한국어병학회지 제 12 권 제 1 호(1999)
J. Fish Pathol., 12(1) : 63~65 (1999)

〈단 보〉

Pseudolepidapedon kobayashii (Digenea: Allocreadiidae) from the Olive Flounder (*Paralichthys olivaceus*) of the Korean Southern Sea

Ki Hong Kim†, Se Ryun Kwon, Kyoung Jin Ahn and Sung-Hoi Huh*

Department of Aquatic Life Medicine, College of Fisheries Sciences and
**Department of Oceanography, College of Marine Sciences and Technology,*
Pukyong National University, Pusan 608-737, Korea

Pseudolepidapedon kobayashii collected from the alimentary canal of the olive flounder, *Paralichthys olivaceus*, which were caught at the Chinhae Bay, was reported for the first time in Korea, and *P. olivaceus* was recorded as a new host for *P. kobayashii*. The morphological characteristics of *P. kobayashii* were described and compared with the other species in the genus.

Key words : *Pseudolepidapedon kobayashii*, Digenea, Paralichthys olivaceus

During the course of studying the helminth fauna of the Korean coastal water fish, one digenean species, *Pseudolepidapedon kobayashii* Yamaguti, 1938, was collected from the alimentary canal of the olive flounder, *Paralichthys olivaceus*. The species was reported for the first time in Korea, and *P. olivaceus* was recorded as a new host for *P. kobayashii*.

Olive flounders were collected using set-nets from the Chinhae Bay. Collected fish were transported to the laboratory in live state and examined all organs for parasites. Living worms were fixed in hot AFA (ethanol-formalin-acetic acid), stored in 70% ethanol, and stained with acetocarmine in the routine preparation of whole mounts. Specimens were measured with an ocular micrometer, and were drawn with the aid of a camera lucida. Measurements, unless otherwise stated, are in millimeters.

Two specimens of *P. kobayashii* were collected, and a well-stained specimen was used in the following description.

†Corresponding author

***Pseudolepidapedon kobayashii* Yamaguti, 1938**
(Fig. 1)

Body elongated cylindrical, 3.88 long by 1.03 in maximum width. Tegument armed with well-developed spines. Oral sucker subterminal, 0.27 long by 0.31 wide. Ventral sucker pre-equatorial, 0.46 long by 0.47 wide. Ratio of mean diameters of oral and ventral suckers 1 : 1.60. Prepharynx very long, 0.26 in length. Pharynx well developed, pear-shaped, 0.31 long by 0.30 wide. Esophagus relatively short, 0.10 in length. Prepharynx and esophagus surrounded by many glands. Intestinal caeca simple, gradually widened to posteriorly, terminating at posterior end of body.

Testes tandem, in posterior intercaecal region, entire and spherical; anterior testis 0.47 long by 0.32 wide; posterior testis larger than aterior one, 0.56 long by 0.35 wide. Cirrus sac very long and slender, curving and extending from below of ventral sucker to above of acetabulum, containing simple seminal vesicle and winding long ejaculatory duct. Genital pore median, immediately in front of ventral sucker.

Ovary transversely oval, entire, contiguous to anterior border of anterior testis, 0.25 long by 0.31 wide. Seminal receptacle absent. Ootype complex

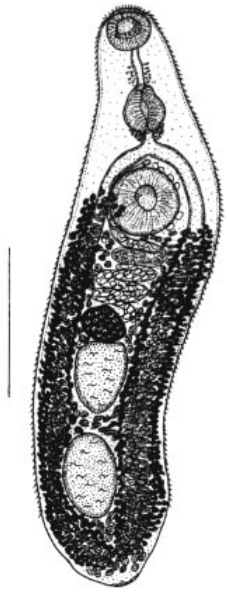

Fig. 1. *Pseudolepidapedon kobayashii* Yamaguti, 1938 from the intestine of *Paralichthys olivaceus*. Whole mount, ventral view. Bar scale: 1 mm.

anterior to ovary. Vitelline follicles extending from mid- or anterior level of ventral sucker to posterior extremity of body, embracing caeca. Uterus winding, between anterior border of ovary and ventral sucker. Eggs oval, 78-80 μm long by 50-58 μm wide.

Host: *Paralichthys olivaceus*
Locality: The Chinhae Bay (July. 21, 1988)
Location in host: Intestine
Specimens deposition: PKNU (Pukyong National University) Helminth Collection

At first, *P. kobayashii* was reported as *Lepidora* sp. by Kobashii (1921) from *Oncorhynchus masou* in Japan. Later, Yamaguti (1938) erected a new genus *Pseudolepidapedon*, and treated *Lepidora* sp. described by Kobayashii (1921) as a new species, *P. kobayashii*. Concurrently, Yamaguti (1938) described *P. paralichthydis* from *P. olivaceus* as a new species. The only distinguishing character of *P. kobayashii* from *P. paralichthydis* is the extent of the vitellaria. The vitellaria of *P. kobayashii* is originated at the level of middle of the ventral sucker. On the other hand, those of *P. paralichthydis* is originated at the level of posterior to the ventral sucker. In the light of this difference, Caballero (1952) regarded *P. paralichthydis* as a synonym of *P. kobayashii*.

The morphological characteristics including the extent of the vitellaria of our specimens were well coincided with those of *P. kobayashii*. However, the host was not *O. masou* but *P. olivaceus*. This result strongly suggest that *P. kobayashii* and *P. paralichthydis* may be the same species. To get clear conclusion, further studies with more specimens are needed. *P. kobayashii* is differ from *P. balistis* reported by Manter (1940) by the distribution pattern of the vitellaria and the location of the ovary.

Acknowledgement

This study was supported in part by the academic research fund of Korea Science & Engineering Foundation (981-0614-073-2), Republic of Korea.

References

Caballero, Y. C. E. : Revision de los generos y especies que integran la familia Acanthocolpidae Luhe, 1909. Rev. de Med. Vet. Y. Parasit., XI: 1-231, 1952 (in French).

Kobayashii, H. : On some digenetic trematodes in Japan. Parasitol., 12: 380-410, 1921.

Manter, H. W. : Digenetic trematodes of fishes from the Galapagos Islands and the neighboring Pacific. Rep. Allan Hancock Pacif. Exp., 2: 325-497, 1940.

Yamaguti, S. : Studies on the helminth fauna of Japan. Part 21. Trematodes of fishes, IV. Publ by author., 139pp. 1938.

남해 연안 넙치(*Paralichthys olivaceus*)에 기생하는 이생흡충류, *Pseudolepidapedon kobayashii*, 1종에 대한 국내 보고

김기홍 · 권세련 · 안경진 · 허성희*

부경대학교 수산과학대학 수산생명의학과, *해양과학대학 해양학과

남해안에 서식하는 넙치의 장에서 이생흡충류에 속하는 *Pseudolepidapedon kobayashii* 1종을 국내에서 처음 기록하였으며, 넙치는 이 기생충의 새로운 종숙주로 밝혀졌다. 본 논문에서는 *P. kobayashii*의 형태학적 특징들을 기술하였고 같은 속내의 다른 종들과 형태학적 차이점을 비교하였다.

Key words: *Pseudolepidapedon kobayashii*, Digenea, Paralichthys olivaceus