

POPULATION ECOLOGY

by

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ABSTRACT

Population ecology studies the structure and dynamics of biological populations, collections of individuals of the same species, usually associated with a specific geographical area. This paper reviews some important quantitative methods in population ecology. These include exponential and logistic population growth models, statistical tests for density dependence, matrix population models, identifying chaotic dynamics, demographic stochasticity, and environmental stochasticity. The focus is on single population models. Extensions to spatial models for multiple interacting populations and models for multiple species are briefly discussed.