

## Bayesian abundance distribution of mosquitoes in ecological zones of Ondo State of Nigeria

Mosquito is a deadly insect that can cause serious health problem to human. Nigeria has been ranked as one of the countries with malaria prevalence in the world. In recent times, Bayesian method has gained popularity in the study of ecology. The major advantage of Bayesian method over classical method is the use of prior information of the situation being modelled.

In this work, we considered a Bayesian Generalized Linear Models (BGLM) method of estimation to analyze the malaria prevalence in some ecological zones of Ondo state of Nigeria. Various mosquito larvae were obtained from six different breeding sites in the ecological zones. The breeding sites are; abandoned plastics, puddles, gutters, tyres, tanks, and tree holes. The results of Bayesian method of estimation was then compared to classical method of estimation. The results show that the Bayesian method of estimation outperformed classical method in the analysis of malaria prevalence of ecological zones of Ondo state, Nigeria. However, puddles breeding site gave the highest number of mosquito larvae in the ecological zones. It is recommended that attention should be given to the ecological zone with the highest number of breeding zones and mosquito larva by public health practitioners.