A qualitative analysis of an almost-periodic Beddington-DeAngelis predator-prey system with mutual interference and time delay

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Abstract

Of concern is the existence and uniqueness of a predator-prey model with Beddington-DeAngelis functional response and mutual interference. By constructing a suitable Lyapunov function and using the comparison theorem of ordinary differential equation, we prove that the existence, permanence and uniqueness of a positive globally attractive almost periodic solution of the model. A more general and frequent example will be offered to describe our main theorem.

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