

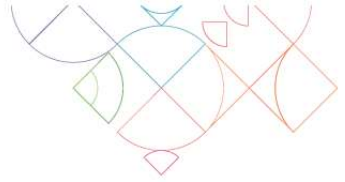


Porto, Portugal
9th-12th September 2019



19th International
Conference on Diseases
of Fish and Shellfish

ABSTRACT BOOK



079-P

Emerging enteric parasitic diseases in farmed gilthead sea bream (*Sparus aurata*)

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Introduction: Enteric parasites affecting farmed gilthead sea bream (GSB) have become a serious threat for Mediterranean aquaculture in the last few years; among these parasites *Enteromyxum leei*, *Enterospora nucleophila* and *Cryptosporidium molnari* are undoubtedly the most concerning ones. While the enteric myxozoan *E. leei* has been broadly studied, the available data on the occurrence of *E. nucleophila* and *C. molnari* infections are still scarce. Aim of this work was to improve the knowledge about these latter two parasites in Mediterranean aquaculture by carrying out an epidemiological survey in GSB farmed in Italy and Croatia.

Methodology: 308 GSB of which 40 from an Italian hatchery, 174 from three cage farms located in Italy and 94 GSB from one cage farm located in Croatia were tested with qPCR and PCR to assess the presence of *E. nucleophila* and *C. molnari*. Histology was also performed on infected GSB.

Results: All the examined farms tested positive for both parasites: 60% of the fish examined from hatchery were positive for *E. nucleophila*, while 22.5% resulted positive for *C. molnari*. Concerning caged fish, *E. nucleophila* was found in 63.2% of the GSB coming from Italian farms and in 45.7% of fish from Croatia. *C. molnari* was detected in 3.4% of Italian GSB and in 2.1% of the Croatian ones. Histological lesions were consistent with those already reported in literature for these enteric parasitic infections.

Conclusion: This study showed a diffuse presence and a high prevalence of *E. nucleophila* in Italian and Croatian farmed GSB. Although at lower prevalence, also *C. molnari* showed to occur in farmed GSB, especially in hatchery and juveniles. Thus, further investigations are required to establish their epidemiology, transmission routes and pathogenic role in farmed GSB along its production cycle in order to assess and manage the risks arising from these emerging enteric parasites.

Keywords: *Enterospora nucleophila*, *Cryptosporidium molnari*, gilthead sea bream, *Sparus aurata*

Funding: PerformFISH H2020 project (727610).