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**Sanjay Rai** (srai@ju.edu), Jacksonville, FL, and **Robert L Robertson\***  
(rrobertson@huntingdon.edu), Montgomery, AL. *Stability Analysis of Solutions to a System of  
Nonlinear FDE's with State-Dependent Delay.*

We consider a system of nonlinear functional differential equations. This system models a single species population with stage structure and space limitation. The population is divided into two groups: juveniles and adults. In this system, the time delay represents the time needed for a juvenile to mature, and it is assumed to be a function of the total population. In this talk, we will show the existence and stability of the equilibrium solution. This model is an extension of the model considered by Bence, Nisbet, Kuang, and So. (Received October 02, 2000)