

Conger myriaster, a new second intermediate host of *Heterophyopsis continua* (Digenea: Heterophyidae)

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Abstract: Six metacercariae were found from the gill filaments of *Conger myriaster* purchased at Mokpo-shi in Korea on 7 September, 1996. Based on the morphology of the excysted specimen, we identified them as metacercariae of *Heterophyopsis continua*. *C. myriaster* is a new intermediate host of *H. continua* in the literature.

Key words: *Heterophyopsis continua*, metacercaria, the second intermediate host, *Conger myriaster*

Heterophyopsis continua is a species of family Heterophyidae and is parasitic in fish eating birds and mammals. Three human cases of natural infection by *H. continua* were recorded in Korea (Seo *et al.*, 1984; Hong *et al.*, 1996).

Brackish water or marine fishes — *Lateolabrax japonicus*, *Mugil cephalus*, *Acanthogobius flavimanus*, *Plecoglossus altivelis* and *Clupanodon punctatus* — were recorded as the second intermediate hosts of *H. continua* in Korea (Chun, 1960; Seo *et al.*, 1984; Cho and Kim, 1985; Sohn *et al.*, 1994).

On 7 September, 1996, we purchased several species of marine fish in a fisheries market in Mokpo city in order to investigate helminth parasites. We found 6 metacercariae in the gill filaments of two conger eels (*Conger myriaster*). Among those metacercariae, one excysted metacercaria was fixed in 70% hot ethylalcohol. The fixed specimen was stained with Semichon's acetocarmin.

Morphology of the stained specimen is as follow; Body elongated leaf-like, dorsoventrally

flattened, 1.260 mm long and 0.230 mm wide (Fig. 1). Tegument beset with small spines which is sparse posteriorly. Oral sucker subterminal, 0.065 x 0.078 mm. Ventral sucker 0.120 x 0.113 mm, lying at the slightly anterior to the half of body. Prepharynx very long, 0.176 mm in length. Pharynx elliptical, 0.075 x 0.050 mm. Oesophagus very short. Intestinal caeca extended to posterior end of body. Genital sucker larger than oral sucker but smaller than ventral sucker, 0.078 x 0.100 mm, situated slightly posterosinistral to ventral sucker. Rodlets on the genital sucker were all the same size, approximately 100 in number, and arranged in a single circle. Ovary elliptical, 0.028 x 0.043 mm. Two testes smooth, globular and a little obliquely tandem. Anterior testis 0.055 x 0.053 mm and posterior testis 0.060 x 0.050 mm. Excretory vesicle Y-shaped, extended to the posterior margin of ovary.

The characteristics of this specimen was coincide with those of *Heterophyopsis continua*. There was no report that *C. myriaster* acts as the second intermediate host of *H. continua*. We, therefore, report here *C. myriaster* as a fish intermediate host of *H.*

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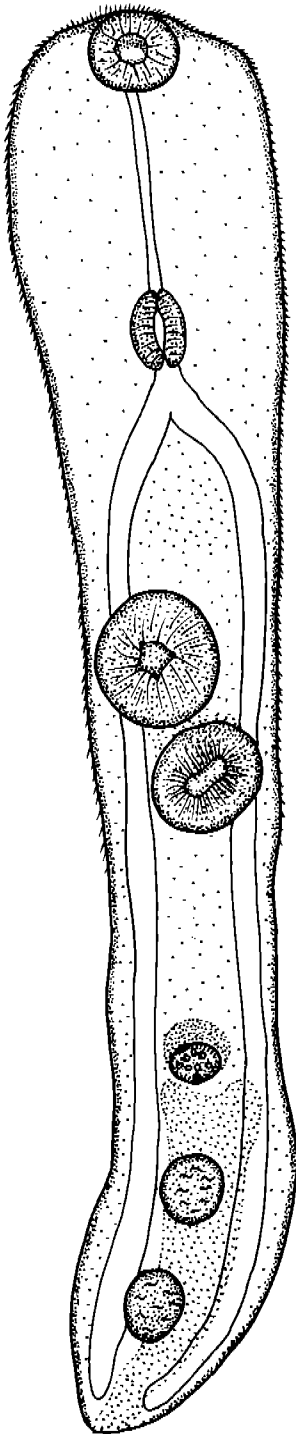


Fig. 1. Diagram of excysted metacercaria of *Heterophyopsis continua* collected from the gill filaments of *Conger myriaster* (ventral view, scale bar = 0.3 mm)

continua for the first time in the world.

Generally, the infection environment of *H. continua* to fish was considered via brackish water near river mouth, but *C. myriaster* and *C. punctatus* are not brackish water fish but coastal water fish. Therefore it is possible that the first intermediate hosts of *H. continua* may be the euryhalne organisms which can survive both in brackish water and sea water.

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=초록=

긴이형흡충(*Heterophyopsis continua*)의
새로운 중간숙주인 붕장어(*Conger myriaster*)

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1996년 9월 7일 전남 목포항에서 구입한 붕장어의 아가미 새엽에서 6개체의 피낭유충이 검출되었다. 이중 탈낭된 한 개체의 형태를 관찰한 바 긴이형흡충의 피낭유충으로 동정되었으며, 붕장어가 긴이형흡충의 제2중간숙주 역할을 한다는 것을 처음으로 보고한다.

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