Realities of Air Temperature Distribution in Summer in Tokyo -Observation results since 2007 to 2009 by METROS-

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We examined the realities of urban heat island phenomena in Tokyo in summer by analyzing data of the high density heat island observation net. As a result, it became clear that the detailed reality of heat island in Tokyo. Main results were as follows. Daily maximum air temperature was high in not only Tokyo wards but also the east part of Tama. On the other hand, ratio of Periods T\(_{max}\) over 30°C which are said to be closely related to heat disorder was low in Tama and high in the area from central Tokyo toward the northern and northwest area. Numbers of T\(_{min}\) over 25°C days (tropical night) was high in the area from central Tokyo toward Tokyo bay; appeared from late mid-night to early morning. By analyzing relationship between distribution of air temperature and ratio of green space, there was negative correlation, especially tropical night and daily minimum air temperature was higher.

Keywords: Urban Heat Island, Air Temperature Distribution, Ratio of Periods Tmax over 30°C, Ratio of Green Space