Pest-epidemic Prey-predator Model with Stage Structure for Prey with Harvesting

Bhagwan Kumar*, Kunwer Singh Mathur

Department of Mathematics and Statistics,
Dr. Harisingh Gour Vishwavidyalaya Sagar, MadhyaPradesh-470003, India

*Corresponding Author

ABSTRACT

Pest-epidemic prey-predator model with a stage structure for prey with harvesting has been proposed. Further, the dynamics of the proposed model have been studied. The system has three equilibrium points: trivial, absence of a predator, and interior equilibrium point. We analyze the local and global stability at each equilibrium point. Finally, numerical simulations are drawn to verify these theoretical results.

Keywords: A stage-structured; Prey-predator; Harvesting.

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