Wetland Biogeochemistry

Diagram of Wetland Mass Balance

Components of Wetland Balance (Inflow)

- Hydrological
  - Precipitation
  - Surface Water
  - Ground Water
  - Tidal Exchange
- Biological
  - Photosynthesis
  - Nitrogen Fixation
  - Animals
Components of Wetland Balance (Intrasystem Cycling)

- Litter Production
- Remineralization
- Chemical Transformation
- Translocation

Components of Wetland Balance (Outflow)

- Hydrological
  - Surface Water
  - Ground Water
- Biological
  - Respiration
  - Animals
- Physical
  - Long-Term Burial
  - Denitrification
  - Volatilization of Ammonia
  - Methane
  - HS

Nitrogen Cycle
Phosphorus Cycle

Carbon Cycle

Wetland as Sink / Source / Transformer
Succession

- **Autogenic** – community change brought about by the biota
  - Organisms alter habitat (temp., light, nutrients, soil)
  - New habitat favors other organisms
  - New organisms replace previous occupants
- **Allogenic** – community change in response to environmental change
  - Environment makes habitat more suitable for new organisms
  - Changes in composition through time driven most by external forces