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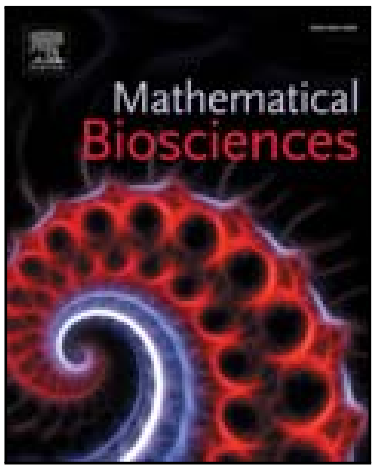


# The role of asymptomatics and dogs on leishmaniasis propagation

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## Highlights

- A mathematical model is proposed to evaluate the role of dogs and asymptomatic infectives on the leishmaniasis transmission.
- Based on the model we obtain an expression for the Basic Reproductive Number that allows us to evaluate the persistence of the disease in terms of the epidemiological and demographic parameters.
- We performed a sensitivity analysis in order to identify the parameters that most influence the transmission of the disease.
- Identification and treatment of asymptomatics have a major impact on the reduction of the disease transmission.

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