

海南岛海鱼寄生复殖吸虫补遗*

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1990 年作者《海南岛海鱼寄生复殖吸虫》一书正式出版,同年秋季(10—11 月)及 1992 年春季(3—4 月),作者又先后两次赴海南岛进行海鱼吸虫采集,取得标本经整理鉴定共有 26 种系原书中未曾记载者,其中有 4 种为新种。现将新种描述于后,并附新记录名录。文中测量单位均为 mm,卵子为 μm 。模式标本保存在中国科学院海洋研究所。

动殖科 Zoogonidae Odhner, 1911

1. 真燕鰻燕鰻吸虫(新种) *Cypseluritrema prognichthydis* sp. nov. (图 1)

宿主 小鳍真燕鰻 *Prognichthys brevipinnis* (Cuvier et Valenciennes)。

寄生部位 胃。

描述 (根据 4 个标本)虫体小,棒状,前端尖,后端钝圆,虫体长 1.717—2.091,腹吸盘水平处体宽为 0.374—0.544。口吸盘钵形,0.119—0.153 $\times$ 0.170—0.187,位于体前端。腹吸盘凸出,0.187—0.306 $\times$ 0.221—0.272,在体前 1/2 中间。

前咽短,咽发达,0.085—0.119 $\times$ 0.136,食道亦短,肠管简单,伸向后体但不达体最后缘。

睾丸 1 对,亚球形,斜列于体中间,前睾 0.170—0.221 $\times$ 0.153—0.204,后睾 0.170—0.225 $\times$ 0.187—0.221。阴茎囊在腹吸盘前面,0.306—0.374 $\times$ 0.202—0.136,里面包含有内贮精囊,呈长茄形,0.255—0.272 $\times$ 0.068—0.102,前列腺很发达。阴茎囊无明显分化,0.306—0.374 $\times$ 0.102—0.136。生殖孔开口在口吸盘后、咽附近。

卵巢椭圆形,(0.102—0.136) $\times$ (0.085—0.119),在前睾前面。受精囊圆形,直径 0.051—0.085,位于卵巢一侧。卵黄腺滤泡分布在睾丸两侧,每侧有 7—10 枚。子宫极发达,起始即下行,直到体后缘,再折向上,经两睾向前,越过腹吸盘,通到生殖孔。子宫占满睾丸以后的全部后体。子宫内充满卵子,卵子壳厚,成熟后呈深褐色,39—45 $\times$ 24—27。

讨论 *Cypseluritrema* 属是 Yamaguti 在 1970 年建立的,该属吸虫多以飞鱼科鱼类为主要侵袭对象。本种与 *Cypselurituema spilonotopteri* Yamaguti, 1970 相似,宿主同为飞鱼科(Exocoetidae)的种类,区别是本种卵巢在睾丸前,生殖孔在口吸盘后,卵黄腺分

* 中国科学院海洋研究所调查研究报告第 3736 号。
收稿日期:1999 年 6 月 2 日。

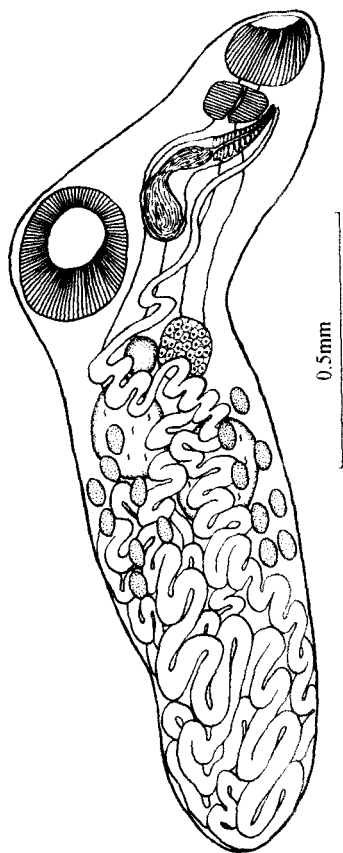


图1 真燕鰻燕鰻吸虫(新种)
Cypseluritrema prognichthylis sp. nov.

