



A NEW SPECIES OF THE GENUS *KRIMI MURHARI* (CESTODA: DILEPIDIDAE)

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ABSTRACT

The genus *Krimi* was established by Burt in 1944 with its type species *K. chrysocolaptis*, from *Chrysocolaptis guttacristatus stricklandi*, in Ceylon. Nine specimens of Cestode parasites were collected from the intestine of *Gallus gallus domesticus*. The present cestode have 55-60 number of strobilla; scolex large, rectangular in shape; rostellar sac large, extends up to the middle of the scolex; 18 rostellar hooks; testes 25 to 30 in numbers; cirrus pouch medium, oval; ovary is bilobed, each lobe with 7-8 acini; ootype small, oval; gravid proglottids large, broader than long.

Keywords: - *Krimi murhar* in.sp., Cestode, Kapadna, *Gallus gallus domesticus*.

INTRODUCTION

The genus *Krimi* was established by Burt in 1944 with its type species *K. chrysocolaptis*, from *Chrysocolaptis guttacristatus stricklandi*, in Ceylon. Later on Shinde and Gaikwad, 1981 added *Krimiburti* from *Vanellus indicus*. After that no species were added under this genus. The present communication describes a new species of the genus. In earlier study Kalse et. al. (2017) have also discovered one new species of cestode from the intestine of *Capra hircus* (a mammal).

MATERIALS AND METHODS

Nine worms, of the cestode parasites, were collected from the intestine of a domestic fowl, *Gallus gallus domesticus*. All worms were flattened and preserved in 4% formalin, stained with Harris alum haematoxylin; passed through various alcoholic grades, cleared in xylol and mount in DPX. Drawings were made with the help of camera lucida and microphotographs were taken by digital camera. All measurements are in millimeters.

KRIMI MURHARI N. SP.

(Figs. A, B, C, D)

Description: *Krimi murhar* in.sp. (Based on Nine specimens) worms measure 7cm in length, with 55 to 60 segments. The scolex is large in size, rectangular in shape and measures 0.397 to 0.514 in length and 0.411 to 0.637 in breadth. The scolex bears an armed rostellum and four suckers. The four suckers are medium in size, unarmed, oval in shape, are overlapping on each other in each pair and measure 0.192 to 0.219 in diameter.

The neck is absent. The mature segments are large in size, rectangular in shape, broader than

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long, almost three to three and half times broader than long, narrow anteriorly broad posteriorly with single set of reproductive organs in each segment, having convex lateral margins, with short or long blunt projections at the posterior corners of the segments, slightly overlapping on succeeding segments and measure 0.131 to 0.150 in length and 0.289 to 0.365 in breadth. The testes are medium in size, oval in shape, 25 to 30 in number, scattered in the posterior half of the segment and measure 0.019 to 0.023 in length and 0.008 to 0.011 in breadth. The cirrus pouch is medium in size, oval in shape, obliquely placed, situated in the anterior portion in each segment, narrow proximally and wide distally and measures 0.031 to 0.042 in length and 0.019 to 0.023 in breadth. The cirrus is thin, straight, contained within the cirrus pouch and measures 0.038 to 0.046 in length and 0.004 to 0.008 in breadth. The vas deferens is thin, slightly convoluted, runs obliquely and measures 0.115 to 0.131 in length and 0.004 to 0.008 in breadth.

The ovary is medium in size, bilobed; lobes are more or less equal in size and shape with irregular margin, each lobe with 7 to 8 short, blunt round acini, placed in the anterior half of the segment and measures 0.200 to 0.231 in length and 0.015 to 0.027 in breadth. The vagina is a thin tube, posterior to the cirrus pouch, starts from the genital pore, extends transversally, runs obliquely to anterior side, reaches and opens into the ootype and measures 0.146 to 0.162 in length and 0.004 to 0.008 in breadth. The ootype is small in size, oval in shape, situated at the junction of two ovarian lobes and measures 0.015 to 0.023 in length and 0.004 to 0.008 in breadth. The genital pores are small in size, oval in shape, marginal, arranged at the anterior one third of each segment, irregularly alternate and measure 0.019 to 0.023 in length and 0.008 to 0.012 in breadth.

