

## GC31B-0455 Variations of the Hydrothermal Characteristics over the Baikal Natural Territory on the Background of Global Climate Changes

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In recent decades studying of climate changes on the globe became one of the most important researches. From this point of view, Siberia is particular climatically interest region in Eurasia because of its complicated bioclimatic structure. Climatic changed observed over the region substantially contributes into global climate processes. In particular, temperature trends in the second half of the 20th century were quite high ( $>0.2$  °C/10 yr). The aim of the present work is to estimate intensity of hydrothermal characteristics changes for 1961-2008 over the Baikal Natural Territory on the background of global climate change. Most of the area is characterized by extreme continental climate while the climate of the Baikal coast is close to the seaside. Winter temperature at the shores of Lake Baikal is 5°C higher than at the central areas, but summer air temperature is lower. The annual average temperature is negative almost at the whole area. Annual trends of air temperature are positive and ranged from 0.24 to 0.52 °C per 10 yrs. Trends for individual months are also positive. They vary from 0.33 (September) to 0.99 °C per 10 years (February). Precipitations over the territory are distributed irregularly. A highest precipitation observes within the Khamar-Daban ridge and on the windward slopes of the ridges bordering the Baikal Lake (up to 1400 mm), at the hinterland highlands (400-700 mm), and in the central part of the Transbaikalia steppe (200-250 mm). Minimal amount of precipitation observes in winter, the highest in July and August. Precipitation trends are not statistically significant. The most important extreme hydrothermal phenomena occurring at the study area are droughts. Months and years were revealed when more than 60% of the territory was occupied by the drought. The highest frequency of these events was registered in the period of 1990-2008. Increased droughts intensity observed at coastal stations of the Baikal Lake in May-June, Predbaikalia - in July, Transbaikalia - in June and July. Investigation of regional features of hydrothermal characteristics, their long-term fluctuations and extreme events on the background of global climate change allows us to solve the problems associated with economic and environmental objectives.

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