

## **Limited Resources and Competition**

- Not Enough To Go Around
- Resource Limitation Results in Competition
- Mosquitoes in Florida
- Niches and Environmental Tolerance
- Asian Tiger Mosquito vs. Yellow Fever Mosquito
- Competitive Exclusion
- Classifying Competitive Interactions
- Resource Competition
- Interference Competition
- Summary of Part 1
- Quiz Questions
- Questions About Concepts?

## **Intraspecific Competition**

- Modeling Competition Within Populations
- Intraspecific Competition in Mosquito Larvae
- Survival of the Fittest (or Fattest)
- Competition Limits Population Growth
- Carrying Capacity
- Logistic Growth
- Summary of Part 2
- Quiz Questions
- Questions About Concepts?

## **Interspecific Competition**

- Species vs. Species
- The Communities Inside Your Body
- Probiotics vs. Pathogens
- Competition Coefficients
- Lotka-Volterra Competition Equation
- Phase Planes
- The Phase Portrait
- Isoclines of Zero Population Growth
- Engineering an Effective Probiotic
- Interpreting Isoclines to Predict Outcomes
- Successful Application of Probiotics
- Lotka-Volterra in the Lab
- Summary of Part 3
- Quiz Questions
- Questions About Concepts?

## **Competition in Complex Environments**

- Competition Outside the Lab
- Common Garden Experiments
- Hypotheses for Competitive Coexistence
- Mosquitoes in a Complex Environment
- Mosquito Abundance and Competition

- Summary of Part 4
- Quiz Questions
- Questions About Concepts?