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*Clustering of the Abundance of West Nile Virus Vector Mosquitoes in Peel Region, Ontario*

The spatial-temporal distribution of West Nile virus (WNV) vector mosquitoes is helpful for mosquito control and prevention of mosquito-borne diseases. In this study, we apply a non-parametric clustering method CLUES to the data of WNV vector mosquito collected by light traps in Peel Region, Ontario, during the mosquito seasons in 2004-2010. It is found that the mosquito trap sites can be clustered into three groups. Each group shares similar response to the seasonality on mosquito abundance, while the inter-annual variability and the highest abundance and peak time in different mosquito season are different. The impact of weather factors on this clustering was investigated. This is a joint with Steven Wang, Curtis Russell, Kaz Higuchi, Rick Bello and Huaiping Zhu.