Bucephalus minimus, a deleterious trematode parasite of cockles Cerastoderma spp.

Luisa Magalhães^{1,2}, Rosa Freitas², Nicolas Lavesque¹, Xavier de Montaudouin¹

- 1 Université de Bordeaux, EPOC, UMR 5805 CNRS, 2, rue du Pr Jolyet, F-33120 Arcachon, France
- 2 Departamento de Biologia & CESAM, Universidade de Aveiro, 3810-193 Aveiro, Portugal

Texte Résumé (Maximum 1 page)

Trematodes are the most prevalent and abundant macroparasites in coastal waters. They display a complex life cycle with alternation of free-living and parasitic stages generally involving three host species. The most deleterious stage is in the first intermediate host (a mollusc) where the parasite penetrates as miracidium larvae and asexually multiplicates in

sporocysts/rediae to provide cercariae larvae. A 16-year monthly monitoring was performed at Banc d'Arguin (Atlantic coast of France), and allowed to obtain a sufficient number of infected cockles (276 out of 5,420 individuals) in order to provide new information concerning this parasite/host system. Sporocysts (diameter 80–500 μm) and developing cercariae (length 300–500 μm) are not visible before cockle reaches 16-mm shell length and then prevalence increases with host size. Seasonality of infection was not observed but variation of prevalence was significant among years and negatively correlated to the temperature of the former year, which could correspond to the period of infection by miracidium. Seven other species of trematode were identified in cockles as second intermediate host. For six of them, metacercariae abundance per individual was 2 to 12 folds higher in B. minimus-infected cockles, exacerbating the potential negative impact on host. From the parasite point of view, metacercariae can be considered as hitchhikers, taking advantage of the abnormal migration of B. minimus-infected cockles to the sediment surface where they become more vulnerable to predators that are also the final hosts of many of these parasites.

Colloque Flotte Océanographique Côtière - Bordeaux- 11 - 12 juin 2015.