

论文

辽宁区域性春旱的大气环流及影响因子分析

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摘要 利用美国NCEP/NCAR的再分析资料、Hadley中心逐月海温资料(HadiSST)和辽宁地区逐日降水资料,

对辽宁区域性春旱大气环流特征及影响因子进行分析。结果表明: 乌山脊和东亚大槽减弱, 位相比历年平均位相偏东, 中高纬大气环流经向度减小,

是导致中国辽宁区域性春季降水减少的大气环流背景; 区域性春旱同期, 大陆气压升高, 海上气压降低; 辽宁上空湿度明显小于历年均值,

贝湖到中国辽宁一带盛行西北气流。区域性春旱前冬, 辽宁上空

200hPa高度场出现正距平; 地面气温较历史同期偏高; Nino3海温异常偏低。

关键词

[区域性春旱](#); [大气环流](#); [影响因子](#); [距平合成](#); [相关分析](#)

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Atmospheric circulation of regional spring drought and its controls in Liaoning province

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Abstract Based on NCEP/NCAR reanalysis data and HadiSST data as well as daily precipitation data in Liaoning province, the characteristics of atmospheric circulation of regional spring drought and its controlling factors were analyzed. The results indicate that Wulaer mountain ridge and East Asia trough are weakened, the phase leans to east, and the meridionality of atmospheric circulation in middle and upper latitude decreases, the above-mentioned are the atmospheric circulation background leading to the regional spring precipitation decrease in Liaoning province. Air pressure in the continent increases during spring drought, while that on the sea decreases. The humidity over Liaoning province is lower than the multi-year average. The northwest air current is prevailing from Lake Baikal to Liaoning province. There is a positive anomaly in 200 hPa height field over Liaoning province in winter before regional spring drought. Surface air temperature is higher than the historical value in the same time, and SST of Nino3 is abnormally low.

Key words [Regional spring drought](#) [Atmospheric circulation](#) [Controlling factors](#) [Composite anomaly](#) [Correlation analysis](#)

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