

Predation:

What is Predation?

Is it important?

1. Regulate density
2. Regulates species distributions
3. Affects prey behavior – Non Consumptive Effects
4. Indirect effects: e.g. Trophic Cascades

How do predators and prey co-exist?

1. Chemical defenses of prey
2. Physical defenses
3. Temporal disconnect of key life stages
4. Saturation
5. Associational defenses
6. Disturbance
7. Heterogeneity

How do you model it?

1. Type I,II and III Functional Response Curves
2. Numerical Response curves
3. Integration into Menge-Sutherland Model

Positive Interactions:

What are positive interactions?

1. Mutualisms
2. Facilitations: Facilitation by keystone species, Facilitation by foundation species; Facilitation Cascades; Mechanisms of facilitation: Stress Amelioration and Group Defenses

Are positive interactions important?

1. Whole community facilitation
2. Mutualisms provide foundation for whole community facilitations
3. Hierarchical organization of communities
4. Expansion of species ranges: Niche example

How do you model it?

1. Lotka-Voltaire
2. Niche
3. Integrating into the Menge Sutherland