布在睾丸两侧,卵子大等。

孔肠科 Opencelidae Ozaki, 1925

2. 盖刺鱼斜孔吸虫(新种) *Plagioporus pomacanthi* sp. nov. (图2)

宿主 肩环盖刺鱼 *Pomacanthus annularis* (Bloch)。

寄生部位 肠。

描述 (根据4个标本)。虫体小,似瓶状,体表光滑。虫体长1.377—1.938,卵巢水平处体宽0.459—0.714。口吸盘椭圆形,0.085—0.204×0.119—0.272,位于体前端腹面。腹吸盘圆形,直径0.102—0.255,在体前1/2稍后处,距体前缘0.493—0.697,距体后0.765—0.935。

前咽短,长度为0.034—0.051,咽发达,0.068—0.119×0.085—0.204。食道短,肠管向体后伸,终于近体末。

睾丸1对,椭圆形,并列于体后1/2中部,左睾0.119—0.170×0.136—0.170,右睾

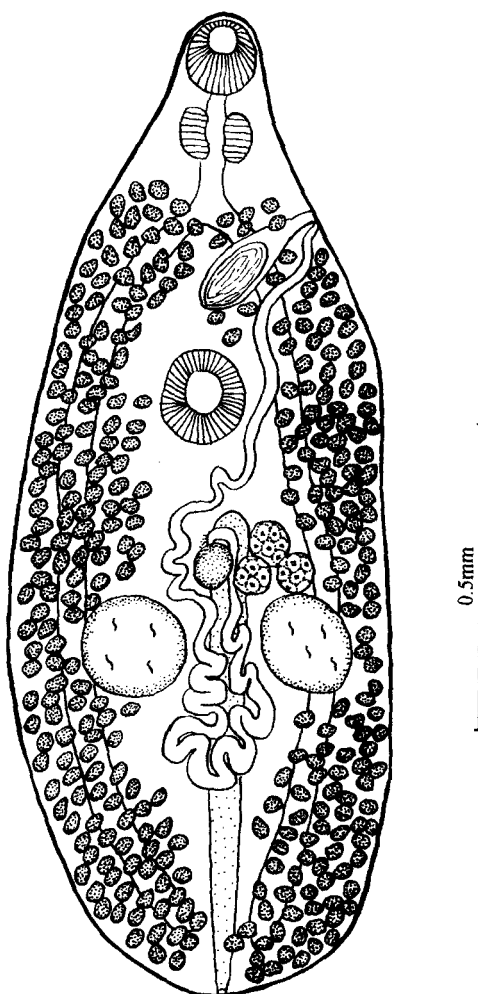


图2 盖刺鱼斜孔吸虫(新种)*Plagioporus pomacanthi* sp. nov.

0.119—0.170×0.136—0.187。阴茎囊棒状,0.221—0.306×0.068—0.119,在肠叉后,腹吸盘前方,其内包有贮精囊,为椭圆形,0.119—0.204×0.051—0.068。向前接有前列腺和射精管。生殖孔开口在肠叉水平处左侧。

卵巢叶片状,共3叶,在左睾前面,每叶大小为0.068—0.085(直径)。受精囊椭圆形,0.085—0.102×0.051—0.068,在卵巢右侧,两睾前面。卵黄腺滤包自咽后起,沿肠管向体后分布直到体末。子宫起始下行,经两睾间,再折向上,越过卵巢及腹吸盘,通至生殖孔。卵子金黄色,长椭圆形,51—57×27—33。

排泄管长筒形,向前可伸达卵巢附近。

讨论 根据本种特征应为斜孔属(*Plagioporus*), Yamaguti(1971)以排泄管是否越过腹吸盘而将该属划分为3个亚属,本种归 *P. (Plagioporus)* 亚属。与 *Plagioporus apogonichthis* Yamaguti, 1938 相近,区别是本种两睾并列,卵巢为3叶,子宫伸过睾丸之

后,生殖孔位置不同,卵子小等。

3. 海鳝缕肉吸虫(新种) *Hamacreadium gymnomuraenae* sp. nov. (图 3)

宿主 虎斑裸海鳝 *Gymnomuraena tigrina* (Lesson)。

寄生部位 胃。

描述 (根据 3 个标本)虫体长叶状,较小,前端尖,后端钝圆。生活时虫体黄色。体长 4.454—5.236,体中间部分宽 1.275—1.445。口吸盘椭圆形,0.272—0.340×0.289—0.357,位于体前端。腹吸盘较大,0.544—0.663×0.510—0.680,在体前 1/2 中间。

前咽明显,长为 0.034—0.051;咽发达,0.068—0.102×0.119—0.153。食道短,0.051—0.102,周围有腺细胞。两肠管向体后伸,可达体后缘。

