

Lecture 17 – Competition and Niches

READINGS:

- Krebs Chapter 13: Species Interactions: Predation

Outline for today:

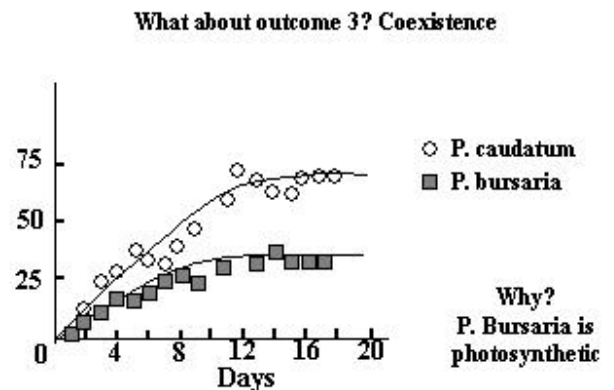
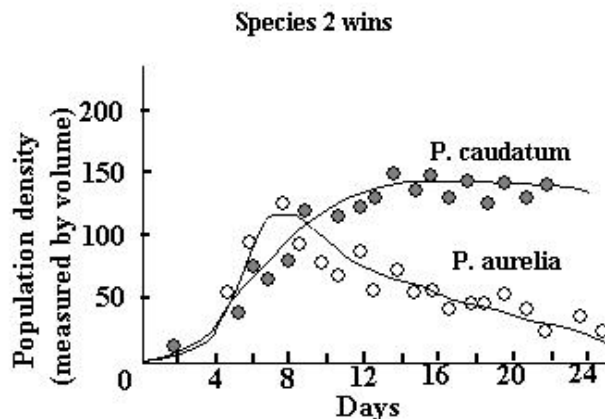
I. Finish competition

- Tilman's approach
- Competitive exclusion principle
- Character displacement and resource partitioning
- Fundamental and Realized Niches

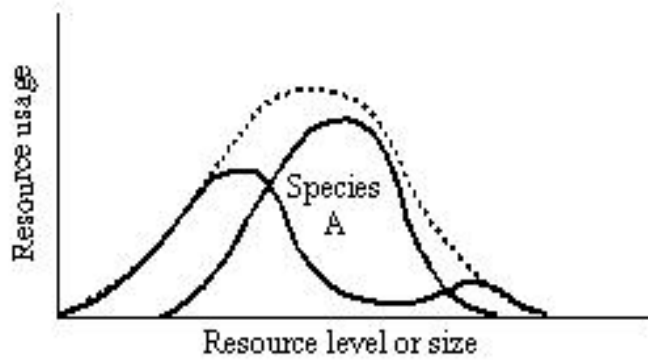
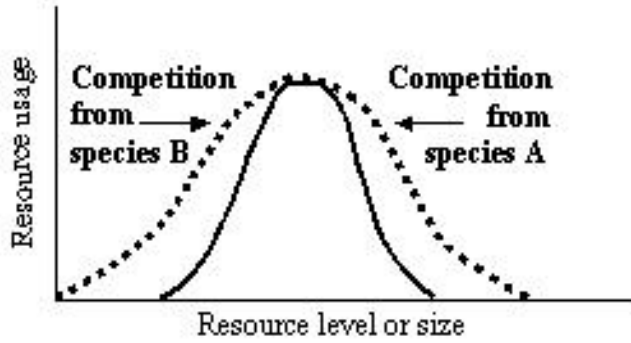
Study questions

- Explain the difference between a fundamental and a realized niche.
- Explain character displacement and provide an example
- Explain the significance of Gause's experiments with paramecium.

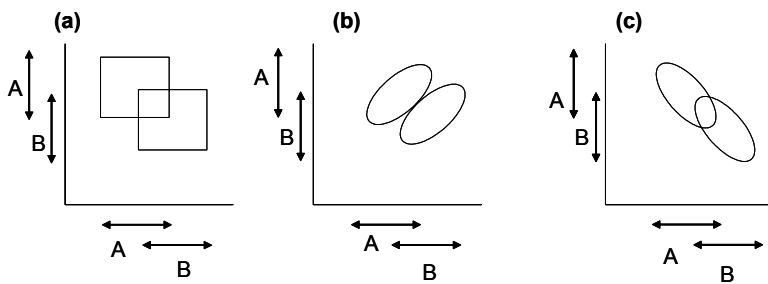
Gause's paramecium experiments



Fundamental vs. realized niche



Independent vs. inter-dependent niches



Two species, A and B

(a) Niches are independent

(b) and (c) Niches are partially dependent

MacArthur's Warblers: See Krebs 12.15