

单脏科吸虫二新种

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摘要: 单脏吸虫, 新种 *Haplospalanchmus lizae* sp. nov. 和巨卵希氏单脏吸虫, 新种 *Schikhobalotrema megaovus* sp. nov. 检获于厦门集美附近海域棱 *Liza carinatus* 肠道。单脏吸虫, 新种 *Haplospalanchmus lizae* sp. nov. 与该属已知种的双腺单脏吸虫 *H. bivitellosus* Zhukov, 1971 最为相似, 它们都具有 2 列卵黄腺, 但在卵黄腺的组成和虫卵大小方面存在明显差别; 巨卵希氏单脏吸虫, 新种 *Schikhobalotrema megaovus* sp. nov. 与该属已知种的区别在于其虫卵 [0.130—0.142×0.096—0.120(0.133×0.108)] 特别大。

关键词: 吸虫纲; 单脏科; 单脏属吸虫; 单脏吸虫; 希氏单脏属吸虫; 巨卵希氏单脏吸虫; 新种
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1999 年 9 月至 2001 年 6 月间在调查台湾海峡鱼类吸虫多样性时, 从棱 *Liza carinatus* 消化道检获二种单脏科(Haplospalanchnidae)吸虫, 经比较认为它们是科学上尚未报道的新种。标本经常规制片后保存于厦门大学生命科学学院寄生动物研究室。文中测量单位如无特别说明均用 mm, 括弧内的数据为算术平均值。所示的图均借助绘图仪在 CH-20lympus 显微镜下绘成。

单脏吸虫, 新种 *Haplospalanchmus lizae* sp. nov. (图 1)

宿主: 棱 *Liza carinatus*

寄生部位: 肠

感染率: 32.0%(88/275)。

感染强度: 1—20, 共得虫 313 枚。

采集地点: 厦门集美附近海域

采集时间: 1999 年 9 月至 2001 年 6 月

描述: (根据 10 个成虫标本)虫体长梭形或短棒状, 两端较窄, 大小为 1.00—1.40×0.49—0.68(1.23×0.60), 最宽处位于腹吸盘水平。体壁厚, 光滑。口吸盘亚端位, 近圆形, 0.144—0.208×0.188—0.232(0.170×0.200)。腹吸盘近圆形, 0.216—0.292×0.200—0.296(0.249×0.255), 位于赤道线附近。吸盘比 1:1.22—1.48(1:1.37)。前咽不明显或无。咽球形, 0.072—0.092×0.088—0.104(0.082×0.095)。食道长 0.048—0.144(0.092)。肠管单

一, 延至腹吸盘中部或止于腹吸盘前缘, 长 0.168—0.312(0.245), 占虫体长度的 15.6%—27.2%(20.1%)。睾丸单个, 圆形或椭圆形, 0.136—0.296×0.148—0.248(0.175×0.176), 位于虫体近末端。贮精囊肠管状 0.608—0.696×0.032—0.042(0.661×0.038), 始于腹吸盘与卵巢之间, 在其前端有一小段前列腺复合体, 前列腺细胞自由地分布在其四周。生殖孔开口于咽与腹吸盘之间。

卵巢近球形, 0.054—0.125×0.062—0.112(0.084×0.095), 位于睾丸前方或紧靠睾丸前缘。受精囊囊状, 0.076—0.116×0.062—0.120(0.099×0.089), 位于卵巢的一侧。未见有劳氏管。子宫盘曲于睾丸与腹吸盘之间, 但不进入睾丸后的空间, 由一肌质的子宫末段与生殖孔相连。卵黄腺不发达, 由一些小的茄子样的滤泡丛列为 2 列, 位于腹吸盘与卵巢之间。虫卵卵圆形, 0.064—0.94×0.038—0.056(0.081×0.048)。成熟的虫卵里含具眼点的毛蚴。在活体观察时, 发现靠近子宫末段的虫卵便有毛蚴孵出。毛蚴大小为 0.088—0.116×0.044—0.066(0.099×0.061)。

排泄管“Y”型, 排泄干短, 在睾丸之后即分为两条次级收集管, 次级收集管止于腹吸盘与咽之间。排泄孔位于虫体末端。

讨论: 虽然 Yamaguti 将 *Haplospalanchmus* Looss, 1902 和 *Laruae* Srivastava, 1939 作为 2 个有效属对

