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 Polypcephalus 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 kuhl. 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 synonymyous with Polypocephalus radiates Braun but as neither Braun nor Shipley and Hornell have described the genital organs. It is doubtful whether these three species are synonymous. Subhapradha (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.coroatius from Rhynchobatus dieddensis and P.affinis from Rhinobatus granulatas from madras (East Coast to India). Shinde (1976) [7] redescribed P. rhinobatidis Subhapradha (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 waltairesis 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 – 0.703breadth, 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, preovarian, 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 unto 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 0.271length, 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.
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 vitellaris 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 vitellaris 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 straight and vitellaris granular, extend below the ovary.

6. The present tapeworm differs from p. pulcher which is having scolex distinct form body, tentacles branched, four in number and other characters not mentioned

7. The present form differs from p. rynchobatidis which is having the scolex distinct from body, tentacles unbranched, single, 12 in number. Tenstes 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. rynchobatis which is having the scolex distinct form 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 ½ medially vagina posterior to cirrus pouch, uterus bent and vitellaria extend below the ovary.

9. The present form differs form p. vitellaris which is having the aclex not distinct form 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 ½ medially vagina posterior to cirrus pouch, uterus bent and vitellaria extend below the ovary.

10. The present worm differs form p. braunii which is having the scolex distinct form 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 form p. kaporenisis which is having ternacles unbranched single, 14 in number , testes 6 in umber, vas deferens do not continue inside the cirrus pouch, cirrus pouch oval, small directed anteriorly reaches ½ medially, vagina posterior to cirrus pouch and vitellaria extend below the ovary.

12. The present form differs form p. alli which is having the scolex distinct form body. Tentacles unbranched, single. 13 in number, testen 6 in umber cirrus pouch oval, small curved elongated, transversely placed, extend ½ medially, vagina posterior to cirrus pouch, uterus saccular and vitellaria granular, extend below the ovary.

13. The present tapeworm differs form p. thapari which is having the scolex distinct form 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 form p. singhii which is having the scolex distinct form body, tentacles unbranched, single 15 inumber, vas deferens do not continue indie the cirrrs pouch , cirrus pouch oval medium in size, directed anteriorly. Alongated, reaches 1/3 medially, vagina posterior to cirrus pouch and vitellaria granular, extend below the ovary.

15. The present cestode differs form p. ratnagiriensis which is having scolex quadrangular in shape, distinct form body, tentacles unbranched, single, 9 in number, testes 6 oval, in a single row vas defererens short, continue inside the cirrus pouch, cirrus pouch oval, large, vagina posterovental pouch and vitellaria follicular, 100 -140 in number, in four rows.

16. The present worm differs from p. trygonii whih is having the scolex distinct form body, tentacles unbranched, single 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 waltairensis n.sp.is proposed after the locality.

Type species Polycephaalus waltairensis n.sp.
Host Carcharias acutus
Habitat spiral valve.
Locality waltair, A.p.(East cost of india) india.
Date of collection 10th April,l 1988.

REFERENCES
