

Name: _____

Date: _____

Science 10: Community Ecology Virtual Lab

Learning Objectives

1. I can explain how competition for resources can affect and limit the growth of a population within an ecosystem
2. I can explain why two organisms cannot occupy the same niche in an ecosystem

Data

Go to <https://bit.ly/1oxXsSp>. Follow the procedure written on the sidebar to grow your bacteria and check the population over time.

Data Table				
	These 2 are from test tube #3			
	P. aurelia grown alone, cells/mL	P. caudatum grown alone, cells/mL	P. aurelia grown in mixed culture, cells/ mL	P caudatum grown in mixed culture, cells/mL
Day 0				
Day 2				
Day 4				
Day 6				
Day 8				
Day 10				
Day 12				
Day 14				
Day 16				

Discussion

1. On what day did the *paramecium caudatum* population (grown alone) reach its carrying capacity? What was the carrying capacity? How do you know that it was reached?
2. On what day did the *paramecium aurelia* population (grown alone) reach its carrying capacity? What was the carrying capacity? How do you know that it was reached?
3. Explain the differences in the population growth for each of the two species.
4. What happened when the two *paramecium* populations were mixed in the same test tube? Why does this happen?
5. Explain how this experiment demonstrates that no two species can occupy the same niche in an ecosystem.