

PLAGIOPORUS MULTIOVARIVM N. SP. (TREMATODA: OPECOELIDAE FROM A FRESHWATER FISH (*LABEO GONIUS* (HAM.))

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ABSTRACT

A new trematode *Plagioporus multiovariumi* is described here from the freshwater fish *Labeo gonius* from Keenjhar Lake, Sindh, Pakistan. The new species is characterized by having smooth elongated body, oral sucker small and well developed; pre-pharynx absent; pharynx well developed; intestinal ceca simple; acetabulum almost rounded; pre-equatorial and median; testes almost rounded; vitellaria consists of numerous rounded follicles occupying mostly lateral fields from slightly anterior to cirrus opening to the posterior end of the body; cirrus long and tubular; slightly overlapping acetabulum containing seminal vesicle; ovary 7-8 lobed; uterus small and eggs small, oval and numerous.

Keywords: *Plagioporus multiovarium* n.sp., *Labeo gonius*, Keenjhar Lake, Sindh, Pakistan

INTRODUCTION

In March 2007, fifty seven fish (*Labeo gonius* (Ham.)) were collected from Keenjhar lake, district Thatta, Sindh, Pakistan. These fish on examination revealed an undescribed species of *Plagioporus* Stafford, 1904. The new species is described herein and distinguished from other related species.

MATERIALS AND METHODS

Sixty seven *Labeo gonius* (Ham.) were collected from Keenjhar lake, district Thatta, Sindh, Pakistan. Two fish were infected with 6 worms. The worms were removed gently from the intestine, extended in water and fixed in F.A.A. for 48 hrs. Later stained in Mayer's carmalum, dehydrated in ascending concentrations of ethanol and whole mounted in Canada balsam. Diagrams were made with the aid of camera Lucida. Measurements are given in millimeter. Specimens are deposited in the Department of Zoology, University of Sindh, Jamshoro.

***Plagioporus multiovarium* n.sp.**

(Figs. 1-3)

Host: *Labeo gonius* (Ham.)

Location: Intestine

Locality: Keenjhar lake, district Thatta, Sindh

No. of specimens recovered: 6 specimens from 2 fishes, 57 fishes were examined.

DESCRIPTION

Body smooth, elongate with the greatest body width at the level of the ovary measuring 5.8-6.0 by 1.62-1.74. Oral sucker small, well developed measuring 0.33-0.35 by 0.33-0.34. Prepharynx absent, pharynx well developed measuring 0.22-0.32 by 0.20-0.30. Esophagus prominent 0.40-0.44 by 0.10-0.12. Intestinal ceca simple, reaching to near about the posterior end of the body. Acetabulum almost rounded, pre-equatorial, median, measuring 0.64-0.65 by 0.67-0.69. Distance between oral sucker and acetabulum measuring 1.60-1.76; ovary multilobed (7-8 lobes) submedian, postacetabular measuring 0.4 by 0.1-0.2. Testes almost rounded, the anterior measuring 0.44 by 0.44-0.45 and the posterior 0.42-0.43 by 0.45-0.46. Vitellaria consist of numerous rounded follicles occupying mostly lateral fields from slightly anterior to cirrus opening to the posterior end of the body. Cirrus sac long more or less tubular, slightly overlapping acetabulum measuring 0.82-0.89 by 0.28-0.36 containing seminal vesicle, ovary multilobed 7-8 lobed; Uterus relatively small extending between acetabulum, ovary and anterior testis. Eggs numerous, small, oval 0.14-0.15 by 0.10-0.11. Excretory vesicle tubular.

