



Advancing Mathematical Models of Mosquito-Borne Diseases

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Message from the Guest Editors

Dear Colleagues,

Mosquito-borne diseases are a significant global health burden. The incidence and global distribution of some mosquito-borne diseases have increased substantially in the past two decades, driven by urbanization, increased global travel, and changes in climate, among other factors. Mathematical models have proven to be a useful tool for studying the epidemiology of infectious diseases.

Mosquito-borne disease dynamics are often complicated by interactions between environmental factors, meteorological changes, population dynamic processes, anthropogenic interactions, and more across multiple temporal and spatial scales. Mathematical models that consider these factors can help us to better understand the mosquito population dynamics and what drives mosquito-borne disease spread.

This Special Issue is dedicated to examining mathematical models of mosquito-borne diseases and control measures. We hope to feature models that integrate ecological and epidemiological dynamics across different scales to understand the mechanisms underlying disease spread and mitigation.

