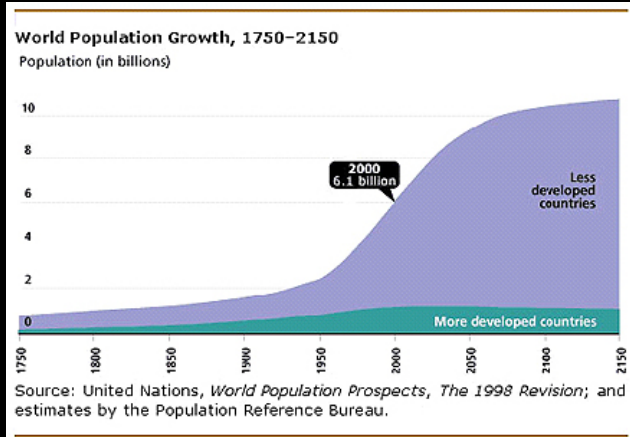


Bio 366 Ecology**Lecture 4 b: Population Growth**

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Announcements & Assignments**Reading**

Smith & Smith, Chapter 10 – Life History

Vocabulary

exponential growth, instantaneous vs. intrinsic growth rate, all demographic rates, {dynamic, time-specific} life table, survivorship, net reproductive rate, demographic vs. environmental stochasticity, Allee effect, autocatalytic

Exam

Exam I – Wed May 27

Other Opportunities

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Population Growth

Learning Objectives

at the end of today's meeting you should be able to...

- Critique the “Law” of autocatalytic population growth; demographic balance equation
- Identify components of the exponential growth model and its assumptions
- Identify common demographic rates (e.g., $l_x, d_x, q_x, b_x, s_x, R_0$)
- Build a life table or fecundity table from initial data.
- Distinguish between a dynamic and a time-specific life table.
- Identify three types of survivorship curves and relate them to alternative life history approaches;
- Distinguish between demographic and environmental stochasticity; and
- Explain why small populations are more vulnerable to extinction; Allee effect

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