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Lih-Ing Wu Roeger* (lih-ing.roeger@ttu.edu), Department of Mathematics and Statistics, Texas Tech University, Lubbock, TX 79409. Two Peas in a Pod: Discrete and Continuous Lotka-Volterra Competition Systems. Preliminary report.

Discrete-time competition systems that are dynamically consistent with the continuous-time Lotka-Volterra competition system, $x' = x(r_1 - a_{11}x - a_{12}y)$, $y' = y(r_2 - a_{21}x - a_{22}y)$, will be presented. Similar dynamics include: the positivity of solutions, the local and global stability of the equilibria, and the monotonicity of the systems. The discrete system is derived from the continuous system by nonstandard finite difference schemes (NSFD). (Received September 12, 2010)