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Resistance to the pathogens in the vectors of a vector-host disease

I will present a model for the spread of refractoriness to a pathogen among the vectors of a vector-host disease. It is assumed that vectors can transmit refractoriness to their offspring through a non-Mendelian mechanism. The interaction of resistant and non-resistant vectors is studied, and a coexistence equilibrium is shown to exist in the absence of disease. The consequence in terms of disease dynamics is the considered.