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Modeling the Population of Culex Pipiens and Culex Restuans Mosquitoes with Weather Conditions

Mosquito abundance is a significant determinant of outbreaks of mosquito-borne diseases, such as West Nile virus. Mosquito populations are sensitive to long term variations in climate and short term variations in weather. In this talk, the short term impact of weather conditions (temperature and precipitation) on *Culex pipiens* and *Culex restuans* mosquito density in Peel Region, Ontario, Canada, was investigated using a generalized linear model. The mosquito count in this region had a clear association with temperature and precipitation changes. This study shows that weather conditions can readily predict WNV vector abundance.