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Regional features of the dynamics of thermal comfort indicators in a changing climate /
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The regional changes in climate comfort for the territories located in different climate zones are analyzed. The Universal Thermal Climate Index (UTCI) is used to assess bioclimatic conditions. The eight-time observation data on the following parameters from six Roshydromet weather stations were used for calculations: air temperature, wind speed, relative humidity, soil surface temperature, and cloudiness for 56 years from 1966 to 2021. It was found that climate change and its impact on human comfort in different climate zones occur at different rates. For all territories, cold stress decreases in the cold season, and heat stress increases in the warm season. It is noted that the average annual total number of extremely discomfort days has decreased over 56 years. The main factor determining the revealed dynamics of UTCI and characteristic for cities both in the continental part of Russian Federation and on the coast of the oceans is the air temperature rise in winter and summer and the wind speed decrease in winter.

Keywords: climate change, comfort, thermal comfort, regional features, public health, Universal Thermal Climate Index (UTCI)

Tab. 8. Fig. 2. Ref. 28.