

1154-VM-2176 **Grant C. Wagner*** (grantwagner1729@gmail.com). *Two Competitive Lotka-Volterra Systems with Nonlinear Competition.*

We examine two modifications of the classical Lotka-Volterra equations to account for nonlinear interspecific and intraspecific interactions by performing a complete analysis of the critical points of both systems. In the first modification, we show that it exhibits similar properties of the classical model; in the second modification, we show that it exhibits new properties not seen in the classical model. (Received September 17, 2019)