

1146-34-382

Wenzhang Huang* (huangw@uah.edu), 301 Sparkman Dr., Huntsville, AL 35899, and **Wei Ding**. *Global dynamics of a predator-prey model with general Holling type functional responses*. Preliminary report.

A predator-prey model with general Holling type functional response is considered. The aim of this paper is to investigate the global stability of the interior equilibrium of the model when it exists. By transforming the model to an equivalent system and with the detailed analysis of the crucial behavior of a corresponding function we are able to show that the local stability and the global stability of the interior equilibrium are equivalent. (Received January 27, 2019)