TWO NEW HAPLOPORIDAE (TREMATODA) OF FISHES FROM THE BRAZILIAN STATE OF RONDÔNIA

Vernon E. THATCHER*

ABSTRACT — Two new Haploridae (Trematoda) are described from fishes of the State of Rondônia, Brazil. Rondotrema microvitellatum gen. et sp. n., an intestinal parasite of Hemiodus microlepis, is characterized as having interecal vitellaria limited to one small cluster on either side postero-lateral to the ovary. Lecithobothrioides elongatus sp. n., from Prochilodus nigricans, has an elongate, cylindrical body, short thick ceca, a small hemaphroditic sac and extensive vitellaria.

Key-words: fish parasites, trematodes, haploroids, Brazil, Amazonia.

Dois Novos Haploridae (Trematoda) de Peixes do Estado de Rondônia, Brasil

RESUMO — Duas novas Haploridae (Trematoda) são descritas de peixes do estado do Rondônia, Brasil. Rondotrema microvitellatum gen. et sp. n., um parasito intestinal de Hemiodus microlepis, é caracterizado por ter glândulas vitelínicas interecais, limitadas a um grupo pequeno de cada lado, postero-lateral ao ovário. Lecithobothrioides elongatus sp. n., de Prochilodus nigricans, tem um corpo alongado e cilíndrico, cecos curtos egrossos, uma bolsa hermafroditica pequena e glândulas vitelínicas extensivas.

Palavras chaves: parasitas de peixes, trematódeos, haplorídeos, Brasil, Amazônia.

INTRODUCTION

Haploridae are small intestinal trematodes of fishes. Thatcher (1993) listed six genera of this family from Neotropical freshwater fishes, namely: Chalcinotrema Teixeira de Freitas, 1947; Lecithobothrioides Thatcher & Dossman, 1974; Megacoelium Szidat, 1954, Thatcher & Varella, 1981; Paralecithobotrys Teixeira de Freitas, 1947; Saccocoelioidei Szidat, 1954, Thatcher, 1978; and Unicoelium Thatcher & Dossman, 1975. Some twenty species have been described in these genera with at least twelve of them attributed to Saccocoelioidei. The first haplorids reported were from littoral marine fishes, especially mullets (Mugilidae). When freshwater haplorids were found later on, it was supposed that they had evolved from a marine ancestor. In fact, haplorids are now known to be more numerous and varied in freshwater than in the sea, so perhaps the reverse is true.

MATERIALS AND METHODS

Fish hosts were netted, identified and eviscerated in the Brazilian State of Rondônia. The intestinal tracts were removed, fixed in 10% formalin solution and later transferred to 70% ethanol. At the laboratory in Manaus, the preserved digestive tracts were opened and the contents were examined by washing and hand sedimentation. Whole mount preparations were made by means of the phenol-balsam method explained in Thatcher (1991). Drawings were made with the aid of a Zeiss drawing tube and sizes were

*Instituto Nacional de Pesquisas da Amazônia, Manaus, AM, Brazil. Research Fellow of the Conselho Nacional de Pesquisas (CNPq), Brasilia, Brasil.
taken with a measuring ocular. All measurements are in micrometers (µm) and mean sizes are followed by the extremes enclosed in parentheses.

RESULTS

Family Haploporidiae Nicoll, 1914

Rondotrema gen. n.

Generic diagnosis: With the characters of the family. Body small, stout, tapering towards both extremities, not flattened; tegument not spinous. Oral sucker large, subterminal; prepharynx short; pharynx large, spherical; esophagus long; ceca medium long, slender. Acetabulum large, pre-equatorial. Testis small, single, spherical or irregular postequatorial; hermaphroditic bursa large, pyriform, containing internal seminal vesicle, cirrus and distal part of uterus; genital pore medial, immediately preacetabular. Ovary ovoid, pretesticular, lateral to midline; vitellaria of two grape-like follicular clusters, one on each side, lateral to testis but intercecal; uterus with descending and ascending loops; eggs large, containing miracidia with eye-spots. Excretory vesicle tubular, pore terminal. Intestinal parasites of freshwater fishes.

Type species: Rondotrema microvitellarum sp. n.

Rondotrema microvitellarum sp. n.
(Figs. 1-3)

Host: Hemiodus microlepis.
Site: Intestinal lumen.
Holotype (INPA 375) and 7 paratypes (INPA 376 a-g): Invertebrate Collection, Instituto Nacional de Pesquisas da Amazônia, Manaus, AM, Brazil.


Remarks

This new genus and species differs considerably from the other known haploporids principally in the size, position and nature of the vitelline glands. Only Lecithobotrys Looss, 1902, from a marine fish, has two small clusters of vitellaria centrally located. In the latter genus, however, the vitellaria are extracecal, the ceca are short, the testis is large, the suckers are small, as is the hermaphroditic bursa. In Rondotrema microvitellarum gen. et sp. n., on the other hand, the vitelline clusters are intercecal, the ceca are long, the testis is small, the suckers are large, as is the hermaphroditic bursa.

Lecithobotrioides Thatcher & Dossman, 1974
Figures 1 - 3. *Rondotrema microvitellarum* gen. et sp. n. Growth series. Figs. 1 & 3. Ventral views. Fig. 2. Lateral view. Scale = 500 μm

*Two new Haploporidae (Trematoda) of fishes...*
Generic diagnosis (modified after Thatcher & Dossman, 1974): With the characters of the family. Body small, elongate, cylindrical; tegument spinous. Oral sucker small, spherical, opening on ventral body surface; prepharynx short; pharynx large, spherical; esophagus long; ceca short, thick, reaching to near equator. Acetabulum equatorial or post-equatorial. Testis single, spherical to ovoid, immediately postacetabular; hermaphroditic bursa small, spherical to ovoid, containing internal seminal vesicle, cirrus and distal part of uterus; genital pore bifurcal. Ovary ovoid, pretesticular, dorsal to acetabulum; vitellaria follicular, extensive, in lateral fields which are united anterodorsally; uerus of limited extent, with few small eggs. Excretory vesicle tubular, pore terminal. Intestinal parasites of freshwater fishes.

Type species: Lecithobothrioides mediacanoensis Thatcher & Dossman, 1974.

Type host: Prochilodus reticulatus.

Type locality: Media Canoa River, Valle, Colombia.

Other species: Lecithobothrioides elongatus sp. n.

Lecithobothrioides elongatus sp. n. (Fig. 4)

Host: Prochilodus nigricans.

Site: Intestinal lumen.


Holotype (INPA 377) and 3 paratypes (INPA 378 a-c): Invertebrate Collection of the Instituto

Figure 4. Lecithobothrioides elongatus sp.n. Ventral view. Scale = 500 μm
Nacional de Pesquisas da Amazônia, Manaus, AM, Brazil.


Remarks

The new species resembles the type species, Lecithobothrioides mediacanoensis, which was described by Thatcher & Dossman, 1974, from the same genus of host fish (Prochilodus). L. elongatus sp. n. differs from the type in a number of respects. The pharynx is larger than the oral sucker, the ceca barely reach the equator, the testis is near the acetabulum. In the type, the pharynx is subequal to the oral sucker in size, the ceca reach to the posterior third of the body and the testis is far posterior to the acetabulum.

Literature Cited


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