

Cestode Parasites of the House Shrew, *Suncus murinus* on Ishigaki Jima, Japan

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ABSTRACT—Three specimens of the house shrew, *Suncus murinus* collected on Ishigaki Jima on September 18, 1993 have been examined for cestode parasites. The following cestodes are recorded: *Vampirolepis jakounezumi* Sawada et Hasegawa, 1992 and *Pseudhymenolepis* sp. The latter is the first record of the cestode from *S. murinus* of Ryûkyû Shotô.

The cestode fauna of *Suncus murinus* on Ryûkyû Shotô (Okinawa Jima, Iheya Jima, Kume Jima, Tarama Jima and Yonaguni Jima) have been made clear by Sawada and Hasegawa (1992 and 1993) and Sawada (1993). But no cestode parasites of *S. murinus* on Ishigaki Jima belonging to Ryûkyû Shotô have been recorded up to the present time. The aim of the present work is to gain information of the cestode fauna of *S. murinus* on Ishigaki Jima.

Materials and Methods

Three specimens of *S. murinus* were collected with traps on Ishigaki Jima on September 18, 1993 and were examined for cestode parasites (Fig. 1). The shrews were autopsied immediately after capture and their guts were removed and fixed in Carnoy's fluid. The methods used are described in the previous paper (Sawada and Harada, 1990). Measurements are given in millimeters.

Results

Two (including one unidentified) species of cestodes were obtained from three specimens of *S. murinus*. The data concerning the species of cestodes found is shown in Table 1.

This study is supported by a Grant-in-Aid for Fundamental Scientific Research from the Ministry of Education, Science and Culture.

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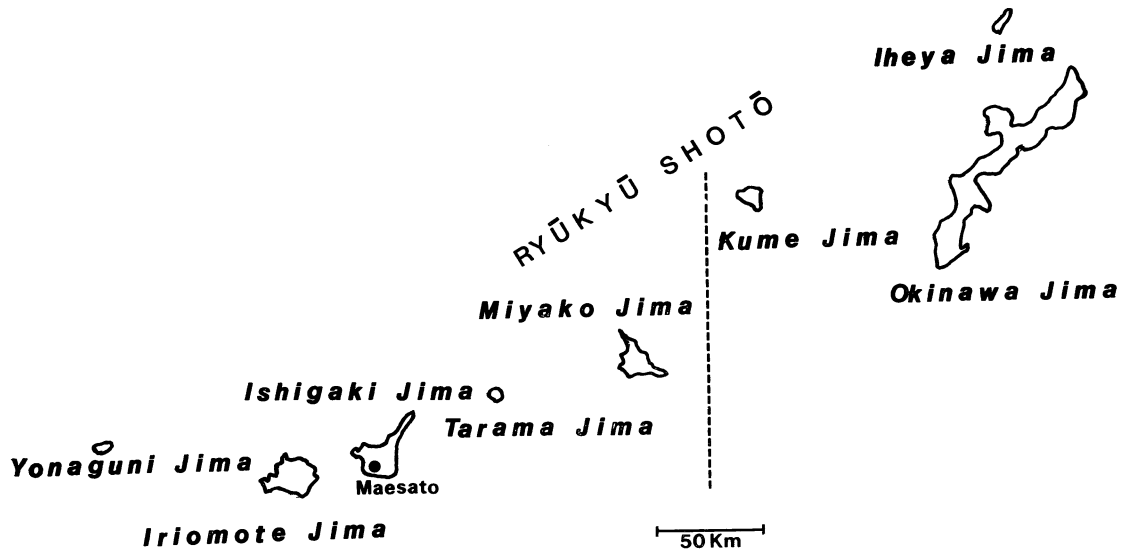


Fig. 1 A map showing the collection sites of *Suncus murinus*

Table 1 Cestode parasites from *S. murinus* on Ishigaki Jima

Shrew No.	Sex	Cestode parasites	
		No.	Species
1	Male	56	<i>V. jakounezumi</i>
2	Female	6	<i>V. jakounezumi</i>
3	Male	32	immature segments
		28	mature segments
		52	gravid segments
		36	senile segments
		} <i>Pseudhymenolepis</i> sp.	

