Abstract

An aquatic model consists of nutrient, phytoplankton and zooplankton has been developed. The hyperbolic form of mortality for zooplankton has been used. The complex behavior of the system is observed in case of fluctuating input nutrient in the system. The extensive numerical investigation revealed the variations in periodic orbits for some sensitive parameters. The short term oscillations has been also observed. The amplitudes of oscillatory orbits have been found at different nutrient input concentrations.

References

Index Terms

Computer Science
Emerging Trends in Technology

Keywords

Plankton System; Hopf-bifurcation; Periodic Orbits;