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Pigments in the bottom sediments of Aniva Bay (Sea of Okhotsk)

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Abstract. The data of spectrophotometric determination of the content of plant pigments in the bottom sediments of Aniva bay (the Sea of Okhotsk) obtained in autumn 2013 are presented. The content of sedimentary pigments is shown to be quantitatively related to the hydrological characteristics of the water column and the typological indicators of bottom sediments. The content of chlorophyll *a* with phaeopigments in the sediments of the bay is generally characterized by values of the oligotrophic category. The pigment characteristics of the bottom sediments of the bay are represented by the values of indicators that differ significantly from those of functioning plant organisms due to the strong degradation of the pigment fund. The prevalence of the concentration of phaeopigments over chlorophyll *a*, an increase in the contribution of additional chlorophylls to their total amount, as well as an increase in total carotenoids compared to chlorophyll *a* were noted. The ecological interpretation of the data obtained on pigments and pigment ratios gives an idea of the mechanism of interaction between production and destruction processes in water bodies, which gives to the pigment characteristics meaning of integral ecosystem indicators.

Keywords

Aniva Bay, pigment characteristics, bottom sediments

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