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ABOUT SOME TREMATODES PARASITES OF *HAEMULON SCIURUS* (SHAW, 1803)

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From September, 1980 to August, 1981 forty specimens of Haemulon sciurus *from "Praia da Ribeira, Ilha do Governador", Rio de Janeiro State, were examined for parasites. In this paper, parcial results concerning only the collected trematodes are reported:* Diplomonorchis leiostomi *Hopkins, 1941 (first record in Brazil and in a new host);* Lasiotocus beauforti *(Hopkins, 1941) Thomas, 1959 (new host record);* Genolopa ampullacea *Linton, 1910;* Parahemiurus merus *(Linton, 1910) Yamaguti, 1938 (new host record);* Aponurus pyriformis *(Linton, 1910) Overstreet, 1973 and* Diplangus paxillus *Linton, 1910. Figures, measurements and comments of each species are given.*

From September, 1980 to August, 1981, forty specimens of *Haemulon sciurus* were examined for parasites. The fishes were obtained from the fishermen of "Praia da Ribeira, Ilha do Governador", Rio de Janeiro State. Of forty fish examined, 38 (95%) were parasited by one or more classes of helminths: 34 (85%) by trematodes, 23 (57,5%) by acanthocephalans, 21 (52,5%) by cestodes, 15 (37,5%) by nematodes and 12 (30%) by monogeneans. In this paper partial results are reported concerning only the collected trematodes represented by six different species: *Diplomonorchis leiostomi* Hopkins, 1941; *Lasiotocus beauforti* (Hopkins, 1941) Thomas, 1959; *Genolopa ampullacea* Linton, 1910; *Parahemiurus merus* (Linton, 1910) Yamaguti, 1938; *Aponurus pyriformis* (Linton, 1910) Overstreet, 1973 and *Diplangus paxillus* Linton, 1910. Specimens were fixed in 10% formalin or in Afa with compression; whole mounts were stained with Semichon's Carmine. Material studied is deposited in the Helminthological Collection of the Oswaldo Cruz Institute.

RESULTS

Diplomonorchis leiostomi Hopkins, 1941
(Figs. Ia and Ib)

One hundred and fifty four specimens were recovered from 50% of the examined fish. This species, also registered in USA and Mexico, is now recorded for the first time

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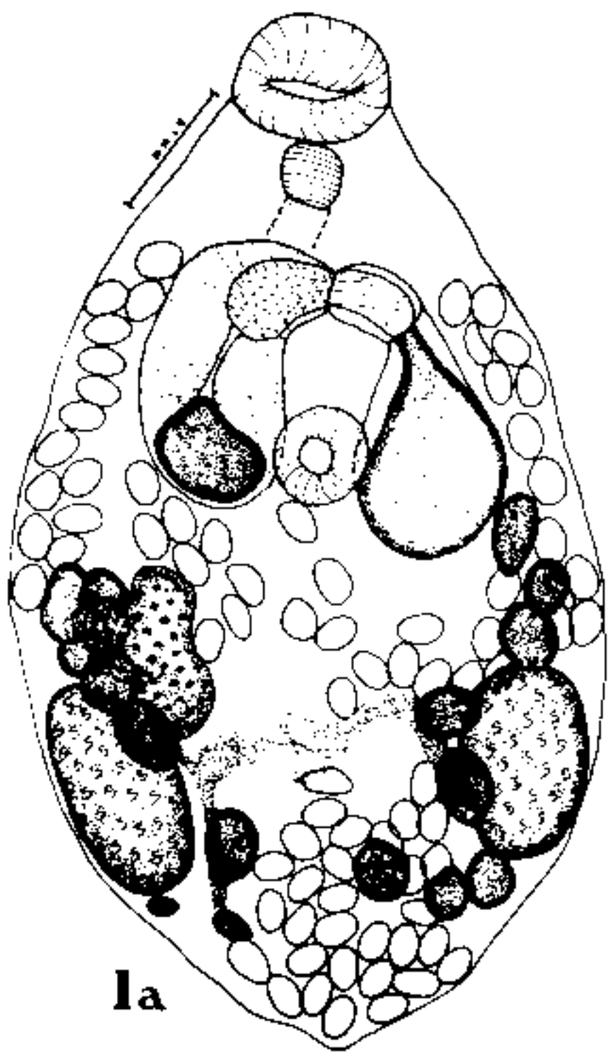

