

**A New Cestode, *Coelobothrium oitense* n. sp.
(Pseudophyllidea: Ptychobothriidae) from a Japanese Freshwater Fish,
*Tribolodon hakonensis***

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Abstract

A new cestode species, *Coelobothrium oitense* n. sp. (Pseudophyllidea: Ptychobothriidae) is described from the intestine of a freshwater fish, *Tribolodon hakonensis*, from the River Chikugo at Kami-tsue Village, Oita Prefecture. It differs from *C. monodi* Dollfus, 1970 in (1) larger strobila, (2) much wider gravid proglottids and (3) size of eggs.

Key words: cestode, *Coelobothrium oitense* n. sp., freshwater fish, *Tribolodon hakonensis*

Introduction

The cestode genus *Coelobothrium* Dollfus, 1970 (Pseudophyllidea: Ptychobothriidae) includes the type and species, *C. monodi* Dollfus, 1970, which has been reported only once from a freshwater fish, *Varicorhinus damascinus umbra* (Cyprinidae), from Iran (Dollfus, 1970; Schmidt, 1986). The present paper deals with a new, second species of the genus from Japan.

Materials and Methods

One hundred and fourteen cestode specimens were obtained from the intestine of three freshwater cyprinids *Tribolodon hakonensis* taken in the River Chikugo at Kami-tsue Village, Oita Prefecture, on July 11, 1989. Most of them were fixed in 70% ethanol after being pressed between two glass slides, stained with Heidenhain's hematoxylin, dehydrated through an alcohol series, cleared in xylene, and mounted in Canada balsam. The remainder preserved in neutral, buffered 10% formalin were embedded in paraffin, sectioned transversely, sagittally and

longitudinally at 6 μ m in thickness and stained with hematoxylin and eosin. All measurements are given in millimeters.

Results

Coelobothrium oitense n. sp.
(Figs. 1–8)

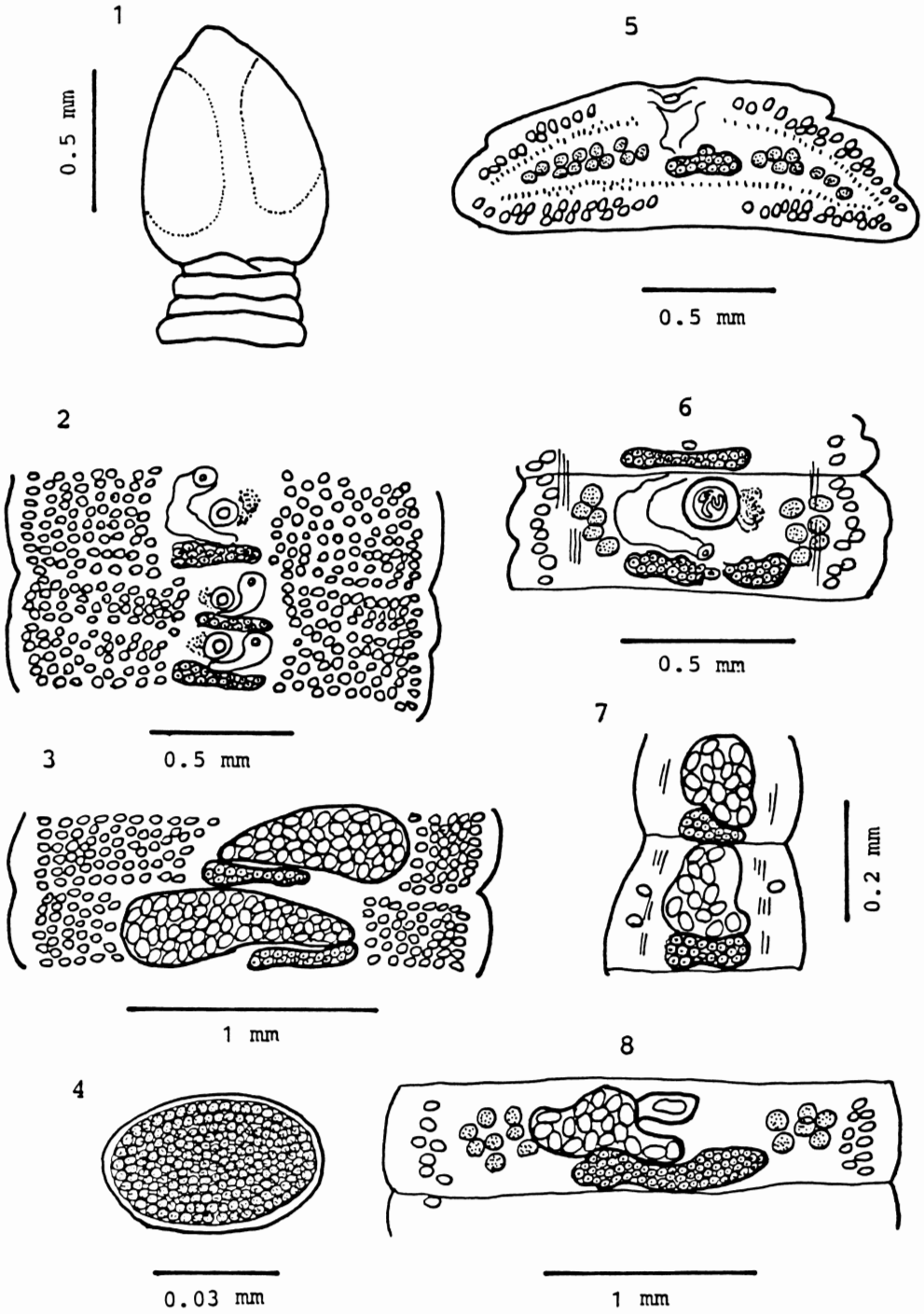
Description: Strobila 347–374 in length and 2.0–2.5 in maximum width. All proglottids broader than long. Scolex egg-shaped, narrowest at apex, 0.83–0.87 long by 0.7–0.83 wide, having narrow, deep grooves (0.50–0.55 long by 0.33–0.5 deep) with smooth margins, without apical disc and spines. Neck absent. Mature proglottids smooth as lateral margins or wrinkled at anterior and posterior ends. Small follicular testes, 85–90 in number, 0.04–0.045 by 0.035–0.043, arranged in both lateral fields of medullary parenchyma. Muscular cirrus pouch globular, thick-walled, 0.08–0.095 by 0.073–0.088 and 0.063–0.068 by 0.045–0.055 in outer and inner diameter respectively. Genital pore opens on dorsal median line, midway in proglottid length. Ovary transversely elongated, 0.32–0.38 broad, lying median in medullary parenchyma along posterior border of proglottids. Seminal receptacle globular, with a diameter of 0.025–0.03, situated adjacent to

