1035-92-1596 **Sophia Jang*** (`jang@louisiana.edu`), Department of Mathematics, University of Louisiana at Lafayette, Lafayette, LA 70504-1010, and **James Baglama** (`jbaglama@math.uri.edu`), Department of Mathematics, University of Rhode Island, Kingston, RI 02881-0816. *Continuous-time predator-prey models with parasites.* Preliminary report.

We study a deterministic continuous-time predator-prey model with parasites, where the prey population is the intermediate host for the parasites. It is assumed that the parasites can influence the behavior of the predator-prey interaction due to infection. The asymptotic dynamics of the system are investigated. A stochastic version of the model is also proposed and numerically simulated. We then compare and contrast the two types of models. (Received September 20, 2007)