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Note on the incidence of the Hydroid *Eugymnanthea inquilina* Palombi, in Mussels *Mytilus galloprovincialis* Lamarck, along the Eastern Adriatic Coast

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According to Cerruti (1941), the hydroid *Eugymnanthea inquilina* (synonym of *Mytilhydra polimantii*) is often found on the mantle epithelium of the mussel *Mytilus galloprovincialis*, causing the loss of cilia from the mantle epithelium and other pathological alterations in mussels. Through a heavy infestation of hydroids, disturbances in normal filtering (Lauckner 1983), and probably in feeding activity could happen, decreasing the index of condition of the host.

In 1985 and 1986 along the Yugoslav Adriatic coast investigations were conducted to establish the intensity of hydroid infestation of natural and commercial mussel populations, and to indicate possible effects of hydroids on the host index of condition. The samples (20 to 50 mussels) were analyzed to establish the number of invaded mussels by hydroids, mussel length data, and index of condition was calculated using the Hopkins method (MANN 1978).

We have obtained the following results (see Fig. 1):

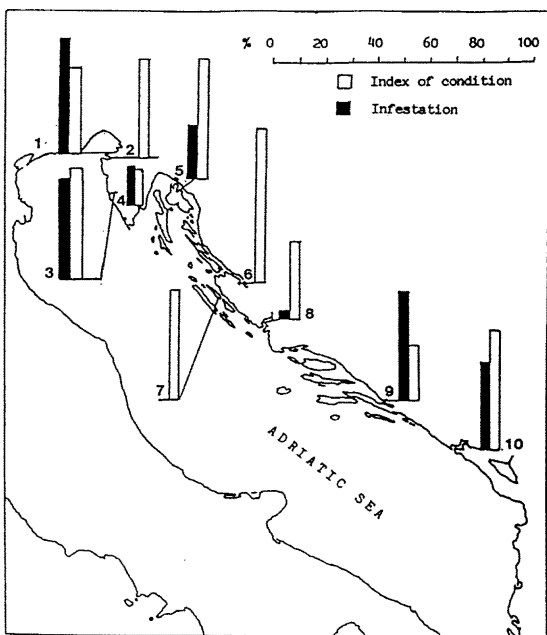


Fig. 1 - Incidence and intensity of *Eugymnanthea inquilina* infestation and index of condition of *Mytilus galloprovincialis* at sampling stations: Portoroz (1), Strunjan (Piran Bay, 2), Limski kanal (3), Rasa Bay (4), Soline (Krk Island, 5), Novigrad Sea (6), Mala Lamljana (Ugljan Island, 7), Martinska (Sibenik, 8), Mali Ston Bay (9), Kotor Bay (10).

1. The hydroid *Eugymnanthea* is a frequent species inhabiting the mantle cavity in mussels.
2. An abundance of hydroids occurred in the mantle cavity, especially near the mussel hinge zone. The hydroids were mostly individual, rare in colonies, which is in agreement with the findings of STJEPCEVIC (1974).
3. The infestation incidence ranged from 4% (Martinska, Sibenik, 8) to 46% (Strunjan, Piran Bay, 2). Hydroids were not observed in mussels from Strunjan (2), Novigrad Sea (6) and Mala Lamljana (Ugljan Island, 7). In Boka Kotorska about 30.0% of mussels (Kotor Bay, 10) were invaded, but, earlier, only 4-9% was registered by STJEPCEVIC (1974).
4. It seems that in Limski kanal (3) the intensity of infestation did not significantly change monthly. In January-March, July and November the infestation ranged as follows: 40.7, 20.0, 36.0, 40.0 and 49.7%, respectively. Hydroids were not observed in the June sample.
5. Mussels of various length frequency classes were invaded from 10.0 to 44.0% (Limski kanal, 3, Rasa Bay, 4).
6. It appears that the index of condition in mussels is not directly influenced by hydroid infestation. In Limski kanal (3) and Mali Ston Bay (9) at almost the same level of infestation different index of condition were found.

In conclusion, our observations indicate that *Eugymnanthea* is frequent in the Adriatic Sea with a moderate infestation of mussels but it seems that the hydroid influence on the host is negligible.

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