

Report on Yessotoxins and Pectenotoxins in Shellfish from the North Black Sea Coast of Bulgaria

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Abstract : Yessotoxins (YTX) and pectenotoxins (PTX) are lipophilic polyether marine biotoxins that accumulate in shellfish and are regulated in the European Union. Aim of this study is investigation of the presence of YTXs and PTXs in Black Sea mussel (*Mytilus galloprovincialis*) on the North Black Sea coast of Bulgaria. YTX and PTX-2 have been identified in samples of the digestive glands of wild and cultivated samples. Mussel samples are harvested from two locations in important farming area on the Bulgarian North Black Sea coast in the period September 2016 - May 2017. Samples are analyzed by liquid chromatography tandem mass spectrometry (LC-MS/MS). In about 50 % of the samples analyzed the obtained concentration of YTX ranged from 10 - 5000 pg/g hepatopancreas and PTX-2 ranged from 300-7000 pg/g hepatopancreas. This is to our knowledge the first report of occurrence of lipophilic toxins in mussels from Bulgaria.

Keywords : yessotoxins, pectenotoxins, Black sea, mussels

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