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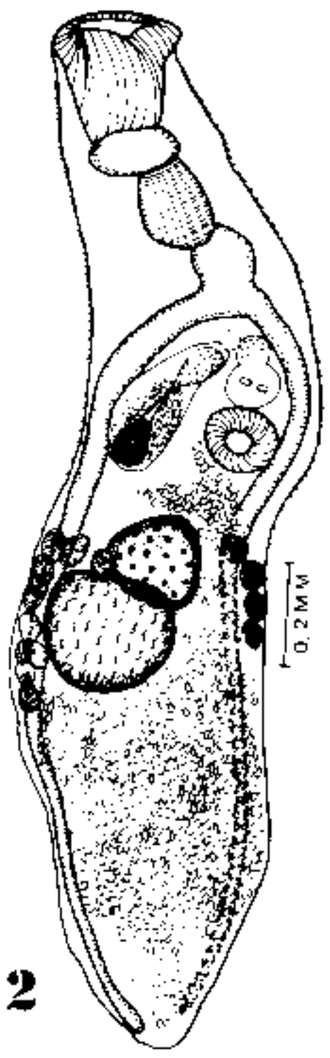

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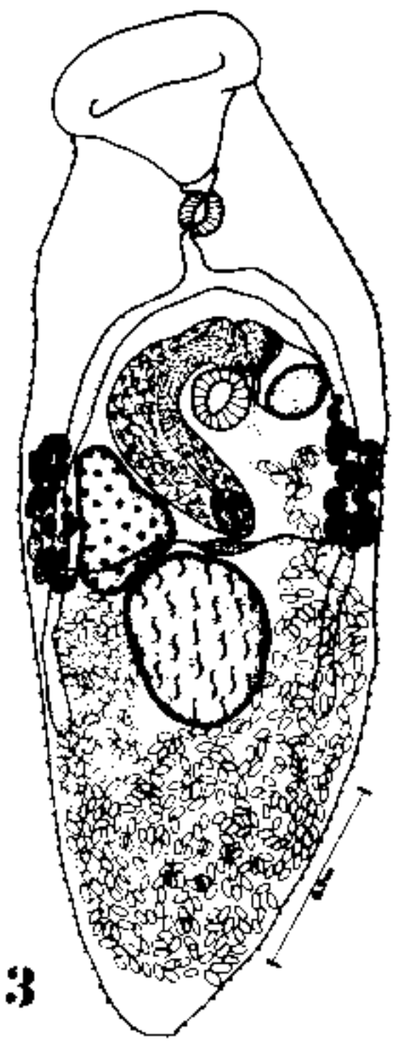

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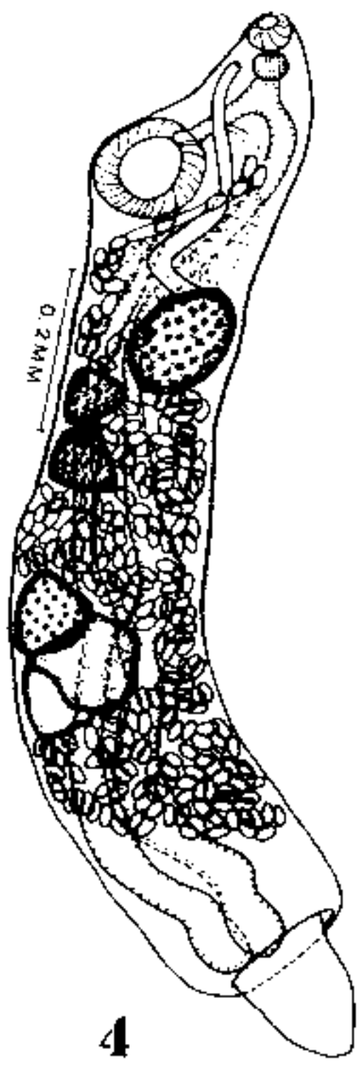

