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On spatially distributed models of population dynamics with diffusion

For spatially distributed models of population dynamics described by reaction-diffusion equations with unequally distributed resources, we consider various types of diffusion and compare models with regular diffusion and the carrying capacity driven diffusion. For the latter model, existence and stability of either a positive equilibrium or a positive periodic solution, persistence and extinction of the model under harvesting are also discussed. (joint work with L. Korobenko)