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A New Species of *Scyphocephalus* (Cestoda) from Malayan Monitor, *Varanus salvator*

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Seven malayan monitors, *Varanus salvator*, were imported into the Amazonland at Beppu City, Japan from Southeast Asia during 1969-1970, and five of them died during several months after the import. On dissection, these five were found to be infected with a number of tapeworms. It is resonable to suppose that they were not infected with the tapeworms in Japan, but were imported into Japan after infection in the natural habits.

The tapeworm had a firm hold on the wall of the intestine: it was so firmly attached that a piece of the intestine had to be cut about the deep apical sucking organ (sucker) in the midst of a scolex, and even then it was impossible to separate the sucker from its hold without tearing it.

In bearing a cylindrical scolex and the other characteristics the present tapeworm has been identified as *Scyphocephalus longus* n. sp.

Scyphocephalus longus n. sp.

Specific diagnosis. Strobila length 120 to 132 mm, maximum width 5.2 to 5.5 mm, in region of posterior mature segments. Cylindical scolex (Fig. 1.) sharply set off from the rest of strobila by a deep costriction, measuring 3.2 to 3.6 mm long and 1.6 to 1.8 mm wide. Anterior part of middle of scolex round in transverse section (Figs. 2 and 3), but the base lozenge-shaped (Figs. 4 and 5). Anterior end of scolex invaginated, forming a deep apical sucking organ, the musculature of which is very well-developed. Two (dorsal and ventral) surficial suctorial grooves are situated in posterior one-third of cylindrical scolex and each intrudes backwards into parenchyma of the scolex to terminate blindly near its base. Neck absent, segmentation begins directly behind scolex.

Proglottides imbricate, wider than long (Fig. 6), the most anterior ones measuring 1.4 to 1.8 mm wide and the posterior ones 4.1 to 4.8 mm. Genital pore ventral, median, at anterior half of segment (Fig. 10). Vagina sphincter absent, close to posterior border of cirrus pouch. Cirrus pouch oval, 0.152 to 0.180 by 0.097 to 0.111 mm in size, occupying one-third of thickness of medullary parenchyma (Figs. 7 and 9). Uterine pore ventral, at the middle or mostly just behind the middle of the segment (Figs. 9 and 10). Cuticle covering surface of strobila 0.018 mm in thickness. Basement membrane beneath cuticle very thin, 0.007 to 0.011 mm thick. Circular fibers scanty. Longitudinal muscles consist of numerous fibers which are not grouped into bundles but are placed very close together; it measures 0.035 to 0.042 mm in thickness.

Testes numerous, 0.097 to 0.111 by 0.124 mm in size; they are arranged in longitudinal rows in medullary parenchyma on each side of medial line (Fig. 8). Ovary in posterior part of segment, median, flattend transversely with two indented wings connected by a narrow isthmus, 1.32 to 1.38 mm in greatest length (Fig. 10). Vitelline fol-

licles very numerous, cortical, covering testicular area (Fig. 8). Seminal receptacle conspicuous, median, close to posterior border of segment, 0.147 to 0.196 by 0.070 to 0.084 mm in size (Fig. 10). Uterus irregularly coild, in most ripe segments it is filled with many eggs in its entire length. Fggs oval 0.046 to 0.049 by 0.053 to 0.060 mm in size (Fig. 10).

Discussion

Only two species of the genus *Schyphocephalus*, *S. bisulcatus* Riggenbach, 1898 and *S. secunda* Tubangui, 1938 from the malayan monitor, *Varanus salvator*, have been reported until now. The present new species stands fairly close to the above-mentioned two species in bearing a glass-shaped scolex. It can readly be distinguished from them, however, by the longicylindrical scolex, which measures 3.2 to 3.6 mm long and 1.6 to 1.8 mm wide as contrasted with 2.85 mm long and 2.28 mm wide in *S. bisulcatus* and 1.3 to 1.9 mm long and 1.2 to 1.5 mm wide in *S. secundus*. Furthermore, in the present species, the two (dorsal and ventral) surficial suctorial grooves are situated in posterior half of scolex, but in *S. bisulcatus*, they extend from the base to the very apex of scolex.

Other differences are apparent in the form of ovary, which has indented wings as contrasted with few indented wings and in the smaller size of cirrus-pouch, which measures 0.152 to 0.180 by 0.10 to 0.120 mm as contrasted with 0.44 to 0.55 by 0.36 to 0.50 mm in *S. secundus*.