The gravid proglottids are large in size, broader than long, almost one and half times broader than long with convex lateral margin, narrow anteriorly and broad posteriorly with the projection at the posterior corners of the segments, slightly overlapping on the succeeding segments and measure 0.315 to 0.454 in length and 0.231 to 0.300 in breadth. The uterus breaks up into many uterine capsules, which are medium in size oval in shape contains 2-3 eggs in different capsules and measure 0.281 to 0.344 in length and 0.125 to 0.188 in breadth.

DISCUSSION

The present species differs from *K. chrysocolaptis* *Chrysocolaptis guttacristatus stricklandi* in number of segments of strobili (55-60 vs. 12), shape of scolex (rectangular vs. oval), size of rostallar sac (large, extend up to the middle of scolex and tapers posteriorly vs. small, extends up to the one third of the scolex and tapers anteriorly), number of rostallar hooks (18 vs. 20), number of testes (25-30 vs. 38), shape and size of cirrus pouch (median, oval vs. small), structure of ovary (each ovarian lobe with 7 to 8 acini vs. each ovarian lobe with 12 acini) and host (*Gallus gallus domesticus* vs. *Chrysocolaptis guttacristatus stricklandi*).

The present species also differs from *Krimi burtii* in number of segments of strobili (55-60 vs. 16-20), shape of scolex (rectangular vs. quadrangular), size of rostallar sac (large, extend up to the middle of scolex vs. large, extends up to the three fourth of the scolex), number of rostallar hooks (18 vs. 14), number of testes (25-30 vs. 16), shape and size of cirrus pouch (median, oval vs. long), structure of ovary (each ovarian lobe with 7 to 8 acini vs. each ovarian lobe containing several acini) and host (*Gallus gallus domesticus* vs. *Vanellus indicus*).

The above noted distinct characters are enough to erect a new species for these worms and hence the name *Krimi murharia* new species is proposed in the honour of Dr. B.M. Murhar who has contributed lot in our knowledge of Helminthology.

TAXONOMIC SUMMARY

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|-----------------------|--|
| Type of species | : <i>Krimi murhari</i> n. sp. |
| Host | : <i>Gallus gallus domesticus</i> |
| Habitat | : Small intestine |
| Locality | : At.Kapadana,Tq. and Dist .Dhule, M.S., India. |
| Holotype and Paratype | : Deposited in the Helminth Research Lab. Department of Zoology, Nanasaheb Y.N.Chavan College, Chalisgaon, Dist. Jalgaon (M.S.) India. |
| Date of collection | : 28 th September, 2011. |
| Ethmology | : Name of Senior Helminthologist |

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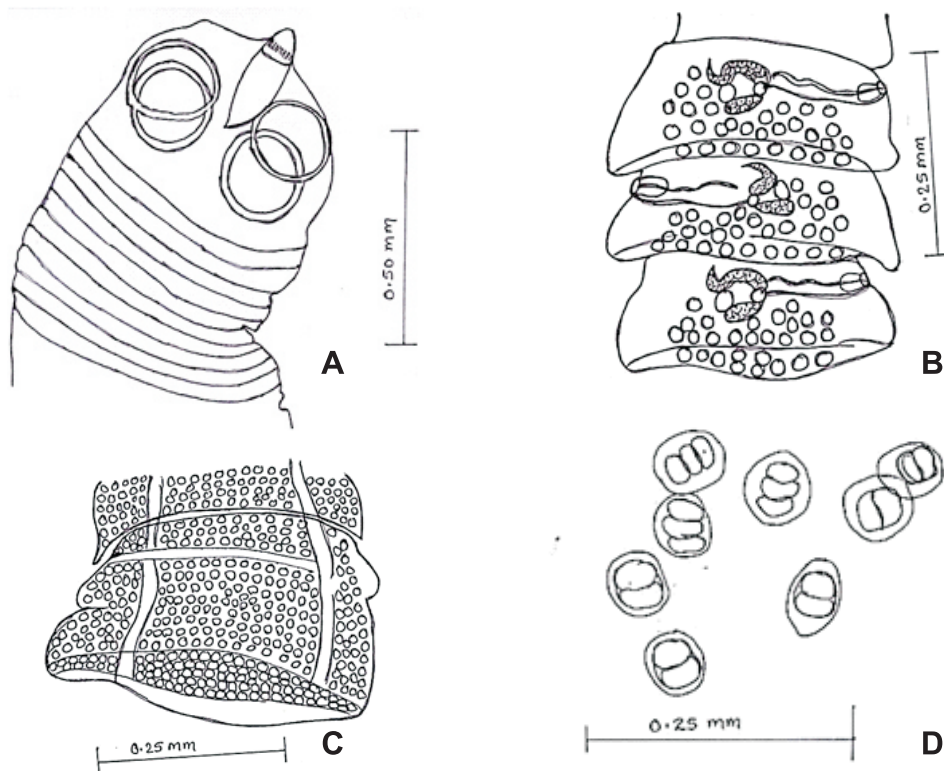


