

A NEW TREMATODE *STEPHANOSTOMOIDES DIACANTHI*
(ACANTHOCOLPIDAE : STEPHANOSTOMINAE YAMAGUTI, 1958)
FROM THE FISH *PSEUDOSCIAENA DICANTHUS* OF
KARACHI COAST

Fatima Mujib Bilqees* and Yasmin Nighat

Stephanostomoides diacanthi n.sp. is described from the fish *Pseudosciaena diacanthus* of Karachi coast. This species is characterised by possessing oral sucker with five rows of uninterrupted crown of spines, anterior rows of larger and posterior of relatively smaller spines, large and elongated dipartite seminal vesicle, long cirrus sac extending far behind the ventral sucker, genital pore immediately preacetabular, vitelline follicles extending from much posterior to acetabulum to posterior end of the body, and eggs 0.072 to 0.089 by 0.043 to 0.061 in size. *Pseudosciaena diacanthus* is a new host for the genus.

INTRODUCTION

Previously only one species of the genus *Stephanostomoides dorabi* (Mamaev and Oshmarin, 1966) has been described from the fish *Chirocentrus dorab*.

The present one is the second species of the genus and first from Arabian Sea from the fish *Pseudosciaena diacanthus*. The present species is regarded new and the name *Stephanostomoides diacanthi* is proposed referring to the host. Fishes were collected from Fish Harbour, Karachi. Trematodes were recovered from the intestine of two hosts out of 25 hosts examined during 1981-82. A total of 30 specimens were collected, fixed and stained by usual methods, and permanent mounts were prepared for a detailed study. Diagrams were made with the help of a micro-projector and camera lucida. Measurements are given length by width in millimeters.

Holotype and paratypes are in the collection of Parasitology Section, Department of Zoology, University of Karachi.

*Department of Zoology, University of Karachi, Karachi.

DESCRIPTION

Body is long, cylindrical, broad in the middle, covered with minute spines throughout its length. Body length is 6.6-11.9 and width 0.7-1.0. Oral sucker terminal, goblet-shaped, with five alternating rows of uninterrupted crown of spines, anterior rows of larger spines and posterior of relatively small spines, oral sucker 0.20-0.50 by 0.30-0.60. Prepharynx small, pharynx prominent, elongate, 0.17-0.22 by 0.14-0.16. Oesophagus indistinct, ceca long reaching to posterior end of the body. Acetabulum 0.49-0.63 by 0.45-0.57. Cirrus sac long extending far behind acetabulum reaching to near about ovary, containing elongate, bipartite, seminal vesicle and long parsprostatica. Cirrus sac 2.31-2.90 by 0.19-0.23. Posterior part of seminal vesicle 0.69-0.72 by 0.20-0.21, anterior part 0.70-0.89 by 0.20-0.24. Parsprostatica 1.1-1.9 long joining hermaphroditic duct posterior to acetabulum. Hermaphroditic duct slightly smaller or as long as parsprostatica opening immediately anterior to acetabulum. Testes tandem, large, elongate and slightly irregular in outline, posterior to ovary in the hind body. Testicular and posterior region of the body variable in shape. Testes 0.70-0.99 by 0.39-0.59. Ovary immediately pretesticular, oval to rounded measuring 0.35-0.50 by 0.30-0.50. Seminal receptacle prominent, anterior or anterolateral to ovary, elongate in shape measuring 0.40-0.41 by 0.15-0.25. Vitellaria follicular, in the hind body extending from far behind acetabulum to posterior end of body, confluent in the post testicular region. Uterus anterior to ovary. Eggs oval, operculate 0.072-0.089 by 0.043-0.061.

