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Billy Jackson* (billy.jackson@unco.edu) and **Joan Hoffacker**. *A Time Scale Model for Interacting Transgenic and Wild Mosquito Populations*. Preliminary report.

Based on the work of Li(2008) and others, we provide a second order system of dynamic equations on time scales that govern the dynamics of the interaction between populations of wild and genetically altered mosquitoes, the former of which have been altered so as to prevent disease transmission to humans. We provide relevant stability results and focus mainly on the differential-difference model as time scales analysis is particularly adept at handling this case. The differential-difference model allows us to account for periods of latency, a notorious trait of mosquito populations. (Received August 20, 2009)