

Bowen Ratio in Western São Paulo State, Brazil

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Abstract : This paper discusses micrometeorological aspects of the urban climate in three cities in Western São Paulo State: Presidente Prudente, Assis, and Iepê. Particular attention is paid to the method used to estimate the components of the energy balance at the surface. Estimates of convective fluxes showed that the Bowen ratio was an indicator of the local climate and that its magnitude varied between 0.3 and 0.7. Maximum values for the Bowen ratio occurred earlier in Iepê (11:00 am) than in Presidente Prudente (4:00 pm). The results indicate that the Bowen ratio is modulated by the radiation balance at the surface and by different clusters of vegetation.

Keywords : Bowen ratio, medium-sized cities, surface energy balance, urban climate

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