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Emily Kelting* (ekelting@uco.edu), **Brittany Bannish** and **Sean Lavery**. *Dynamics of Toxoplasma gondii in feral cats*. Preliminary report.

We discuss the transmission and effects of *Toxoplasma gondii* in a cat population. Due to the severity of *T. gondii* spillover infections in pregnant women and monk seals, understanding its dynamics in cats is key to unlocking preventative measures against this parasite. Taking into account susceptible, acutely infectious, and chronically infectious felines, and the surrounding environment, we build a differential equations model of *T. gondii* transmission in cats. We present our model and the results, identifying conditions under which infection is endemic. We conclude by discussing how this information can be used to minimize the risks to other species. (Received September 13, 2017)