

## Article Abstract

Title:	Stability and Hopf bifurcation analysis in ecological system with two delays
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Abstract:	This paper aims to study the effect of time-delay on a food chain model. Two delays ( $\tau_1$ and $\tau_2$ ) are considered in the model to describe the time that juveniles of prey and predator take to mature. The stability analysis of the proposed model is carried out. The Hopf bifurcation conditions of the interior equilibrium point are established. Finally, numerical simulations are done to support the analytical findings. In addition, critical value of time delays are determined and it is found that maturation delay always acts as a destabilizing factor.
Keywords:	Food chain model, Time-delay, Stability, Hopf bifurcation