

عنوان مقاله:

A qualitative study of an Eco-Toxicant model with Anti-Predator behavior

محل انتشار:

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خلاصه مقاله:

In this study, a mathematical model consisting of four species: first prey and second prey with stage structure and predator in the presence of toxicity and anti-predator has been proposed and studied using the functional response Holling's type IV and Lotka Volterra. The solution's existence, uniqueness, and boundedness have all been studied. All possible equilibrium points have been identified. The stability of this model has been studied. Finally, numerical simulations have been used to verify our analytical results.

کلمات کلیدی:

Prey- Predator, Function Response, Stage- Structure, Toxicity, Anti-Predator

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