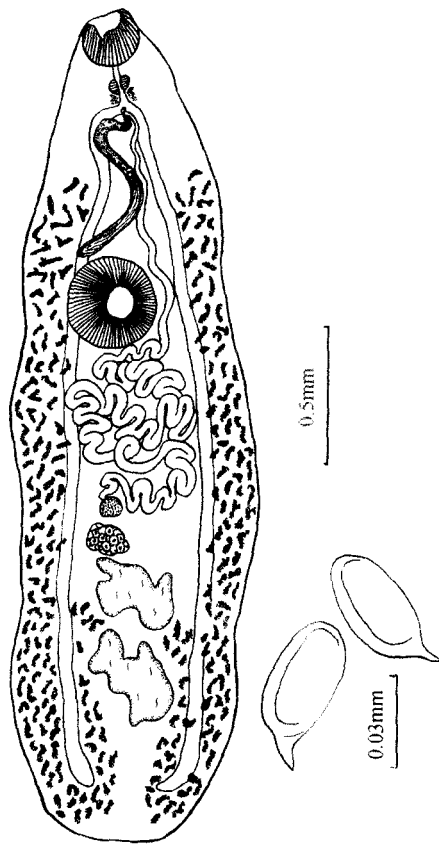


图 3 海鳝缕肉吸虫(新种)

Hamacreadium gymnomuraenae sp. nov.

睾丸形状不规则,有缺刻,两睾丸前后排列,位于体后 1/2 中间,前睾丸 0.323—0.442×0.442—0.748,后睾丸 0.459—0.544×0.493—0.799。阴茎囊呈 S 形,0.816—1.422×0.085—0.119,在腹吸盘前面,贮精囊和前列腺都包在阴茎囊内,贮精囊为 0.391—0.884×0.051—0.085,前列腺长为 0.289—0.578。生殖孔开口在咽后肠叉附近。

卵巢近椭圆形,亦具缺刻,位于前睾丸前边,0.187—0.272×0.170—0.323。受精囊椭圆形,0.119—0.136×0.136—0.153,在卵巢前面。子宫很发达,主要盘曲在卵巢与腹吸

盘之间,向前越过腹吸盘通到生殖孔。卵黄腺滤泡分布在体两侧,自腹吸盘前开始,向后直到体末缘。卵子个体大,一端具有短尾,壳厚,呈褐黄色,48—66×27—33。

排泄管长筒状,向前可越过腹吸盘。

讨论 *Hamacreadium* 属据文献记载已有 30 余种,本种与 *Hamacreadium hainanensis* Shen, 1990 相近,区别是本种睾丸前后排列,生殖孔位置不同,卵子小,并具短尾,宿主也不相同。

按文献记载该属宿主多为笛鲷属 (*Lutianus*) 鱼类,但这次所采到的标本宿主却是海鲈属 (*Gymnomuraena*) 鱼类。

半尾科 Hemiuridae (Looss, 1899)

4. 大孔离尾吸虫(新种) *Aponurus megaloporus* sp. nov. (图 4)

宿主 带鱼 *Trichiurus haumela* (Forsk.)。

寄生部位 胃。

描述 (根据 2 个标本)虫体小棒状,体长 2.312—2.346,卵巢前体宽为 0.442—0.476。口吸盘椭圆形,0.136—0.170×0.204—0.221,位于体亚前端。腹吸盘比口吸盘大,0.240—0.238×0.289—0.306,略呈凸出,与口吸盘间距为 0.340—0.442。口腹吸盘比为 1:1.45—1.67。

咽椭圆形,0.068×(0.068—0.119)。食道短,近无,肠管向体后伸到体末。

睾丸 1 对,椭圆形,前后斜列,位于体中线处,前睾丸 (0.153—0.170)×(0.170—0.187),后睾丸 (0.153—0.170)×(0.153—0.155)。贮精囊 S 形, (0.187—0.238)×(0.051—0.064),在腹吸盘前,向前接发达的前列腺,长为 0.153—0.187。两性囊卵形, (0.085—0.102)×(0.068—0.102)。生殖孔开口在肠叉后面。

卵巢形状不规则,0.136×0.187—0.204,位于体后 1/2 中间。受精囊椭圆形,0.153—0.170×0.170—0.187,位置在卵巢后,背面。卵黄腺叶片状,有 7 叶,一般为左侧 4 叶,右侧 3 叶,每叶大小为 0.085—0.102×0.085—0.170,分布在卵巢后缘。子宫很发达,起始即下行,盘曲到体末,又折向上,越过卵巢及两睾丸通到两性囊。子宫内卵子密集,金黄色,椭圆形,21—24×10—

