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Hymenolepis mogerae sp. nov. (Cestoda: Hymenolepididae) from the Large Japanese Mole, *Mogera kobeae* Thomas of Aichi Prefecture

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Abstract

A new hymenolepidid tapeworm was found in the large Japanese mole, *Mogera kobeae* Thomas from Jinryo, Kasugai-shi, Aichi Prefecture. This new species closely resembles *Hymenolepis scalopi* and *H. dymecodontis*. However, it differs from the former in the size of the scolex, the sucker and the embryonic hook, and the position of the genital pore and differs from the latter in the size of the rostellum and the embryonic hook, and the form of the ovary.

Key words: Hymenolepidid tapeworm, *Mogera kobeae,* Aichi Prefecture

Introduction

Cestode species parasitizing moles indigenous to Japan has been entirely unknown up to the present. This study was conducted to clarify the cestode fauna of moles in Japan.

Materials and Methods

One of three specimens collected at Jinryo, Kasugai-shi, Aichi Prefecture on June 21, 1990, harbored a mature worm. The worm was fixed in Carnoy's fluid. The methods have been described in the former paper (Sawada and Harada, 1990). Measurements are given in millimeters.

Hymenolepis Weindand, 1858
Hymenolepis mogerae sp. nov.
(Figs. 1–3)

Description: Medium-sized hymenolepidid; worm length 127 and maximum width 1.2. Metamerism distinct, craspedote, margins serrate. Segments wider than long throughout strobila. Scolex 0.231 in length by 0.280 in breadth at cross of suckers, not sharply demarcated from neck. Rostellum unarmed, rudimentary, pyriform, 0.084 long by 0.063 wide. Rostellar sac absent. Suckers discoid, 0.126–0.140 long by 0.119–0.126 wide. Neck slender, 1.13 long by 0.21 wide.

Genital pores unilateral, located a little anterior to middle of each segment margins. Testes three in number, subspherical, 0.069 by 0.083–0.111, arranged in a straight line, one poral and two aporal, though in a few segments, two poral and one aporal, not in contact with longitudinal excretory canals. Cirrus sac cylindrical, 0.207 long by 0.042 wide, expanding beyond longitudinal excretory canals. Internal seminal vesicle 0.124–0.138 long by 0.042 wide. External seminal vesicle elongate, 0.138 long by 0.042 wide, situated in anterior field of segment. Vagina initially posterior to cirrus sac, gradually expanding into seminal receptacle measuring 0.138–0.193 long by 0.042–0.055 wide. Ovary divided into penta- to hexa-lobes radially arranged in a semicircle, measuring 0.221–0.277 across when fully developed. Vitelline gland irregularly lobate, 0.083 by 0.055, just posterior to ovary. Egg immature; onchosphere oval,

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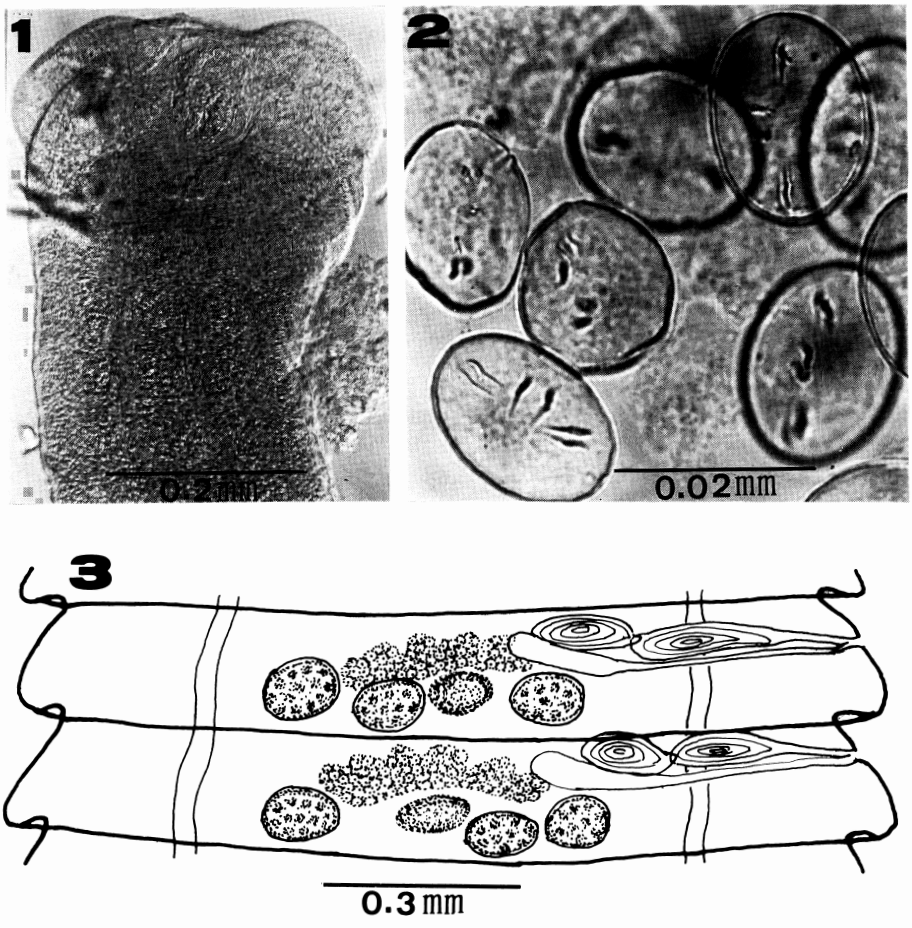

Figs. 1–3 *Hymenolepis mogerae* sp. nov.
1: Scolex. 2: Onchospheres. 3: Mature segments drawn from projected photographic negative, ventral view.

0.025–0.028 by 0.021–0.025; embryonic hook 0.007 long.

Host: *Mogera kobeae* Thomas, 1905

Habitat: Lumen of small intestine

Locality and Date: Jinryo, Kasugai-shi, Aichi Prefecture: June 21, 1990.

Type specimen: Holotype, Nara Sangyo University Lab. Coll. No. 9108.

Remarks: So far as the authors know, the number of unarmed species of the genus *Hymenolepis* from Insectivora amounts to about 17. Of these, three species; *H. peipingensis* Hsü, 1935, *H. scalopi* Schultz, 1939 and *H. dymecodontis* Sawada and Harada, 1990 have been recorded from Talpidae. The present new form closely resembles *H. scalopi* and *H. dymecodontis*. It differs from the former in the following characteristics; (1) the larger scolex (0.231 by 0.280 vs. 0.170–0.232), (2) the larger sucker (0.126–0.140 by 0.119–0.126 vs. 0.080–0.011), (3) the position of genital pores (located anterior to middle of segment margin vs. at middle), (4) the smaller embryonic hook (0.007 vs. 0.016–0.018). *H. mogerae* differs from the latter in smaller rostellum (0.084 by 0.063 vs. 0.140 by 0.056–0.077), the form of ovary (penta- to hexa-lobate vs. deca- to endeca-lobate) and the smaller embryonic hook (0.007 vs. 0.014).

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