

1106-92-1219 **Megan O Powell*** (mpowell@stfrancis.edu), University of St. Francis, 500 Wilcox, Joliet, IL 60435. *Modeling population decline of Tasmanian devils due to the spread of Devil facial tumor disease (DFTD).*

DFTD is a transmissible parasitic cancer that, since the first reported case in 1996, has caused Tasmanian devil populations to decline dramatically. Several strategies such as selective culling and isolation have been suggested by biologists to help ensure that devils will escape extinction. In this talk, I will discuss a system of ordinary differential equations used to evaluate these strategies. Additionally, I will discuss the sensitivity of the model's population predictions to various disease factors. (Received September 11, 2014)