

Accepted Manuscript

Stochastic dynamics of an epidemic with recurrent spillovers from an endemic reservoir

Marina Voinson, Alexandra Alvergne, Sylvain Billiard, Charline Smadi

PII: S0022-5193(18)30396-5
DOI: <https://doi.org/10.1016/j.jtbi.2018.08.017>
Reference: YJTBI 9582



To appear in: *Journal of Theoretical Biology*

Received date: 2 November 2017
Revised date: 12 July 2018
Accepted date: 12 August 2018

Please cite this article as: Marina Voinson, Alexandra Alvergne, Sylvain Billiard, Charline Smadi, Stochastic dynamics of an epidemic with recurrent spillovers from an endemic reservoir, *Journal of Theoretical Biology* (2018), doi: <https://doi.org/10.1016/j.jtbi.2018.08.017>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- Stochastic SIR with reservoir to describe the dynamics of pathogens in a host
- Branching process approximations are provided
- Recurrent spillover cause multiple outbreaks even for a pathogen barely contagious
- Spillover and direct transmission have similar importance for pathogens dynamics

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/10138663>

Download Persian Version:

<https://daneshyari.com/article/10138663>

[Daneshyari.com](https://daneshyari.com)