

시간동특성을 고려한 Dengue virus
지역빈도분포의 사회-생태학적 모델

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Climate, population and socioeconomic factors can contribute to the proliferation of the main vector of dengue fever in Ecuador. In this study, we identified the factors with the greatest influence on dengue virus spread as well as its potential spatial distribution using the maximum entropy algorithm, where monthly climatic conditions, locations of reported dengue cases during 2012 and social factors of Guayaquil, Ecuador were used as input data. In the results, social variables showed greater contribution during dengue outbreaks which demonstrates relevance in the presence and spread of the disease. Head of household is woman, unoccupied household, and the population's unsatisfied basic needs were determined as the most significant social risk factors. The districts with the highest risk of infection are located mainly in the south portion of the city. Acknowledgements This work was supported by the National Research Foundation of Korea (NRF) grant funded by the Korea government (MSIT) (No. 2017R1E1A1A03070713).