1109-35-264 Wenzhang Huang* (huangw@uah.edu), 301 Sparkman Dr., Huntsville, AL 35899. Traveling Wave Solutions for Some Classes of Diffusive Predator-Prey Models. Preliminary report.

We investigate the traveling wave solutions for several types of diffusive predator-prey systems that have served as models to study the dynamics of predator-prey interaction in the spatially inhomogeneous environments. The method used to show the existence of traveling waves and to identify minimum wave speed consists of two steps. First we obtain globally defined solutions by a shooting argument that is a modification of a recently developed method. We then show the convergence of these global solutions to an interior equilibrium point by the construction of a Liapunov function. (Received February 02, 2015)