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待^[1],但多数学者认为 *Larua* 是 *Haploplanchnus* 的同属异名^[2-9]。迄今为止,名义上已报道的种类共有 10 种:厚体单脏吸虫(模式种) *Haploplanchnus pachysoma* (Eysenhardt, 1829)(type species); 浦里单脏吸虫 *H. purii* Srivastava, 1939 和 鲮单脏吸虫 *H. mugilis* Nahhas et Cable, 1964; 印度尾单脏吸虫 *H. caudatus* (Srivastava, 1939); 双腺单脏吸虫 *H. bivitellosus* Zhukov, 1971; 楔形单脏吸虫 *H. cuneatus* Tang & Liu, 1978; 长形单脏吸虫 *H. elongates* Tang & Lin, 1978; 东方单脏吸虫 *H. orientalis* Gupta & Ahamd, 1979; 斯氏单脏吸虫 *H. stunkardi* Gupta & Ahamd, 1979; 印度单脏吸虫 *H. indica* Gupta & Ahamd, 1979。

Zhukov 在日本和黄海流域从棱鲮 *Mugil so-iyu* 和头鲮 *M. cephalus* 检获该属一新种,它与已知种的区别在于具有 2 条卵黄腺,并因此命名为双腺单脏吸虫 *H. bivitellosus* Zhukov, 1971^[7]。

Bray 根据 Madhavi 的观察结果将 *H. bivitellosus* Zhukov, 1971 作为 *H. purii* Srivastava, 1939 的同物异名。其理由是: *H. bivitellosus* 的基本结构与 *H. purii* 的相似,而 *H. bivitellosus* 所具有的 2 条不甚发达的扭形的卵黄腺还有待于证实。

同已知种相比,新种与 *H. bivitellosus* Zhukov, 1971 最为相似,它们都具有 1 对卵黄腺。但与后者的区别在于:(1)前者的卵黄腺是由茄子样的小滤泡组成而非是单一的条形卵黄腺;(2)前者虫卵 [0.064—0.94 × 0.038—0.056 (0.081 × 0.048)] 较后者 (0.050—0.054 × 0.025—0.033) 大。

巨卵希氏单脏吸虫,新种 *Schikhobalotrema megaovus* sp. nov. (图 2)

宿主: 棱鲮 *Liza carinatus*

寄生部位: 肠

感染率: 12.4% (34/275)。

感染强度: 1—15, 共得虫 99 枚

采集地点: 厦门集美附近海域

采集时间: 1999 年 9 月至 2001 年 6 月

描述:(根据 9 个成虫标本)虫体梭形,两端较窄,大小为 0.97—1.35 × 0.52—0.69 (1.19 × 0.56),最宽处位于腹吸盘水平。体壁厚,光滑。在咽的两侧各有一个眼点。口吸盘位于虫体前亚末端,近圆形,0.128—0.184 × 0.188—0.240 (0.163 × 0.210)。腹吸盘近圆形,0.194—0.248 × 0.220—0.288 (0.220 × 0.250)。吸盘比 1 : 1.24—1.31 (1 : 1.27)。前咽不明显或无。咽球形,0.108—0.152 × 0.126—0.196 (0.126 × 0.158)。食道不明显。肠管

单一,延至腹吸盘中后部或腹吸盘后缘之后,长 0.192—0.510 (0.340),占虫体长度的 19.8%—44.4% (28.9%)。

睾丸单个,圆形或椭圆形,0.160—0.280 × 0.096—0.160 (0.231 × 0.118),距虫体末端 0.080—0.136 (0.105)。贮精囊肠管状 0.296—0.344 × 0.024—0.052 (0.325 × 0.036)。生殖孔开口于咽的下方,为一裂隙状。