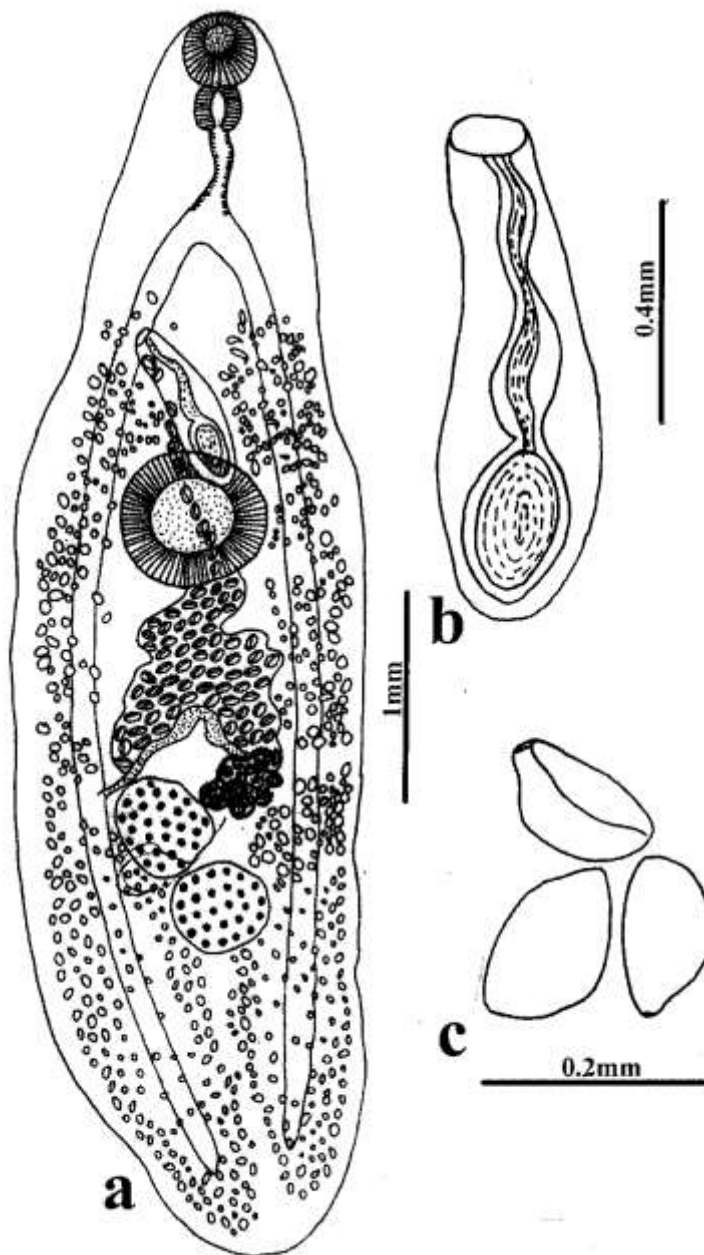


Fig.1. *Plagioporus multiovarium* n.sp. a. Entire specimen, holotype b. Cirrus sac c. Eggs

DISCUSSION

The genus *Plagioporus* Stafford, 1904 is cosmopolitan in distribution, from Asia it has been reported from the countries namely Japan, Israel, Philippines, India and Pakistan.

Four species have been reported from Pakistan (Bilqees, *et al.*, 1972; Bilqees, 1977; Bilqees and Khan, 1988 and Shaikh and Bilqees, 2008). The present species resembles *Plagioporus gonii* Bilqees and Khan, 1988 from freshwater fish *Labeo gonius* from Kalri lake but differs in the following characters from *P. gonii* cirrus sac does not overlap acetabulum and does not reach caeca. In *P. gonii* the oral sucker is not median; similarly the testes are separated from each other and the ovary does not touch the anterior testis. Due to the above mentioned differences,

the present specimens are regarded as a new species for which the name *P. multiovarium* is proposed referring to the shape of ovary.

REFERENCES

- Bilqees, F.M. (1977). *Plagioporus heterorchis* sp. n. (Trematoda: Opencolidae) from the fish *Pomadasys olivaceum* (Day) of Karachi coast. *Pakistan J. Sci. Ind. Res.*, 20: 258-260.
- Bilqees, F.M. and A. Khan (1988). *Plagioporus gonii* nov. sp. (Trematoda: Opencolidae) from the fish *Labeo gonius* of Kalri lake, Sindh, Pakistan. *Agnew. Parasitol.*, 29: 37-41.
- Bilqees, F.M., R. Saeed, R. Rehana, A. Khatoon and S.H. Kaikabad (1972). *Helminth parasites of some vertebrates chiefly from fishes of West Pakistan*. Publ. Agric. Res. Council, Govt. Pakistan, pp. 1-110.
- Shaikh, G.S. and F.M. Bilqees (2008). *Plagioporus sindhensis* n.sp. (Trematoda: Opencolidae) from freshwater fish *Labeo rohita* Keenjhar lake, Thatta, Sindh. *Proc. Parasitol.*, 46: 73-85.
- Stafford, J. (1904). Trematodes from Canadian fishes. *Zool. Anz.*, 27 (16-17) 481-495.

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