1035-92-1017 **John E Franke*** (franke@math.ncsu.edu), Department of Mathematics, Box 8205, North Carolina State University, Raleigh, NC 27695-8205. *Resonant and Attenuant Cycles in Periodically Forced Population Models.* Preliminary report.

The effect of periodic forcing on the dynamics of a population model has been investigated in laboratory experiments as well as in population models. Signature functions have been developed to predict resonant or attenuant outcomes. This paper develops a signature function for a 2-species model where the carrying capacities for each species are fluctuating as well as another parameter (inherent growth rate). This signature function is used to predict regions of parameter space where there is resonance or attenuance. Specific examples are presented. (Received September 18, 2007)