

fin length 40, length of pelvic fin 37, depth of body 75, number of detached finlets 10, first dorsal fin spines 10, second dorsal fin rays 11 and anal fin with one independent spine and 11 rays.

Ripe running ovaries were noticed in the fish.

Remarks: The species has close resemblance with *S. japonicus* and *S. scombrus*. In *S. japonicus*, the space between the first and second dorsal fin is less than the first dorsal fin base, anal fin origin opposite to that of

second dorsal fin. In *S. scombrus*, space between the first dorsal fin groove and second dorsal fin clearly greater (approximately 1.5 times) than length of groove; anal fin origin opposite to that of second dorsal fin.

It is distributed in Western Pacific Ocean from Australia to New Zealand, north to China and Japan and east to Hawaiian Islands and also at Socorro Island, off Mexico in the Eastern Pacific Ocean. This species constitutes important fishery in Japan, Australia and New Zealand (Collette and Nauen, 1983).

Central Marine Fisheries Research Institute,
Cochin-682 014.

G. GOPAKUMAR*
P. S. SADASIVA SARMA
K. T. THOMAS

* Present address: Vizhinjam Research Centre of CMFRI, Vizhinjam, Trivandrum-695 521.

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OPISTHOMONORCHEIDES YAMAGUTINSIS SP. NOV. FROM THE INTENSTINE OF POMFRET *STROMATEUS ARGENTEUS*

ABSTRACT

A new species of the family Monorchiidae (Odhner, 1911) Nicoll, 1955; Subfamily Opisthomonorchiidae Yamaguti, 1971 and Genus *Opisthomonorcheides* Parukhin, 1966 is reported from intestine of the marine fish *Stromateus argenteus* (Bloch). The account includes the morphological description of the new species and a detailed discussion justifying its recognition as a new species.

PARUKHIN (1966) created a new genus for the trematodes collected from the fishes *Decapterus* sp. and *Selarmate* and named it *Opisthomonorcheides* with *O. decapteri* as type species. Subsequently, some species are added to this genus. A new species is reported there from the intestine of the pomfret *Stromateus argenteus* (Bloch).

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Material and methods

The flukes were collected from the intestine of the host and were studied in live condition and then fixed in 4% formalin. The specimens were stained in Delafield's haematoxylin and mounted in D.P.X. mountant. The drawing

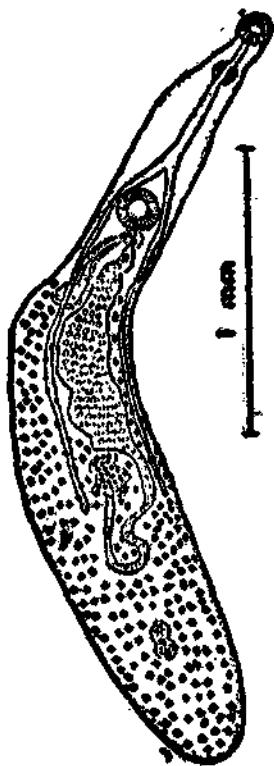


FIG. 1. *Ophisthomonorchelides yamagutinsis* sp. nov. — ventral view.

was made with the aid of a *camera lucida*. All the measurements are in millimeters, unless otherwise mentioned.

Description

Ophisthomonorchelides yamagutinsis sp. nov.

Host : *Stromateus argenteus* (Bloch)

Habitat : Intestine

Locality : Alibag, Maharashtra, India

The body of the parasite is slender, cylindrical, tapering at the anterior end and rounded at the posterior end. General surface of the body is smooth and the type specimen measures 2.72 (range in other specimens in parenthesis 2.12 to 3.32) in length and 0.48 (0.32 to 0.64) in width when measured in the mid region of the body. The oral sucker is located at the tip of the anterior end. It is terminal in position and measures 0.112 (0.09 to 0.13) in diameter. It is small as compared to ventral sucker. The acetabulum is large as compared to oral sucker. The ventral sucker is located in the anterior quarter of body and it measures 0.15 (0.11 to 0.19) in diameter. It is nearer to the anterior extremity at distance of 0.72. The ratio between oral and ventral sucker is 1.1 : 1.5.

The mouth leads into a long prepharynx which measures 0.10 in length. The prepharynx opens into a globular pharynx measuring 0.064 (0.054 to 0.074) in dimension. The oesophagus is tubular, longer than the pharynx and it measures 0.36 (0.32 to 0.40) in length. The oesophagus bifurcates at a distance of 0.58 from the anterior end of the body. The ratio of length of prepharynx and oesophagus is 1 : 3.6. The caeca run posteriorly upto the mid-region of the body and measure 1.3 (1.1 to 1.4) in length.