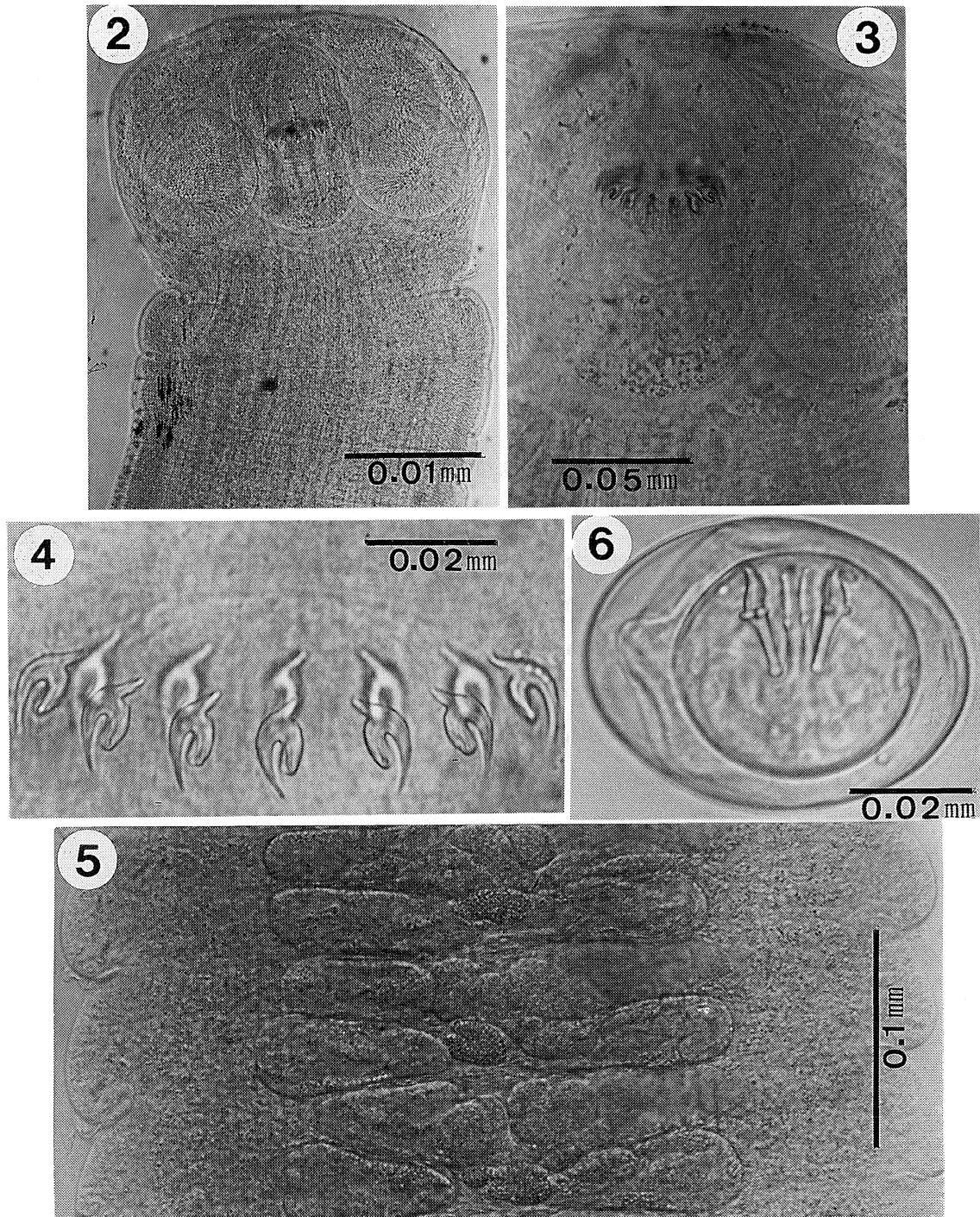
Vampirolepis Spassky, 1954

Vampirolepis jakounezumi Sawada et Hasegawa, 1992

(Figs. 2-6)

Vampirolepis jakounezumi Sawada et Hasegawa, 1992, pp. 32-34, figs. 1-5.

