

ON PREY-PREDATOR MODEL WITH HOLLING-TYPE II AND LESLIE-GOWER SCHEMES

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ABSTRACT

A predator-prey system with Holling type II functional response and modified Leslie-Gower type dynamics is considered. By non-dimensionalize the system, condition for local asymptotic stability of positive equilibrium point of the system is discussed and global asymptotic stability is proved by defining appropriate Dulac function. Numerical simulations are also carried out to verify the analytical results.

KEYWORDS: *Local Stability; Global Stability; Dulac Function; Limit Cycle; Modified Leslie-Gower*

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