

***Anthochoanocotyle kihobo* n. g., n. sp.**  
**(Trematoda : Opecoelidae, Plagioporinae)**  
**from deep Sea Fish**

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Twelve gravid and one young specimens were collected from the small intestines of *Peristedion orientalis* and *Satyrichthys amiscus* caught by commercial trawlers from depths between 280-530 m at points 5-8 km off Izu Peninsula, Suruga Bay, Pacific coast of Japan. After fixation with acetic sublimate under a cover glass with slight pressure, whole mount specimens were stained with Heidenhain's hematoxylin. Sagittal and transverse sections were stained with Delafield's hematoxylin and eosin. All figures were drawn with the aid of a camera lucida.

*Anthochoanocotyle kihobo* n. g., n. sp.\*  
(Figs. 1~4)

*Host*: *Peristedion orientalis* (type host) and *Satyrichthys amiscus*.

*Location*: Small intestine.

*Locality*: Off Suruga Bay, Pacific coast of Japan.

*Date*: March 30, 1972 and May 10, 1972 (type date)

*Holotype*: Meguro Parasitological Museum Cat. No. 17199.

*Frequency*: Eleven, in five out of 70 *P. orientalis* and 2, in 2 out of 12 *S. amiscus*.

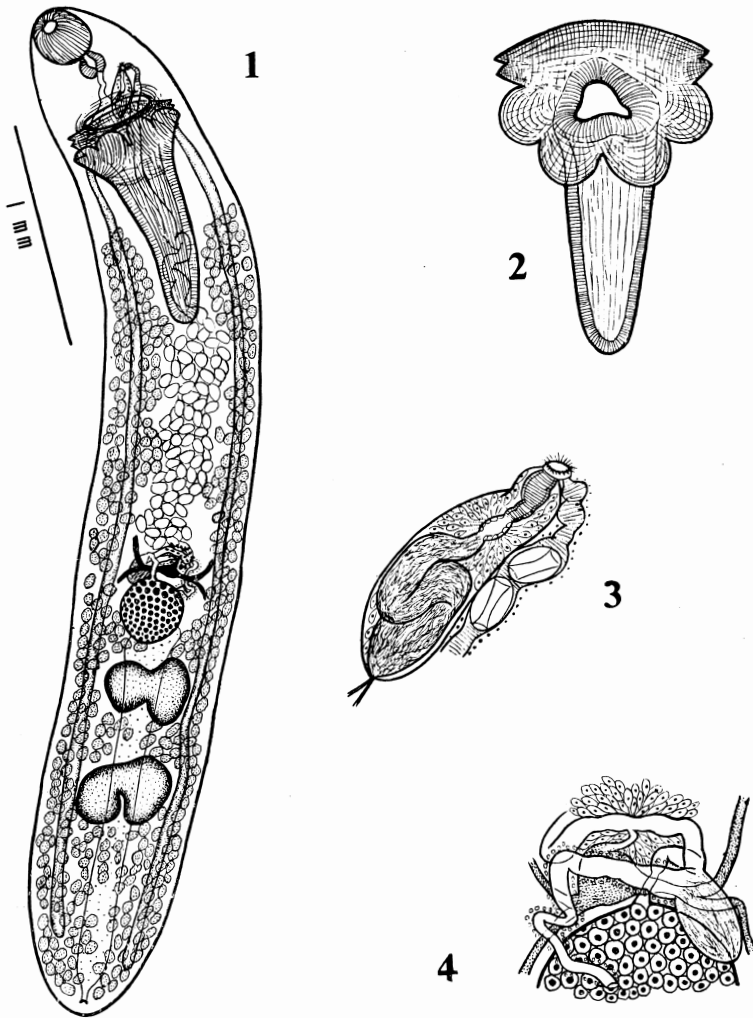
*Description*: (Based on 13 specimens). Body elongate, cylindrical, smooth, 2.4-4.8 mm long and 0.58-1.0 mm wide, with both ends rounded. No eye spots. Oral sucker round, terminal, 0.22-0.29 mm in diameter. Prepharynx very short, 25-70  $\mu$  long; pharynx 120-210  $\times$  120-150  $\mu$ ; esophagus 140-263  $\mu$  long by 55-80  $\mu$  wide, bifurcating immediately preacetabular or partly overlapping anterior

part of acetabulum dorsally; caeca terminating blindly at posterior extremity of body. Acetabulum funnel-shaped, large, 0.9-1.1 mm long, situated at middle of anterior half of body. Orifice of acetabulum provided with semi-rosette-shaped, hood-like flap, 0.46-0.57 mm in diameter, consisting of an anterior convex portion of which lateral tips are bifid, and two pairs of bilaterally symmetrical lobes posteriorly, each lobe 145-170  $\mu$  wide (Fig. 2). Acetabulum sometimes retracted into body as in holotype (Fig. 1).

Testes tandem, irregularly incised, 160-450  $\times$  260-580  $\mu$ , in anterior part of the lower third of the body. Cirrus pouch claviform, 182-300  $\times$  75-100  $\mu$ , obliquely transverse anterior to acetabulum, containing tubular winding seminal vesicle, short pars prostatica, eversible unarmed ejaculatory duct and prostate cells. Genital pore sinistral to posterior end of pharynx.

