

1044-00-244

Huaiping Zhu*, 4700 Keele Street, Toronto, ON M3J1P3, Canada. *A Mathematical Model for the Dynamics of West Nile Virus with Corvids and Non-corvids*. Preliminary report.

In this paper, I will introduce a single-season ordinary differential equation model for the transmission dynamics of WNV in a mosquito-bird community, with corvids and non-corvids as reservoir hosts and mosquitoes as vectors. The model exhibits multiple equilibria. We will carry out the local analysis and study the backward bifurcations of the model. Comparing the analytical results with the data in Ontario, we get some insight view of the transmission of the West Nile virus activities in Southern Ontario, Canada. This is a joint work with Yan Zhang. (Received September 02, 2008)