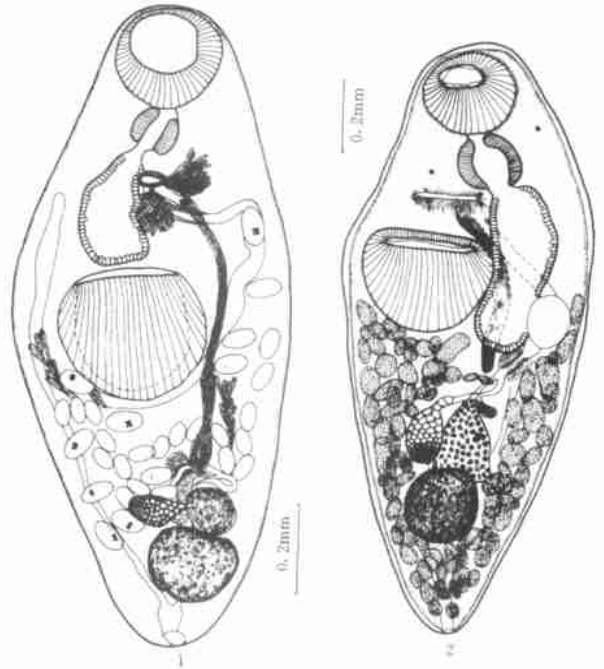


图 1 鲮单脏吸虫,新种(腹面观) 图 2 巨卵希氏单脏吸虫,新种(腹面观)

Fig. 1 *Haploplanchnus lizae* sp. nov. (ventral view); Fig. 2 *Schikhobalotrema megaovus* sp. nov. (ventral view)

卵巢近球形,0.100—0.136 × 0.050—0.090 (0.123 × 0.065),位于睾丸前方或紧靠睾丸前缘。受精囊袋状,0.060—0.076 × 0.050—0.090 (0.069 × 0.072)。未见有劳氏管。子宫相对短,弯曲上行至生殖孔,含卵量少,一般在 5 枚以内,最多不超过 10 枚虫卵。卵黄腺滤泡状,绝大部分分布于虫体末端与腹吸盘之间,偶尔分布至腹吸盘之前。虫卵卵圆形,0.130—0.142 × 0.096—0.120 (0.133 × 0.108),内含一个卵细胞和若干个卵黄腺细胞。

排泄管“Y”型,排泄干短,在睾丸之后即分为两条次级收集管,次级收集管止于腹吸盘前缘水平,排泄孔位于虫体末端。

讨论:本属吸虫的主要特征是:虫体纺锤形,腹吸盘不向腹面突出且具两行卵黄腺向前分布至腹吸盘水平。Yamaguti 共记载有 17 种^[1]。随后,Orrecchia

& Paggi 在血色^鰕 *Blennius sanguinolentus* 的消化道里检获一新种——长腺希氏单脏吸虫 *S. longivesiculatum* Orecchia & Paggi, 1975^[8]。顾昌栋和申纪伟是首次也是迄今为止惟一报道我国海洋鱼类有该属吸虫寄生的学者,他们从海南岛的大圆颚针鱼的肠管内发现有尖希氏单脏吸虫 *Schikhobalotrema acuta* (Linton, 1910)寄生^[9]。

从卵黄腺的分布及各器官的排列位置等特征相比较,新种与 *S. adacuta* (Manter, 1937) Skrjabin & Guschanskaja, 1954 较为相似,但与后者主要区别在于它具有巨大的虫卵[新种的虫卵为 $0.130-0.142 \times 0.096-0.120$ (0.133×0.108); 而 *S. adacuta* 的虫卵为 $0.068-0.087 \times 0.043-0.059$]。

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TWO NEW SPECIES OF HAPLOSPLANCHNIDAE (DIGENEA) FROM *LIZA CARINATUS* FROM THE TAIWAN STRAITS, CHINA

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Abstract: Two new species of haplospilnchiid trematodes were described from *Liza carinatus* from the Taiwan Straits, China in this paper. Type specimens are deposited in Parasitology Research Laboratory, School of Life Sciences, Xiamen University. Measurements are given in millimeters, as the ranges followed by the mean in parentheses, unless otherwise stated.

***Haplospilnchus lizae* sp. nov.** (Fig. 1)

Type host: *Liza carinatus* (Cuvier et Valenciennes).

Site of infection: Intestine.

Type locality: Xiamen ($118^{\circ}03'58''-11^{\circ}48''E$, $24^{\circ}25'24''-33^{\circ}14''N$), Fujian Province, China.

Date: Between Sept., 1999 and June, 2001.

Prevalence: 313 specimens from 88 of 275 hosts.