Host : *Varanus salvator*

Habitat : Small intestine

Locality and Date : Zoological park "Amazonland", Beppu City, Ôita Prefecture ; 4, July 1970

Type specimen : Biological Laboratory, Nara University of Education, Nara, Japan

References

1) MacCallum, G. A. (1921) : Studies in helminthology. Zoopathologica. 1(6), 229–294.
2) Riggenbach, E. (1898) : *Scyphocephalus bisulcatus* n. g. n. sp., ein neuer Cestodes aus Varanus. Vorläufige Mittheilung. Zool. Anz. (572), 21, 565–566.
3) Riggenbach, E (1899) : *Scyphocephalus bisulcatus* n. g. n. sp., ein neuer Reptiliancestodes. Zool. Jahr. Syst. 12, 145–153.
4) Tubangui, M. A. (1939) : Pseudophyllidean cestodes occurring in the Philippines. Livro Jubilar Lauro Travassos. 489–494.

巨トカゲに寄生していた *Scyphocephalus* に属する一新種について

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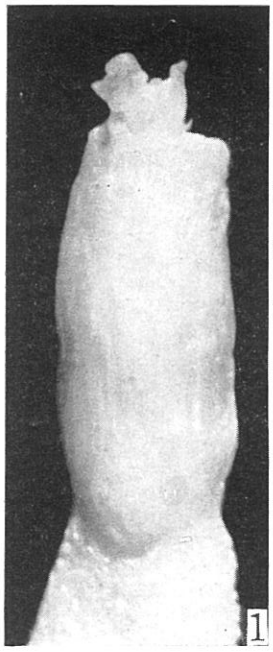
1970年6月4日別府市にあるアマゾンランドで飼育されていた巨トカゲ *Varanus salvator* が死亡したので剖検したところ，6条の条虫が寄生していた．頭節の形態から考えて genus *Scyphocephalus* に属する条虫であることが判明した．虫体の長さは120～132 mm, 最も幅の広いところは中央よりやや後方の受胎片節あたりで5.2～5.5 mm であった．頭節は長いコップ状を呈し，長さが3.2～3.6 mm, 幅は1.6～1.8 mm. 頭節の中央より後方すなわち基部にかけて背腹に表吸溝が存在する．頸部はなく頭節のすぐ後方より片節の形成が開始される．睾丸の数は極めて多い．卵巣は中央の狭部によつて左右両葉にわかれているが，左右の葉には周辺部に欠刻が著しい．

