

ASSESSMENT OF MICROBIAL CONTAMINATION OF TISSUES OF MARINE FISH

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In recent decades one of the most pressing environmental problems is biological pollution of seas and oceans, the source of which is municipal and agricultural wastewater. Microbes, viruses, parasites and other pathogens get into marine water from coast, with ships, with garbage, as well as with the flows of rivers that carry pollution from the whole watershed. Microbial contamination is recognized according to its effects in the world ocean waters, including the Black Sea and the Sea of Azov, as the second after eutrophication.

Considerable anthropogenic pressure on the marine ecosystem has domestic and industrial wastewater and agricultural effluent that brings into the marine environment undistinctive microorganisms. Thereby monitoring researches of biological contamination of the marine life`s microflora are of great interest.

The aim of this study is to compare characteristics of microbiological indices in tissues and organs of fishes that inhabit the Black Sea and the Sea of Azov.

The objects of the study are 8 species of bony fishes that belong to different ecological groups. Also was investigated one type of demersal cartilaginous fish.

As the material of the study served muscle tissue and intestines of researched fish species in the bays of the Black Sea: Karantinnaya Bay and Alexandrovskaya Bay (Sevastopol), as well as muscle tissue of round goby that lives in the Sea of Azov.

The results show tissue-specific and specific features of the content of microbiological parameters by the researched fishes. It was found that the level of microbial contamination in the tissues of the fishes is reduced during the cold season and increases in the summer. Considerable microbial contamination was found in muscle

tissue of round goby that lives in the Black Sea in comparison with the goby that inhabit the Sea of Azov.

Keywords: standard plate, Salmonella, staphylococcus, coliforms, listeria, fish, the Black Sea, the Sea of Azov.

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