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ScienceDirect

Mathematical Biosciences 211 (2008) 153–165

**Mathematical  
Biosciences**

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## The importance of the intensity and frequency of perturbations on the germination delay

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Received 23 March 2007; received in revised form 26 September 2007; accepted 15 October 2007

Available online 23 October 2007

### Abstract

An iterative model is developed to evaluate the reproductive strategies of plants in environments with different frequencies and intensities of disturbance. Two extreme reproductive strategies are compared: the “homocarpic” strategy, in which all the seeds germinate the following spring, without dormancy, and the “heterocarpic” strategy, whereby, each year, half of the existing seeds germinate. It is observed that this sort of heterocarpic is beneficial in environments with strong perturbations, in which a high percentage of the population dies. However, the frequency of such perturbations does not cause changes in the advantage of one strategy over the other. The results suggest that the intensity of the disturbance is much more important than the frequency.

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**Keywords:** Heterocarpic; Homocarpic; Germination strategy; Perturbation; Disturbance; Dormancy

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