Ovary median, pretesticular, round, 130-280  $\times$  150-360  $\mu$ , situated near junction of middle and lower thirds of body. Germiduct arising from anterior end of ovary, joining anterior part of receptaculum seminis which lies anterodextral to the ovary and is rather small, 65-112  $\times$  82-112  $\mu$ . Laurer's canal, provided externally with cells throughout its course, originating from anterior portion of receptaculum seminis and running backward to open on dorsal surface at level of ovary. Vitellaria consisting of small follicles extending from posterior half of acetabulum to caudal end of body; vitelline reservoir triangular, immediately pre-ovarian. Uterus winding in inter-caecal field between ovary and acetabulum. Metraterm short, opening

\* The generic name refers to the characteristics of the acetabulum and the specific name refers to the Japanese name of the host fish.



Figs. 1~4: *Anthochoanocotyle kihobo* n. g., n. sp.  
 Fig. 1. Entire worm, holotype, ventral view; Fig. 2. Acetabulum of paratype, ventral view; Fig. 3. Terminal genitalia of paratype, ventral view; Fig. 4. Ovarian complex of paratype, dorsal view.

into shallow genital atrium along with cirrus. Eggs oval, not embryonated,  $65-73 \times 35-43 \mu$  in life. Excretory vesicle tubular, terminating at posterior end of ovary; pore subterminal.

*Discussion:* *Anthochoanocotyle* superficially resembles *Petalocotyle* Ozaki, 1934, especially in the shape of the acetabulum, but differs from it fundamentally in the structure of the terminal genitalia and in the absence of a lymph system. Except for structure of

the acetabulum, general features of the present parasite are more similar to *Podocotyle* (Dujardin, 1845) than to any other known members of the family Opecoelidae. It should be assigned to Plagioporinae, in which no genus has ever been reported having such a peculiar structure of the acetabulum.

*Anthochoanocotyle* n. g.

*Generic diagnosis:* Opecoelidae, Plagioporinae. Body elongate, unarmed. Without eye spots. Oral sucker terminal, smaller

than acetabulum. Prepharynx very short, pharynx and esophagus present. Intestinal bifurcation immediately preacetabular; caeca terminate blindly at posterior extremity of body. Acetabulum in anterior half of body, sometimes retracted into body, funnel-shaped, large, provided at its orifice with semi-rossette-shaped, hood-like flap. Testes tandem, irregularly incised, in posterior half of body. Cirrus pouch claviform, preacetabular, containing winding seminal vesicle, pars prostatica, ejaculatory duct and prostate cells. Genital atrium shallow. Genital pore submedian, at level of pharynx. Ovary entire, median, postequatorial, pretesticular, confined to hindbody. Uterus winding between ovary and acetabulum. Eggs not embryonated. Excretory vesicle tubular, reaching to ovary; pore subterminal. Intestinal parasites of marine teleosts.

*Type species: Anthochoanocotyle kihobo* n. g., n. sp.

### Summary

*Anthochoanocotyle kihobo* n. g., n. sp. is described from the small intestine of *Peristedion orientalis* and *Satyrichthys amiscus* caught

at Suruga Bay, Pacific coast of Japan in March and May, 1972. This new genus is characterized by a peculiar, retractable acetabulum whose orifice is surrounded by a semi-rossette-shaped, hood-like flap that consists of an anterior convex portion of which the lateral tips are bifid and two pairs of bilaterally symmetrical lobes posteriorly. It is assigned to Plagioporinae Manter, 1947 in Opecoelidae Ozaki, 1925 on the basis of its general morphology, and is most closely related to *Podocotyle* (Dujardin, 1845).

### Acknowledgment

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### References

- 1) Ozaki, Y. (1934): *Petalocotyle nipponica*, a new type of the trematode family Allocreadiidae. *Proc. Imp. Acad.*, 10(2), 111-114.
- 2) Yamaguti, S. (1971): Synopsis of digenetic trematodes of vertebrates. Keigaku Publishing Co., Tokyo, 1074 pp.

## 深海魚キホウボウより得た二世吸虫 *Anthochoanocotyle kihobo* (新属, 新種) について

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(目黒寄生虫館)

1972年3月, 5月の2回にわたり, 駿河湾深海トロール漁(水深280-530m)で採集されたキホウボウ *Peristedion orientalis*, ヒゲキホウボウ *Satyrichthys amiscus* の小腸から得た吸虫を新属, 新種として *Anthochoanocotyle kihobo* と命名し, 記載した。

本新属の特徴は, 開口部周辺に花弁状の翼のある, ロ

ート状で大きい, 特異な腹吸盤を有し, 且つこれが体内に陥没可能なことである。

腹吸盤を除く体の一般構造は *Podocotyle* (Dujardin, 1845) に類似しており, 科: Opecoelidae Ozaki, 1925, 亜科: Plagioporinae Manter, 1947 に入れた。