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**Rene A. Salinas\*** ([salinasra@appstate.edu](mailto:salinasra@appstate.edu)), Department of Mathematical Sciences, 342 Walker Hall, Boone, NC 28608. *Modeling the Impact of Food Availability on Disease Spread in Feral Hogs*. Preliminary report.

The population dynamics of feral hogs in Great Smoky Mountains National Park are driven primarily by annual fall hard mast variation. It has been well documented that this variation can impact movement and reproductive success. An additional impact that has not been well studied is disease spread. I will use an individual-based model to analyze the impact of fall hard mast variation on the spread of pseudorabies virus in feral hogs. Results suggest that although mast failures can cause individuals to move greater distances, it can also cause small clusters of hogs in specific forest patches. This mix of dispersing and clustering leads interesting disease dynamics. (Received September 17, 2013)