***Introduction to Theoretical Ecology Assignment 4***

Discrete logistic population growth

One unrealistic feature of the discrete logistic growth equation is that *Nt+1* will become negative when *Nt* >> *K*. A more continuous approach is to follow the Ricker logistic equation (Ricker, 1952), a well-known model in fisheries:



1. Show analytically the equilibrium points and determine their stability. (6 pts)

***Solution:***

1. Show the population trajectories under two growth scenarios *r* = 1.5 and *r* = 2.7 (*N0* = 10, *K* = 500) along with the R code you used to generate the results. (2 pts each)

***Solution:***