

**On a New Digenetic Trematode *Dactylostomum matatiliansis*
N. Sp. (Family: Opecoelidae Ozaki, 1925) from the Intestine
of Fresh Water Eel Fish *Amphipnous cuchia* (Ham.) of
Matatila Reservoir, Bundelkhand Region, Jhansi (UP), India**

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ABSTRACT

The present investigation was carried out on helminth parasites of the Matatila Reservoir, Bundelkhand Region, Jhansi. The new species *Dactylostomum matatiliansis* reported from fresh water fish *Amphipnous cuchia* (Ham.) from the Matatila Reservoir, Bundelkhand region, Jhansi. *D. matatiliansis* n.sp. characterized by having narrow anterior end and U-shaped posterior end; tubular, pre-pharynx; almond shaped obliquely tandem, post-equatorial testes, posterior testis was larger than anterior one; vitelline follicles rounded, extended from intestinal bifurcation up to hind end of the body; sub-terminal, pre-equatorial, rectangular ventral sucker; triangular anterior sucker; excretory bladder sac like, excretory pore terminal and smaller, oval operculated eggs.

Key words: *Amphipnous cuchia* (Ham.), Matatila Reservoir, Ethanol and aceto-alum carmine.

INTRODUCTION:

Fish-borne digenetic trematodes represent an important group of human parasites, which transmitted to man through eating of raw or insufficiently cooked fish and consider a serious risk factor on the public health (Thu *et al.*, 2007 and Trung Dung *et al.*, 2007). According to the reports of the world health organization (WHO), the number of people currently infected with fish-borne trematodes exceed 18 million and

the number of people at risk worldwide estimated at more than half a billion (Thu *et al.*, 2007). Regarding this point of view, this study was conducted to investigate the digenetic trematodes of the fresh water fish of Matatila Reservoir Bundelkhand region, Jhansi. The author came across the digenetic trematodes which were obtained from the intestine of fresh water fish *Amphipnous cuchia* (Ham), were quite different from the previously described ones.

This paper includes the description of a new species genus *Dactylostomum* Woolcook, 1935 found in the intestine of many specimens of eel fish *A. cuchia* (Ham.), along with observation on its prevalence.

MATERIAL AND METHODOLOGY:

Fishes for the present investigation have been collected from the Matatila Reservoir, Jhansi. Fishes were examined for intestinal parasites. The intestine was removed from body cavity and contents were then examined under microscope. The parasites collected, were fixed in 70% Ethanol for 24 hours. Specimens were stained with aceto-alum carmine, dehydrated, in graded alcohols i.e. 30%, 50%, 70%, 90% and absolute alcohol. They were cleared in clove oil and finally mounted in Canada balsam. The figure was drawn with aid of a Camera Lucida device and all measurements done in micrometer. The identification and classification of the species were done using yamaguti (1958).

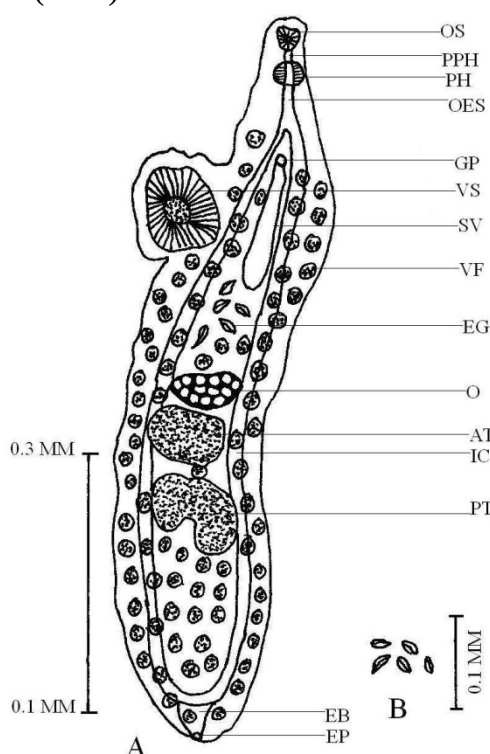


Fig.A. *Dactylostomum matatiliansis* n-sp

Fig.B. Eggs

DESCRIPTION:***Dactylostomum matatiliansis* n.sp.**

Body elongated, aspinose with narrow anterior end, and U-shaped posterior end, 0.84-0.86 mm long, 0.18-0.2 mm wide. Oral sucker sub-terminal, triangular, 0.03-0.05 mm long, 0.02-0.04 mm wide. Pre-pharynx tubular. Pharynx, oval, muscular, 0.03-0.05 mm long, 0.05-0.07 mm wide. Oesophagus tubular, 0.05-0.07 mm long, 0.01-0.03 mm wide. Ventral sucker sub-terminal, pre-equatorial, rectangular, muscular, without dactylae, larger than oral sucker, 0.09-0.11 mm long 0.07-0.09 mm wide.

Testes two, entire, oval, beam shaped, obliquely tandem, post equatorial, anterior testis 0.06-0.08 mm long, 0.09-0.11 mm wide, posterior testis, beam shaped, 0.05-0.07 mm long, 0.13-0.15 mm wide. Posterior testis was larger than anterior one. Vesicula-seminalis, elongated, sac like, lying freely in parenchyma, parallel to ventral sucker.

Ovary, almond shaped pre-testicular, 0.03-0.05 mm long, 0.07-0.09 mm wide. Receptaculum seminis elongated 0.02-0.06 mm long, 0.04-0.06 mm wide. Vitelline follicles were rounded, extending from intestinal bifurcation up to posterior end of body. The position of genital pore just behind of intestinal caeca. Eggs small, oval, operculated, 0.03-0.05 mm long, 0.01- 0.02 mm wide. Excretory bladder, tubular, excretory pore terminal.

DISCUSSION: -

The present form was referred to Genus *Dactylostomum* Woolcook, 1935. The new species *Dactylostomum matatiliansis* resembled with *D. cuchia*; *D. baruasagerii*; *D. govindsagerii*; *D. yamaguti*, *D. cribbi*, *D. gayaprashadi*, *D. jhansiensis*, *D. satpali*, in having muscular pharynx but differed from previously described species, in having, narrow anterior end and posterior flattened end; triangular anterior sucker; tubular pre-pharynx and almond shaped pre-testicular ovary.

The new species *D. matatiliansis* resembles to *D. baruasagerii*, *D. harishii*, *D. cuchia*, *D. cribbi*, *D. gayaprashadi*, *D. govindsagerii*, *D. satpali*, *D. nicolli*, in having, position of genital pore just below the intestinal caeca and sac like vesiculaseminalis but differed, in having, oval, beam shaped, obliquely tandem, post-equatorial testes, posterior testis beam shaped and larger than anterior one and sub-terminal, pre-equatorial, rectangular ventral sucker.

The new species *D. matatiliansis* was also differed from *D. baruasagerii*; *D. harishii*; *D. yamaguti*, *D. cuchia*, *D. cribbi*, *D. gayaprashadi*, *D. jhansiensis*, *D. govindsagerii*, *D. satpali*, *D. nicolli*, in having rounded vitelline follicles extended from intestinal bifurcation up to hind end of the body; sac like excretory bladder, excretory pore terminal and smaller, oval operculated eggs.

There fore it was considered as a new species with specific name *D. matatiliansis* n. sp. after the collection of host from the Matatila Reservoir, District Jhansi, Bundelkhand region.

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