1092-34-319   **D Xu*** (`dashunxu@siu.edu`), 1245 Lincoln Dr., Carbondale, IL 62901, and **J. T. Cronin**, **J. D. Reeve** and **M. Xiao**. *Modeling a host-parasitoid system.*

Understanding the mechanisms promoting stability of predator-prey/parasitoid-host interactions has been a fertile and critically important area of theoretical and empirical research for the past century. Theoretical studies have demonstrated that stability is enhanced by invulnerable host stages, that the interaction between parasitoid and host can induce generation cycles in the host, and recently that variability in host (or parasitoid) development can strongly henhance stability. To examine these theoretical predictions, we used the cowpea weevil Callosobruchus maculatus and its parasitoid Anisopteromalus calandrae as a model predator-prey system and obtained a large set of empirical data. In this talk, I will present a mathematical model describing the system and some priliminary model results. (Received August 12, 2013)