Atelier : « Modèles et méthodes en épidémiologie et écologie »
13–15 février, 2013

Workshop: "Models and Methods in Ecology and Epidemiology"
February 13–15, 2013

Weather driven models for mosquito abundance and West Nile virus risk

Huaiping Zhu *
huaiping@mathstat.yorku.ca

Annual mosquito abundance and West Nile virus risk can be decided by weather conditions, in particularly the daily temperature and precipitation. In this talk, I will report some modeling results on mosquito abundance and virus risk assessment by considering weather conditions, also some models for the dynamics of the mosquito abundance and the virus. Both the statistical and dynamical models were tested and validated using the surveillance data from Peel region, Ontario. I will also present our forecasting practice of the mosquito abundance and the virus risk working with Public Health Agency of Canada and Peel region in the last two years.

*Department of Mathematics and Statistics, York University, 4700 Keele Street, Toronto, ON M3J 1P3, CANADA.