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Figs. 1-8. *Coelobothrium oitense* n. sp.
 Fig. 1. Scolex.
 Fig. 2. Mature proglottids, ventral view.
 Fig. 3. Gravid proglottids, ventral view.
 Fig. 4. Eggs.

Fig. 5. Mature proglottid, tranverse section.
 Fig. 6. Mature proglottids, frontal section.
 Fig. 7. Gravid proglottids, sagittal section.
 Fig. 8. Gravid proglottids, frontal section.

ovary at middle of its anterior edge. Vitelline glands 120–132 in total number, 0.03–0.033 by 0.038, distributed in two groups in both lateral fields of cortical parenchyma. Uterus tubular 0.03–0.05 in diameter, curved irregularly to right or left of cirrus pouch in mature proglottids, but elongate pear-shaped, 0.55–0.6 by 0.15–0.2 in gravid proglottids. Uterine pore 0.053–0.075 in diameter, ventral, submedian, antero-sinistral or -dextral to cirrus pouch, near anterior border of proglottids. Eggs slightly elongate-oval, thin-shelled, anoperculate, 0.05–0.055 by 0.03–0.033.

Host: *Tribolodon hakonensis* (Cyprinidae).

Site: Intestine.

Locality and date: River Chikugo, Kami-tsue Village, Oita Prefecture; July 11, 1989.

Type specimens: Holotype, paratypes and sectioned specimens deposited in the Meguro Parasitological Museum, MPM Coll. No. 19536.

Discussion

This new species can be distinguished from *C. monodi* (Dollfus, 1970) by (1) larger strobila (347–374 mm long by 2.0–2.5 mm wide vs. 12 cm long by 0.305–1.6 mm wide), (2) gravid proglottids being 8 to 10 times wider than long (3) and larger eggs (0.05–0.055 by 0.03–0.032 mm vs. 44.26–49.1 by 27.04 μm).

Acknowledgment

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References

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