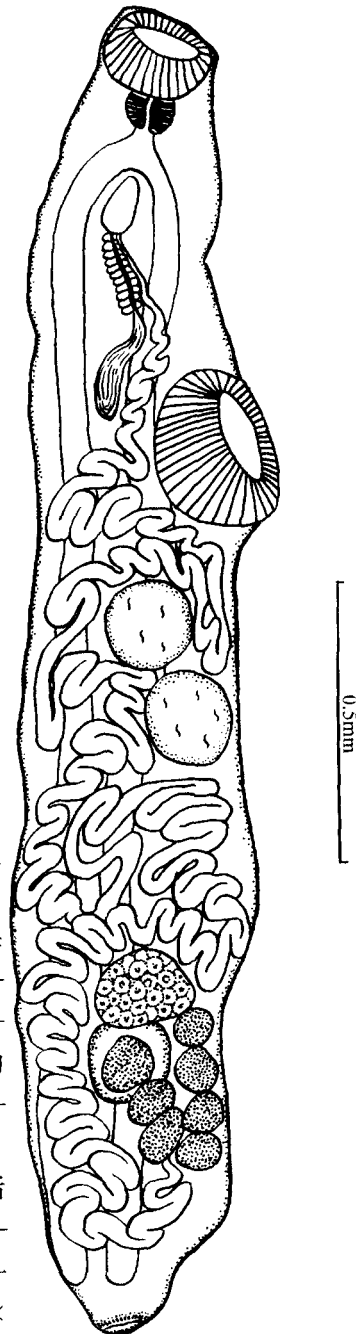


图 4 大孔离尾吸虫(新种)
Aponurus megaloporus sp. nov.

12。

排泄管 Y 形,两臂前伸于咽处相连,排泄管末端的排泄孔特大,0.034—0.051 × 0.085—0.102,是本属中罕见的。

讨论 本种的体形与大小与 *Aponurus carangis* Yamaguti, 1952, *Aponurus acropomatis* Yamaguti, 1938, *Aponurus uraspis* Shen, 1990 等相近,区别是本种虫体大于以上 3 种,受精囊位置不在卵巢前面,卵子小,排泄孔特大等。

海南岛海鱼寄生复殖吸虫新记录名录

牛首科 Bucephalidae Poche, 1907

裸胸鳍泡巢吸虫 *Folliculoxarium gymnothoracis* Gu et Shen, 1983

鳍似牛首吸虫 *Bucephalopsis scombroopsis* Yamaguti, 1938

独睾科 Monorchidae (Odhner 1911) Nicoll, 1915

纺锤独睾吸虫 *Monorchis fusiformis* Wang, 1982

转体科 Treptodemidae Yamaguti, 1971

新盈拟转体吸虫 *Treptodemoides xinyingensis* Shen, 1995

鳞肉科 Lepocreadiidae (Odhner 1905) Nicoll, 1935

鲐头鳞吸虫 *Cephalolepidapedon seba* Yamaguti, 1970

夏威夷新鳞肢吸虫 *Neallalepidapedon hawaiiense* Yamaguti, 1970

孔肠科 Opecoelidae Ozaki, 1925

平侧斜孔吸虫 *Plagioporus rhabdosargi* Wang, 1982

囊双科 Didymozoidae Poche, 1907

螺旋囊双吸虫 *Didymozoon spiral* Yamaguti, 1938

分杈泡双吸虫 *Didymocystis bifurcata* Yamaguti, 1970

鳃丝泡双吸虫 *Didymocystis philogranchia* Yamaguti, 1970

颊生似泡双吸虫 *Didymocystoides buccalis* Yamaguti, 1970

食道双粟泡囊吸虫 *Oesophogocystis dissimilis* (Yamaguti, 1938)

中华鳞双吸虫 *Lepidodidymozoon sinicum* Shen, 1984

单管异双球吸虫 *Allodidymocodium unitubulare* Yamaguti, 1970

鲐骨双球吸虫 *Osteodidymocodium karukarua* Yamaguti, 1970

半尾科 Hemiuridae (Looss, 1899) Luhe, 1901

鲭细尾吸虫 *Erilepturus platycephali* (Yamaguti, 1934)