There is a single testis which is located in the last part of the body. Its posterior tip is at a distance of 0.34 from the posterior tip of the body. The testis is almost oval and measures 0.14 (0.11 to 0.17) in length and 0.64 (0.052 to 0.076) in width. The cirrus pouch is short and

having limited spines and measures 0.32 by 0.112. It encloses the three components, namely seminal vesicles, pars prostratica and cirrus. The seminal vesicles is in the form of a sac. It measures 0.20 (0.18 to 0.22) by 0.018 (0.07 to 0.15). The pars prostatica is tubular and it measures 0.12 (0.09 to 0.15) by 0.032 (0.025 to 0.035) in dimension. The cirrus has limited spines and opens into genital atrium. The genital atrium is located just posterior and close to the acetabulum on the central region of the body.

The ovary is pretesticular and it is situated far away from the testis and it measures 0.144 (0.114 to 0.174) in length and 0.12 (0.10 to 0.14) in width. The ovary assumes various shapes i.e. from slightly bilobed to irregular in shape. The seminal receptacle is small. It measures 0.032 (0.028 to 0.036) in dimension. The vitelline follicles are rounded bodies and extend below from the mid level of seminal vesicle to the posterior end of the body. The uterus occupies the entire pretesticular region, then ascends up to the anterior margin of the ventral sucker. The eggs are numerous, small and measures 0.017 (0.015 to 0.019) by 0.015 (0.011 to 0.019).

The excretory vesicle is saccular and the excretory pore is terminal.

Remarks

The present form differs from *O. decapteri* Parukhin, 1966 and *O. aspinosus* Khan, 1978 in the following characters.

The oral sucker is comparatively very small than acetabulum in *O. aspinosus*. The present form also has a small oral sucker, but not so small as compared to known species. The ratio of the oral sucker and ventral sucker is 1.1 : 1.5 in new species.

The ventral sucker is located nearer to mid-body than to the anterior extremity in *O. decapteri* the ventral sucker is nearer to the

anterior extremity than to the mid-body in the *O. aspinosus*, where as it is inbetween the mid region of oral sucker and mid-body. It is located at a distance of 0.72 from anterior extremity in the present form.

The prepharynx is longer than oesophagus in the *O. aspinosus* and it is shorter than oesophagus in the *O. decapteri* whereas it is also shorter than oesophagus and having the ratio 1 : 3.6 in the present form.

The genital pore is very nearer to acetabulum in the *O. aspinosus* and it is away from the acetabulum in the *O. decapteri* whereas it is close to the acetabulum in *O. yamagutinsis*.

The ovary is oval in *O. decapteri* and lobed of varying shapes in the *O. aspinosus* whereas it is bilobed in the new present form.

The eggs measurement also differ in the three *O. decapteri* 22 μ by 12 μ and *O. aspinosus* 16 μ by 9 μ and in new form 17 μ to 15 μ .

In addition to above, the present species differs from *Opisthomonorchelides indicus* Karyakarte and Yadav, 1976 and *O. aspinosus* Khan 1978 in the following characters.

The oesophagus is globular in *O. indicus* and it is elongated in the *O. aspinosus* whereas it is elongated and tubular in the new species and it measures 0.36.

The distribution and shape of the vitelline follicles also differ in the three species. In the known species (*O. indicus*) the follicles start at the posterior margin of the cirrus sac in *O. aspinosus* they start at the mid-level of cirrus sac, whereas the follicles start slightly below mid-level of cirrus sac in the new species.

The cirrus has numerous spines in *O. indicus* whereas spines are limited in number in the present form.

In addition to this the present species differs from *O. nigeri* Gupta and Puri (1981) and

O. indicus Ahmad (1977) in the following characters. The testis elongated, the ovary trilobed in having smaller eggs in *O. nigeri* and the ovary is large, four lobed in *O. indicus* whereas the ovary is not larger and elongated having a length 0.14 and 0.12 width, and it is appearing just slightly bilobed. The eggs are 0.0112 to 0.019 in the present species. The present species differs from all the above known species, therefore, this new species is established to accommodate the present form and named as *Optisthomonorchelides yamagutinsis* n. sp.

Department of Zoology,
R. L-T Science College,
Akola, Maharashtra.

L. U. LOKHANDE

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