Description (based on five specimens): Mature worm length 22-29 and maximum width 0.3-0.5. Metamerism distinct; margin slightly serrate. Scolex with invaginated rostellum round, 0.245-0.315 long and 0.315-0.386 wide. Rostellum 0.245-0.315 long and 0.315-0.385 wide, armed with a single row of 12-13 thorn-shaped hooks 0.018 long. Hook handle short; guard bluntly round at its end, shorter than blade; blade slender, sharp at its end, curved toward guard. Rostellar sac slightly elongate, 0.161-0.203 long and 0.112-0.134 wide, extending past posterior margin of sucker.



Figs. 2-6 *Vampirolepis jajounezumi* -2: Scolex. 3: Rostellar sac. 4: Rostellar hooks. 5: Mature segment. 6: Egg.

Suckers discoid, 0.098–0.112 in diameter.

Genital pores unilateral, situated a little anterior to middle of segment margin. Testis three in number, 0.091–0.119 long and 0.049–0.064 wide, arranged in a form of triangle, one poral and two aporal. Internal seminal vesicle 0.091–0.098 long and 0.035–0.042, occupying almost whole of cirrus sac. External seminal vesicle 0.056–0.072 long and 0.035–0.042 wide. Ovary transversely elongated, 0.140–0.175 in transverse diameter. Seminal receptacle measuring 0.070–0.080 long and 0.056–0.063 wide. Vitelline gland compact, 0.063 by 0.028–0.035. Eggs oval, 0.053–0.056 by 0.042. Onchospheres spherical, 0.032–0.035 in diameter; embryonic hooks 0.018 long.

Host: *Suncus murinus* (Insectivora; Soricidae).

Habitat: Small intestine.

Locality and date: Maesato, Ishigaki-shi, Okinawa Prefecture; September 18, 1993.

Remarks: *Vampirolepis jokounezumi* Sawada et Hasegawa, 1992 have been recorded from *S. murinus* of Iheya Jima, Okinawa Jima, Kume Jima, Tarama Jima and Yonaguni Jima. According to host-parasite relationship between *S. murinus* and its cestodes, it is considered that occurrence of *V. jakounezumi* in *S. murinus* will demonstrate for *S. murinus* of Ishigaki Jima to have a systematic connection with *S. murinus* inhabiting Ryûkyû Shotô.

