

ON THE STABILITY OF COMMENSAL - HARVESTED HOST SPECIES PAIR WITH LIMITED RESOURCES

N. PHANI KUMAR AND N. Ch. PATTABHIRAMACHARYULU

Abstract

In this paper, we consider commensal-host model with constant harvested rate of host. Here both the commensal and host species are with limited resources. The model is characterized by couple of first order non-linear ordinary differential equations. In all six equilibrium points for the model are identified and their stability criteria are discussed.

Key Words: Commensal, Host, Harvesting, Equilibrium points, Normal Steady state, Stability, Threshold diagrams.