Research Article

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A NEW SPECIES PHOREIOBOTHRIUM GAWALI FROM *CARCHARIAS ACUTUS* (MULLER AND HENLE, 1906) AT BANKOT, RATNAGIRI M.S. INDIA

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Abstract: A new species of Cestode *Phoreiobothrium gawali* was erected form the marine fish *Carcharias acutus* (Muller and Henle, 1841) collected from Bankot, Ratnagiri (West coast of India). We have described this new species in the genus Phoreiobothrium (LINTON) 1989). We found *P. gawali* different from other species in body measurement, scolex length, breadth, sucker, neck, testes, ovary, vagina, genital pore, vitellaria, host and locality.

Keywords: Dusky shark, Bothridia, Corticular.

INTRODUCTION

The genus Phoreiobothrium was erected by Linton 1889 to accommodate a cestode, recovered from a dusky shark *Carcharias obscurus* at woods hole with its type species *P. lasium*. Linton in 1901 reported P. triloculatum from *Carcharias obscurus*. Later on he added two new species in 1929 i.e. *P. expectum* and *P. pectiinatum*. Shrivastva and Cooper (1982) reported *P. puriensis* from *zugaena blochi* at puri, Orissa. Later on Jadhav and Shinde in 1987 added *P. arabiansis*. Shinde and Jadhav 1987 described *P. ratnagiriensis* from *Carcharias acutus* at Ratnagiri M.S. Shinde *et al.*, 1990 described *P. shindei* from *Carcharias acutus* at Bombay.

MATERIAL AND METHODS

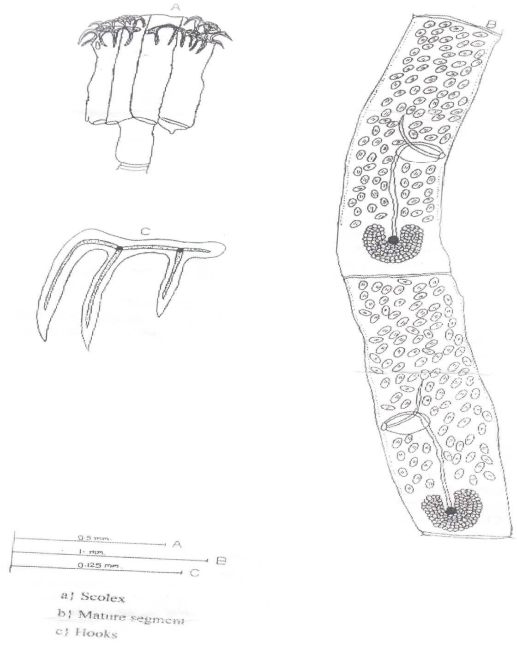
The marine water fish *Carcharias acutus* (Muller and Henle 1906) were collected from Bankot Ratnagiri from Jan 2002 to Dec 2005 and were examined for Cestode infection. The collected cestode were observed under microscope, flattened, fixed in 4% formalin, stained with Harris haematoxylene dehydrated and mounted in D.P.X. Drawings were made with the aid of camera lucida. All measurements were done in millimeters.

Description:

Twenty five specimens of cestode parasites were collected from spiral value of *Carcharias acutus* (Muller and Henley, 1906) at Bankot Ratnagiri. The tapeworms measures 33 in length ando.6 in breadth.

The scolex is pear shaped, measures 0.599 (0.558-0.641) in length and 0.389(0.364-0.412) in breadth. It bears four sessible bothridia, which measures (0.630(0.582-0.679) in length (0.090 (0.083-0.097) in breadth. These are slightly elongated, each armed with pair of hooks. The hooks are trifurcated, the outer, middle and the inner prong with handle. The middle prong is somewhat longer than outer and inner prong. The outer prong measures 0.124 (0.123-0.125) in length ando.012 (0.011-0.014) in breadth, the inner prong measures 0.084 (0.083-0.085) in length and 0.006 (0.002-0.011) in breadth. The handle measures 0.124 (0.123-0.126) in length ando.010 (0.005-0.016) in breadth. Each Bothridium bears four oval suckers. Which measures 0.090 (0.83-0.097) in length and 0.072 (0.009-0.048) in breadth.

Phoreiobothrium gawali n.sp.



Neck is long, measures 0.223(0.218-0.228) in length ando.099 (0.097-0.102) in breadth. Mature segment is four times longer than broad measures 2.235 (2.197-2.273) in length ando.522 (0.515-0.530) in breadth. The testes are 98-101 in number, oval in shape, measure 0.110

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(0.106-0.114) in length ando.030 (0.015-0.045) in breadth. Cirrus pouch oval in shape, measures 0.310 (0.303-0.318) in length and 0.019 (0.016-0.022) in breadth, cirrus short curved, measures 0.219 (0.212-0.227) in length ando.012 (0.008-0.015) in breadth Vas deferens runs anteriorly measure 0.234 (0.227-0.242) in length and 0.11 (0.008-0.015) in breadth.

The ovary "U" shaped above the post margin of the segment measures 0.644(0.568-0.720) in length and 0.20 (0.075-0.31) in breadth, lobes are unequal. Right lobe is longer than left. The receptaculum seminis measures 0.665 (0.649-0.682) in length ando.018 (0.015-0.022) in breadth.

Vagina and cirrus pouch open into common genital pore which measures 0.041 (0.038-0.045) in length and 0.015 (0.008-0.022) in breadth. Vitellaria is granular and corticular.

RESULT AND DICUSSION

The genus Phoreiobothrium was erceted by Linton 1889 as a type species *P. lasium* from *Carcharius obscurus* at Woodland hole. The present communication deals with new species of the genus *Phoreiobothrium gawali* having pear shaped scolex, neck long, mature segments four times longer than broad, ovary "U" shaped, vitellaria granular and corticular. It differs from *P. lasium* having tubular bothridium, ovary granular, vagina anterior to cirrus pouch, from *P. triloculatum* having bothridium whose posterior margin with loculli, hooks paired, trifurcated, testes 150-160 in number, from P. excpetum having the bothridium enlarge towards post end, six loculi, hooks paired and bifurcated from P. pectinatum is having the bothridium with 7 loculi with 7 papillae, paired trifurcated symmetrical hooks in the middle prong.

From *P. puriensis* having scolex pyramidal, bothridium with post end divided into 12 or more loculi, testes 125-140 in number; cirrus pouch oval, vagina antrior to cirrus pouch and vitellaria follicular from P. arabiansis which is having 4 sessible quadrangular bothridia, hooks trifurcated, testes 60-75 in number, from *P. ratnagiriensis* with scolex quadrangular with spines, bothridium with single large loculus, testes 180 (175-185) in number, mature segments with spines vagina anterior to cirrus pouch.

From *P. Shindei* which is having the scolex quadrangular with bothridium, testes 92-98 in number, cirrus pouch oval just posterior to middle of segment, ovary bilobed, from *P. carchariasae* which is having the scolex rectangular without spines, bothridium with single loculus, testes 180-190 in number.

CONCLUSION

The above justifying characters are valid enough to create a new species. *Phoreiobothrium gawali* n. sp. proposed in honor of Dr. BE. Gawali, who has helped the author in the field of research.

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