P24. SELF-PURIFICATION OF SEA COASTAL WATER AREAS UNDER CLIMATIC AND ANTHROPOGENIC CHANGE

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The ability of a bay and gulf ecosystems to self-purification was estimated and the current ecological state of the Sevastopol Bay in whole and the separated parts of the bay was given as an example. A zoning by type of anthropogenic impact subject to the water exchange with the open sea and an influence of the Chernaya River run-off were taken into account. A comparative analysis of assimilation capacity of the most environmentally disadvantaged part of the Sevastopol Bay (the Southern Bay) and the clean water area, bordering on the open sea, was carried out. The hydrodynamic regime of the Sevastopol Bay was described using numerical modelling. The prospect, opportunity and examples of the methodology for assessing the assimilation capacity of marine ecosystems are demonstrated.