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On the unusual distribution of modified Amur River water in the Aniva Bay (Sakhalin) in November 2001

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Abstract. In addition to the distribution of modified water of the Amur River runoff in the Aniva Bay, remote from its mouth, according to the data from 2012–2013 (Shevchenko G.V., Chastikov V.N. Distribution of the Amur waters in the eastern part of the Aniva Bay in late autumn. Meteorology and Hydrology, 2021, no. 1), the materials of the oceanological survey carried out in this basin in mid-November 2001 are presented. It is shown that desalinated water entered the bay in an unusually wide stream in the upper 30-meter layer and occupied a vast area, almost to the middle of the bay. At the same time, the differences in salinity with local waters were less than usual. The most probable reason for such specific features of oceanological conditions in 2001 was an increase (by about 30% in comparison with the usual values) of the wind of west-northwest rhumb of an offshore character. The obtained results show that the influence of this water can manifest itself not only near the eastern coast of the bay, as was demonstrated in the mentioned article, but also at a distance of more than 30 km from it. Accordingly, abrupt decreases in salinity can affect the marine biota not only of the coastal complex, but also inhabiting the central part of the bay.

Keywords:
temperature, salinity, runoff, Amur, modified water, Aniva Bay

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