

Neascus chelai nov. sp. (Trematoda) from the fish
Chela clupeioides

by

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Two fixed specimens of the fish *Chela clupeioides*, received from Madras, were found heavily infected with larval strigeids belonging to the genus *Neascus*. The parasites on detailed examination were found to be new and are described as such in the present communication.

Neascus chelai nov. sp.

Fig. 1

The parasites were found encysted in the integument all over the body of the fish. A few cysts were embedded in muscles also, but these had no parasites in them.

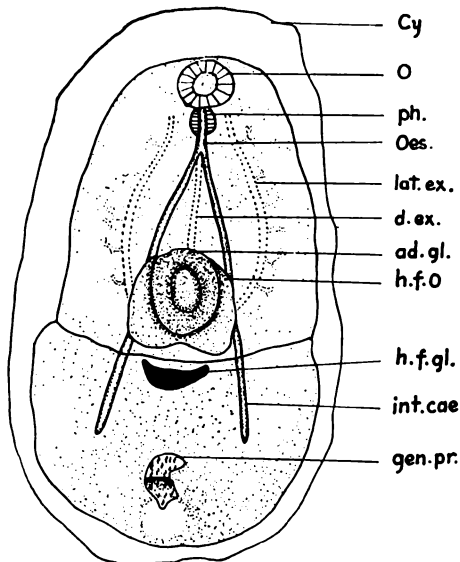
The cyst consists of two parts, an outer fibrous lamellar, black-pigmented portion and an inner, thin, tough, hyalin layer. The outer black portion of the cyst is distinctly oval, measuring $0.61 - 0.73 \times 0.35 - 0.52$ mm. The inner hyalin, wrinkled portion closely invests the parasite and cannot be removed without injury to the latter. It has the shape of the parasite, being broadest just behind the middle. The inner cyst measures 0.24–0.26 mm in length and 0.116–0.15 mm in maximum breadth. The principal organs of the parasite can be easily seen through the inner hyalin cyst.

The parasites measure 0.215–0.242 mm in length and 0.106–0.13 mm in maximum breadth. The body of the parasites consists of the usual parts, the fore and hind body, which are distinctly set apart by a deep constriction which is continuous dorsally and ventrally.

The forebody measures 0.13–0.14 mm in length and 0.098–0.13 mm in maximum breadth. Seen laterally, it has the shape of a very shallow cup, whose one side has become elongated. The elongated side is tongue-shaped, when seen dorsally or ventrally. A part of the hinder extremity of the forebody is formed by the hold-fast organ.

The well-developed hind-body is flat dorso-ventrally with rounded posterior end. It measures 0.08–0.106 mm in length and 0.106–0.133 mm in maximum breadth.

The hold-fast organ is a large, irregular, deeply staining, sessile structure present at the posterior end of the fore-body. It measures $0.036\text{--}0.05 \times 0.053\text{--}0.065$ mm. The spheroidal adhesive gland, which is inside the hold-fast organ, measures 0.03 mm in diameter. A distinctly staining, more or less semi-lunar hold-fast gland is present in the anterior-most portion of the hind-body, just behind the hold-fast organ.



ad. gl., adhesive gland; *Cy*, hyalin cyst; *d.ex.*, median dorsal excretory vessel; *gen. pr.*, genital primordium; *h.f.gl.*, hold fast gland; *h.f.o.*, hold fast organ; *int. cae.*, intestinal caecum; *lat. ex.*, lateral excretory vessel; *O.S.*, oral sucker *Oes.*, oesophagus; *ph.*, pharynx.

The oral sucker is ventro-terminal in position and spheroidal in shape. It measures 0.018–0.022 mm in diameter. Ridges, as described in *N. ambloplitis* (Hughes, 1927), have not been observed. The relatively large pharynx, measuring $0.008\text{--}0.0132 \times 0.0124\text{--}0.022$ mm is approximately half the size of the oral sucker. The oesophagus is extremely short, bifurcating almost at its origin into the intestinal caeca. The intestinal caeca extend into the hind-body where they terminate blindly about the middle of the latter, just at the level of the genital primordium. The caeca measure 0.14–0.165 mm in length.

The ventral sucker is absent.

The genital primordium consists of two parts, the anterior and the posterior. The anterior part partially overlaps the posterior thus giving a bilobed appearance to the genital primordium. The genital primordium measures. . . . 0.017–0.021 mm in diameter. Bursa copulatrix and the rudiments of vitellaria

are absent. Due to parasites being received in a fixed condition, only the median dorsal excretory vessel, the two lateral excretory vessels and a network of extra-lateral excretory vessels could be traced. A clear space posterior to the genital primordium may be interpreted as the reserve bladder.

Discussion.—The present form resembles *N. bulboglossa* (Van Haitsma) in the absence of a ventral sucker, all the other forms so far described under the larval genus *Neascus* possess a ventral sucker. However, the present form differs from *N. bulboglossa* in having a hold-fast gland, genital primordium, a very short oesophagus, a small and different type of hold-fast organ. Further it has a shallow cup-shaped fore-body. All these characters necessitate the creation of a new species.

RESUMEN

Se describe una nueva especie de metacercaria de un tremátodo estrigeido encontrada en quistes sobre los tegumentos y dentro de los músculos del pez de agua dulce, *Chela clupeioides*. Esta forma es semejante a *Neascus bulboglossa* (Van Haitsma) por carecer de acetábulo, pero se diferencia de ella por la presencia de un órgano tribocítico pequeño y distinto, así como por presentar una glándula proteolítica; el primordium genital y el esófago muy corto son otros caracteres diferenciales entre ambas especies.

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