

**Doust, M. H. Rahmani; Haghifard, F.**

**The stability of some systems of harvested Lotka-Volterra predator-prey equations.** (English)

Zbl 1412.34139

Casp. J. Math. Sci. 3, No. 1, 131-139 (2014).

Summary: Some scientists are interesting to study in area of harvested ecological modelling. The harvested population dynamics is more realistic than other ecological models. In the present paper, some of the Lotka-Volterra predator-prey models have been considered. In the said models, existing species are harvested by constant or variable growth rates. The behavior of their solutions has been analyzed in the stability sense. The employed methods are linearization and Lyapunov function.

**MSC:**

34C25 Periodic solutions to ordinary differential equations

34D45 Attractors of solutions to ordinary differential equations

92D25 Population dynamics (general)

**Keywords:**

harvested factor; Lotka-Volterra model; Lyapunov function; stability

**Full Text:** [Link](#)