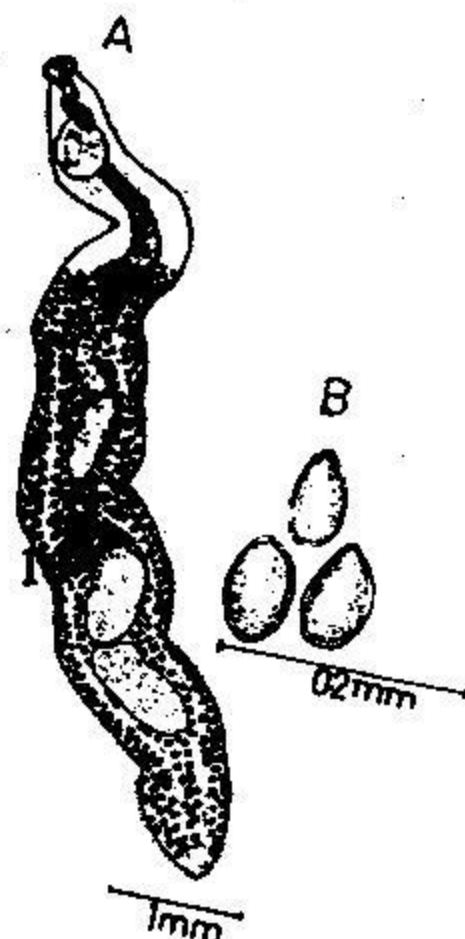
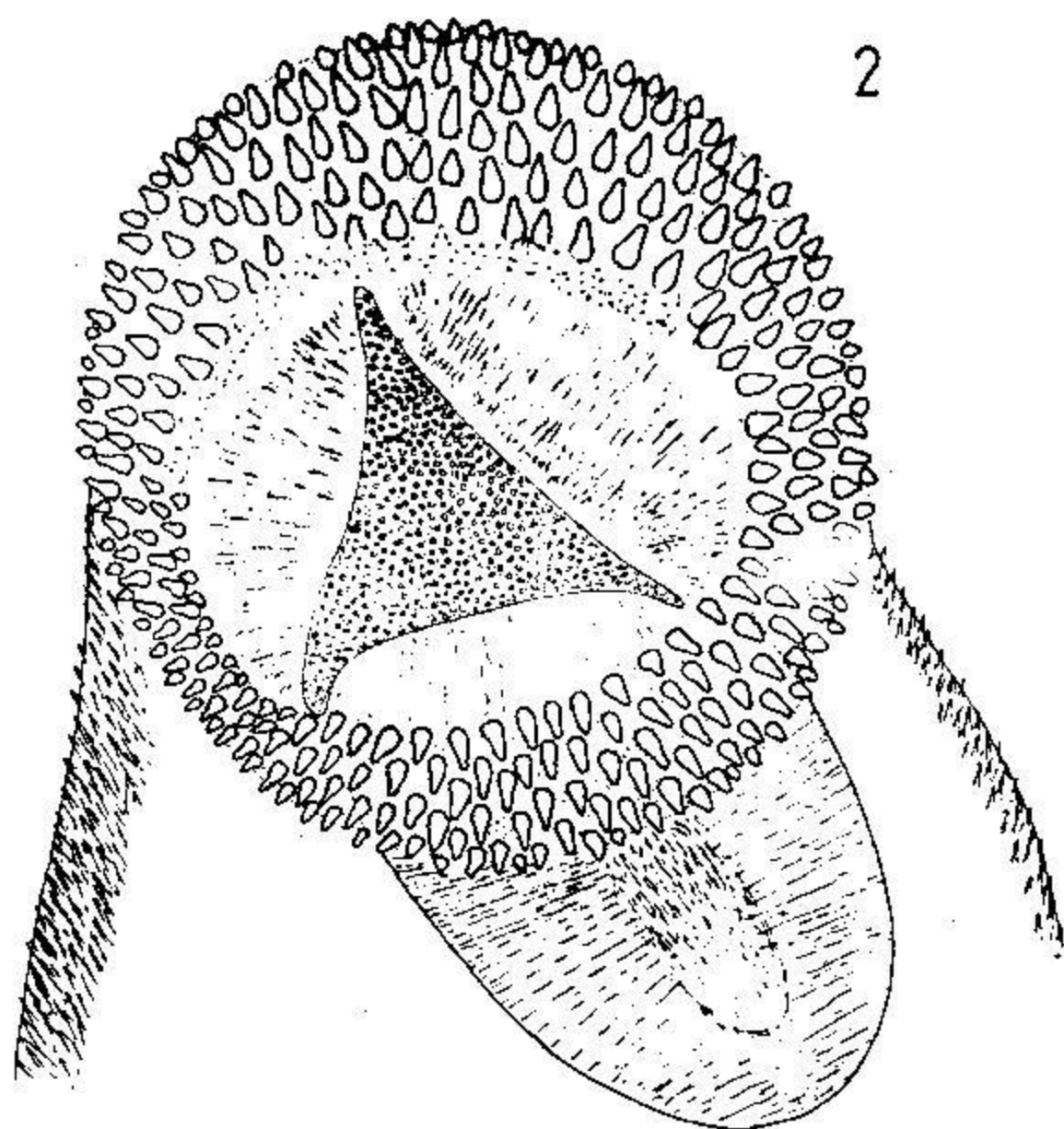


