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**STRUCTURAL ORGANIZATION OF ECOSYSTEMS  
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**ANALYSIS OF BOTTOM COMMUNITIES OF SMALL PLAIN RIVERS  
BY THEIR STRUCTURAL AND FUNCTIONAL INDICATORS  
(ON THE EXAMPLE OF THE KOLOKSHA RIVER, VLADIMIR REGION)**

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In this article, we present the study results of diversity, structural, and functional characteristics of benthic communities from sections of the small lowland river – Koloksha, a tributary of the Klyazma River in the Upper Volga basin. We examined patterns of spatial and structural variability in those communities using a wide range of aquatic organisms that served as indicators of the ecological state of the river.

Based on research conducted in 1993 and 2013, we analyzed changes in the species richness and functional characteristics of macrozoobenthos communities in the Koloksha River and its tributaries. Using data on changes in the abundance and biomass of key taxonomic groups, as well as various methodological approaches, we examined the dynamics of hydrobiological indicators, taking into account their nonstationarity and the existence of consistent trends depending on influencing factors.

From the compiled set of abiotic environmental factors, we selected significant parameters that determined the complex longitudinal gradient (oxygen saturation, flow velocity, and phosphorus content), and then determined the ecological status of the river.

*Keywords:* macrozoobenthos communities, taxonomic diversity, abiotic factors, functional features, Koloksha River, Klyazma River basin.

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