Fig-1: *Krimi murhari* n. sp.
A- Scolex, B- Mature segment, C- Gravid segment, D- Eggs

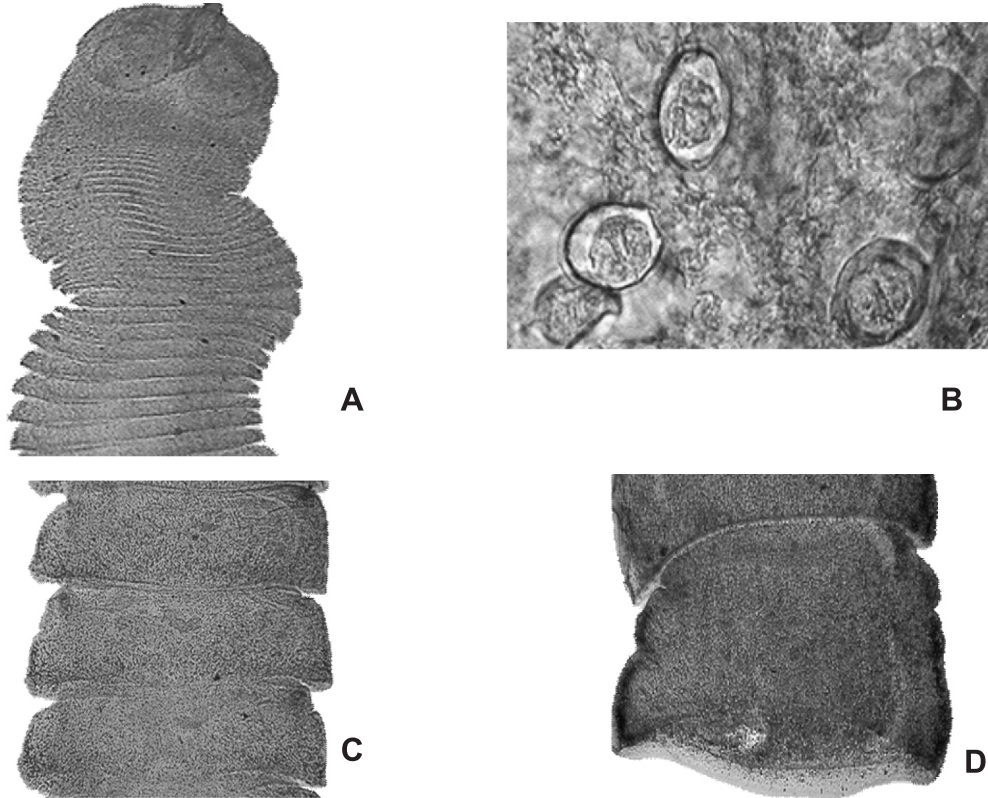


Fig: *Krimi murhari* n. sp.
 A-Scolex, B- Mature segment, C- Gravid segment, D- Eggs

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