O85. VARIABILITY OF THE BLACK SEA COASTAL ECOSYSTEM: RESULTS OF LONG-TERM OBSERVATIONS AT THE SIO RAS RESEARCH SITE NEAR GELENDZHIK

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The research site is developed by SIO RAS for permanent monitoring of the ecosystem variability at the shelf and continental slope zone in the north-eastern Black Sea. The site, at which an autonomous measuring platforms are displaced, occupies an area of 10*15 km2 near Gelendzhik, where the Southern Branch of SIO RAS is situated. Three types of autonomous platforms are exploited: 1) acoustic Doppler velocity profiler (ADCP) at the bottom station; 2) thermo-chain at the mooring line; 3) robotic profiler at the moored station. By these platforms the long rows of hydrophysical and bio-optical data (vertical profiles of temperature, salinity, density, current velocity, acoustic backscatter, water transparency, chlorophyll_a fluorescence, etc.) of high spatial and temporal resolution are obtained. Data from some of the autonomous platforms are transferred via a telecommunication system to the coastal center for real-time operability. Also a regular year-round ship-born multidisciplinary monitoring is fulfilled at the research site. The obtained data is used for studies of the variability of the marine environment and biota, exchange processes in the "shelf-deep basin" system, ocean-atmosphere interactions, climate change, etc. It is used also for validation of satellite measurements, verification of the results of numerical modeling. In the report some of the results of the studies of coastal ecosystem variability at the research site are presented.