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FIRST REPORT OF *Parvatrema duboisi* INFECTION IN WILD MEDITERRANEAN MUSSEL *Mytilus galloprovincialis* IN BULGARIAN WATERS OF THE BLACK SEA

NELKO YORDANOV^{1*} – CIGDEM URKU² – ALEXANDER ATANASOFF³

¹ TRAKIA UNIVERSITY, FACULTY OF AGRICULTURE, 6014 STARA ZAGORA, BULGARIA

² ISTANBUL UNIVERSITY, FACULTY OF AQUATIC SCIENCE, 34134 ISTANBUL, TÜRKIYE

³ TRAKIA UNIVERSITY, FACULTY OF VETERINARY MEDICINE, 6014 STARA ZAGORA, BULGARIA

Introduction

The main cultivated species is the blue mussel or the Mediterranean mussel (*Mytilus galloprovincialis*) is native to the Mediterranean coast and the Black and Adriatic Seas. During the last decade, there has been an increased interest towards the cultivation of Mediterranean mussels in Bulgaria. More than 50 farms have been created but production is unevenly distributed along the coast like the Northern Bulgarian Black Sea coast produces over 85% of the total production. In the absence of veterinary sanitary control on wild populations, these organisms are an unexplored potential human health risk factor.

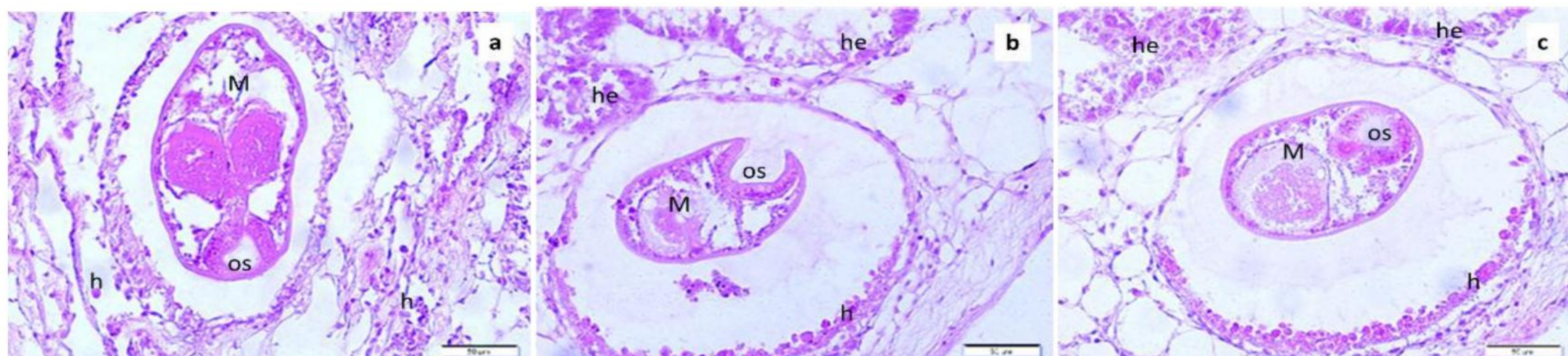
Since there are significant gaps in knowledge about the health status of wild mussels in Bulgarian waters of the Black Sea, this gives us an apparent motivating reason to arrange the current study.

In the present study, we present the first record of trematode parasite *Parvatrema duboisi* infection in *Mytilus galloprovincialis* along the Bulgarian Black Sea coast.

Material & Methods

Mature *Mytilus galloprovincialis* were obtained in a natural bed on the North Bulgarian Black Sea coast near Cape Shabla. The samples (n=100) were collected monthly by scientific scuba diving in the period between December 2022 and November 2023. The biometric measurements were undertaken with a digital calliper (nearest 0.1 mm) including anterior-posterior length (L), dorsal-ventral length (W), the distance between two valves (D), total weight (TW), wet weight of the soft parts (WWSP), and weight of shell (WS). A total of 240 specimens have been analyzed to check health status and for evidence of potential pathogenic organisms by macroscopic diagnosis and classical histology techniques. Slides were examined and described regarding the presence of morphological alterations under a light microscope (Olympus BX51, Germany) equipped with a digital camera (Olympus DP72, Germany).

Results



Conclusion

Despite the wide distribution of *Mytilus galloprovincialis*, their wild populations have hardly been studied, and there is no report of health status from Bulgaria. To our knowledge, this is the first record of natural *Parvatrema duboisi* infection in wild Mediterranean mussels (*Mytilus galloprovincialis*) along the Bulgarian Black Sea coast. Results obtained here have the potential to provide a valuable background for future studies.