



THE MORPHOLOGY OF *COTUGNIA TAMBAKWADIENSIS* N.SP. A NEW CESTODE FROM THE INTESTINE OF *COLUMBA LIVIA*

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ABSTRACT:

Cotugnia tambakwadiensis n.sp. is characterized by, diameter of scolex 0.359 - 0.563 X 0.267 - 0.354, diameter of rostellum 0.039 - 0.063 X 0.005-0.024, number of rostellar hook 160, number of testes 55-60 (57), length of cirrus sac 0.39 - 0.193

KEYWORDS : Cestode, New species, *Cotugnia tambakwadiensis*

MATERIAL AND METHOD :

Eleven species of the cestode parasites were collected from the intestine of a pigeon, *Columba livia* at Tambakwadi Tq. Aland, Dist. Gulbarga, K.S., India

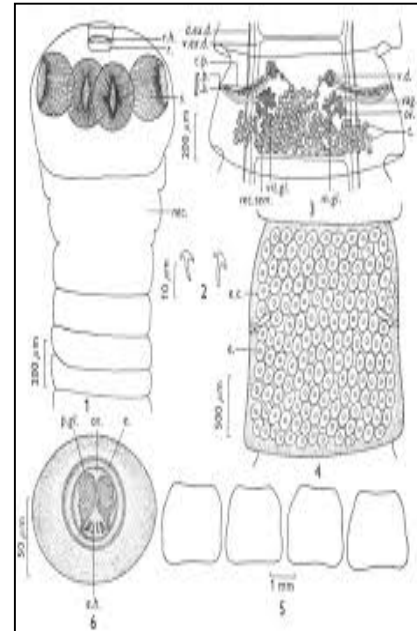
These worms were flattened, preserved in 4% formaline, stained with harris haematoxylin, passed through various alcoholic grades and mounted in D.P.X.

DESCRIPTION :

All the worms were small, having thin musculature, with scolex, numerous immature and mature proglottids.

The scolex is large quadrangular, distinct marked off from the strobila and measures 0.359-0.563 in length and 0.267-0.354 in breadth; scolex bears armed rostellum, which is large, oval, kidney shaped in appearance, transversely elongated and measures 0.218-0.413 in length and 0.005-0.024 in breadth. The four suckers are medium, oval, arranged in two pairs, one pair in each half of it, almost equidistinctly placed and measures 0.005-0.112 in length and 0.063-0.112 in breadth. The neck is medium in length, wide slightly broad anteriorly narrow posteriorly with irregular lateral margins and measures 0.380-0.461 in length and 0.495-.538 in breadth.

The mature proglottids are large, broader than long, double set of reproductive organs, with concave and convex lateral margins with short, blunt, wide, conical projections at the posterior corners of the segments and measure 0.873-1.175 in length and .330-0.409 in breadth. Testes small to medium, oval 50-60 (57)



in number and measures 0.015-0.024 in diameter. The cirrus pouch small, oval slightly elongated, obliquely placed and measure 0.039-0.063 in length and 0.015-0.024 in breadth. The cirrus is medium, thin contained within the cirrus pouch slightly wavy and measures 0.049 in length and 0.005 in breadth. The vasdeferens is broad, long, coiled, anteriorly directed and measures .267 in length and 0.005 in breadth.

The ovary is medium, slightly inverted horse shoe shaped in appearance, curved posteriorly, lobes slightly unequal in size with irregular margin with many short, blunt, round acini, slightly obliquely placed, in the anterior half of the segments and measures 0.155-0.233 in length and 0.015-0.05 in breadth. The vagina is a wide tube, situated posterior to the cirrus pouch, starts from the genital pore, extends transversely crosses the longitudinal excretory canals, runs obliquely and anteriorly, turns posteriorly, reaches and opens in to the ootype and measures 0.301 in length and 0.005-0.019 in breadth. The genital pores are medium in size, oval, marginal, bilateral in arrangement, placed at 1/4th to 1/5th from the anterior margin of the segments and measures 0.010-0.029 in length and 0.005-0.010 in breadth. The vitelline gland is medium, irregular, postovarian and measures 0.029-0.058 in breadth. The longitudinal excretory canals are narrow and measure 0.005-0.010 in breadth.

DISCUSSION:

The genus *Cotugnia* was erected by Diamare, 1893 with its type species *Cotugnia digonopora* (Posquale,1980) from *Columba livia* from Africa, India, Burma, Indonesia and Philippines. So far 22 species of *Cotugnia* are reported from *columbiformes* birds.

After going through the literature, the worm under discussion, in having the testes 55-60(57) comes to the following species of the genus.

1. *Cotugnia cuneatatenus* Meggitt, 1924.
2. *Cotugnia bahli* Johri, 1934.
3. *Cotugnia intermedia* Johri, 1934.
4. *Cotugnia shrivastavi* Malviya and Dutta,1070
5. *Cotugnia rajivji* Jadhav et. al. 1994.

The worm under discussion differs from *Cotugnia cuneatatenus* which is having the diameter of the scolex 0.26, the diameter of rostellum 0.12, the number of hooks 400, thenumber of testes 50.

The present tapeworm differs from *Cotugnia intermedia* which is having the diameter of the scolex 0.44-0.525, number of testes 69-74, and length of cirrus sac 0.215-0.225.

The present tapeworm differs from *Cotugnia shrivastavi* which is having the diameter of the scolex 0.726, diameter of rostellum 0.446, andnumber of testes 80-85.

The present tapeworm differs from *Cotugnia rajivji* which is having the diameter of scolex 0.530-0.758 X 0.621-1.069, diameter of rostellum 0.189-0.273 X .374-0.044, number of hooks 350-400,number of testes 60-65 and length of cirrus sac 0.189 X 0.008mm.

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

Type species	: <i>Cotugnia tambakwadiensis</i> n.sp.
Host	: <i>Columba livia</i> .
Habitat	: Intestine
Locality	: At. Tambakwadi, Tal. Aland Dist. Gulbarga, K.S. India.

Type specimens : Holotype and paratype are deposited in Helminthology Laboratory, Department of Zoology, Dr. B. A. M. University Aurangabad.

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