

The content of trace elements in the Pacific capelin *Mallotus catervarius* (Pisces: Osmeridae) from the coastal waters of the southwestern part of Sakhalin Island

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Abstract. Vertical motions, especially in the active continental margins such as Kuril-Kamchatka transition zone, are still pure studied. One of the factors significantly affecting the amplitudes and directions of vertical motions is mantle convections. Estimates of the amplitudes of vertical motions in region have been obtained by means of numerical modeling of the mantle convection made by the method of finite elements. The values of emergences in the area of Sakhalin Island and the Kuril Ridge from 0–3 to 13 m were obtained with the accepted rates of mantle convection from 1 to 5 mm/year. The results obtained should be taken into account when reconstructing neotectonic history of the region and assessing the geodynamic situation in the region of the Sea of Okhotsk.

Keywords:

**trace elements, atomic absorption, Pacific capelin,
muscles, gonads, Tatar Strait**

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