

May 24, 2011

To the Editors:

Please find the enclosed manuscript titled "A hybrid model of mosquito-host encounter rates" being submitted for consideration of publication in PLoS Computational Biology.

The manuscript describes a spatial hybrid numerical model of interactions between mosquitoes and roosting birds that accounts for various mosquito behavioral rules described in the literature, wind velocity, and chemical cues emitted by hosts which are carried by the wind and diffused in the air. We provide a unique contribution to the field of computational epidemiology by combining chemotaxis and advection with an agent-based model. The manuscript also makes a connection between our spatial local model and other popular continuum models.

Thank you for consideration of our manuscript.

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