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**Jason Bintz\*** ([bintz@math.utk.edu](mailto:bintz@math.utk.edu)). *Optimal Control of Resource Coefficient In A Diffusive Population Model*. Preliminary report.

We study the problem of allocating resources to maximize the net benefit in the conservation of a single species with a fixed amount of resources. The population model is a parabolic differential equation with density dependent growth and spatial-temporal resource control coefficient. Recent work considered such control for a steady state population. The existence of an optimal control is established and the uniqueness and characterization of the optimal control are investigated. Numerical simulations illustrate several cases. (Received August 06, 2013)