

TWO NEW GENERA AND SPECIES OF ACANTHOCEPHALA FROM FISHES OF INDIA.*

By H. J. VAN CLEAVE, *University of Illinois, Urbana, Illinois, U.S.A.*

From time to time, the late Doctor Annandale and Dr. B. Prashad have forwarded to me small consignments of Acanthocephala from the collections of the Indian Museum. This first report upon these specimens sets forth the descriptions of two new species from fishes, each of which becomes the type of a new genus. One of these genera departs so far from the general plan of organization in the recognized families of Acanthocephala that a new family is proposed to include it as type.

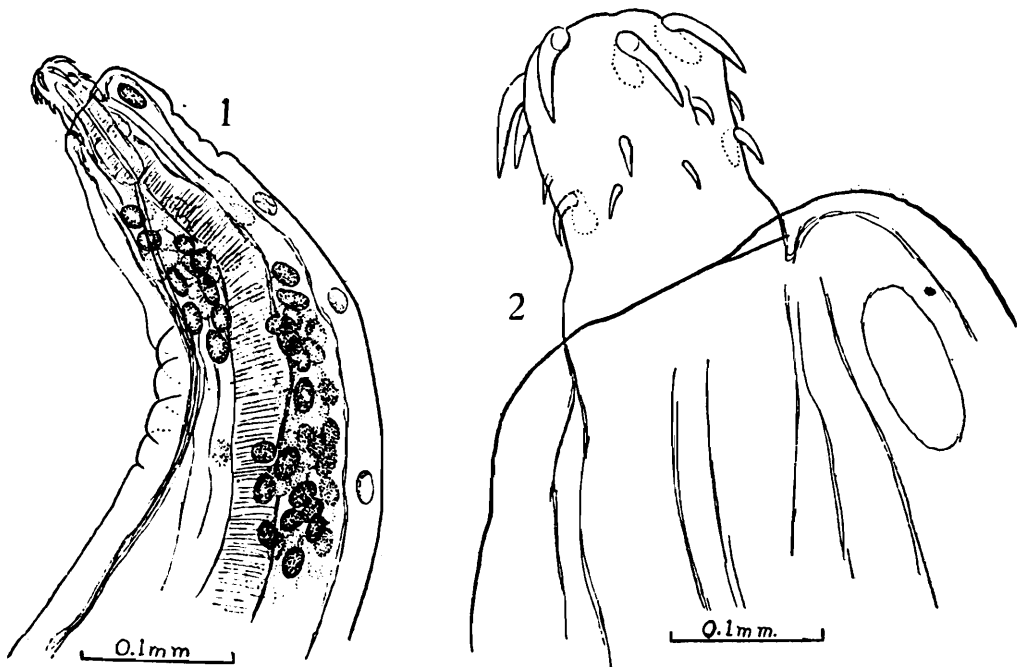
Eosentis, gen. nov.

This genus seems to belong to the family Neoechinorhynchidae but the subcuticular nuclei do not seem to conform exactly to the arrangement in this family. Body without spines, moderately long, tapering toward the posterior extremity. Proboscis short, globular, armed with a few circles of hooks. Proboscis receptacle with a single, very thick muscular wall. Lemnisci large, extending through the anterior fourth of the body cavity. Males not observed. Parasitic as adults in digestive tract of fishes.

Type species: *Eosentis rigidus*, sp. nov.

Eosentis rigidus, sp. nov.

Description based upon a single female which becomes the holotype. Body slightly crescentic in form, about 9 mm. long and 0.87 mm. in



Text-fig. 1.—Holotype of *Eosentis rigidus*, showing general organization of proboscis and anterior region of body.
,, 2.—Proboscis of holotype of *Eosentis rigidus*, showing arrangement of hooks.

* Contributions from the Zoological Laboratory of the University of Illinois, No. 314.

maximum diameter. Proboscis globular, 0.192 mm. in length and 0.153 mm. in diameter; armed with three rings of six hooks each. Hooks of terminal circle 70 μ long, of second circle 47 μ , of basal circle 41 μ . Embryos not present.

Type host: *Schizothorax zarudnyi* taken at Seistan by Drs. N. Annandale and S. W. Kemp.

Holotype deposited in the collections of the Zoological Survey of India (Indian Museum), Calcutta.

