WORM CATARACT OF HETEROPNEUSTES FOSSILIS (BLOCH)

N. K. Dubey, Usha Dubey and P. K. Pandey Department of Zoology, C.M.Sc. College L. N. Mithila University, Darbhanga, India

CATARACT of fishes caused by larval trematodes belonging to genus Diplostomum has been reported by La Rue et al.¹ Hughes² and Sato et al.³. The present report deals with a worm cataract of Heteropneustes fossilis collected from the swamps of Darbhanga during November-December 1979.

The majority of the fishes were found infested. Microscopical examination proved that the eyes were invaded by metacercariae belonging to the genus Diplostomum. The number of worms per eye varied from 20 to 80. The parasites had no cyst membranes of their own (Fig. 1). Vitreous, lens and the retina were the sites of infestation. The hosts appeared to be thinner and sluggish when compared to normal specimens. Besides the above mentioned symptoms, corneal haemorrhage and accumulation of watery liquid in the infected eyes were also noted.

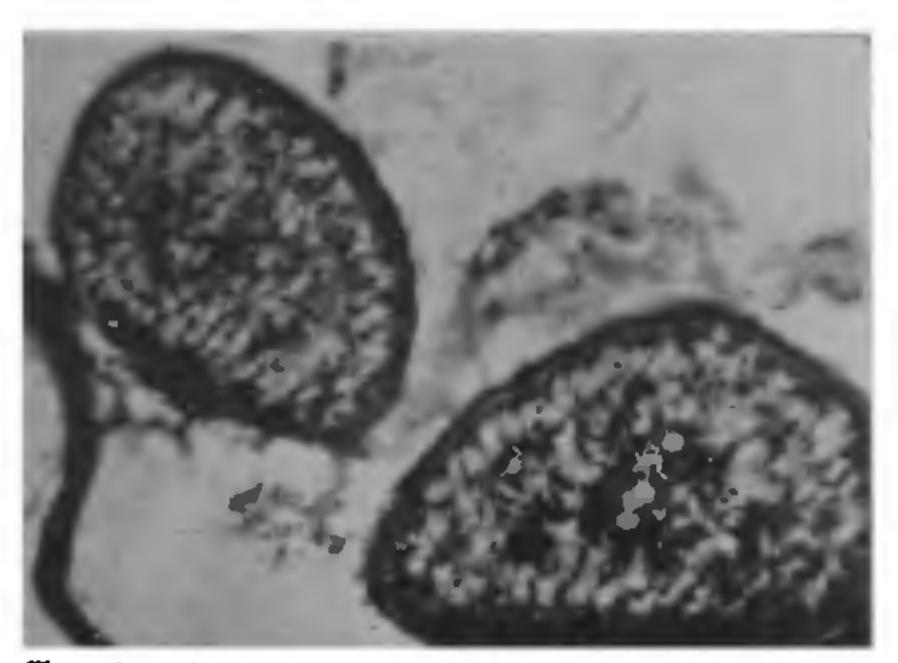


Fig. 1. Section of a position of eye of H. fossilis showing two parasites $(H \times E, \times 400)$.

Parasite specimens carefully relaxed and fixed in 70% alcohol, stained with alum carmine and mounted in D.P.X., gave the following average measurements.

Body length	:	938 μm
Body width	:	338 µm
Oral sucker	:	52 μm
Ventral sucker	:	36 μm
Holdfast length	:	92 μm
Holdfast width	:	61 <i>µ</i> m

The pharynx lies just behind the oral sucker. The oesophagus is short. The ventral sucker lies at about the posterior third of the body. The holdfast organ is situated in the posterior region of the ventral sucker.

The present report on worm cataract in fish is probably the first record in India, although Pandey has reported the occurrence of Diplostomulum opthalmi in the eyes of H. fossilis.

We are thankful to Dr. G. L. Hoffman (U.S. Fish and Wildlife Service, Stuttgart) for providing valuable suggestions and to Dr. J. S, Datta Munshi, F.N.A. (Professor and Head, Post-Graduate Department of Zoology, Bhagalpur University, Bhagalpur), for providing facilities for the work.

December 6, 1980.

- 1. La Rue, G. R., Buttler, E. P. and Berkhout, P. G. Trans. Am. Microsc. Soc., 1926, 45, 282.
- 2. Hughes, R. C., Trans. Am. Microsc. Soc., 1929, 48, 489.
- 3. Sato, T., Hoshina, T. and Horiuchi, M., Bull. Jap. Soc. Sci. Fish., 1975, 42 (2), 249.
- 4. Pandey, K. C., Proc. Indian Acad. Sci., 1970, 72B, 170.

AWARD OF RESEARCH DEGREES

University of Madras, Madras; D.Sc. (Zoology)—Dr. S. Kasinathan.

· Andhra University, Waltair: Ph.D. (Geology)— Shri Bandlamudi Palasubrahmanya Sastry, Shri Koti Visweswara Rao and Sri Chintha Kasipathi.

Karnatak University, Dharwad; Ph.D. (Physics)—Shri P. V. Shanbhag, Ph.D. (Mathematics)—Shri Hananantgeuda Paryathgeuda Patil and Shri Subba Rama Jois, Ph.D. (Zoolegy)—Shri V. S. Kakati and Shri R. N. Desai, Ph.D. (Anthropology)—Shri A. K. Baradol.

Berhampur University, Berhampur: Ph.D. (Chemistry)
—Shri Brajamohan Sasmal.

Kakatiya University, Warangol: Ph.D. (Physics)—Shri Y. Kanga Reddy, Ph.D. (Betany)—Shri Kantilal Narania, Ph.D. (Zoology)—Shri Heeroji Rao Bhensle.

University of Cochin, Cochin; Ph.D. (Physics)—Shri L. C. Joy. Ph.D. (Electronics and Communication)—Smt. Deo Prabha Vasant.

Utkal University, Bhubaneswar; Ph.D. (Chemistry)
—Shri Madhusudan Dash; Ph.D. (Zoology)—S. M.
Zaheruddeen,