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***Discobothrium caribbensis* sp. n., a Lecanicephalidean Cestode  
from a Yellow-Spotted Stingray, *Urolophus jamaicensis*, in  
Jamaica**

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## **DISCOBOTHRIUM CARIBBENSIS SP. N., A LECANICEPHALIDEAN CESTODE FROM A YELLOW-SPOTTED STINGRAY, UROLOPHUS JAMAICENSIS, IN JAMAICA**

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**ABSTRACT:** *Discobothrium caribbensis* sp. n. (Lecanicephalidea) is described from the spiral valve of the yellow-spotted stingray, *Urolophus jamaicensis* from Jamaica. The new species is the only member of the genus described with four testes. It is most similar in number of testes to *D. japonicum* Yamaguti, 1934, which has six testes and a myzorhynchus. A myzorhynchus is absent in *D. caribbensis*.

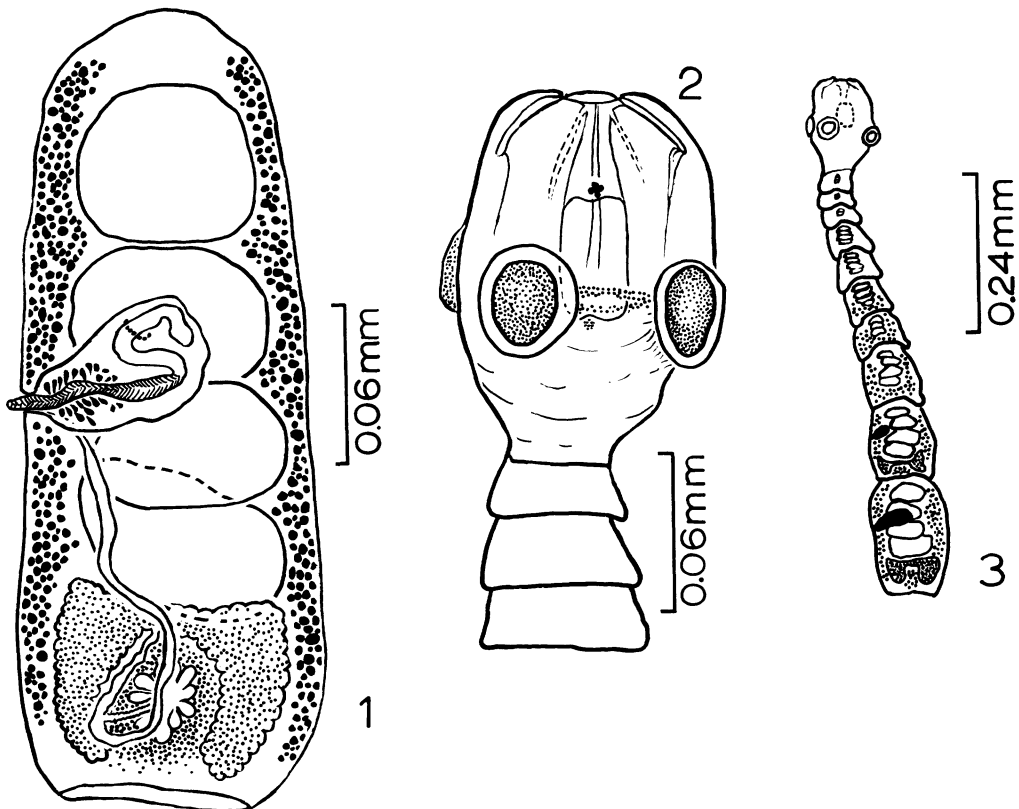
Five specimens of minute cestodes were found in the spiral valve of a yellow-spotted stingray, *Urolophus jamaicensis*, collected at Discovery Bay, Jamaica. They represent a new species and are described herein. Specimens were relaxed in seawater, fixed in AFA, and stained with Semi-

chon's carmine. All measurements are in micrometers.