***Pseudhymenolepis* Joyeux et Baer, 1935**

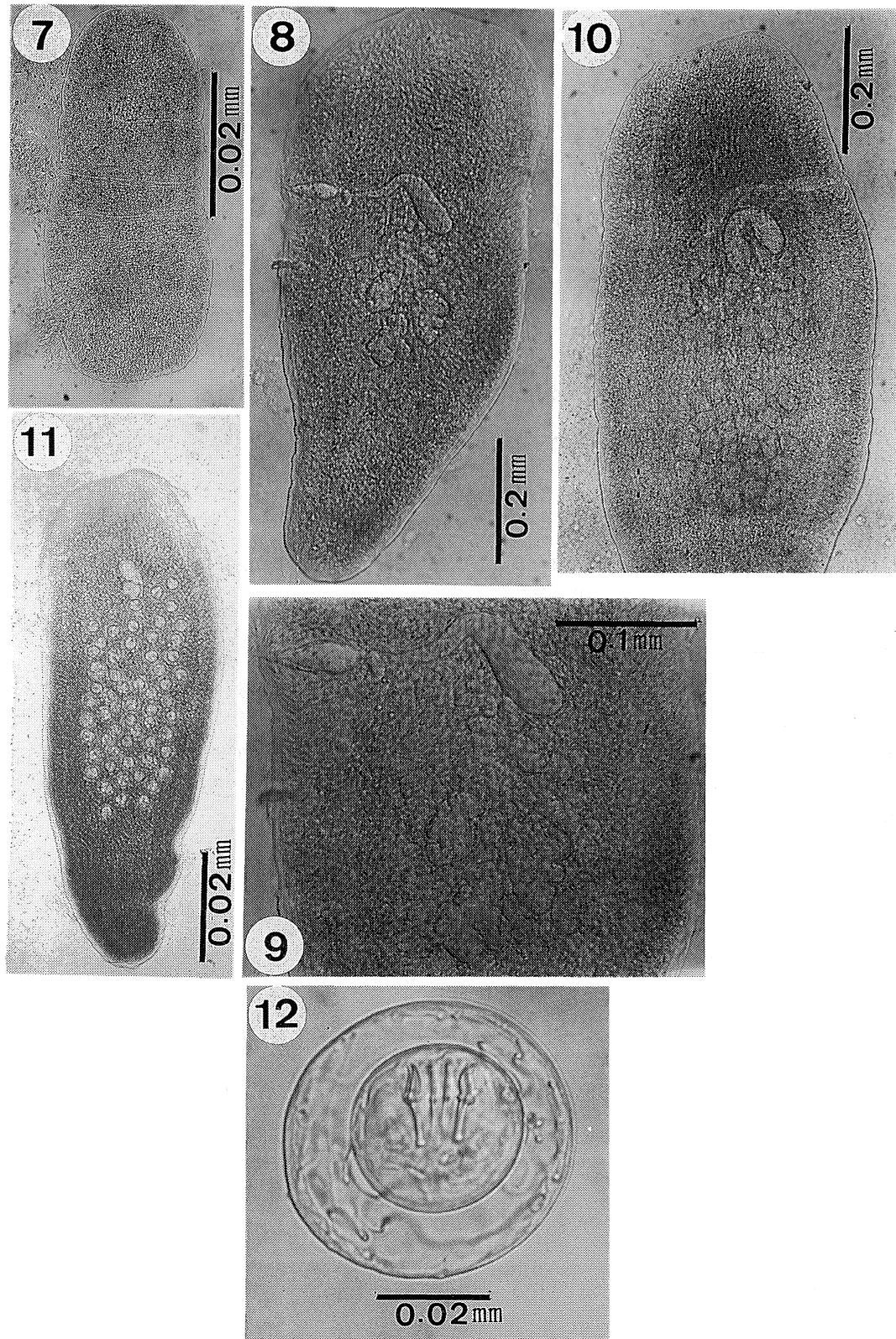
***Pseudhymenolepis* sp.**

(Figs. 7–12)

Of three house shrews, *Suncus murinus* captured at Maesato, Ishigaki-shi on September 18, 1993, one was infected with a number of detached immature, mature, gravid and senile segments of this tapeworm. The absence of small strobila carrying scolex renders impossible a more definite identification.

Description: Body strongly hyperapolytic, segments detaching themselves before appearance of genital organs. Detached immature strobila, indistinctly, consisting of 3–6 segments, 0.3–0.5 long and 0.2–0.3 wide, genital organs undeveloped. Mature segment pyriform, 0.4–0.5 long and 0.3–0.4 wide.

Genital pore located anterior to middle of segment margin. Cirrus sac pyriform, 0.063–0.084 long and 0.021–0.025 wide, extending beyond longitudinal excretory canal. Internal seminal vesicle 0.056–0.061 long and 0.019–0.023 wide. External



Figs. 7-12 *Pseudhymenolepis* sp. -7: Late immature strobila consisting of four segments. 8: Mature segment. 9: Genitalia in mature segment. 10: Early gravid segment. 11: Senile segment. 12: Egg.

seminal vesicle 0.056–0.063 long and 0.014–0.028 wide. Seminal receptacle well developed, 0.077–0.123 long and 0.018–0.035 wide. Ovary irregularly bilobated, 0.053–0.067 long and 0.012–0.013 wide. Vitelline gland compact, 0.028–0.032 long and 0.018–0.021 wide. Testis three in number, arranged triangularly, one poral and two aporal. Senile segment 1.11–1.23 long and 0.032–0.049 wide. Eggs oval or spherical, 0.046–0.049 by 0.042–0.046. Onchospheres 0.028 in diameter; embryonic hooks 0.018 long.

Host: *Suncus murinus*.

Habitat: Small intestine.

Locality and date: Maesato, Ishigaki-shi, Okinawa Prefecture; September 18, 1993.

Remarks: This is first detected from *S. murinus* on Ryūkyū Shotō.

References

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