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Metapopulation Dynamics Incorporating an Allee Effect.

We present the analysis of a metapopulation model for habitat destruction. The mathematical model includes an Allee effect, which is important in population dynamics and is driven by assumptions related to growth rates. We review the concept of Allee effect and distinguish between a strong versus weak effect. In our analysis, we present a bifurcation diagram which exhibits a critical threshold below which a population is predicted go extinct if the proportion of occupied patches falls below that threshold. (Received February 28, 2017)