

ON A NEW SPECIES OF *ACANTHOSENTIS* VERMA AND DATTA
FROM *GLOSSOGOBIUS GIURIS* (HAMILTON).

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We have studied six specimens of *Acanthosentis* Verma and Datta (1929) which were lying in the unnamed collection of the Zoological Survey of India, collected from a Gobioid fish *Glossogobius giuris* (Ham.) from Pulta Water Works.

Verma and Datta¹ (1929) created the genus *Acanthosentis* to accommodate *A. antispinus* from a cat fish *Mystus gulio* [= *Aoria (Macrones) gulio*] from Calcutta. Subsequently, the following species have been added:—

A. holospinus by Sen² (1938) from a carp *Barbus sophore* [= *Barbus stigma*] from Calcutta ;

A. dattai by Poddar³ (1938) from carps *Barbus ticto* and *Barbus sophore* ; from Calcutta ;

A. sarkari also by Poddar⁴ (1941) from a carp *Rasbora elanga*, from Calcutta ; and

A. tilapiae by Baylis⁵ (1947) from a percoid fish *Tilapia lidole* from E. Africa.

It is noteworthy that all these species have been reported only from fishes. We have added now one more species to the above list, also from a fish from Calcutta. The description of the same appears below. New species is named after the host fish *Glossogobius giuris* (Hamilton).

***Acanthosentis giuris*, sp. nov.**

Male.—Out of three males only one is in a well preserved condition. It measures 4.35 mm. in length and 0.48 mm. in width in the anterior region. The body proper is somewhat cylindrical. It gradually expands from the front to the middle and narrows down from there to the posterior end. The anterior half of the body is studded with approximately 23 rows of spines. These spines make their appearance leaving anteriorly a small spineless area approximately 0.03 mm. in length. Sub-cuticular nuclei are present.

¹ Verma, S. C. and Datta, M. N. *Ann. Trop. Med. and Parasitol.*, XXIII, pp. 483-500 (1929).

² Sen, P. *Proc. Ind. Acad. Sci.*, VII, Sec. B., pp. 41-46 (1938).

³ Poddar, T. N. *Parasitology*, XXX, pp. 171-175 (1938).

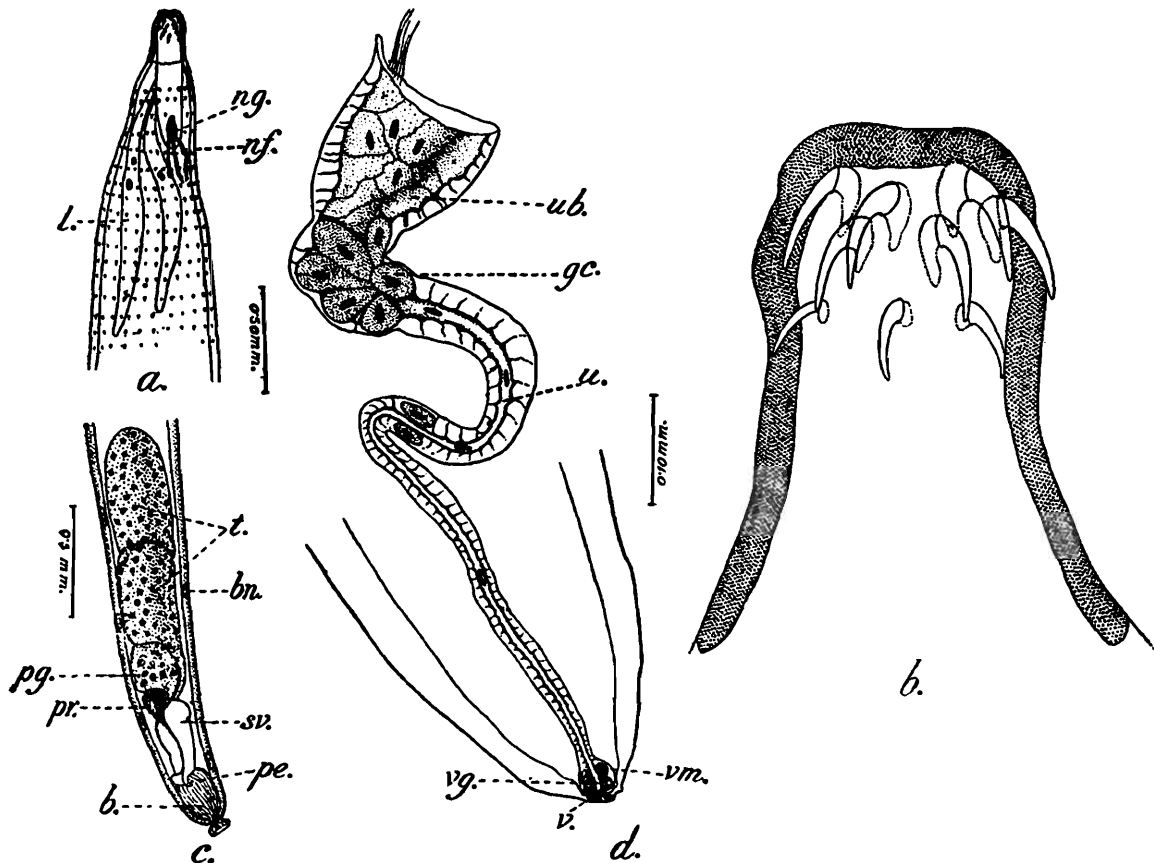
⁴ Poddar, T. N. *Rec. Ind. Mus.*, XLIII, pp. 137-142 (1941).

