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Junyan Duan, Mykhaylo Malakhov, Jordan Pellett* (pellett.jordan@uwlax.edu), **Ishan Phadke** and **Julie Blackwood**. *Efficacy of Control in a Spatially Dynamic Model of White-Nose Syndrome.*

White-nose syndrome (WNS), caused by the invasive fungal pathogen *Pseudogymnoascus destructans*, is a virulent disease that has plagued North American bat populations since 2006. Over the past decade, WNS has rapidly spread throughout much of the eastern United States, leading to mass mortality and threatening range-wide extinction in a number of bat species. Thus, the need for development and implementation of effective control strategies has become increasingly exigent. Previous studies have explored disease dynamics and control in a single hibernaculum model. Here, using a continuous-time two-hibernacula model, we incorporate spatial dynamics to investigate the effects of seasonal bat dispersal on the efficacy of five developing control strategies. We demonstrate that informed management decisions must take inter-population movement into account, and find the effects of dispersal on control efficacy to be dependent on both the control combination and the primary mode of disease transmission. (Received September 17, 2018)