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Modelling of contemporary sedimentation in the Azov Sea

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Contemporary sedimentation in the Azov Sea was estimated spatially detailed mathematical model for transport and sedimentation of the particulate matter. The model TRASEAS includes dynamic of suspended and eposited terrigenous matter in water column and at the bottom and accounts for realistic bathymetry. Distinct spatiotemporal features of the terrigenous sedimentation in the second half of the 20th century were recognized. The decrease in the accumulation of terrigenous sediments and diminishing in the areas with a negative balance of the terrigenous matter was found. This was related to the 2.5-fold fall in the volumes of the matter supplied from land. In general, during the second half of the 20thcentury the rate of sedimentation decreased from 1000 to 400 g/m2/year with spatial variation. In the central part of the sea, which is relatively far from source of terrigenous matter, the rate of sedimentation has value of about 300 g/m2/year. In Taganrog Bay and in the inner sea , areas with a negative balance of terrigenous sedimentation increased up to 30%.