

REPORT OF *LEPOCREADIUM BIMARINUM* MANTER, 1940, *VITELLIBACULUM SPINOSA* (SIDDIQI & CABLE, 1960) AND *HIRUDINELLA VENTRICOSA* (PALLAS, 1774), PARASITES OF MARINE FISHES IN BRAZIL

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*Lepocreadium bimarimum* and *Vitellibaculum spinosa* are referred for the first time in *Stephanolepis hispidus* and in Brazil, and *Hirudinella ventricosa* is reported from *Scomberomorus cavalla*. Measurements, figures and comments are given.

Three digenetic trematodes collected by Travassos in 1923 and 1925 from marine fishes from Angra dos Reis, Rio de Janeiro State, were identified and studied. *Lepocreadium bimarimum* Manter, 1940 and *Vitellibaculum spinosa* (Siddiqi & Cable, 1960) are reported for the first time in South America and in *Stephanolepis hispidus* (Linnaeus, 1758) (Balistidae), and *Hirudinella ventricosa* (Pallas, 1774) is referred from *Scomberomorus cavalla* (Cuvier, 1829) (Scombridae).

The trematodes preserved in Railliet and Henry's fluid were stained in alcoholic-acid carmine, dehydrated in ethyl alcohol, cleared in Faia's creosote and mounted in Canada balsam. The illustrations were made with the aid of a drawing tube.

*Lepocreadium bimarimum* (Lepocreadiidae) (Table I and Fig. 1) has been reported from Mexico, U.S.A., Jamaica and the Caribbean region from different fishes (Manter, 1940; Montgomery, 1957; Nahhas & Cable, 1964; Sogandares-Bernal & Hutton, 1959 and Fischthal, 1977). This is the first report of this species in South America and in *Stephanolepis hispidus*. This specimen agrees with the original description and figures, differing only in having wider eggs (0.059-0.061 x 0.040mm compared with 0.051-0.070 x 0.025-0.032mm).

TABLE I

Trematodes parasites of marine fishes in Brazil. Measurements in milimeters

	<i>Lepocreadium bimarimum</i>	<i>Vitellibaculum spinosa</i>	<i>Hirudinella ventricosa</i>
Body size	2.33 x 0.64	3.57 x 0.52	17.30 x 4.32
Oral sucker	0.16 x 0.20	0.18 x 0.21	0.80 x 1.18
Ventral sucker	0.22 x 0.24	0.27 x 0.28	2.41 x 2.52
Sucker ratio	1:1.28	1:1.41	1:2.5
Pharynx	0.12 x 0.12	0.22 x 0.21	0.60 x 0.60
Genital atrium	0.10 x 0.08	muscular suckerlike structure 0.096 x 0.117	0.75 x 0.80
Cirrus sac	0.40 x 0.11	hermafroditic sac 0.21 x 0.15	—
Seminal vesicle	0.26 x 0.09	0.61 x 0.07	—
Anterior testis	0.19 x 0.24	0.37 x 0.27	0.57 x 1.38
Posterior testis	0.26 x 0.25	0.43 x 0.23	0.74 x 1.32
Ovary	0.10 x 0.11	0.18 x 0.15	0.42 x 0.92
Eggs	0.059 x 0.061 x 0.040	0.068 – 0.073 x 0.038 – 0.040	0.030 – 0.037 x 0.019 – 0.030
Site	intestine	intestine	—
Host	<i>Stephanolepis hispidus</i>	<i>Stephanolepis hispidus</i>	<i>Scomberomorus cavalla</i>