勾齿芽腺吸虫 *Lecithocladium harpodontis* Srivastava, 1942

日本指腺吸虫 *Lecithochirium japonicum* Yamaguti, 1938

长尾充尾吸虫 *Plerurus longicaudatus* (Yamaguti, 1952)

蛭形科 Hirudinellidae Dollfus, 1932

海洋蛭形吸虫 *Hirudinella marina* (Carcin, 1730)

西沙蛭形吸虫 *Hirudinella xishaensis* Gu et Shen, 1985

前充殖科 Prosogonotrematidae Perez et Vigneras, 1940

对称前充殖吸虫 *Prosogonotrema symmetricum* Oshmarin, 1965

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ADDENDUM TO THE PARASITE DIGENETIC TREMATODES FROM MARINE FISHES IN HAINAN ISLAND*

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ABSTRACT

This paper recorts the fining of 26 digenetic trematodes of marine fishes collected from Hainan Island, druing autum (October-Noveber)in 1990 and spring (March-April)in 1992. These 26 species of trematodes were not recorded in the book "Parasite digenetic trematodes from marine fishes in Hainan Island". Four of the 26 species are considered to be new to science, and are described here.

All the measurements are in millimeters but ova in microns. The type specimens are deposited in the Institute of Oceanology Chinese Academy of Sciences in Qingdao.

* Contribution No. 3736 from Institute of Oceanology, Chinese Academy of Sciences.

1. *Cypsehuritrema prognichthydis* sp. nov. (fig. 1)

Host: *Prognichthys brevipinnis*.

Location: stomach.

Infection: Four specimens from 1 of 6 hosts.

Description: Body small, club-shaped, 1.717—2.091 long, 0.374—0.544 wide at acetabulum level. Oral sucker terminal bowl-shaped, $0.119-0.153 \times 0.170-0.187$. Acetabulum convex, $0.187-0.306 \times 0.221-0.272$ at anterior part of middle half of body.

Prepharynx present, pharynx developed, $0.085-0.119 \times 0.136$, esophagus short, ceca simple, terminating short of posterior extremity.

Testes sub-globular, diagonal in centre of body, anterior testis $0.170-0.221 \times 0.153-0.204$, posterior testis $0.170-0.255 \times 0.187-0.221$. Cirrus pouch $0.306-0.374 \times 0.102-0.136$, in front of acetabulum, containing eggplant-shaped seminal vesicle, $0.255-0.272$ long, by $0.068-0.102$ wide and well-developed prostatic complex. Genital atrium opening at posterior end of oral sucker.

Ovary elliptical, $0.102-0.136 \times 0.085-0.119$, in front of anterior testis. Seminal receptacle round, $0.051-0.085$ in diameter, at the side of ovary. Vitellaria follicles divided into two groups, at both side of testes. Uterus occupying greater ventral part of body. Eggs thick shelled, $39-45 \times 24-27$.

Discussion: This species is similar to *C. Spilonotopteri* Yamaguti, 1970, but differs from it the ovary in front of anterior testis, the genital atrium opening at posterior end of oral sucker, vitellaria at both sides of testes and larger size of eggs.

2. *Plagioporus pomacanthi* sp. nov. (fig. 2)

Host: *Pomacanthus annularis*.

Location: intestine.

Infection: Four specimens from 2 hosts.

Description: Body small, almost bottle-shaped, cuticle smooth, 1.377—1.938 long, 0.459—0.714 wide at level of ovary. Oral sucker ventroterminal, $0.085-0.204 \times 0.119-0.272$. Acetabulum round $0.102-0.255$ in diameter, near the posterior end of anterior half of body, situated $0.493-0.697$ from anterior end of body and $0.756-0.935$ from posterior end.

Prepharynx $0.034-0.051$ long, pharynx $0.068-0.119 \times 0.085-0.204$, esophagus short, ceca terminating near posterior extremity.

Testes elliptical, left testis symmetrical, $0.119-0.170 \times 0.136-0.170$, right testis $0.119-0.170 \times 0.136-0.187$, at middle of posterior end of body. Cirrus pouch claviform $0.221-0.306 \times 0.068-0.119$ in front of acetabulum; seminal vesicle $0.119-0.204 \times 0.051-0.068$, anteriorly joined pars prostatica and ejaculatory duct. Genital pore at left side of level intestinal bifurcation.