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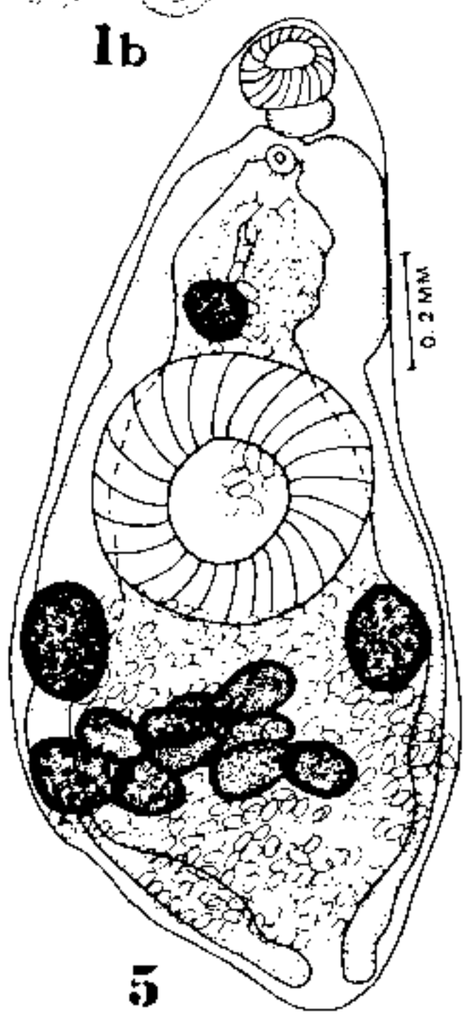

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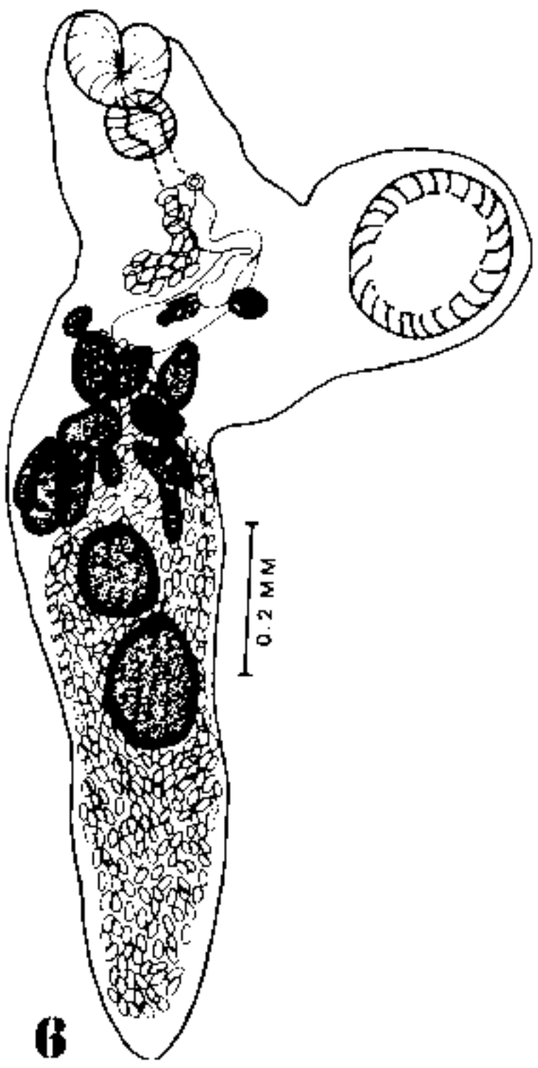

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Figs. 1a-b *Diplomonorchis leiostomi* Hopkins, 1941 – a: total, ventral view; b: eggs. IOC Helm. Coll. nº 31.917a.

Fig. 2 – *Lasiotocus beauforti* (Hopkins, 1941) – total, ventral view. IOC Helm. Coll. nº 31.918a.

Fig. 3 – *Genolopa ampullacea* Linton, 1910 – total, ventral view. IOC Helm. Coll. nº 31.919a.

Fig. 4 – *Parahemiurus merus* (Linton, 1910) – total, ventral view. IOC Helm. Coll. nº 31.920a.

Fig. 5 – *Aponurus pyriformis* (Linton, 1910) – total, ventral view. IOC Helm. Coll. nº 31.921a.

Fig. 6 – *Diplangus paxillus* Linton, 1910 – total, ventral view. IOC Helm. Coll. nº 31.922a.
Figures originals.

