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NEW FISH HOST RECORDS FOR THE PARASITE ISOPARORCHIS HYPSELOBAGRI FROM THE RIVER BURHI GANDAK, AKHARAGHAT, MUZAFFARPUR, BIAHR.

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ABASTRACT

During investigation made for the endohelminth fauna of siluroid fish hosts of the river Burhi Gandak, a number of parasites *Isoparorchis hypselobagri* were collected from the different siluroid fish hosts. Among these hosts *Mystus vittatus* and *Mystus bleekeri* are the new fish host records.

KEY WORDS: New fish hosts.

INTRODUCTION:

The family *Isoparorchiidae* was estabilished by Poche in 1926 with only one genus *Isoparorchis* Southwell, 1913, Syn. *Leptolecithum* Kobyashi, 1915.

Billet (1898) deseribed the genus *Isoparorchis* with its type species *I. hypselobagri*. Southwell (1913) described *I. trisimilitubis* from air bladder of *Wallage attu* from Bankipur, Calcutta which was later on synonymised with *I. hypselobagri*. *Leptolecithum eurytremum* Kobyashi (1915) and .I tandani Johnston (1927) were also synonimised with *I. hypselobagri*.

Immature forms were also reported by Southwell (1913) and Bhalerao (1926) from the fish host *Ophiocephalus striatus* (Bl.). As per observation of Yamaguti (1934) immature forms when introduced into the definitive host the larva penetrates the intestinal wall and wonders about till it finds its way into the air bladder.

Southwell and Prasad (1918) described *I. hypselobagri* from lateral muscles of *Ophiocephalus striatus.*

Bhalerao (1932) also reported it from the muscles and coelomic cavity of same fish host from Nagpur.

Bhalerao (1936) further described *I. hypselobagri* from the liver, body cavity and subcutaneous tissue of fish host *Abasis nana* from Poona ; from mesentry liver of *Notopterous notopterous* from Hyderabad; from muscles of fish host *Gobius giuris, Ophiocephalus marulius, O. punctatus, O. gachua, Mastacembelus armatus* form Hyderabad.

Vasanta Kumari and Srivastava (1976) recorded *Isoparorchis sp.* from fish host *Mastacembelus armatus* (Laceped).

Siddiqui and Nizami (1978) also described about the incidence of *I. hypselobagri* from fish host *W. attu* with remarks on its life cycle. Sangahi (1982) reported *I. hypselobagri* from *Eutropiichthys vacha* (Ham.) from river Manjhi, Chapra, Bihar.

Jungbahadur (1994) also reported *I. hypselobagri* from fish host *Mystus seenghala, M. cavasius* and *M. vittatus* from Muzaffarpur, Bihar.

Singh, 2001 reported one specimen of *I. hypselobagri* from the body cavity of fish host *O. gachua* from Manipur.

During present investigation, a number of metacercarial form of present worm were collected from swin bladder of *Mystus cavasius, M. vittatus, M. bleekeri, M.tengara* and *Ompok bimaculatus;* and body cavity of *Eutropiichthys vacha.*

DESCRIPTION:

Body very large to small depending on the host; foliate or elliptical, unarmed with margins turned over ventrally **(Fig.)**. Body length varies from 1.38 – 3.99 mm while breadth of the body varies from 0.39 – 1.42 mm **(Table)** The oral sucker is subterminal and smaller then acetabulium. The length of oral sucker varies from 0.12 – 0.31 mm while the breadth varies from 0.14 – 0.42 mm. Pharynx continuous with oral sucker. Oesophagus very short bifurcates into two long caeca with stomach portion at commencement caeca run sinuously to posterior extremity. Acetabulum is situated between two caeca at distance of 0.44 to 1.05 mm from the anterior end. It is circular in shape and diameter varies from 0.21-0.75mm.

Table : Morphometric data of Metacercariae of *Isoparorchis hypselobagri* from different siluroid fish hosts . All measurements are in mm.

Sl. No.	Parts measured	Specimen I	Specimen II	Specimen III	Specimen IV	Specimen V	Specimen VI
1.	Length of the body	2.31	1.176	2.268	1.911	2.373	3.99
2.	Breadth of the body	0.882	0.399	0.861	0.693	0.798	1.428
3.	Length of Oral sucker	0.294	0.147	0.21	0.21	0.273	0.315
4.	Breadth of Oral sucker	0.315	0.147	0.231	0.231	0.294	0.42
5.	Length of Ventral sucker	0.39	0.15	0.357	0.336	0.399	0.756
6.	Breadth of Ventral sucker	0.45	0.18	0.336	0.315	0.378	0.714
7.	Distance of Ventral sucker from anterior end	0.84	0.441	0.651	0.714	0.756	1.05
	Hosts	M. *cavasius*	M. *cavasius*	M. *vittatus*	M. *bleekeri*	M. *tengara*	M. *vittatus*

DISCUSSION:

The specimen of present form are being placed under family Isoparorchiidae in having excretory arm united anteriorly and in the presence of ductus hermaphroditicus. Gonads not clear in any of the specimen and to the genus Isoparorchis.

The specimens in collection are being placed under family Isoparorchiidae and genus *Isoparorchis* being large to moderately small distomes in having well developed oral sucker, acetabulum, pharynx being continuous with oral sucker, long and serpentine caeca, uterus forming side loops across caeca in some of the specimen. Gonads not clear in any of the specimen and hence immature.

As per findings of Southwell (1913) and Bhalerao (1932) immature forms of present form were also recovered during the present finding.

Variations found in morphometric measurements of the parasite may be due to interspecific host characteristics.

The specimens were collected mostly from the air bladder during the present investigation *Mystus tengara* and *M. bleekeri* and are thus the new host records for the parasite in discussion.

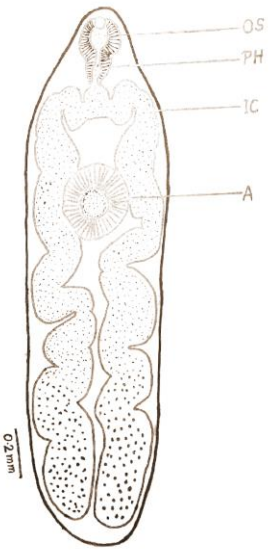

Fig. Camera Lucida diagram of *Isoparorchis hypselobagri*

ABBREVIATIONS :- OS - Oral Sucker ; PH - Pharynx ; IC - Intestinal Caecum ; A - Acetabulum.

Host: *M. vittatus,*

M. cavasius,

M. bleekeri,

M. tengara

E. vacha

O. bimaculatus

Habitat: Swim bladder, Body cavity.

Locality: River Burhi Gandak, Akharaghat, Muzaffarpur.

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