Stability and persistence of populations with environmental feedbacks

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Environmental factors are important determinants of the fates of populations in ecosystems. Conversely, many populations influence their environments in interesting ways, which drives an ongoing feedback between population dynamics and environments. Here, I consider a simple model of population dynamics with a general environmental feedback and ask how this feedback affects the stability (joint work with Michael H Cortez and Sebastian Schreiber) and persistence of populations (joint work with Sebastian Schreiber). Additionally, I discuss the influence of timescale differences between population and environmental processes on these results.

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