Dynamics of the shores during cold period

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Abstract

On the basis of field observations and modeling of morphodynamic processes the concept of the development of the coastal zone at the transition of mid-daily temperatures to minus values was developed. We found that the most intensive erosion occurs in November – January. During this period, in the upper levels of the coastal profile which are wave-absorbing for storm conditions at the highest tides, freezing of beach sediments and the deterioration of their wave-absorbing properties, stipulated by this, occurs. The period of maximum danger of destruction of coastal scarp, ending by the formation of ice and fast ice was determined. We concluded that the calculated period of dangerous impacts on the coastal scarp is consistent with the field observations and concerns the proposed conception of development of the coastal area after the transition mid- daily temperatures of the soil to negative values.

Keywords

Beach, Freezing, Forces on coastal terrace scarp, Swash action

References

For citation: Afanasiev V.V., Romanov A.O., Uba A.V. Dynamics of the shores during cold period. *Geosystems of Transition Zones*, 2017, vol. 1, N 1, p. 23–29. doi:10.30730/2541-8912.2017.1.1.023-029