Effects of Nonlinear Growth and Death Rates for the Predator in Predator-Prey Type Models

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Following a recent paper by Terry [**?**] and a recent work of the two authors [**?**], in the present work we study the effects of nonlinear (w.r.t. the functional response) growth and death rates for the predator by comparing models incorporating such rates with the classical models with a linear growth rate and a constant death rate.

We study a three-dimensional ODE system modelling the interactions between a predator population and two independent preys—existence and stability of equilibria, persistence conditions, etc. as well as use numerical simulations in order to make comparison with the classical models, see e.g. [**?**].

References

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