

HUMIDITY MODELLING OF THE RIVERS BASINS OF THE WESTERN POLESIE FOR VARIOUS VARIANTS OF THE CLIMATE CHANGE IN THE FUTURE

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Humidity of basins and amount of heat are the major factors of ecosystems formation. Predicted change of climate, undoubtedly, will disturb developed balance on the rivers basins that will cause also changes in formation of river ecosystems.

Using the hydro-climatic method based on the joint solution of water and thermal balances of river basins, we execute numerical experiment for estimation of humidity change of basin for various variants of the future climate changes. In particular variants of increase of annual air temperature up to 2⁰C and reduction of atmospheric precipitation up to 10 %, and also their various combinations were considered.

At most adverse of considered variants (the increase of air temperature up to 2⁰C and reduction of atmospheric precipitation by 10 %) depending on kinds of a spreading surface humidity will decrease on the average from 5 up to 20 % from the modern level.

Predicted warming of the climate will cause the next negative reaction both whole water ecosystems and their separate parts. Especially it will affect on bottomland of the rivers - the most sensitive landscapes, here changes are the most essential.