

Decomposition

I. Classification of Decomposers

A. Functional Groups

- 1) Microflora and Microbivores

B. Respiration

- 1) Aerobic
- 2) Anaerobic
- 3) Facultative Anaerobes versus Obligate Anaerobes

C. Groups Based on Body Width

- 1) Microfauna, Microflora, Mesofauna, and Megafauna

II. Stages of Decomposition

A. Leaching, Fragmentation, and Colonization

B. Mineralization versus Nutrient Immobilization

III. The Process of Decomposition

A. Biotic Succession

B. Functional Groups

IV. Environmental Control on Decomposers

A. Litter Quality

- 1) Simple versus Complex Carbohydrates
- 2) Carbon:Nutrient Ratio

B. Measuring Litter Breakdown

C. Physical Environment

- 1) Temperature
- 2) Moisture

V. Decomposition in Aquatic Environments

A. Stages of Decomposition

B. Biotic Succession

C. Particulate Organic Matter (POM)

D. Dissolved Organic Matter (DOM)