size, round shape, anteroventral to the ovary measures 0.048 diameter. vitellaria follicular, situated at the lateral sides of the segments.



Received: June 18, 2012; Revised: July 19, 2012; Accepted: Aug 30, 2012.

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DISCUSSION

1. In the worm under discussion, the scolex is medium in size, oval in shape, anterior region medium, semicircular, tentacles unbranched, 5 in numbers, testes 6 in number, oval in central medulla cirrus pouch oval in shape, obliquely placed 1/2 of segments vagina posterior to the cirrus pouch and vitellaria follicular, in a single row on each side of the segments differs from *p. radiates* which is having the scolex distinct from body tentacles unbranched, single, testes 4 vas deferens continue inside the cirrus pouch, cirrus pouch small, conical, transversely placed, reaches 1/2 medially vagina along the cirrus, uterus 'Y' shaped and vitellaria granular, do not extend below the ovary.
2. The present worm differs from *p. affinis* which is having the scolex distinct from body tentacles 4 in number branched, occur in pairs, testes 6 in number cirrus pouch small, oval, elongated, reaches 1/2 medially and vitellaria granular, extend below the ovary.
3. The present cestode differs from *p. coronatus* which is having the scolex distinct from body, tentacles branched, occurs in pair, 10 in number testes 4 in number, vas deferens continue inside cirrus pouch, cirrus medium in size, round in shape, reaches 1/2 medially uterus straight and vitellaria follicular, extend below the ovary.
4. The present worm differs from *p. lintoni* which is having the scolex distinct from body. Tentacles unbranched, single; testes 4 in numbers, vas deferens continue inside the cirrus pouch, cirrus pouch medium in size, tubular, anteriorly diverted, reaches 1/2 medially; vagina posterior to cirrus pouch, uterus straight and vitellaria follicular, extend below the ovary.
5. The present cestode differs from *p. medusia* which is having the scolex distinct from body, tentacles unbranched, single; testes 4 in number cirrus pouch large oval elongated, anteriorly diverted, vagina posterior to cirrus pouch, uterus bent and vitellaria extend below the ovary.
6. The present tapeworm differs from *p. pulcher* which is having scolex distinct from body, tentacles branched, four in number and other characters not mentioned
7. The present form differs from *p. rhynchobatis* which is having the scolex distinct from body, tentacles unbranched, single. 12 in number. Testes 4 in number, vas deferens do not continue inside the cirrus pouch almost quadrangular, medium in size, posteriorly, uterus bent and vitellaria extend below the ovary.
8. The present tapeworm differs from *p. rhynchobatis* which is having the scolex distinct from body, tentacles unbranched, single 11 in number, testes 6 in number cirrus pouch oval medium in size, uterus straight and vitellaria extend below the ovary.
9. The present form differs from *p. vitellaris* which is having the scolex not distinct from body tentacles unbranched single 26-27 in number testes 4 in number vas deferens continue inside the cirrus pouch cirrus pouch medium in size, oval in shape anteriorly directed, reaches 1/2 medially vagina posterior to cirrus pouch, uterus bent and vitellaria extend below the ovary.
10. The present worm differs from *p. braunii* which is having the scolex distinct from body tentacles unbranched single 14 in number testes 6 in number vas deferens do not continue inside the cirrus pouch vagina posterior to cirrus pouch and vitellaria extend below the ovary.
11. The present cestode differs from *p. katpurensis* which is having tentacles unbranched single, 14 in number, testes 6 in number, vas deferens do not continue inside the cirrus pouch, cirrus pouch oval, small directed anteriorly reaches 1/2 medially, vagina posterior to cirrus pouch and vitellaria extend below the ovary
12. The present form differs from *p. alii* which is having the scolex distinct from body. Tentacles unbranched, single. 13 in number, testes 6 in number cirrus pouch oval, small curved elongated, transversely placed, extend 1/2 medially, vagina posterior to cirrus pouch, uterus saccular and vitellaria granular, extend below the ovary.
13. The present tapeworm differs from *p. thapari* which is having the scolex distinct from body, tentacles unbranched. Single 14 in number testes 6 in number, cirrus pouch small, oval, directed anteriorly, reaches 1/3 medially, vagina posterior to cirrus pouch and vitellaria granular, extend below the ovary.
14. The present worm differs from *p. singhii* which is having the scolex distinct from body, tentacles unbranched, single 15 in number, vas deferens do not continue inside the cirrus pouch, cirrus pouch oval medium in size, directed anteriorly. Elongated, reaches 1/3 medially, vagina posterior to cirrus pouch and vitellaria granular, extend below the ovary vulva at genital pore, uterus saccular and vitellaria granular, extend below the ovary.
15. The present cestode differs from *p. ratnagiriensis* which is having scolex quadrangular in shape, distinct from body, tentacles unbranched, single, 9 in number, testes 6 oval, in a single row vas deferens short, continue inside the cirrus pouch, cirrus pouch oval, large, vagina posteroventral pouch and vitellaria follicular, 100-140 in number, in four rows.
16. The present worm differs from *p. trygoni* which is having the scolex distinct from body, tentacles unbranched, single, testes 6 in a single row vas deferens continue inside the cirrus pouch cirrus pouch oval in shape, large in size vagina posteroventral to cirrus pouch, short, thin and vitellaria follicular, in two rows on each side.

The above noted characters are valid enough, to erect a new species for these worms and hence the name *Polypocephalus waltirensis* n.sp. is proposed after the locality.

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| Type species | <i>Polypocephalus waltirensis</i> n.sp. |
| Host | <i>Carcharias acutus</i> |
| Habitat | spiral valve. |
| Locality | waltair, A.p. (East coast of india) india. |
| Date of collection | 10 th April, 1988. |

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