THE GREEN SPACES AND THEIR BIOCLIMATIC CONTRIBUTION IN URBAN ARID ZONES
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Abstract

The objective of the study is to quantify the extension and the intensity of the hydrothermal effect of Green Urban Spaces (GUS) on the climate of a city situated in an arid zone, choosing as study area the city of San Juan, Argentina.

Using a sample of three squares and the urban park, temperature and relative humidity were measured thus obtaining isotherms and isohumes and obtaining also, for each GUS, sections with adjusted curves for both climatic variables.

Correlations were made between the arboreal index of GUS and: i) the longitude of the influence area of the hydrothermal effect; ii) the variations of temperature and relative humidity; iii) the influence area; iv) the intensity of variation for temperature and humidity.

The results showed that during summer, in order to diminish the temperature, larger areas of GUS are required than in order to increase relative humidity; also the variation of thermal intensity of GUS is larger in winter than in summer. The minimum area starting from which a GUS area has a hydrothermal effect is 0.8 Ha going up to a maximum of 20 Ha, value above which its effect is no longer significant.