



Spatio-temporal dynamics of climatic extreme indices over Siberia

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Nowadays numerous investigations are aimed at analysis of regional climatic extremes becoming more pronounced under climate change. In particular, obtained results indicate decrease of number of frost days and increase of growing season length over the most part of Siberian territory, and precipitation intensity increases in the northern part of Siberia [1]. To obtain the complete pattern of ongoing changes in climatic extremes the following indices dynamics should be analyzed: percentage of days when minimum/maximum temperature less than 10th percentile, percentage of days minimum/maximum temperature greater than 90th percentile, maximum length of dry/wet spell.

Climatic extreme assessments are obtained based on ECMWF ERA Interim Reanalysis and APHRODITE JMA data for the time period from 1979 to 2007. These datasets reproduce the statistics of observed climate features in Siberia more accurately [1]. Modern techniques of mathematical statistics are used for analysis of the temporal and spatial behavior of above mentioned climatic characteristics. Data analysis has been done using computational-geoinformational web-system for analysis of regional climatic change [2].

Surface temperature and precipitation extreme assessments obtained for Siberian territory can help to get a better understanding of current changes in the biosphere and socio-economic aspects.

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