

## *Trachelobdella sinensis* Blanchard, 1896 found from *Cyprinus carpio nudus* in Korea

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Since *Cyprinus carpio nudus*, Israel carp, a variety of carp, was introduced into Korean fish farming industry from Israel in 1973, *Bothriocephalus opsariichthydis* and *Diplozoon nipponicum* had been found in the carp by Rhee (1984 & 1985). Another parasite, *Trachelobdella sinensis* Blanchard, 1896, has recently been identified from this carp in Korea by the present author. As a parasite specific in wild carp and probably also in crucian carp this parasite is known to be distributed in Amur river and Khanka lake area in Russia.

From 36 out of 39 *C. carpio nudus* (12 years old) weighing 6~8kg raised at the Horim Fisheries adult fish farm located Hyurngam-Ri, Seo-Myun, Choonsung-Kun, 132 fish-licees were detected on April 7, 1986. This fish farm is an old one, about 700m<sup>2</sup> with 1~1.5m in depth and has sand, stones and dirt at the bottom.

The posterior sucker of the parasite was so strongly attached to the internal surface of operculum that a muscular piece would fall off while taking off the parasite from the host. One to thirteen (5~6 in average) worms per a fish were found, but the parasite was not found *Ctenophoryngodon idellus*, grass carp, which was raised in the same water.

The body of the parasite was short and thick (Fig. 1). If they were divided into three groups by their sizes, the large, medium and small ones comprised 8.3, 66.7 and 25.0%, respectively. The large, medium and small ones were 32~42 (35.06) × 11.3~21 (17.99)mm, 25~32 (28.77) × 7~20.3 (15.44)mm and 18~25 (22.74) × 7~18 (12.23)mm in length and width, respectively.

The sizes of oral sucker were 2.9~3.3 (3.11)

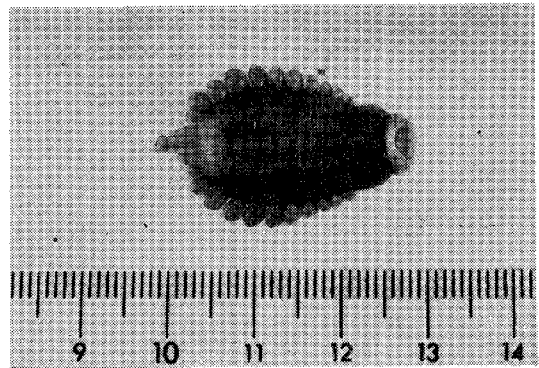


Fig. 1. The whole shape of *Trachelobdella sinensis*, the large form.

× 2.6~3.4 (2.93)mm for large one, 1.8~3.1 (2.63) × 1.9~3.1 (2.46)mm for medium one and 1.5~2.4 (1.84) × 1.3~2.2 (1.65)mm for small one, and the sucker had two pairs of eye spots. The sizes of posterior sucker were 5.6~7.7 (7.0) × 5.7~8.4 (7.51)mm for large one, 3.4~6.9 (5.58) × 3.9~8.4 (6.08)mm for medium one and 3.4~4.4 (3.75) × 3.4~5.0 (4.12)mm for small one, but the sucker had no eye-like spots.

The mean diameters of the lateral vesicles for large one were 3.09, 3.46, 3.45, 3.37, 3.34, 3.22, 3.11, 2.81, 2.59, 2.33 and 2.08mm, beginning from the first. The mean diameters for medium one were 2.64, 3.08, 3.06, 3.04, 2.96, 2.87, 2.73, 2.45, 2.30, 2.15 and 1.96 mm. Those for small one were 1.75, 2.09, 2.07, 2.01, 1.96, 1.89, 1.65, 1.62, 1.49, 1.38 and 1.11mm.

The colour of the fresh parasite was dark yellow nearly black (nearly white colour in the abdomen) but the fixed specimen was always white coloured. The somite was composed of 3 annulars and separated further into small grooves.

The largest number of the annual of the somite was 14.

Based on above morphological characteristics this leech from *C. carpio nudus* is identified as *Trachelobdella sinensis* Blanchard, 1896, according to the key of Bychowsky(1980) and classified in systemic position as follows:

Phylum : Annelida

Class : Hirudinea

Order : Rhynchobdellea

Family : Piscicolidae

Genus : *Trachelobdella*

Species : *sinensis*

Accordingly, this is the first record of *Trachelobdella sinensis* Blanchard, 1896 for Israel

carp, *Cyprinus carpio nudus* in Korea and therefore, Korea was added as a new distribution locality for the parasite.

#### REFERENCES

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—國文抄錄—

#### 韓國產 香魚에서 發見된 물고기거머리

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李 宰 求

蔚林水産 養殖場에서 사육하고 있는 12個年齡의 香魚(이스라엘잉어) 39마리중 36마리로부터 큰 後吸盤으로 鰓蓋內面에 固着하고 있는 132個體의 물고기거머리를 1986年 4月 7日에 채집하여 蟲體의 構造를 詳細하게 檢討하였다. 蟲體는 짧고 두꺼우며, 前吸盤에는 두 짝의 眼點이 있다. 後吸盤은 最大體幅의 0.3~0.4배이며, 類眼點이 없다. 第1側方 突出部는 第2의 것보다 작으며, 第2~5의 것은 크지만 第6~11의 것은 後端에 갈수록 점점 작아진다. 原體節은 3體環으로 되어 있으며, 다시 작은 溝條로 分節되어 있다. 原體節에 있어서 體環의 最多數는 14個이다. 이러한 形態學의 特徵으로 미루어 보아 *Trachelobdella sinensis* Blanchard, 1896이라고 同定한다. 이 물고기거머리는 著者가 우리나라에서 처음으로 發見하였으며 새로운 分布地域으로서 韓國을 追加한다.