TABLE I

Measurements in millimeters

	Diplomonorchis leiostomi *(18)	*Lasiotocus beauforti* *(8)	*Genolopa ampullacea* *(23)	*Parahemiurus merus* *(4)	*Aponurus pyriformis* *(8)	*Diplangus paxillus* *(4)
Length	0,5–0,7	1,55–1,77	0,74–1,58	1,3–2,16	0,67–1,7	0,88–1,25
Width	0,3–0,5	0,3–0,43	0,31–0,59	0,21–0,36	0,36–0,6	0,26–0,52
Oral Sucker	0,06–0,09 × 0,07–0,10	0,20–0,23 × 0,18–0,32	0,12–0,21 × 0,15–0,17	0,037–0,04 × 0,052–0,057	0,076 0,13 × 0,14–0,16	0,075–0,17 × 0,084–0,15
Ventral Sucker	0,05–0,08 × 0,05–0,06	0,11–0,12 × 0,10–0,13	0,049–0,082 × 0,056–0,094	0,12–0,13 × 0,12–0,13	0,25–0,43 × 0,25–0,43	0,15–0,25 × 0,16–0,2
Sucker Ratio	1:0,7–1:0,81	1:0,55–1:0,63	1:0,37–1:0,45	1:0,26	1:0,26–1:3,75	1:1,4–1:2,2
Pharynx	0,03–0,04 × 0,04–0,05	0,12–0,13 × 0,10–0,11	0,037–0,056 × 0,034–0,07	0,028–0,029 × 0,027–0,028	0,037–0,047 × 0,045–0,067	0,08–0,09 × 0,09–0,1
Cirrus Pouch	0,12–0,2 × 0,06–0,1	0,25–0,26 × 0,07–0,09				0,025–0,02 × 0,08–0,093
Cirrus Spines	0,006 x 0,006		0,005–0,01 × 0,007–0,012			
Anterior Testis	0,12–0,15 × 0,067–0,094	0,23–0,28 × 0,15–0,27	0,15–0,3 × 0,1–0,18	0,064–0,072 × 0,067–0,072	0,07–0,16 × 0,11–0,12	0,15–0,22 × 0,11–0,22
Posterior Testis	0,11–0,19 × 0,071–0,089			0,072–0,075 × 0,075–0,09		0,16–0,20 × 0,11–0,20
Ovary	0,10–0,11 × 0,074–0,08	0,15–0,18 × 0,10–0,16	0,11–0,19 × 0,075–0,15	0,08–0,094 × 0,09–0,097	0,08–0,13 × 0,065–0,12	0,12 0,13 × 0,09–0,15
Seminal Receptacle				0,14–0,15 × 0,09–0,11		
Eggs	0,03–0,032 × 0,016–0,021	0,021–0,026 × 0,011–0,016	0,021–0,028 × 0,009–0,012	0,02–0,032 × 0,015–0,018	0,03 0,041 × 0,01–0,022	0,028–0,039 × 0,014–0,021
Habitat	Intestine	Intestine	Stomach and intestine	Intestine	Stomach and intestine	Intestine

*Number of specimens measured.

in Brazil and in a new host. In the great amount of the recovered material, the eggs presented rugose shell (Fig. lb), a character easily detectable in all specimens examined, although not mentioned by Hopkins (1941), nor by the other authors that referred this species (Nahhas & Cable, 1964; Nahhas & Powell, 1965; Joy, 1972 and Overstreet, 1976).

Lasiotocus beauforti (Hopkins, 1941)
(Fig. 2)

Originally described as *Genolopa beauforti* from *Orthopristis crysopterus*, this species was transferred to the genus *Lasiotocus* by Thomas in 1959. Its presence was reported in other fishes from USA and Mexico; in Brazil it was referred by Amato (1980) in Percoid hosts. Eight worms were collected from six specimens of *Haemulon sciurus* which is a new host record for this species.

Genolopa ampullacea Linton, 1910
(Fig. 3)

It is the type species of the genus, originally described from *Haemulon sciurus* in USA and reported in other fishes from India, Porto Rico, Venezuela, Bahamas, Curaçao, Jamaica and Brazil. Three hundred and sixty specimens were recovered from thirty-two fish (77.5% of the total examined) what indicates the high incidence of this parasite.

Parahemiurus merus (Linton, 1910)
(Fig. 4)

A cosmopolitan species, often parasiting a large number of different fishes, was referred in Brazil from *Sardinella aurita, Lycengraulis grossidens, Harengula* sp. and *Pomatomus saltatrix* (Travassos, Freitas & Kohn, 1969; Gomes & Tayt-Son Rolas, 1972). Four parasites were recovered from two specimens of *Haemulon sciurus*, representing a new host record.