現在まで *Scyphocephalus* に属する条虫は巨トカゲから2種（*S. bisulcatus* および *S. secundus*）が報告されているに過ぎない，本種をこれら2種と比較すると，頭節が長いこと，頭節に存在する表吸溝の位置および卵巣の形態などが全く異つているので，*Scyphocephalus longus* n. sp. とした．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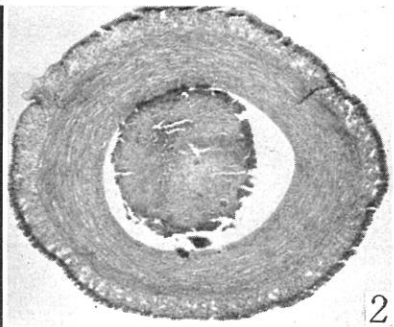
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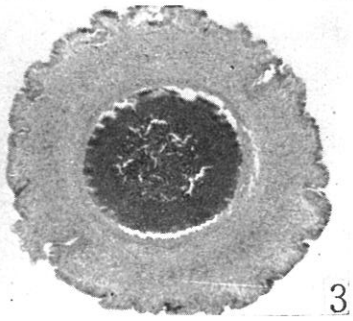
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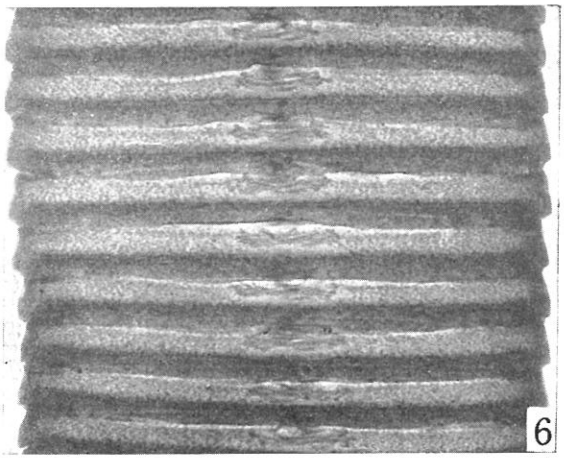
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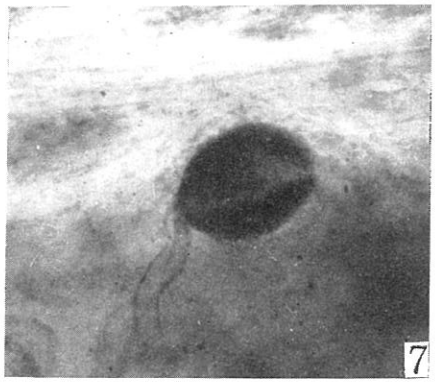
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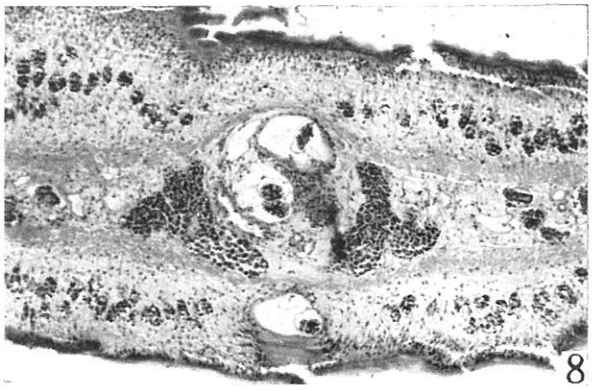
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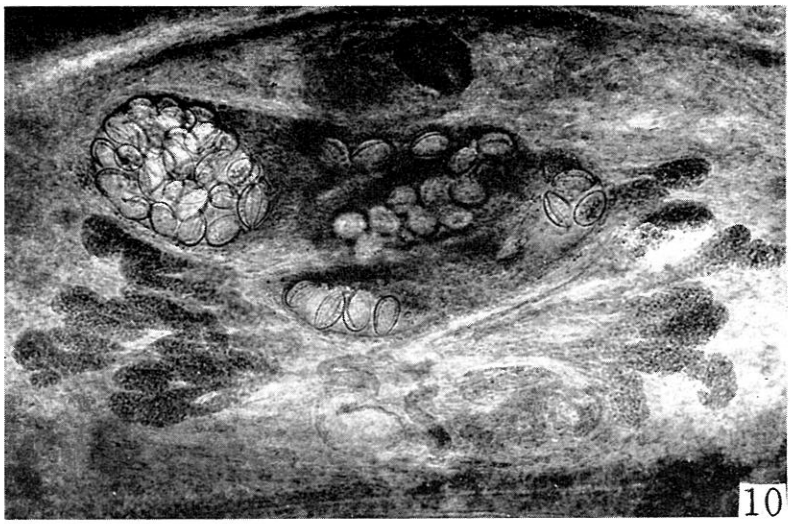

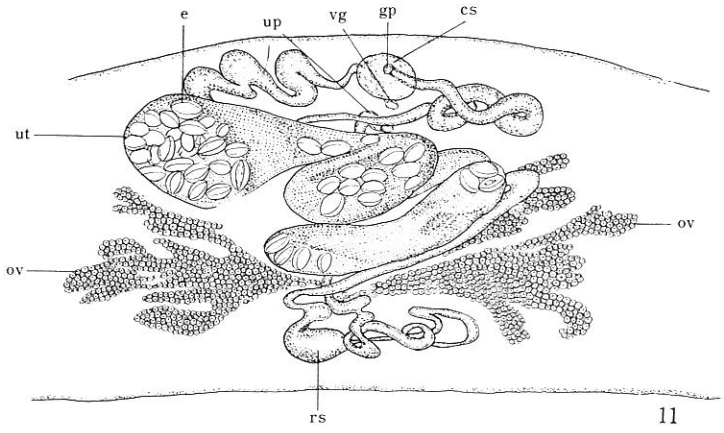

Explanation of Figures

Fig. 1. Scolex (×14)
Fig. 2-5. Transverse sections of scolex (×3.5)
2. Upper part. Showing a piece of host's intestine engulfed in deep apical sucking organ.
3. Slightly posterior part of middle.
4. Slightly upper part to basal one.
5. Basal part.
Fig. 6. Mature segments (×8)
Fig. 7. Cirrus pouch (×100)
Fig. 8. Transverse section of mature segment (×60)
Fig. 9. Sagital section of mature segment (×50)
Fig. 10. Showing genital organs in gravid segment (×67)
Fig. 11. Outline tracing of Fig. 10.
cs : cirrus pouch, e : egg, gp : genital pore, ov : ovary,
rs : seminal receptacle, up : uterin pore, ut : uterus,
vg : vagina