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PARAECHINORHYNCHUS KALRIAI N. G., N. SP. (NEOECHINORHYNCHIDEA: NEOECHINORHYNCHINAE) FROM *LABEO ROHITA* (HAM)

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ABSTRACT

Paraechinorhynchus kalriai n. g.; n. sp., is described from freshwater fish *Labeo roheta* (Ham) from Kalri Lake, Sind, Pakistan. It is characterised by possessing 18 proboscis hooks in 3 spiral rows of 4, 6 and 8 each.

INTRODUCTION

Description of acanthocephala from freshwater fishes of Pakistan, are very few. An attempt, therefore, has been made to collect and describe these helminths. Present communicatio deals with the description of a new genus; new species *Paraechinorhynchus kalriai* from a freshwater fish *Labeo rohita* (Ham) obtained from Kalri Lake, Sind.

Present specimens were p aced in the family Neoechinorhynchidae and subfamily Neoechinorhynchinae Travassos, 1926. So far five genera of this subfamily have been described *Octospinifer* Van Cleave, 1919 having 24 hooks in 8 spiral rows of 3 each; *Neoechinorhynchus* Hamann 1892, 18 hooks in 6 spiral rows of 3 each; *Hexaspiron* Dollfus et. Golvan, 1956 with 24 hooks in 6 spiral rows of 4 each; *Paulisentis* Van Cleave et. Bangham, 1949 with 30 hooks in 6 spiral rows of 5 each and *Dispiron* Bilqees, 1970 having 12 proboscis hooks in 2 spiral rows of 6 each.

The present specimens have 18 hooks in 3 spiral rows of 4, 6 and 8 each. This arrangement is different from the other five genera, therefore, a new genus and new species is erected to accommodate these specimens for which the name *Paraechinorhynchus kalriai* new genus and new species is given- The genus name refers to family name and species to the locality of the host.

Permanent slides were prepared by fixing the specimens in F.A A. (a solution of formalin, acetic acid and 50% alcohol in the ratio of 5:3:92) and

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sta ned with Mayer's carmalum and mounted permanently in Canada balsam. Measurements are in millimeters. The type specimens are deposited in Parasitology Section, Department of Zoology, University of Karachi.

Paraechinorhynchus new genus

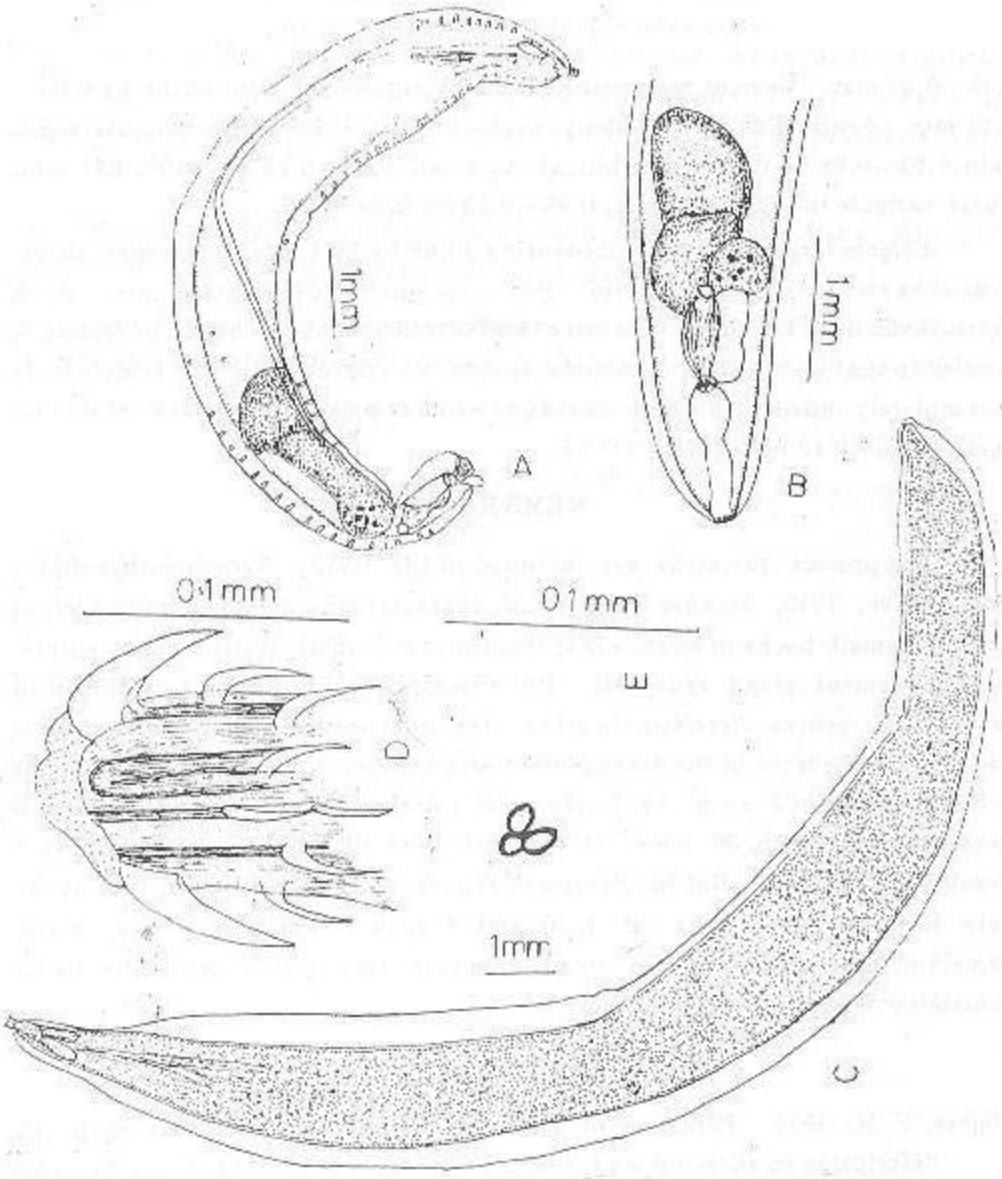
Generic diagnosis : Neoechinorhynchidae, Neoechinorhynchinae. Body small, cylindrical and slightly curved ventrally. Lacunar system well developed. Giant hypodermic nuclei present. Proboscis short, proboscis hooks 18, in 3 spiral rows of varying number, proboscis sheath single layered. Lemnisci digitiform with or without nuclei. Testis contiguous, oval to elongate. Cement gland syncytial with nuclei. Cement reservoir small in size. Eggs without polar prolongation and small in size.