### ***Discobothrium caribbensis* sp. n.** (Figs. 1-3)

**Description:** With the characters of the genus *Discobothrium* sensu Dailey et Mudry 1968. Craspedote, apolytic. Number of segments 11 or 12; gravid segments not present. Posterior margin of velum with single row of spines. Strobilia ( $n = 3$ ) 629-883 ( $\bar{x} = 746 \pm 128$ ) long by 63-96 ( $\bar{x} = 87 \pm 6$ ) maximum

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FIGURES 1-3. *Discobothrium caribbensis* sp. n. 1. Mature segment. 2. Scolex. 3. Entire worm.

width in last segment (Fig. 3). Scolex (Fig. 2) length ( $n = 3$ ) 80–91 ( $\bar{x} = 87 \pm 6$ ) by 82–85 ( $\bar{x} = 83 \pm 2$ ) maximum width. Suckers circular ( $n = 10$ ) 28–37 ( $\bar{x} = 31 \pm 4$ ) long by ( $n = 9$ ) 21–26 ( $\bar{x} = 25 \pm 2$ ) wide. Scolex covered with minute spines. Myzorhynchus absent. Four testes, each ( $n = 16$ ) 19–46 ( $\bar{x} = 31 \pm 9$ ) long, ( $n = 16$ ) 24–68 ( $\bar{x} = 48 \pm 13$ ) wide, in one longitudinal row in middle of segment (Fig. 1). Follicular vitellaria extending length of segment in two lateral bands. Ovary (Fig. 1) near posterior end of segment with two lobes connected by anterior isthmus, ( $n = 4$ ) 31–54 ( $\bar{x} = 42 \pm 11$ ) long, ( $n = 4$ ) 47–70 ( $\bar{x} = 4 \pm 11$ ) maximum width. Cirrus spinose. Cirrus sac ( $n = 4$ ) 22–54 ( $\bar{x} = 36 \pm 13$ ) long, ( $n = 4$ ) 24–33 ( $\bar{x} = 28 \pm 4$ ) wide. Genital pore always unilateral. Genital atrium ( $n = 3$ ) 5–16 ( $\bar{x} = 10 \pm 5$ ) deep, ( $n = 3$ ) 9–10 wide. Terminal segment ( $n = 4$ ) 146–230 ( $\bar{x} = 38 \pm 38$ ) long, ( $n = 4$ ) 63–89 ( $\bar{x} = 83 \pm 14$ ) wide.

*Type host:* *Urolophus jamaicensis* (Cuvier), yellow-spotted stingray.

*Location:* Spiral valve.

*Type locality:* Discovery Bay, Jamaica.

*Holotype:* USNM Helm. Coll. No. 77924.

*Paratypes:* USNM Helm. Coll. No. 77925.

*Etymology:* Named for the locality of discovery.

#### REMARKS

Dailey and Mudry (1968) noted four valid species of *Discobothrium*: *D. fallax* Beneden, 1870, from *Raja clavata*, Belgium; *D. cobraeformis* Shipley and Hornell, 1906, from *Aetiobatis narinari*, Sri Lanka; *D. japonicum* Yamaguti, 1934, from *Narke japonica*, Japan; and *D. myliobatidis* Dailey and Mudry, 1968, from *Myliobatis californicus*, California, USA. To this list

was added *D. arrhynchum* Brooks, Mayes, and Thorson, 1980, from *Myliobatis goodei*, Uruguay. Of these, only *D. japonicum* has fewer than 10 testes. That species has six compared with four in *D. caribbensis*. Further, *D. japonicum* has a prominent, stalked myzorhynchus, the ovary is about one-third the distance from the posterior end of the body, and the vitellaria are only as anterior as the posterior testis. Clearly, *D. caribbensis* represents a previously unknown species.

*Discobothrium aegyptiacus* Hassen, 1982, is 22 to 38 mm long, with 230 to 280 segments. We consider it to be a species of *Lecanicephalum* because of its large size.

#### LITERATURE CITED

- BROOKS, D. R., M. A. MAYES, AND T. B. THORSON. 1980. Cestode parasites in *Myliobatis goodei* Garman (Myliobatiformes: Myliobatidae) from Rio de la Plata, Uruguay, with a summary of cestodes collected from South American elasmobranchs during 1975–1979. *Proc. Biol. Soc. Wash.* **93**: 1239–1252.
- DAILEY, M. D., AND D. R. MUDRY. 1968. Two new species of Cestoda from California rays. *J. Parasit.* **54**: 1141–1143.
- HASSAN, S. W. 1982. *Discobothrium aegyptiacus* n. sp. a cestode from *Raja circularius* in the Mediterranean Sea, Egypt. *J. Egypt. Soc. Parasitol.* **12**: 169–173.
- YAMAGUTI, S. 1934. Studies on the helminth fauna of Japan. Part 4. Cestodes of fishes. *Jap. J. Zool.* **6**: 1–112.