

ON TWO HELMINTHS OF *MASTACEMBELUS PANCALUS* (HAM.)

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Dr. Bains Prashad, Director, Zoological Survey of India, kindly provided the author with the opportunity of examining two helminths obtained from the freshwater spiny eel, *Mastacembelus pancalus* (Ham.), taken at Fuleshwar, B. N. Ry.

Azygia angusticauda (Stafford, 1904).

This is the first record of a member of the trematode genus *Azygia* from India. Three specimens were available for study and they were stated to have been found wriggling on the liver of the host. As observed by Van Cleave and Mueller (1934), *Azygia angusticauda* shows considerable variations in its organization. A few observations on the anatomy of the specimens before the author are recorded below.

The worms are flat and elongate, with both extremities rounded. They measure 3.63—4.5 mm. in length and 0.865—0.875 mm. in maximum breadth, which is attained in the region of the midbody. The cuticle is devoid of any armature. The oral sucker is subterminal and measures 0.38—0.47 × 0.34—0.45 mm. The ventral sucker measures 0.36—0.465 mm. in diameter and is situated at about the anterior third of the body. There is no pre-pharynx. The pharynx is situated immediately behind the oral sucker and measures about 0.1 mm. in diameter. The oesophagus is very short. The intestinal caeca pass posteriorly along the sides of the body and terminate slightly in front of the anterior end. The excretory bladder is tubular.

The testes are round or somewhat oblong bodies, lying diagonally to one another, at a small distance in front of the posterior end of the body. They measure 0.24—0.45 × 0.172—0.23 mm. In one instance, the posterior testis was much atrophied and measured 0.135 × 0.07 mm. The genital pore is situated centrally, midway between the intestinal fork and the ventral sucker. The genital sinus is very spacious. The cirrus sac measures 0.28—0.33 × 0.19—0.22 mm. and encloses the vesicula seminalis, the pars prostatica and the ductus ejaculatorius. The prostate gland cells surround the vesicula seminalis and the pars prostatica and fill up the cirrus sac completely.

The ovary is somewhat kidney-shaped and lies partially lateral to the anterior testis. It measures 0.28—0.327 × 0.13—0.24 mm. and is situated slightly to the side of the middle line. The shell gland measures 0.22—0.27 × 0.12—0.18 mm. and lies centrally, immediately in front of the ovary. There is no receptaculum seminis but Laurer's canal is present. The vitelline glands, consisting of follicles of moderate size, lie along the sides of the body external to the intestinal caeca and extend from the posterior end to some distance behind the ventral

sucker, commencing 1.92—2.3 mm. from the anterior end. A vitelline reservoir measuring 0.07—0.18×0.03—0.08 mm. lies immediately behind or to the side of the shell gland. The uterine coils are disposed transversely and lies centrally between the ovary and the posterior border of the ventral sucker. The metraterm lies either lateral or dorsal to the ventral sucker and opens into the genital sinus. The eggs measure 0.062—0.078×0.04—0.048 mm.

Gnathostoma sp.

One encysted larva of *Gnathostoma* sp. was found in the liver of the fish. It is probable that the larva belongs to the species *G. spinigerum*, for this species occurs commonly in cats and dogs in India. According to Chandler (1925), this is the deadliest of the parasites of cats in Calcutta. The first intermediate host of this roundworm is known to be a species of *Cyclops*, and advanced larvae have been found encysted in various reptiles and birds. This is the first record of a fish acting as a second intermediate host of this parasite.

REFERENCES.

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