

Poster 37

Parasitological research of myxozoans in 2 species of benthic fish from Northeast Atlantic waters

Graca Casal^{1,2,*}, **Rúben Soares**³, **Mónica Sá**⁴, **Ângela Alves**² and **Sónia Rocha**^{2,4}

¹ UCIBIO - Applied Molecular Biosciences Unit, Toxicologic Pathology Research Laboratory, University Institute of Health Sciences (1H-TOXRUN, IUCS-CESPU), Gandra, Portugal

² ICBAS — School of Medicine and Biomedical Sciences, University of Porto, 4050-313, Porto, Portugal

³ IUCS - University Institute of Health Sciences - CESPU, Gandra, Portugal

⁴ Instituto de Investigação e Inovação em Saúde (i3S), University of Porto, Rua Alfredo Allen no. 208, 4200-135 Porto, Portugal

* Correspondence: graca.casal@iucs.cespu.pt

Abstract

Background: Myxozoa Grassé, 1970 constitutes a diverse and widespread group of endoparasites that mainly use fish as intermediate hosts and are frequently associated with increased mortality [1]. The increase in the commercialization of sole species in Portugal promotes economic growth in fishing industry and there are presently efforts to produce it in aquaculture. However, despite its commercial relevance, there is a lack of information about parasitic infections in several benthic fish. **Objective:** This study aimed to investigate the diversity of myxosporeans parasitizing stocks of two sole species of high commercial value, *Solea senegalensis* and *Synaptura cadenati*, caught in Northeast Atlantic waters. **Methods:** The specimens were necropsied and a myxozoan survey was carried out in the internal and external tissues. Samples of tissue were analysed by light microscopy and, when infected, were photographed for morphological characterization, as well as prepared for histology and molecular procedures targeting 18S rDNA. Positive PCR products were sequenced, and the consensus sequences were analysed by BLAST in MEGA11 software. **Results:** The morphological data revealed the presence of two parasites in the *S. cadenati*, in the gallbladder *Ceratomyxa* sp. and in the urinary bladder *Ortholinea* sp. with a prevalence of 16.7% and 25%, respectively. In *S. senegalensis*, a parasite of the genus *Zschokkella* was identified in the gallbladder and a *Sphaerospora* sp., was found in the urinary bladder with the prevalence of 27.3% and 9.1%, respectively. Molecular analysis confirmed the identification of both gallbladder species, while the parasites infecting the urinary bladder are currently being processed. **Conclusions:** In *S. senegalensis*, a new occurrence of *Zschokkella soleae*, a species previously described in *Solea solea*, was found in the same tissue [2]. In *S. cadenati*, a new species of *Ceratomyxa* was identified, whose molecular analysis demonstrated that it is closely related to *Ceratomyxa* spp. from the same geographic area.

Keywords: marine fishes; parasites; myxozoa; 18S rDNA

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