Dynamics of a Stochastic Echinococcosis infection Model

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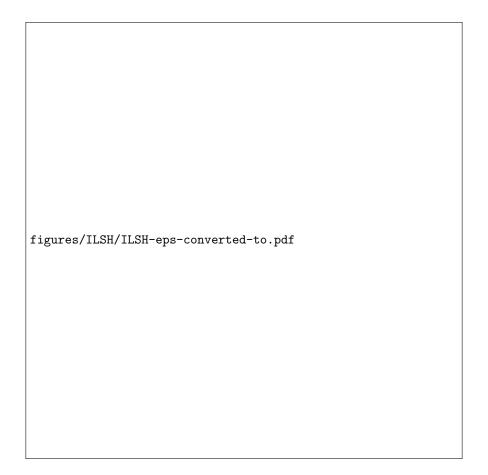
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Abstract

This paper is concerned a novel spreading dynamical model for Echinococcosis with stochastic parameter perturbation. we show that there exist a unique positive solution of the stochastic model. Sufficient conditions for the stationary distribution which is ergodic is established by appropriate Lyapunov functions. Furthermore, we obtain the conditions on which the system will extinct. Finally, we illustrate our results by numerical simulation.

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