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Sophia R.-J. Jang<sup>\*</sup> (sophia.jang@ttu.edu), Department of Mathematics and Statistics, Texas Tech University, Lubbock, TX 79409. *Random dispersal in a predator-prey-parasite model.* Preliminary report.

We first present a continuous-time model of predator-prey-parasite interaction, where the infected prey may be more likely to be preyed upon and the infected predator can be less competent in predation. We then consider the spatial effect by assuming that both the uninfected prey and predator can disperse via diffusion. We will discuss and compare the two models. (Received August 29, 2008)