⁵ Baylis, H. A. *Ann. Mag. Nat. Hist.*, XIV, II, pp. 861-868 (1947).

The proboscis is globular. It measures 0.07 mm. in length and 0.10 mm. in width. It is armed with three rows of hooks with six hooks in each circle. The hooks are of three different sizes; the largest being in the top-most circle, the intermediate in the middle and the smallest in the lower-most; each hook in the respective circle measuring 0.04, 0.03 and 0.02 mm. in length. The proboscis is followed by a neck like region, which widens gradually to the base, measuring approximately 0.10 mm. in length and 0.14 mm. in width at the base. It is lined with a thick layer of cuticle. This region appears to be the most distinctive feature of this species.

The proboscis sheath is 0.43 mm. long. The nerve ganglion is in the posterior region of the proboscis sheath, being 0.39 mm. from the anterior end. The two lemnisci are unequal and bigger than the proboscis sheath. The bigger lemniscus contains two nuclei while the smaller a single nucleus.

The testes (text-fig. 1 c) are situated in the posterior half of the body. They are unequal in size, the anterior bigger measures 0.53×0.29 while the posterior smaller 0.50×0.27 mm. The former lies 2.35 mm. from the anterior end. The prostate gland measures 0.26×0.21 mm. and contains eight nuclei. Vesicula seminalis is 0.38 mm. long. Bursa measures 0.32 mm. in length.



TEXT-FIG. 1.—*Acanthosentis giuris*, sp. nov.

a. Females; ant. region; b. proboscis with neck-like region; c. Male genital organs; d., Female genital organs;

b., bursa; bn., body nuclei; gc., guard cells; l., lemnisci; nf., nerve fibres; ng., nerve ganglion; pe., penis; pg., prostate gland; pr., prostatic reservoir; sv., seminal vesicle; t., testis; u., uterus; ub., uterine bell; v., vulva; vg., vagina; vm., vaginal muscles.

Female.—Only two specimens of the three females are in a good state of preservation. The length ranges from 5.22—6.5 mm. and the width from 0.55—0.63 mm. The shape of the body is similar to that of the male. The spines appear 0.07—0.10 mm. posterior to the place where the body proper begins.

The proboscis is 0.07—0.09 mm. long and 0.09—0.13 mm. wide. The length of the hooks in the top-most circle ranges from 0.04—0.05; in the middle circle from 0.03—0.04 and in the lowermost circle 0.03 mm. The neck-like region following the proboscis is similar to that of the male and measures 0.09—0.13 mm. in length and 0.15—0.17 mm. in width at the base.

The proboscis sheath is 0.39—0.59 mm. long. The nerve ganglion is 0.35—0.51 mm. from the anterior end.

The uterine bell (text-fig. 1 *d*) is 0.24—0.26 mm. long. The uterus along with the vagina is 0.48—0.75 mm. long. Guard cells are six in number.

The eggs measure, 0.03—0.10 × 0.03—0.08 mm.

Specific diagnosis.—A neck-like region intervening between the proboscis and the body proper; the proboscis armed with three rows of hooks.

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Host.—*Glossogobius giuris* (Hamilton).

Locality.—Pulta Water Works, 24, Parganas, West Bengal, India.

Remarks.—The new species corresponds with, *A. antispinus* Verma and Datta (1929), and *A. sarkari* Poddar (1941), in having the body spines confined to the anterior half. Further, with the latter it agrees also in having a small area without spines before the region where spines make their appearance. But it differs from all the known species of the genus in having a neck-like region lined with cuticle, immediately behind the proboscis. It is noteworthy that such a structure has not been observed in any of the species known so far under this genus.

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