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Bifurcations in a predator-prey model with general logistic growth and exponential fading memory

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HIGHLIGHTS

- We study a new multiparameter predator-prey model with *exponential fading memory*.
- The logistic per capita growth rate of the prey is given by an arbitrary function.
- We prove that the model has a Hopf bifurcation.
- As application, we present a theta-logistic model, which exhibits a Hopf bifurcation.
- Numerical simulations showing the existence of these critical elements are given.

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