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**Hannah Thompson\*** (hthomp15@vols.utk.edu), **Gregory Wiggins**, **Tom McAvoy** and **Suzanne Lenhart**. *Data Driven Models of Hemlock Woolly Adelgid Impacts and Biological Control*. Preliminary report.

We present a preliminary report of two models of hemlock woolly adelgid, an invasive insect pest in the eastern US that kills hemlock trees. Using data collected in the Great Smoky Mountains National Park, we model the population dynamics of adelgids and two biocontrol species. Using data collected in Virginia, we model the interaction of adelgid density and hemlock health. The models are systems of ordinary differential equations and include seasonality and life stage structure. (Received September 05, 2020)