

PSEUDOPECOELUS SESOKOENSIS
SP. N. (TREMATODA: OPECOELIDAE)
FROM THE INTESTINE OF
PLECTORHYNCHUS PICTUS
(VALENCIENNES) OF OKINAWA, JAPAN

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ABSTRACT

Pseudopecoelus sesokoensis sp. n. is described from *Plectorhynchus pictus* of Sosokojima, Motobu-cho, Okinawa, Japan. It differs from other species of *Pseudopecoelus* except *P. maomao* Yamaguti, 1970, from *Abudefduf abdominalis* of Hawaii in having unlobed gonads, vitellaria not extending anterior to the acetabulum, and a pendunculated acetabulum without lateral notches. It differs from *P. maomao* in having an acetabulum larger than the oral sucker and vitellaria uninterrupted at the testicular level.

During the course of a study of the parasites of marine fishes of Ryukyu Islands, Japan, 2 specimens representing the genus *Pseudopecoelus* von Wicklen, 1946, were detected in the intestine of 1 of 4 *Plectorhynchus pictus* taken off the north coast of Sesokojima, Motobu-cho, Okinawa. Based on comparison with other

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species of *Pseudopecoelus*, the specimens are considered to be new species which is described herein.

MATERIALS AND METHODS

Four *Plectorhynchus pictus* were taken by means of spearfishing off the north coast of Sesokojima, Motobu-cho, Okinawa during July, 1985. Fishes were kept alive in plastic bags containing seawater and transported to the laboratory where the containers were placed in a refrigerator. Live specimens were removed from the fish within a few hours.

Flukes were washed in 0.7% saline, fixed in warm AFA and stored in 70% ethanol plus 2% glycerin. Specimens were stained with Harris' hematoxin, dehydrated, cleared in beechwood creosote, and mounted in Canada balsam. Measurements are in micrometers unless otherwise indicated. The drawing was made with the aid of a camera lucida.

DESCRIPTION

Opcoelidae Ozaki, 1925

Opcoelinae Stunkard, 1931

Pseudopecoelus von Wicklen, 1946

Pseudopecoelus sesokoensis sp. n.

(Fig. 1)

Specific description: Measurements based on two whole mounts. With characters of the genus. Body elongate, subcylindrical, tapering anteriorly, 1.2-1.4 mm long, 0.2 mm wide. Oral sucker ventroterminal, 81-95 long, 80-84 wide. Acetabulum in anterior one-third of body, pedunculated, nonpapillated, 200-220 long, 132-150 wide. Prepharynx short, 8-12 long. Pharynx oval, 40-44 long, 48-50 wide. Esophagus short, 6-8 long. Cecal bifurcation near anterior edge of peduncle; ceca termination blindly near posterior end of body. Testes, intercecal, oval, smooth, tandem, anterior testis equatorial, median or slightly sinistral, 130-136 long, 106-115 wide; posterior testis median, 132-134 long, 110-117 wide. Posttesticular space 320-330 long. Seminal vesicle saccular, somewhat curved to one side, 96-120 long, 46-50 wide, postacetabular, reaching slightly beyond end of middle one-third of body. Pars prostatica and cirrus sac not evident. Cirrus short and muscular. Genital pore sinistral at level of pharynx. Ovary smooth, subglobular, situated immediately in front of and slightly dextral to anterior testis, 50-53 long, 49-51 wide. Seminal receptacle absent. Uterus preovarian, winding forward, passing alongside of seminal vesicle, metraterm muscular, approximately equal in length to cirrus. Eggs oval, 53-62 long, 37-40 wide. Vitellaria commencing just anterior to seminal vesicle, extending uninterrupted to posterior end of body. Excretory pore terminal, excretory vesicle tubular, extending from excretory pore to posterior level of ovary.

Type host: *Plectorhynchus pictus* (Valenciennes) (Perciformes: Pomadasyidae)

Anatomical location: intestine

Type locality: North coast of Sesokojima, Motobu-cho, Okinawa, Ryukyu Islands, Japan, 26° 38'N, 127° 52'E; depth 60 ft., large coral heads.

Type specimen: USNM Helm. Coll. holotype no. 79503.

Etymology: The specific epithet *sesokoensis* refers to the geographic locality of the host and parasite.