Fig. 1. *Stephanostomoides diacanthi* sp. n. holotype ventral view :
A. Entire specimen; B. Eggs



0.2 mm

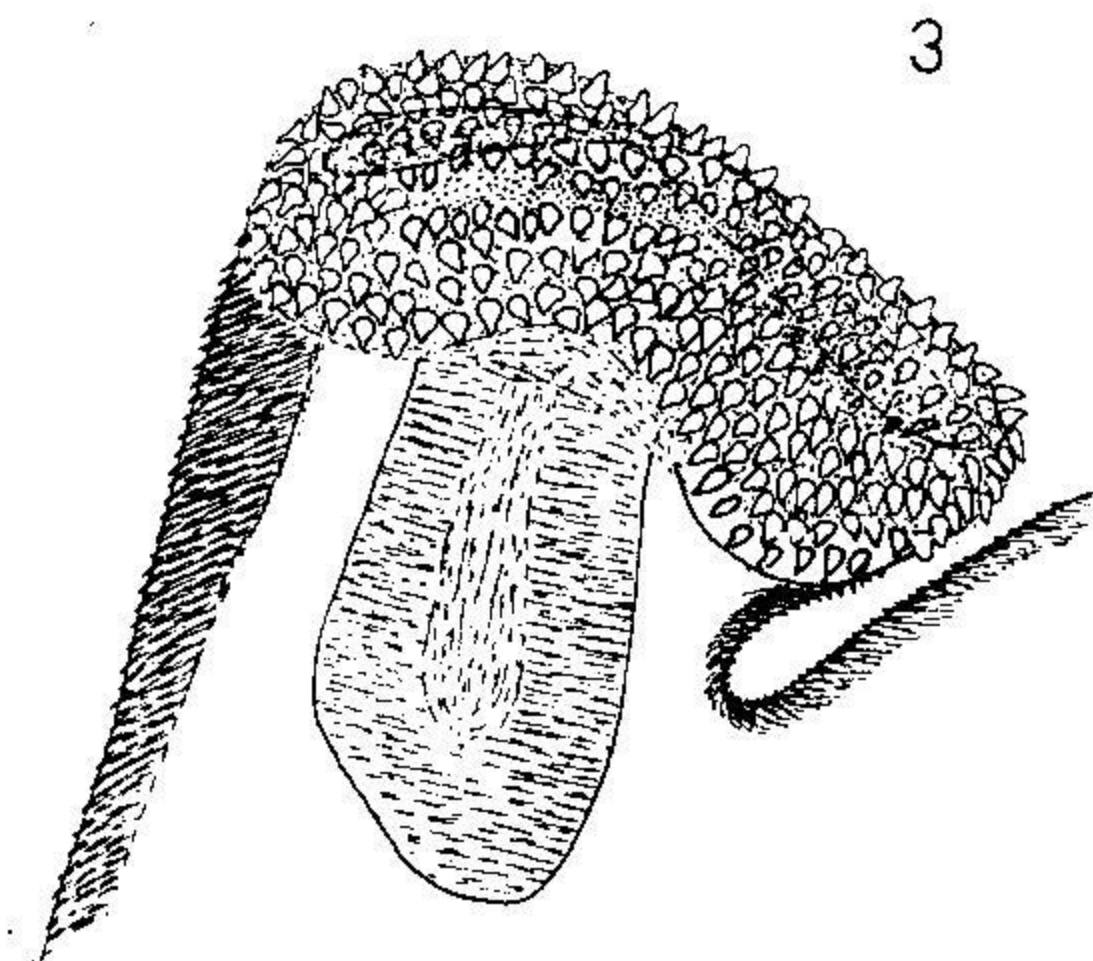


Fig. 2. Oral region of holotype enlarged .

Fig. 3. Oral region of a paratype enlarged.