Ovary 3-lobed, in front of left testis, every lobe $0.068-0.085$ in diameter. Seminal receptacle $0.085-0.102 \times 0.051-0.068$, situated anterior to testes, right side of ovary. Vitellaria extending

from posterior end of pharynx to termination of body. Uterus first descending to testes and then ascending to genital pore. Eggs elliptical $51-57 \times 27-33$.

Excretory vesicle tubular, reaching to level of ovary.

Discussion: The Hainan species resembles *P. apogonichthydis* Yamaguti, 1938 but differs from it in the symmetrical testes, the ovary 3-lobed, the uterus reaching to posterior end of testes, and position of genital pore.

3. *Hamacreadium gymnomuraenae* sp. nov. (fig. 3)

Host: *Gymnomuraena tigrina*.

Location: stomach.

Infection: Three specimens from 3 of 4 hosts.

Description: Body leaf-shaped, small, 4.454—5.236 long, with pointed anterior and rounded posterior end. 1.275—1.445 wide. Oral sucker 0.272—0.340 $\times$ 0.289—0.357. Acetabulum large, 0.544—0.663 $\times$ 0.510—0.680, lies at the anterior part of the middle half of body.

Prepharynx distinct, 0.034—0.051 long, pharynx developed, 0.068—0.102 $\times$ 0.119—0.153. Esophagus short, surrounded by accompanying gland cells. Ceca terminating to posterior extremity.

Irregularly tandem testes, lies at posterior part of the middle half of body, anterior testis 0.323—0.442 $\times$ 0.442—0.784, posterior testis 0.459—0.544 $\times$ 0.493—0.799. Cirrus pouch S-shaped 0.816—1.422 $\times$ 0.085—0.119, vesicula seminis 0.391—0.884 $\times$ 0.051—0.085, with pars prostatica close to cirrus pouch. Genital pore near intestinal bifurcation at posterior end of pharynx.

Ovary irregularly lobed, 0.187—0.272 $\times$ 0.170—0.323, in front of anterior testis. Receptaculum seminis 0.119—0.136 $\times$ 0.136—0.153 situated at anterior of ovary. Vitelline follicles beginning at anterior acetabulum to hindbody. Eggs 48—66 $\times$ 27—33. With short filament (short tail).

Discussion: This species resembles *H. Hainanensis* Shen, 1990 but differs from it in the tandem testes, position of the genital pore, the eggs being smaller with short polar filament, and the difference of the host.

4. *Aponurus megalporus* sp. nov. (fig. 4)

Host: *Trichiurus haumela*.

Location: stomach.

Infection: Two specimens from 1 host.

Description: Body small, claviform, 2.312—2.346 long, 0.442—0.476 width at the level of pre-ovary. Cuticle smooth. Oral sucker subterminal, 0.36—0.170 $\times$ 0.204—0.221. Acetabulum larger than oral sucker, 0.204—0.238 $\times$ 0.289—0.306, situated 0.340—0.442 from posterior end of oral sucker. Sucker ratio 1:1.45—1.67.

Pharynx elliptical, 0.068 $\times$ 0.068—0.119, esophagus very short, ceca terminating at posterior extremity.

Testes elliptical diagonal, anterior testis 0.153—0.170 $\times$ 0.170—0.187, posterior testis 0.153—0.170 $\times$ 0.153—0.155 in middle line of body. Seminal vesicle sigmoid, 0.187—0.238 $\times$

0.051—0.064, in front of acetabulum. Pars prostatica developed 0.153—0.187 long. Hermaphroditic pouch ovoid, $0.085—0.102 \times 0.068—0.102$. Genital pore opens at the posterior of intestinal bifurcation.

Ovary irregularly wider than long $0.136 \times 0.187—0.204$ in middle of posterior half of body. Receptaculum seminis $0.153—0.170 \times 0.170—0.187$, posterodorsal to ovary. Vitelline gland immediately behind ovary, divided into 7 massed lobes, measuring $0.085—0.102 \times 0.085—0.170$. The uterus occupying all available space in the hindbody and anteriorly opens at the hermaphroditic pouch. Eggs elliptical, $21—24 \times 10—12$.

Excretory vesicle, Y-shaped the arms uniting dorsal to pharynx. The excretory pore, very large, $0.034—0.051 \times 0.085—0.102$.

Discussion: Body shape similar to that of *A. carangis* Yamaguti, 1952, *A. acropomatis* Yamaguti, 1938 and *A. uraspis* Shen, 1990; but differs from them in the large body, the receptaculum seminis not in front of ovary, the smaller size eggs and the large excretory pore.