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Amy Vess Crizer* (vessal@jmu.edu), 664 Stonewall Drive, Harrisonburg, VA 22801, and
Austin F Taylor (taylo170@bama.ua.edu). *A Modified Lotka-Volterra Competition Model with a
Non-Linear Relationship Between Species.*

We consider a modified Lotka-Volterra competition model, which incorporates a non-linear relationship representing the interaction between species. We study the qualitative properties of this new system and compare them to the qualitative properties of the classical Lotka-Volterra equations, obtaining results suggesting that the modified model is a better representation of some biological situations. (Received September 28, 2005)