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David T. McArdle* (dmcardle@uconn.edu), 341 Mansfield Road, Storrs, CT 06269. *Global Dynamics of a Leslie Host-Parasite Model.*

We consider the system of difference equations

$$x_{n+1} = \frac{\alpha x_n}{1 + \beta y_n}, \quad y_{n+1} = \frac{\gamma x_n y_n}{x_n + \delta y_n}, \quad n = 0, 1, 2, \dots,$$

where $\alpha, \beta, \gamma, \delta, x_0, y_0$ are positive real numbers. A boundedness and persistence result along with global attractivity results for various parameter regions are established. Numerical evidence of chaotic behavior is also presented for solutions of the system in select parameter regions. . (Received February 19, 2018)