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Georgia Pfeiffer* (gwpfeiffer@email.wm.edu), CSU 2912, PO Box 8793, Williamsburg, VA 23187, and **Masami Fujiwara** and **Jay Walton**. *Extinction Equilibria of Stage Structured Populations*.

Invasive species have disrupted ecosystems worldwide threatening native populations that are often ill equipped to out compete them. The interaction between invasive and native populations can be complicated by varying intensities of competition at different life stages. In this study, we analyzed competition of two stage-structured populations. The model takes the form of two Lefkovitch matrix models interacting through density dependent terms. The stability of equilibrium densities was investigated under varying competition strength and intrinsic growth rates of the two populations. We show that it is possible for both partial extinction equilibria (persistence of only one population) and the total extinction equilibrium (extinction of both populations) to be simultaneously stable under some parameters. (Received September 08, 2010)