Aponurus pyriformis (Linton, 1910)
(Fig. 5)

Leurodera ocyri and *Leurodera inaequalis* were described from the intestine of *Haemulon sciurus* from Espírito Santo State by Travassos et al (1965). In 1973, Overstreet transferred *Brachadena pyriformis* Linton, 1910 to the genus *Aponurus* and considered *Leurodera ocyri* and *Leurodera inaequalis* its synonyms. After checking the material studied by Travassos et al, we can support Overstreet's proposition. In nine of the forty specimens of *Haemulon sciurus* examined (22.5%), eleven worms were recovered and identified as *Aponurus pyriformis.*

Diplangus paxillus Linton, 1910
(Fig. 6)

Eleven specimens of this species were recovered from six fish. Described in USA, Mexico and Japan, from *Haemulon sciurus* and other fish hosts, this species was recently registered in Brazil by Amato (1980).

RESUMO

De setembro, 1980 a agosto, 1981 foram examinados 40 exemplares de *Haemulon sciurus*, provenientes da Praia da Ribeira, Ilha do Governador, Estado do Rio de Janeiro. Neste trabalho são apresentados os resultados parciais, correspondentes aos trematódeos, grupo que apresentou maior ocorrência de parasitismo. As espécies estudadas foram: *Diplomonorchis leiostomi* Hopkins, 1941 (primeira ocorrência no Brasil e em novo hospedeiro); *Lasiotocus beauforti* (Hopkins, 1941) Thomas, 1959 (em novo hospedeiro); *Genolopa ampullacea* Linton, 1910; *Parahemiurus merus* (Linton, 1910) Yamaguti, 1938 (em um novo hospedeiro); *Aponurus pyriformis* (Linton, 1910) Overstreet, 1973 e *Diplangus paxillus* Linton, 1910. São apresentadas figuras, medidas e comentários.

REFERENCES

AMATO, J.F.R., 1980. Digenetic trematodes of Percoid fishes of Florianópolis, Santa Catarina, Southern Brasil. *Dissert. Abstr. Int., 40* :4688-B.

GOMES, D.C. & TAYT-SON ROLAS, F.J., 1972. Contribuição para o conhecimento dos parasitos de peixes do litoral do E. da Guanabara. Parte 1. *Mem. Inst. Oswaldo Cruz, 70* :541-553.

HOPKINS, S.H., 1941. New genera and species of the family Monorchiidae (Trematoda), with a discussion of the excretory system. *J. Parasitol. 27* :395-408.

JOY, J.E., 1972. New locality records for *D. leiostomi* (Hopkins, 1941) (Trematoda: Digenea) and *Macrovalvitremoides micropogoni* (Pearse, 1949) (Trematoda: Monogenea) with notes on their geographical distribution. *Texas J. Sci., 23* :553-554.

LINTON, E., 1910. Helminth fauna of the Dry Tortugas, II. Trematodes. *Carneg. Inst. Wash. Publ., 133*, 98 pp.

NAHHAS, F.M. & CABLE, R.M., 1964. Digenetic and aspidogastrid trematodes from marine fishes of Curaçao and Jamaica. *Tulane Stud. Zool., 11* :169-228.

NAHHAS, F.M. & POWELL, E.C., 1965. Monorchiidae from fishes of Apalachee Bay, Gulf of Mexico. *J. Parasitol., 51* :16-20.

OVERSTREET, R.M., 1973. Some species of *Lecithaster* Lühe, 1901 (Digenea: Hemiuridae) and related genera from fishes in the Northern Gulf of Mexico. *Trans. Amer. Micros. Soc., 92* :231-240.

OVERSTREET, R.M., 1976. Digenetic trematodes of marine teleosts from Biscayne Bay, Florida. *Tulane Stud. Zool., 15* :119-176.

THOMAS, J.D., 1959. Trematodes of Ghanaian sub-littoral fishes. I. The family Monorchiidae. *Tulane Stud. Zool., 45* :95-113.

TRAVASSOS, L.; FREITAS, J.F.T. & BÜRNHEIM, P.F., 1965. Trematódeos de peixes do litoral capixaba; *Leurodera ocyri* sp. n., parasita de marassapeba. *Atas Soc. Biol. Rio de Janeiro, 9* :86-88.

TRAVASSOS, L.; FREITAS, J.F.T. & KOHN, A., 1969. Trematódeos do Brasil. *Mem. Inst. Oswaldo Cruz, 67*, 886 pp.