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ON THE STABILITY OF A HOST – DELAYED COMMENSAL SPECIES PAIR WITH LIMITED RESOURCES

N. PHANI KUMAR AND N. CH. PATTABHI RAMACHARYULU

Abstract

In this paper a mathematical model of commensalism between two species $(S_1 \& S_2)$ with limited resources with delayed commensal is investigated. The commensal species (S_1) , in spite of the limitation of its natural resources flourishes drawing strength from the host species (S_2) . This model is characterized by a pair of first order non-linear coupled differential equations. All the four equilibrium points of the model are identified and the criteria for the stability are discussed.

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