



Quasi-synoptic hydrographic survey in the Western and Eastern Aral Sea in the fall of 2005

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The results of a hydrographic survey encompassing both the Western and Eastern basins of the Large Aral Sea, as well as the strait between the two basins, are presented. The survey was virtually the first in 13 years to cover quasi-synoptically all major parts of the Large Sea. Surface-to-bottom CTD profiling and water sampling were done at 22 stations. Mooring stations with current meters and tidal gauges were deployed at 3 locations. Meteorological forcing parameters were recorded continuously with an automatic weather station. Bathymetric mapping of the strait bed subject to "self-deepening" due to bottom erosion was also performed. The collected data revealed the present structure of thermohaline fields in all parts of the lake (except the Small Sea) and reflected the most recent changes of the lake level and salinity. It was observed that, despite its very low depth, the eastern basin was strongly stratified. Enhanced stratification was also observed in the western trench where sulfide contamination was again documented (after a period of ventilated conditions in 2004). The current meter and level gauge data recorded together with the meteorological data give a clear idea of the system reaction to the wind forcing.