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**Julie C Blackwood\***, jcb5@williams.edu. *Allee effects and invasive insect management: how to optimally allocate resources.*

Effectively controlling the establishment and spread of invasive insects is critical from both economic and ecological perspectives. In the early stages of an invasion, an invasive pest is typically found at low densities and therefore may be subject to local extinction resulting from the interplay of Allee effects and demographic stochasticity. We analyze models that consider multiple forms of pest management including pesticide application, the release of false pheromone sources, and the introduction of strains of *Wolbachia* that are capable of inducing cytoplasmic incompatibilities. We explore the role of these tactics in creating or enhancing pre-existing Allee effects and identify key considerations for creating an effective management plan. (Received September 12, 2014)