DISCUSSION

Manter (1954) described *Pseudopecoelus hemilobatus* from *Cyttus australis* of New Zealand and included a key to the species of *Pseudopecoelus* differentiating *P. hemilobatus*, *P. umbrinae* Manter and Van Cleave, 1951, *P. brevivesiculatus* Hanson, 1955, *P. vulgaris* (Manter, 1934), *P. japonicus* (Yamaguti, 1938), *P. gibbonsiae* Manter and Van Cleave, 1951, *P. elongatus* (Yamaguti, 1938), *P. priacanthi* (MacCallum 1921), *P. barkeri* Hanson, 1950, and *P. tortugae* von Wicklen, 1946. More recently, Yamaguti (1970) described *Pseudopecoelus acanthuri* from *Acanthurus sandwicensis*, *P. puhipaka* from *Gymnothorax flavimarginatus*, *P. maomao* from *Abudefduf abdominalis* and *P. sphyraenae* from *Sphyraena barracuda* of Hawaii and provided a key to the species of *Pseudopecoelus* from Hawaiian fishes. A review of the literature reveals several species of *Pseudopecoelus* described since the publications of Manter (1954), namely: *P. manteri* Sogandares-Bernal and Hutton, 1959, *P. gymnothoracis* Nahhas and Cable, 1964, *P. minutus* Nahhas and Cable, 1964, *P. holocentri* Nahhas and Cable, 1964, *P. vitellozonatus* Pritchard, 1966, *P. scorpaenae* (Manter, 1947), *P. ghanensis* Fischthal and Thomas, 1970, *P. pyriformis* Prudhoe and Bray, 1973, *P. scomberi* (Hafeezullah, 1971), *P. littoralis* Caballero Y C and Caballero R., 1976, *P. nossamani* Kruse, 1977, *P. pritchardae* Gupta and Sehgal, 1979, *P. epinepheli* Wang, 1982, and *P. ariusi* Parukhin, 1983. Thus, twenty-eight species of *Pseudopecoelus* have been reported.

Pseudopecoelus sesokoensis sp. n. differs from other species in this genus except *P. maomao* Yamaguti, 1970, from *Abudefduf abdominalis* of Hawaii in having unlobed ovary and testes, a predunculated acetabulum without lateral notches, and vitellaria not extending anterior to the acetabulum. It differs from *P. maomao* in having an acetabulum larger than the oral sucker and vitellaria uninterrupted opposite to the testes.

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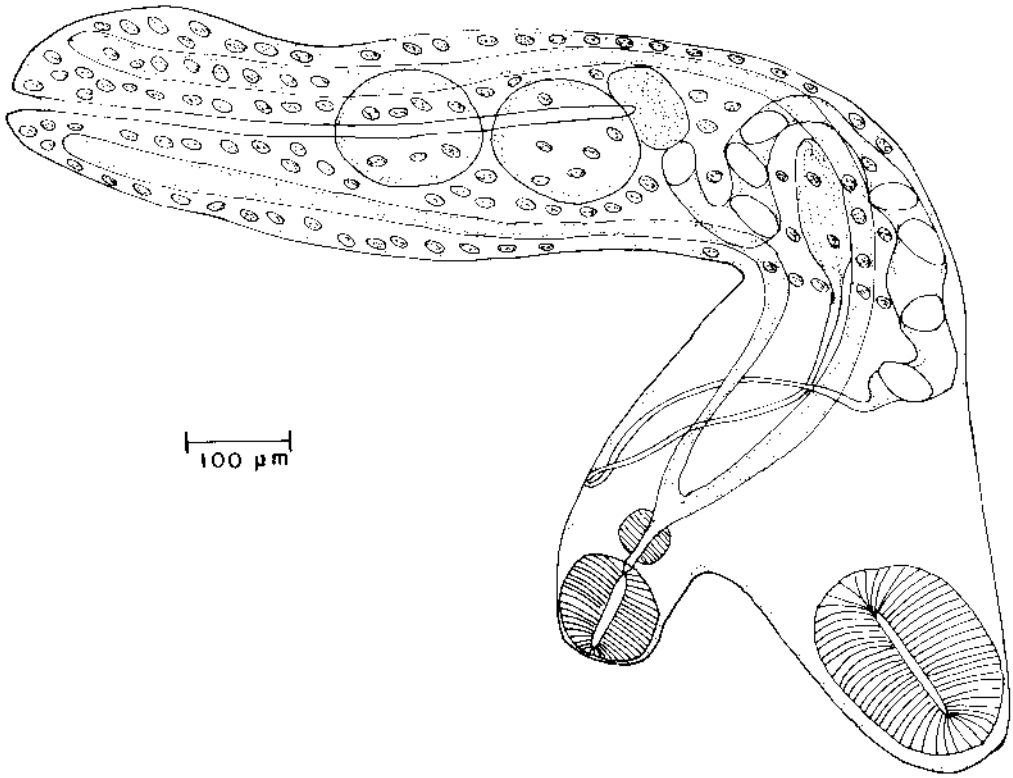


Figure 1. *Pseudopicoelus sesokoensis*, ventral view of holotype, from *Plectorhynchus pictus*.