

Monitoring of the marine litter in the Black Sea coastal zone of Georgia

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The Black Sea is one of the largest inland sea. With the growth of the economy and transport infrastructure of the Black Sea basin countries, the risk of environmental impact is also increasing. Among the factors of impact in recent decades, it has become especially relevant to get the solid household waste into the marine environment. Waste is considered to be any durable, manufactured or processed solid material that is discarded, left or lost in the sea and coastal environment.

The problem is that large amounts of solid waste directly or indirectly entering the marine environment, along with other categories of organic pollutants, causes deterioration of sea water quality, and in general a deterioration of the sustainable use of the benefits and services of the marine environment.

Another factor in the pollution of the marine environment is the increase of maritime-transportation traffic. Limited circulation of Black Sea water to the ocean prevents removal of pollutants getting into the marine environment, whereupon accumulation processes are intensifying. Therefore, the Black Sea is under a strong anthropogenic load.

The study of marine ecological problems is one of the priorities among environmental protection issues for countries in the region, which is evidenced by international conventions and agreements on the protection of the Black Sea, of which Georgia is a member too.

The aim of this paper is to investigate the ecological condition of the marine waters, to assess the ecological condition of the marine environment in terms of solid waste pollution, to monitor solid waste pollution in the coastal zone of Georgia, to identify the cause-and-effect relationship between current ecological situation and the state of the marine environment in the rivers basins of the Black Sea rivers of Georgia and identify anthropogenic factors.

The master's thesis substantiates the urgency of the problem, discusses in detail the objectives and goals of the research, the pollution with the marine litter of the Black Sea and topics related to it. The paper is based on observations made in 2018-2019 in the coastal zone of Georgia, on the beaches, on the surface of rivers and the sea, the aim of which was to study the nature of the distribution of marine litter in the marine environment. Studies have been conducted using internationally proved methodology.

The study of the Marine litter in the coastal zone of the Georgia with the participation of the MS students of TSU, was conducted in 2018-2019 years, within the EC / UNDP project "Improving Environmental Monitoring in the Black Sea - Selected Measures (EMBLAS-Plus)" and in close cooperation with EU funded BSB552 RedMarLitter and EMODnet Projects.