

A THREE SPECIES ECOSYSTEM CONSISTING OF A PREY AND TWO PREDATORS

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Abstract

The present paper deals with an investigation on a three species ecosystem consisting of a prey (S1), two neutral predators (S2) and (S3) surviving on the same prey (S1). The mathematical model equations constitute a set of three first order non-linear simultaneous differential equations in N_1, N_2 and N_3 , the population strength of S1; S2 and S3 respectively. All the eight equilibrium points of the model are identified and criteria for the stability are discussed.