

A BAYESIAN ANALYSIS OF THE CITRUS CANCER EPIDEMIC IN URBAN MIAMI

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The study of epidemics within urban environments presents many complications with regard to consistency within the data. In a plantation or experimental system there are set uniform distances between individuals and trees are of the same type, age and general health. The introduction of the Asian citrus leaf miner is a further complication in Florida, greatly increasing the spread of the canker bacteria.

We present a spatio-temporal framework and a number of feasible models. Reversible Jump MCMC is then used to determine which dynamics predominate thus giving insight into the epidemic mechanism and implications to control measures.