

A new species of genus *Cotugnia murhari* sp. nov. from *Columbia livia* at Wasmata Dist Parbhani (M. S.) India

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ABSTRACT

The present communication deals with a new species of the genus *Cotugnia* Diamare in 1893, collected from intestine of *Columbia livia* at Wasmata Dist. Hingoli, (M.S.) India. It differs from all the known species of genus with characters, scolex large, quadrangular, rostellum large, oval, mature segment medium, squarish, broader than long, craspedote, testes oval, small, 70 to 75 (73) in number, cirrus pouch small, oval, obliquely placed, cirrus medium, ovary small, cylindrical, bilobed, round acini, vagina medium, posterior to the cirrus pouch, ootype small, rounded, anteroventral and lateral to the ovary, genital pore medium, oval, vitelline gland medium, oval, longitudinal excretory canals are narrow.

Key words – *Cotugnia murhari*, *Columbia livia*, Cestoda, Wasmata.

INTRODUCTION

The genus *Cotugnia*, was erected by Diamare in 1893 with its type species *Cotugnia digonopora* (Pasquale 1890) were collected from domestic fowl, *Gallus domesticus* from Africa, Burma, India, Indonesia and Philippines so far 22 species of *Cotugnia* are reported from columbiform birds. This new species is 23rd species from World.

MATERIALS AND METHODS

Nine specimens of cestode parasite were collected from pigeon the intestine of the *Columbia livia* at Wasmata Tq. Wasmata Dist. Parbhani. The collected worms washed, relaxed, preserved in 4 % formalin, stained with Harris Haematoxylin, cleared in Xylo, and mounted in DPX. Drawing was made with the help of Camera Lucida. All measurements are in millimeter (mm).

Description Scolex (fig.A) Large, quadrangular and measures 0.335 to 0.350 in length and 0.350 to 0.393 in breadth. rostellum large, oval, sucker like and measure 0.058 to 0.098 in length and 0.072 to 0.097 in width, Rostellum with two circles of hooks which are 320 to 330 (322) in number, inner circle with 144 hooks, outer circle with 178 hooks and measure 0.049 in length and 0.005 to 0.010 in breadth. Suckers four, oval, two pairs and measure 0.058 to 0.097 in length and 0.155 to 0.70 in width. Neck medium length and measures 0.786 to 0.835 in length and 0.072 to 0.097 in width.

Mature proglottids (Fig.C) medium, squarish, broader than long, craspedote, double set reproductive organs and measures 0.364 to 0.85 in length and 0.859 to 0.669 in breadth. Testes oval, medium, 70 to 75 (73) in

number and measures 0.24 to 0.024 in length and 0.024 in breadth. Cirrus pouch medium, oval, obliquely placed, and measures 0.053 in length and 0.015 to 0.019 in breadth, cirrus medium, curved anteriorly and measures 0.053 in length and 0.005 in breadth. Vas deferens broad, long, coiled and measures 0.233 in length and 0.005 in breadth. Ovary small, cylindrical, in distantly bilobed, single mass, round acini, anteriorly and posteriorly and measures 1.121 to 1.199 in length and 0.024 to 0.059 in breadth. vagina, medium, posteriorly to cirrus pouch, starts from genital pore, reaches and opens in to the ootype and measures 0.175 in length and 0.005 in breadth. Ootype small, round, anteroventral and lateral to the ovary and measures 0.015 to 0.019 in diameter. genital pores medium, oval, bilateral and measures 0.039 to 0.049 in length and 0.015 to 0.024 in breadth. Vitelline gland medium, oval, posterolateral to the ovary, central and measures 0.039 to 0.043 in length and 0.023 to 0.039 in width. The longitudinal excretory canals are narrow and measure 0.005 to 0.010 in width.

Type species – *Cotugnia murhari* n sp.

Host – *Columbia livia*..

Habitat – Intestine

Locality – At. Wasmata, ta. Wasmata, Dist. – Hingoli, (M.S.) India.

RESULTS AND DISCUSSION

The genus *Cotugnia* was erected by Diamare in 1893 later on the following species is added to this genus:

- 1) *C. digonopora* (Pasquale 1890) Diamare 1893.
- 2) *C. polyacantha* Fuhrmann 1909.
- 3) *C. joyeuxi* Baer 1924.

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| 4) <i>C. cuneata tenuis</i> Meggitt 1924. | 14. <i>C. anrangabadensis</i> Shinde 1969. |
| 5) <i>C. parva</i> Bear 1925. | 15. <i>C. columbae</i> Shinde 1969. |
| 6) <i>C. fleari</i> Meggitt 1929. | 16. <i>C. shrivaslavai</i> Malviya and Dutta 1970. |
| 7) <i>C. nervosa</i> Meggitt 1929. | 17. <i>C. magzoubii</i> Magzoubi and kasim 1980. |
| 8) <i>C. bahli</i> Johri 1934. | 18. <i>C. satpulensis</i> Malhotra and Capoor 1983. |
| 9) <i>C. intermedia</i> Johri 1934. | 19. <i>C. yamaguti</i> Shinde, Jadhav and Kadam 1983. |
| 10) <i>C. noctua</i> Johri 1934. | 20. <i>C. vishakhapatnamensis</i> Kolluri, Laxmi and Rao 1988. |
| 11) <i>C. lamanesis</i> Yamaguti 1935. | 21. <i>C. rajivji</i> Jadhav, Bawane and Kadam 1994. |
| 12. <i>C. rimandoi</i> Tubangui 1937. | 22. <i>C. kamatiensis</i> Kharade and shinde 1995. |
| 13. <i>C. magna</i> Burt 1940. | |

The present communication, deals with the description of new species *Cotugnia murhari* from *Columbia livia* Wasmata. Wasmata Dist. Hingoli (M.S. India)

1. The worm under discussion, differs from *C. bahli* which is having the diameter of scolex 0.335 to 0.350, 0.350 to 0.390 Vs 0.50, diameter of rostellum 0.058 to 0.097 x 0.072 to 0.097 Vs 0.34 the number of rostellar hooks 320-330 (322) Vs 332. The number of testes 70-75(73) Vs 69 - 74, length of cirrus sac 0.215 to 0. 0.223 Vs. 0.34.

