Analysis equilibrium structure of the future temperature parameter in the basin area Tashk, Bakhtegan and Maharlou Using EH5OM

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Abstract

Analysis of the structure and future trends of climate parameters in sensitive area and vulnerable to environmental threats, particularly inland lakes Iran is very important. Therefore, in this study to investigate the effects of global warming on the pattern and structure of thermal equilibrium Lakes basin washstand, Bakhtegan and Maharlou daily average temperature is simulated. In this regard, the first air circulation over the period 2015 to 2050 model data base EH5OM data was extracted. The base of the general circulation of the atmosphere and ocean data model, under scenario A1B, the international climate change made. The base of the general circulation of the atmosphere and ocean data model, under scenario A1B, the international climate change made. Downscaling them in the fourth edition model was then RegCM4. The average daily temperature in small scales with size 0.27 × 0.27 degrees latitude those areas with approximate dimensions of 30 × 30 km area covered by the mining deals. The temperature of the monthly, quarterly and yearly basin, interpolation and relevant maps were drawn. Also, after a variable Mathematical reference temperature by applying trigonometric fractal structure on temperature data to evaluate the results of fractal geometry was classic. The results showed a temperature of 21-16° zone around the three lakes in the case study watershed based on the highest average annual temperature of the lake in the coming decades Maharlou and lowest lake is Tashk. Lake Maharlou in all entitled to a higher temperature than is the Maharlou Lake in all seasons; the temperature is higher than the other lakes. Zones where average temperatures and seasonal patterns, although the temperatures are different, but in terms of the spatial patterns of the structure are relatively similar and equally enjoyed. The trend shows that the average daily temperature, this parameter follows the fractal structure, which reflects the dynamics of the indices in the coming decades of the Equilibrium to Disequilibrium.

Keywords: Model EH5OM, Scenario A1B, Fractal, Bakhtegan-Tashk and Maharlou Lakes.

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