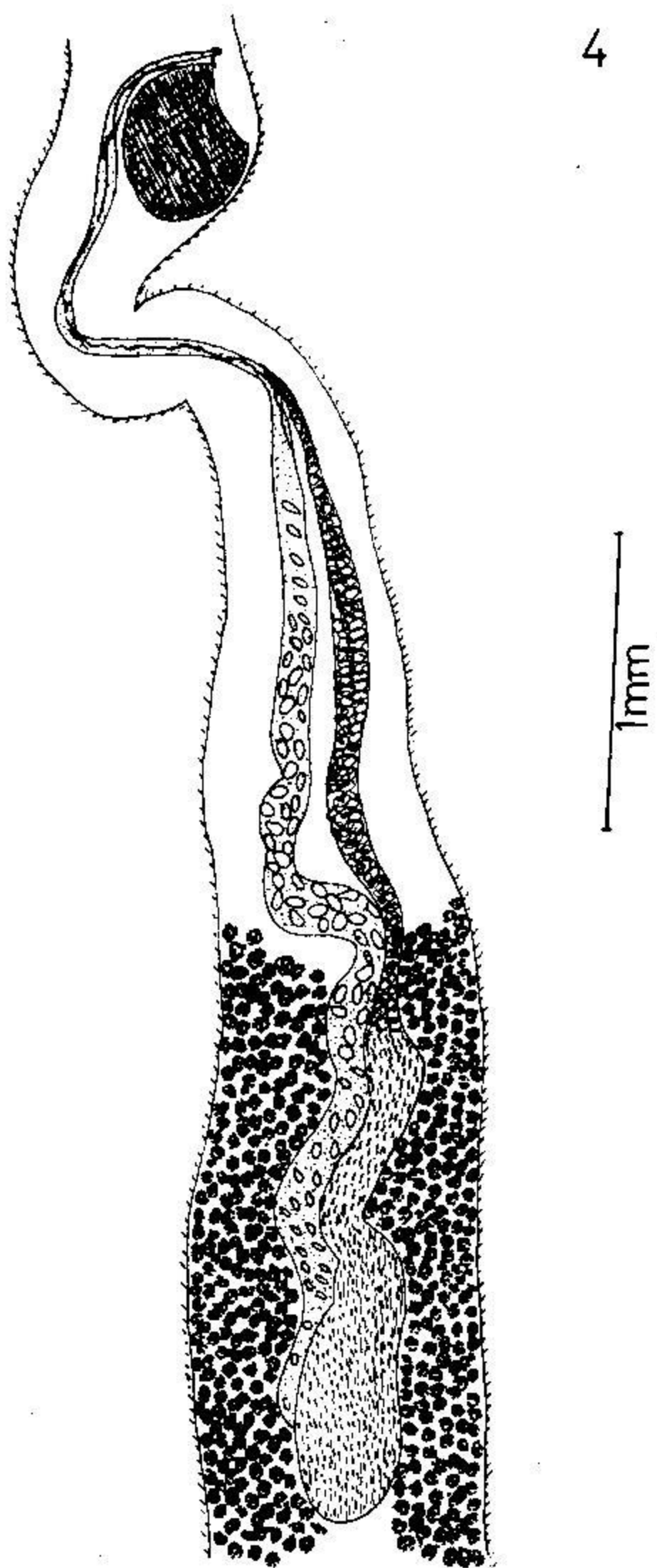


Fig. 4. Anterior region of a paratype showing the genital ducts and associated structure.