2. The present tapeworm, differs from *C. intermedia* which is having the diameter of scolex 0.335 to 0.350 0.350 to 0.390 Vs 0.44 - 0.525, The number of testes 70-75(73)Vs 69 - 74 ., length of cirrus sac 0.215 to 0.223 Vs 0.053.

3. The present worm, differs from *C. shrivastavi* which is having the diameter of scolex 0.335 to 0.350 0.350 to 0.390 Vs 0.726 , diameter of rostellum 0.058 to 0.097

x 0.072 to 0.097 Vs 0.0446 The number of testes 70-75(75)Vs 80 - 85 .

4. The present worm, differs from *C. satpulensis*, which is having the diameter of scolex 0.335 to 0.350 0.350 to 0.390 Vs 0.535. diameter of rostellum 0.058 to 0.097 x 0.072 to 0.097 Vs 0.230 , the number of testes 70-75(73)Vs 43 - 92 ., length of cirrus sac 0.215 to 0. 0.223 Vs. 0.053.

5. The present worm, differs from *C. rajivji* which is having the diameter of the scolex 0.335 to 0.350 0.350 to 0.390 Vs 0.530 - 0.758 to 0.621 -1.069, diameter of rostellum 0.058 to 0.097 x 0.072 to 0.097 Vs 0.374-0.0447, The number of testes 70-75(73)Vs 60 - 66 ., length of cirrus sac 0.215 to 0. 0.223 Vs. 0.053 to 0.189.

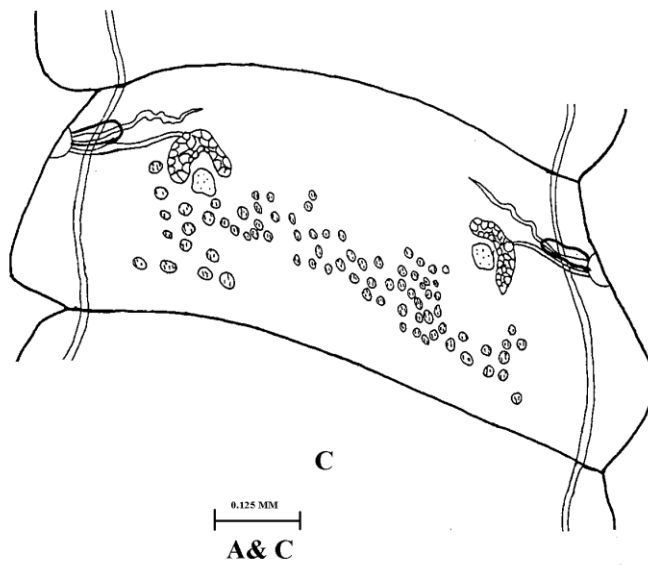
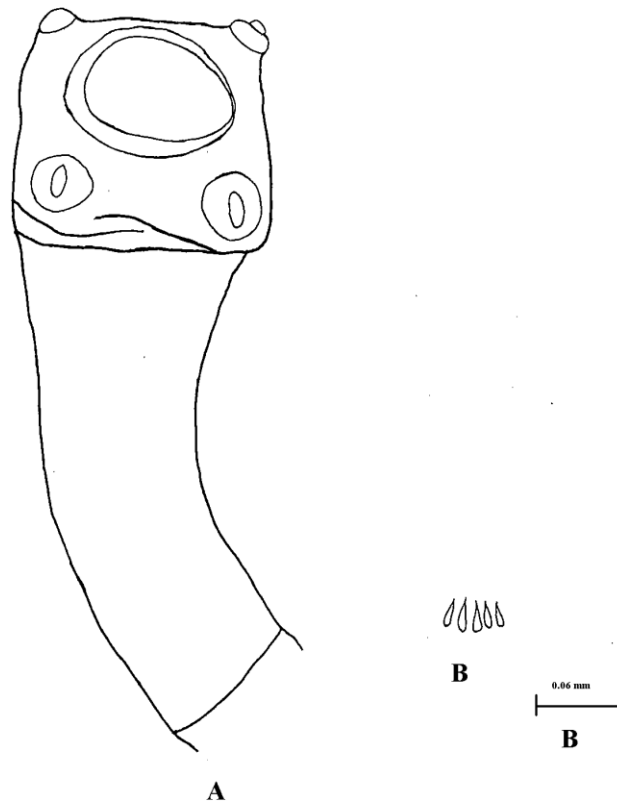
The above noted characters, are enough to erect a new species, for these worms and hence the name *Cotugnia murhari* n.sp. is proposed, in honour Dr. B.M. Murhar, Ex-Professor and Ex-Principal, M.M. College of science, Umred Road, Nagpur, who has contributed-so much in our knowledge of Helminthology.

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Cotugnia murhari sp. nov. Figs A to C

Fig. A-Scolex, B-Hooks, C-Matured Segments

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