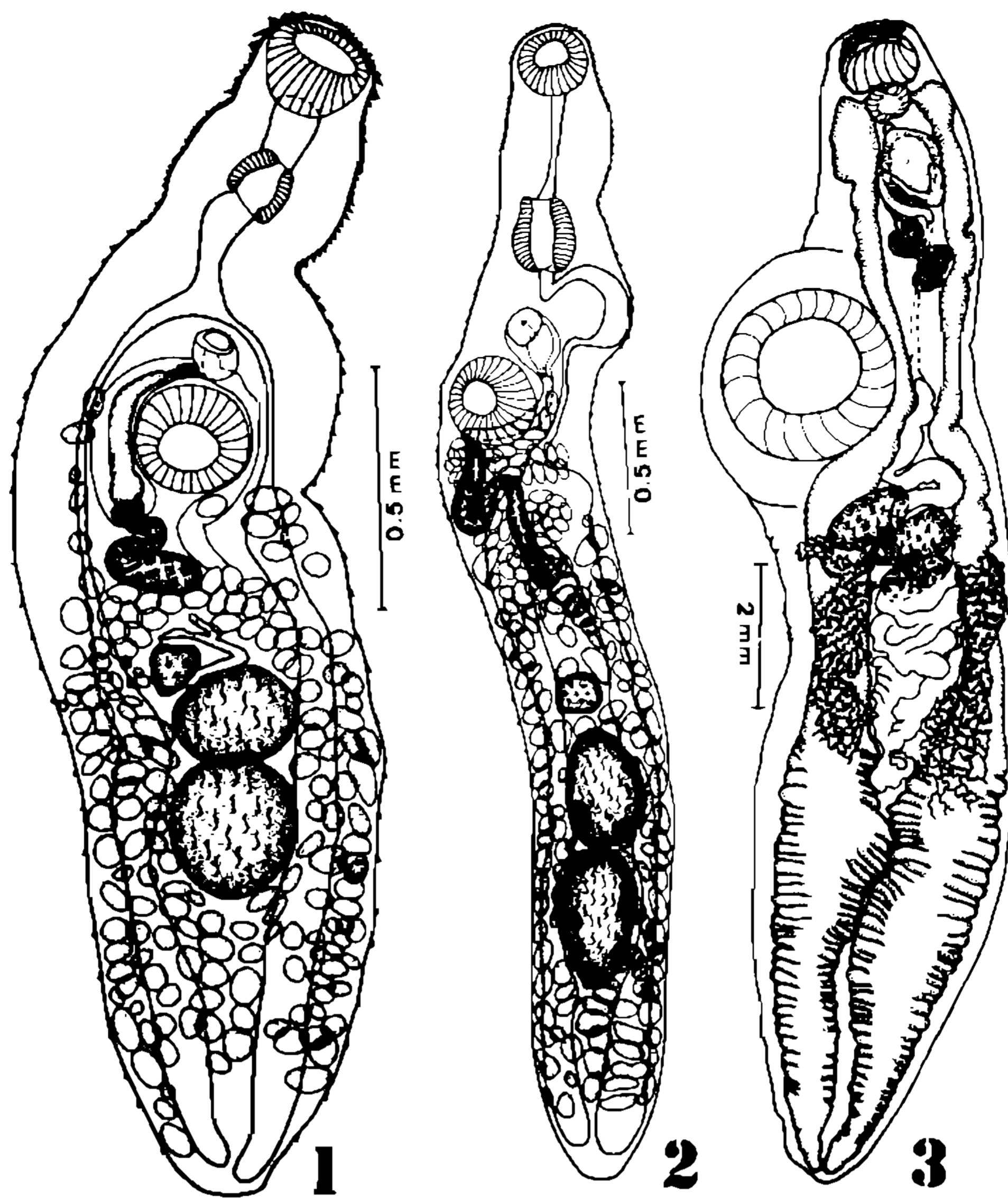


Fig. 1: *Lepocreadium bimarinum* from *Stephanolepis hispidus*. Col. Helm. I.O.C. no. 32.138. Fig. 2: *Vitellibaculum spinosa* from *S. hispidus*. Col. Helm. I.O.C. no. 32.139. Fig. 3: *Hirudinella ventricosa* from *Scomberomorus cavalla*. Col. Helm. I.O.C. no. 32.140. Total, ventral view. Original figures.

*Vitellibaculum spinosa* (Waretrematidae) (Table I and Fig. 2) was reported from *Chaetodipterus faber* from Porto Rico (Siddiqi & Cable, 1960); Jamaica (Nahhas & Cable, 1964) and U.S.A. (Overstreet, 1969); and from *Lutjanus apodus* only from Jamaica (Nahhas & Cable, 1964). This is the first occurrence of *V. spinosa* in South America and in *S. hispidus*, which represents a new host record. The specimen studied agrees in the general morphology with the original description, differing mainly in body and sucker size (Table I), and in having vitelline follicles also confluent in the anterior region of the ovary (Fig. 2). The eggs and sucker ratio are similar to those given by Overstreet (1969).

*Hirudinella ventricosa* (Hirudinellidae) (Table I and Fig. 3) has been reported in Brazil by Diesing (1850) as *Distomum clavatum*, by Viana (1924) as *Hirudinella clavata* and *H. ingens* and by Travassos et al. (1969) as *Distoma* sp. and *Distoma ingens*, from *Coryphaena hippurus* and Scombridae sp.

## RESUMO

*Lepocreadium bimarinum* e *Vitellibaculum spinosa* são referidas pela primeira vez no Brasil e em um novo hospedeiro: *Stephanolepis hispidus*; *Hirudinella ventricosa* é assinalada em *Scomberomorus cavalla*. São apresentadas figuras originais e principais medidas.

## REFERENCES

- DIESING, K.M., 1850. *Systema helminthum* 1 :679 pp.
- FISCHTHAL, J.H., 1977. Some digenetic trematodes of marine fishes from the barrier reef and reef lagoon of Belize. *Zool. Scripta*, 6 :81-88.
- MANTER, H.W., 1940. Digenetic trematodes of fishes from Galapagos Islands and the neighboring Pacific. *Allan Hancock Pacif. Exped.*, 2 :329-497.
- MONTGOMERY, W.R., 1957. Studies on digenetic trematodes from marine fishes of La Jolla, California. *Trans. Amer. Micr. Soc.*, 76 :13-36.
- NAHHAS, F.M. & CABLE, R.M., 1964. Digenetic and aspidogastrid trematodes from marine fishes of Curaçao and Jamaica. *Tulane Stud. Zool.*, 11 :169-228.
- OVERSTREET, R.M., 1969. Digenetic trematodes of marine teleost fishes from Biscayne Bay, Florida. *Tulane Stud. Zool.*, 15 :119-176.
- SIDDIQI, A.H. & CABLE, R.M., 1960. Digenetic trematodes of marine fishes of Puerto Rico. *N.Y. Acad. Sci.*, 17 :257-369.
- SOGANDARES-BERNAL, F. & HUTTON, R.F., 1959. Studies on helminth parasites of the coast of Florida. I. Digenetic trematodes of marine fishes from Tampa and Boca Ciega Bays, with descriptions of two new species. *Bull. Marine Sci. Gulf & Caribbean*, 9 :53-68.
- TRAVASSOS, L.; FREITAS, J.F.T. & KOHN, A., 1969. Trematódeos do Brasil. *Mem. Inst. Oswaldo Cruz*, 67 :886 pp.
- VIANA, L., 1924. Tentativa de catalogação das espécies brasileiras de trematódeos. *Mem. Inst. Oswaldo Cruz*, 17 :95-227.