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THE STABILITY ANALYSIS OF BOTH IMMIGRATED HOST-COMMENSAL ECOSYSTEM AT A CONSTANT RATE

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Abstract

The present paper deals with an analytical investigation on two species commensal-host ecological model with commensal Mortality rate. Further, both the species are with limited resources and are immigrating with a constant rate. This model is characterized by a couple of first order non-linear ordinary differential equation. The lone equilibrium point is identified and a stability criterion for it is discussed. Solutions for the linearized perturbed equations are found and results are presented.