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A Prey-Predator Model with n Patches, Migrations and Delays.

In this talk we investigate the dynamics of a prey-predator model in n patches through the stage structured maturation time delay with migration among patches. We discuss the existence of equilibrium points, the uniform persistence, the local and global stability of boundary equilibrium point with general migration function and the local stability of the positive equilibrium with constant migration rate. Numerical simulations are provided to demonstrate the theoretical results, to illustrate the effect of the maturation time, the migration rate on the dynamical behavior of the system. This is a joint work with Dr. Xianhua Tang and Dr. Yuan Yuan.