NOBANIS - Marine invasive species in Nordic waters - Fact Sheet

Pseudobacciger harengulae

Author of this species fact sheet: Kathe R. Jensen, Zoological Museum, Natural History Museum of Denmark, Universitetsparken 15, 2100 København Ø, Denmark. Phone: +45 353-21083, E-mail: krjensen@snm.ku.dk

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Species description

Species name
Pseudobacciger harengulae (Yamaguti, 1938) – a parasitic digenean fluke

Synonyms
Bacciger harengulae Yamaguti, 1938; ?*Pseudobacciger manteri* Nahhas & Cable, 1964 (see Rahimian & Thulin, 2003).

Common names
None known

Identification

These species are parasitic on the gills of eels.

The adults are less than 0.5 mm long (Dimitrov et al., 1999), possibly up to 1.1 mm (Rahimian & Thulin, 2003), and hence it requires a good microscope to identify them. The body is oval and completely covered with short pointed spines. It has an oral and a ventral sucker, both on the ventral side and also covered with spines. The ventral sucker is located just anterior to the midline of the animal and can change shape from flat to cup-shaped or almost spherical.The oral sucker is smaller than the ventral one and can be retracted. In the posterior end is a small excretory pore connecting to the V-shaped excretory vesicle (Dimitrov et al., 1999; Rahimian & Thulin, 2003). In the Northeast Atlantic two related species occur: *Bacciger bacciger* (Rudolphi, 1819), which parasitizes sand smelt (*Atherina presbyter* Cuvier, 1829) and *Pronoprymna ventricosa* (Rudolphi, 1819), which parasitizes Allis shad, *Alosa alosa* (Linnaeus, 1758), Twaite shad, *A. fallax* (Lacepede, 1803) and *Sprattus sprattus* (Linnaeus, 1758). The latter species is more elongate in body form and has a smooth surface (Bray & Gibson, 1980), whereas the former seems to be very similar. It has a cirrus-sac, an appendage to the copulatory organ??

Unfortunately, there are no good illustrations of this species. SEM-pictures can be seen in Rahimian & Thulin (2003) and simple line drawings are found in Dimitrov et al. (1999).

Distribution

Native distribution
Japan and Korea

Introduced distribution
It was first found in Swedish herring in 1994 and initially identified as *P. manteri* (Rahimian & Thulin, 2003). It has also been described from Florida, Bimini and Jamaica (as *P. manteri*), India and Namibia (Rahimian & Thulin, 2003), and Dimitrov et al. (1999) reported it from the Black Sea. Thus it has a very scattered distribution, but mostly in tropical and subtropical waters.

First intermediate host: *Tapes philippinarum* and *Meretrix lusoria* (Dimitrov et al., 1999). It has been speculated that *Ensis directus* could have brought the parasite from Florida/ Caribbean to Sweden as this clam arrived in the Gullmarsfjord at about the same time as the parasite was found in herring (Rahimian, 2007). Second intermediate host *Penaeus japonica* and *Palaemon carinicauda* (Dimitrov et al., 1999), but apparently local shrimp species can also be used.

References

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