Paraechinorhynchus kalriai n.g.; n. sp.

(Fig. IA-E)

Host :	*Labeo rohita*.
Locality :	Kalri Lake, Sind, Pakistan.
Habitat :	Small intestine.
No. of parasites :	2 male and 1 female from one host.
No. of fishes examined :	23.

Creamy in colour when alive. Anterior and posterior ends narrow, broader in the middle. Greatest width at one-third from anterior end. Body size of of male 7.15 – 8.87 by 1.29 – 1.30 mm. Lacunar system well developed. Hypodermic nuclei present. Proboscis very short in relation to body, 0.110 – 0.112 by 0.089 – 0.100 mm. Neck short, 0.038 – 0 051 by 0.130 – 0.210 mm; proboscis sheath single layered, 0.42 – 0.46 by 0.10 – 0.34 mm. Proboscis hooks 18 in 3 spiral rows of 4, 6 and 8. The proboscis hooks are unequal in size. The hooks of the first row are larger, 0.068 – 0.070 by 0.014 – 0.018 mm as compared to the second and third row, 0.043 – 0.046 by 0.0072 – 0.0010; Lemniscisho rt somewhat swollen, 0.64 – 0.72 by 0.14 – 0.15 mm; retractor muscles starting from anterior region of the body and reaching testis. The testis oval to elongate, anterior relatively flattened while the posterior oval to elongate, 0.68 – 1.24 by 0.55 – 1.08 mm. Cement gland large, syncytial with several nuclei, 0.38 – 0.73 by



Psaraechinorhynchus kairiai n. gen. n. sp.

Fig. A : Entire male showing elongated testis. Fig. B : Enlarged posterior and of male showing oval testis. Fig. C : Entire female. Fig. D : Proboscis enlarged. Fig. E : Eggs.

0.43 – 0.50 mm. Cement reservoir comparatively small, 0.10 – 0.18 by 0.09 – 0.13 mm. Saefftigens pouch oblong, 0.42 – 0.66 by 0.23 – 0.29; vesicula seminalis, 0.63 – 0.68 by 0.21 – 0.26; bursal cap small, 0.10 – 0.13 by 0.10 – 0.11 mm. Bursa variable in shape and size, 0.88 – 0.89 by 0.29 – 0.33.

Female larger than male measuring 16.68 by 2.21 mm. Lemnisci short, somewhat swollen, 0.89 – 0.92 mm. Proboscis small, 0.089 by 0.092 mm. Neck short, 0.025 by 0.115 mm. The size and arrangement of hooks in female is similar to that in the male. Lacunar system well developed. The female body is completely filled with small oval eggs without polar prolongation of middle shell, 0.010 – 0.12 by 0 0070 – 0.0072.

REMARKS

The present specimens are included in the family Neoechinorhynchidae Van Cleave, 1919, because they show characteristics of this family such as proboscis small; hooks in spiral rows; lemnisci two, short; testis oval to elliptical, and cement gland syncytial. But these specimens cannot be included in the existing genera *Neoechinorhynchus; Octospinifer; Hexaspiron; Paulisentis* and *Dispiron* because of the arrangement and number of hooks such as 24 hooks in 8 spiral rows of 3 each, 18 hooks in 6 spiral rows of 3 each, 24 hooks in 6 spiral rows of 4 each, 30 hooks in 6 spiral rows of 5 each and 12 hooks in 2 spiral rows of 6 each. But in *Paraechinorhynchus kalriai* the number of hooks were 18 in 3 spiral rows of 4, 6 and 8 each. Therefore, a new genus *Paraechinorhynchus* is erected to accommodate this species and the name *Paraechinorhynchus* kalriai is proposed.

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