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OSTRACODS (CRUSTACEA) – A NEW HOST FOR THE *TETRAHYMENA PYRIFORMIS* COMPLEX (CILIOPHORA).

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Ostracods are very old and small crustaceans that have a reduced body carrying several appendages, encapsulated by a carapace in the shape of two bilaterally symmetrical valves (H o r n e *et al.* 2002). Being highly adaptive to various ecological conditions, they occur in a wide range of freshwater habitats.

Samples of ostracods were collected from the region of central and south Banat (Vojvodina, Serbia) during the period 2002-2003. In a sample taken in late November of 2002 from a small ephemeral pool near Melenci, it was noticed that the species *Tonnacypris lutaria* (Koch, 1838) was attacked by the ciliates. This is a relatively large species for an ostracod, parthenogenetic females measuring about 2 mm. Although this species is generally considered an early form (M e i s c h , 2000), some authors (B r o n s h t e i n , 1947) report an occasional second generation in the autumn. Among the 96 adult females and additional 14 juveniles surveyed, 69 adults were infected. The ciliates were identified as the *Tetrahymena pyriformis* species complex on the basis of their somatic and oral ciliature and morphometric characteristics.

The ciliates invade the hemocoel, possibly via wounds in the cuticle, and consume all hemocytes and other tissues like the hepatopancreas and ovaria (E d g e r t o n *et al.* 1996). This free-living protist may cause certain problems at times of overcrowding and poor water quality (water containing a high quantity of organic matter). Endobionts identified in the hemocel, around the hepatopancreas and ovaria (Fig. 1). They were also found inside of some appendages (Fig. 2).

This ciliate species is normally free-living, which suggests that crustacean populations may be susceptible to periodic opportunistic infections (B a n g *et al.* 1972). Opportunism practiced by probably free-living or commensal Ciliata should be

Fig. 1. Posterior end of the left valve with ciliates surrounding organs between lamellae.

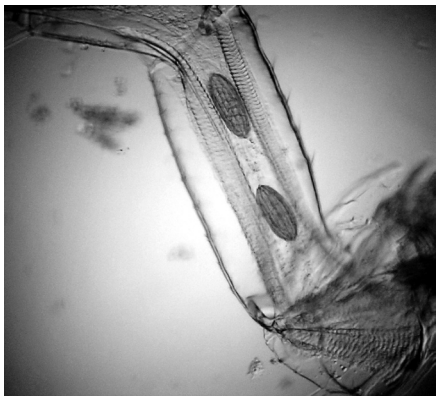

Fig. 2: Detail of walking leg showing ciliates near muscles

investigated in future studies of protist-related crustacean health problems.

It is peculiar that the ciliate was not found in individuals belonging to two other ostracod species also present in the sample. This and other issues raised by this interesting phenomenon will be addressed in the continuation of our investigations in the future.

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