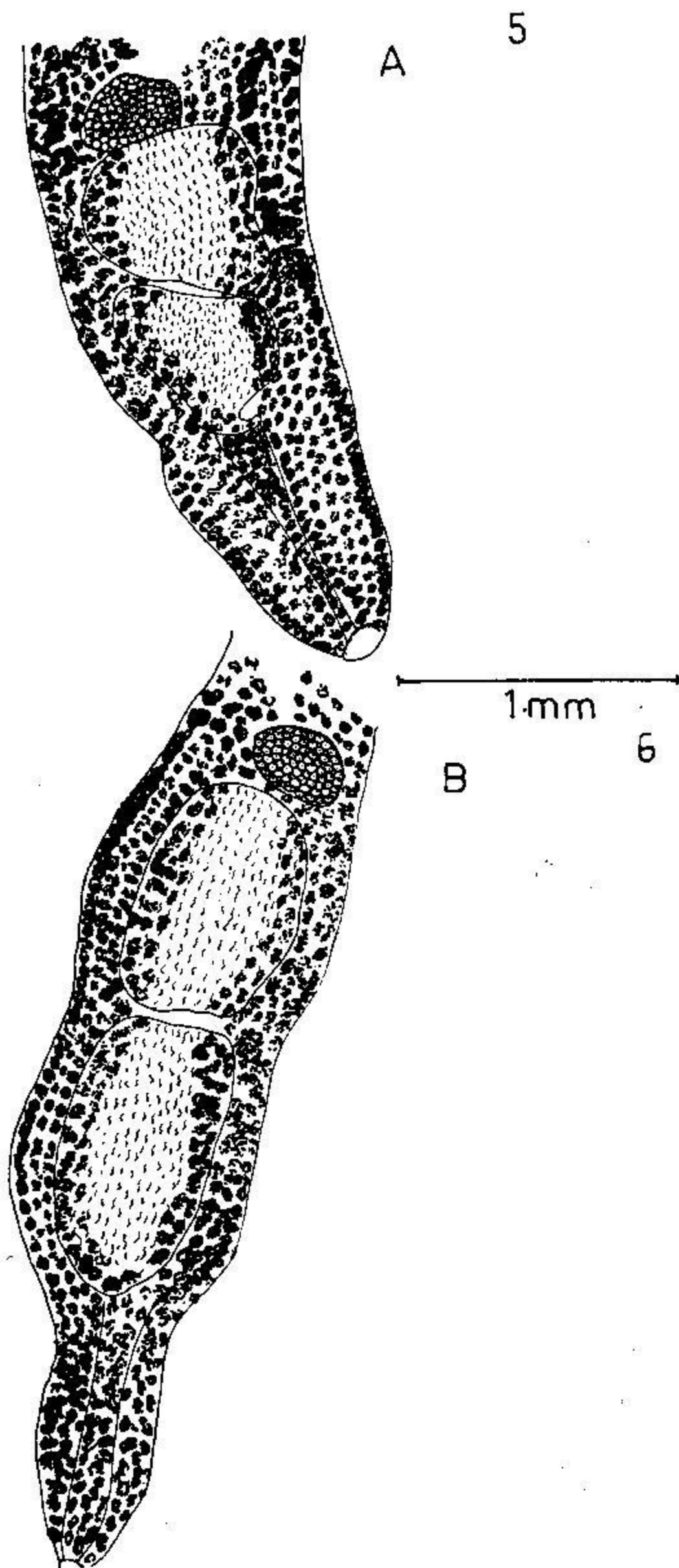


Fig. 5.6. Posterior regions of two paratypes showing variations.

DISCUSSION

The present specimens are included in the genus *Stephanostomoides* (Mamaev and Oshmarin, 1966), as these possess terminal goblet-shaped oral sucker with five complete alternating rows of spines, genital opening anterior to acetabulum, long cirrus, bipartite seminal vesicle, long parsprostatica and hermaphrodite duct, tandem testes and vitellaria in the hind body. Seminal receptacle is supposed to be absent in the genus (Mamaev and Oshmarin, 1966) but the present specimens have a prominent seminal receptacle close to the ovary. The only species described in the genus, *S. dorabi* has tandem testes separated by vitelline follicles but in the present specimens the testes are closed together, not separated by vitelline follicles.

The body size and egg size of the type species is also smaller than the present specimens in addition to differences in relative sizes of different organs. The presence of seminal receptacle, larger body, large eggs, smaller sucker-width ratio and vitelline follicles, not separating the two testes, are considered sufficient differences to separate the present specimens from the type species. Therefore, the present specimens are regarded belonging to an undescribed species of the genus for which the name *Stephanostomoides diacanthi* is proposed referring to the fish host. The type species is described from the fish host of the family Chirocentridae (Order : Clupeiformes) and the present species is from the fish of the family Sciaenidae (Order : Perciformes).

REFERENCE

- Mamaev, I.L. and P.G. Oshmarin. 1966. Trematodes of the family *Acanthocolpidae* Luke, 1901 in herring of the North Vietnam Bay. *Helminthologia*, 7 : 155-164.