Abstract

In this paper the dynamical behaviour of toxin producing phytoplankton and zooplankton system is investigated. The toxin producing phytoplankton are divided into two groups: susceptible phytoplankton and infected phytoplankton. Conditions of local stability of various equilibrium points are derived. Further it is observed that the range of toxin liberation parameter increases for the coexistence of species with increased number of migratory phytoplankton species.
- Krishna pada Das et al., A predator-prey mathematical model with both the populations affected by diseases, J. Ecological Complexity 8 (2011) 68-80.

**Index Terms**

Computer Science

Applied Mathematics
Keywords
Phytoplankton Zooplankton System  Viral Infection  Routh Hurwitz Criterion  Migration.