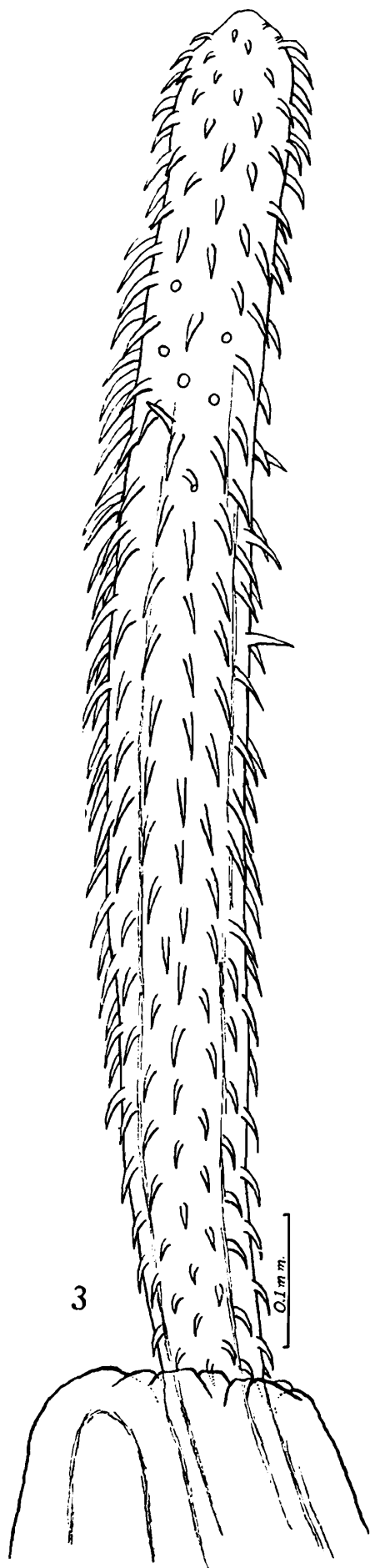
Filisomidae, fam. nov.

The extreme length of the body and of the proboscis in the genus *Filisoma*, the structure of the body-wall, the form of the cement glands of the male, the location of the brain and location of the genital orifice of the female are characters not paralleled in any other genus of acanthocephalans from fishes. The name *Filisomidae* is therefore recommended for a family to include *Filisoma* as type. The characters of the genus as enumerated above must suffice for the family until the group is more thoroughly understood.

Filisoma, gen. nov.

Body without spines, very long and very slender. Sub-cuticular nuclei small, numerous. Proboscis excessively long and slender, cylindrical, armed with about 14 longitudinal rows of more than 20 hooks each. Proboscis receptacle long, cylindrical, bluntly truncated at posterior extremity; with a double muscular wall. Brain near posterior extremity of receptacle. Lemnisci broad, about same length as receptacle. Reproductive organs of male restricted to posterior half of body cavity. Testes elliptical, length several times the diameter, slightly separated. Cement glands very long, individual glands not recognized in type material. Parasitic as adults in the digestive tract of fishes.

Type species: *Filisoma indicum*, sp. nov.



Text-fig. 3.—Proboscis of holotype (male) of *Filisoma indicum*, showing details of proboscis hooks and relation of proboscis to body proper.

Filisoma indicum, sp. nov.

Body 20 to 30 mm. long, with a maximum diameter of 0.28 mm. in the male and 0.68 mm. in the female. No indication of body spines. Proboscis in type male 1.5 mm. long, almost perfectly cylindrical, 0.089 mm. in diameter; armed with about 14 longitudinal rows of 24 hooks each. Hooks near the middle of the proboscis 35μ long, gradually diminishing in length to about 24μ near base and 18μ to 30μ near tip. Proboscis receptacle about 1.3 mm. long. Embryos not fully formed in specimens under observation. Each testis about 1.2 mm. long with a diameter of 0.25 mm. Genital opening of female distinctly ventral at posterior extremity between a pair of blunt, ventrally produced papillae.

Type host: *Scatophagus argus* at Barkul, Chilka Lake, India. Specimens examined were taken from the intestine of the host on November 29, 1914.

This species, described from six individuals, was taken in the Chilka Lake Survey. The holotype is deposited in the collections of the Zoological Survey of India (Indian Museum), Calcutta. Paratypes are in the same collection and in the collection of H. J. Van Cleave at Urbana, Illinois, U. S. A.