Description: (based on 10 mounted specimens) Body fusiform or short club-shaped, $1.00-1.40 \times 0.49-0.68$ (1.23×0.60). Tegument smooth. Oral sucker subterminal, $0.144-0.208 \times 0.188-0.232$ (0.170×0.200). Acetabulum $0.216-0.292 \times 0.200-0.296$ (0.249×0.255). Sucker ratio 1 : 1.22—1.48 (1 : 1.37). Prepharynx obscure or absent. Pharynx global, $0.072-0.092 \times 0.088-0.104$ (0.082×0.095). Esophagus $0.048-0.144$ (0.092) long. Intestine $0.168-0.312$ (0.245) long.

Testis single, rounded or elliptical, $0.136-0.296 \times 0.148-0.248$ (0.175×0.176), near posterior end of body.

Seminal vesicular tubular, $0.608-0.696 \times 0.032-0.042$ (0.661×0.038), terminating between acetabulum and ovary. Pars prostatica short, surrounded by prostatic cells. Genital pore between pharynx and acetabulum.

Ovary nearly global, $0.054-0.125 \times 0.062-0.112$ (0.084×0.095), pretesticular. Receptaculum seminal sac in shape, $0.076-0.116 \times 0.062-0.120$ (0.099×0.089), Uterus between testis and acetabulum. Vitellaria poorly developed, comprised by small vitelline follicles to form two bands on the dorsal side between ovary and acetabulum. Egg ovoid, $0.064-0.094 \times 0.038-0.056$ (0.081×0.048). Fully embryonated eggs contain miracidia with eye-spots.

Excretory vesicle "Y" shaped.

The present species most closely resembles *H. bivitellosus* Zhukov, 1971 from *Mugil so-iyu* and *M. cephalus* from the basins of the Japan and Yellow Seas in having two bands of vitellaria, but differs from it in the natural of vitellaria and egg-size.

***Schikhobalotrema megaovus* sp. nov.** (Fig. 2)

Type host: *Liza carinatus* (Cuvier et Valenciennes).

Site of infection: Intestine.

Type locality: Xiamen ($118^{\circ}03'58''-11^{\circ}48''E$, $24^{\circ}25'24''-33^{\circ}14''N$), Fujian Province, China.

Date: Between Sept., 1999 and June, 2001.

Prevalence: 99 specimens from 34 of 275 hosts.

Description: (based on 9 mounted specimens) Body fusiform, $0.97-1.35 \times 0.52-0.69$ (1.19×0.56). Cuticle thick, smooth. Eye-spot pigment granules present on either sides of pharynx. Oral sucker nearly rounded, subterminal, $0.128-0.184 \times 0.188-0.240$ (0.163×0.210). Acetabulum $0.194-0.248 \times 0.220-0.288$ (0.220×0.250). Sucker ratio 1:1.24-1.31 (1:1.27). Prepharynx obscure or absent. Pharynx global, $0.108-0.152 \times 0.126-0.196$ (0.126×0.158). Esophagus obscure. Intestinal caecum single, $0.192-0.510$ (0.340) long.

Testis single, rounded or elliptical, $0.160-0.280 \times 0.096-0.160$ (0.231×0.118), at as far backwards as $0.080-0.136$ (0.105) from the posterior end of the body. Seminal vesicle tubular, $0.296-0.344 \times 0.024-0.052$ (0.325×0.036). Genital pore just behind pharynx.

Ovary ovoid, $0.100-0.136 \times 0.050-0.090$ (0.123×0.065), pretesticular. Receptaculum seminal saccular, $0.060-0.076 \times 0.050-0.090$ (0.069×0.072). Uterus short, with a few eggs (Usually less than 5, not more than 10). Vitellaria follicles, distributing between acetabulum and the posterior end of the body. Eggs $0.130-0.142 \times 0.096-0.120$ (0.133×0.108), not embryonated.

Excretory vesicle "Y" shaped, excretory stem short and bifurcating posterior to testis.

More than 17 species of *Schikhobalotrema* have been described to date. The new species differs from them in having larger eggs.

Key words: Digenea; Haplosporididae; *Haplosporidius*; *Haplosporidius lizae*; *Schikhobalotrema*; *Schikhobalotrema megaovus*; New species