Main vocabulary:

Ecological stoichiometry: the ratios of essential elements (e.g. carbon, nitrogen, phosphorus) within organisms in relation to their environment

Elemental ratios: the amount of an element in relation to the amount of another element

Liebig's law of the minimum: organismal growth is determined by the scarcest resource refer to the barrel diagram

Notes:

Macromolecules (e.g. protein, lipids, and carbohydrates) vary in their elemental composition

Requirements of macromolecules vary with organismal life cycle

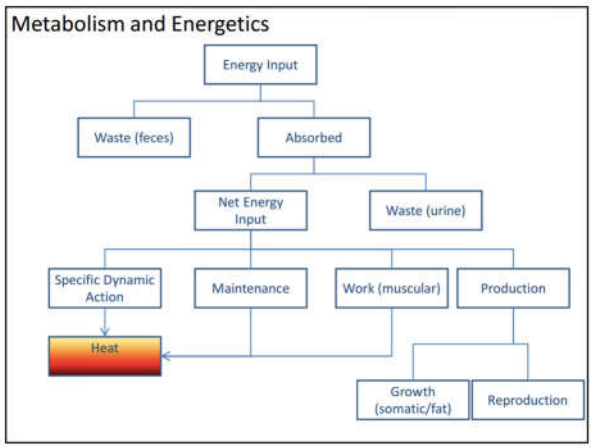
Nutritional resources vary in the environment and influence ecological communities

Nutritional demands interact with ecosystem processes (e.g. C,N,P cycling)

Organisms assimilate and balance elements during physiological processes

Understanding physiological demands (e.g. metabolism and energy budgets) for specific elements can help us understand how organisms interact with the environment in regards to energy

Diagrams to remember:



MUSCLE SIZE
HIGHER CARB

MAINTENANCE
MODERATE CARB

GET LEAN
LOWER CARB