

Michigan Math Club

Thursday at 4pm in the Commons

Free Pizza and Pop

The Paradox of Enrichment

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Abstract for 18 Apr 2013

Mathematical models in ecology describe the dynamics of interacting populations such as distinct species competing for common resources, predator-prey systems, and more complex systems like food chains and food webs. You might generally expect that higher fertility habitats would be capable of sustaining larger population levels, but some models show that this may not always be so. In certain situations increasing resource levels can lead to dynamical instabilities producing large population variations and, eventually, the extinction of one or more of the species. The lesson? Be careful what you wish for ... more is *not* always better!

