



# AQUATIC ECOLOGY 5

Prof. Dr. Nilsun DEMİR

Ankara

# Biomass

- The biomass in an ecosystem includes the mass of all living and dead organic matter.
- Organisms use energy to maintain biological functions and to enable growth and reproduction.
- The organic matter produced by autotrophs and heterotrophs.

- Biomass is the *amount* of this accumulated material at a given moment, while production is the *rate of increase* in the total biomass.

- Biomass may be lost by export or gained by import from other systems in rivers





# Production

- Production is the incremental increase in biomass produced by organisms over a period of time.
- Estimates of biomass and production are one measure that can be used to assess the health of aquatic ecosystems.



- Production is often difficult to estimate, since it requires, among other things, accurate measures of biomass repeated at consistent intervals over a long period.

# Primary production

- **It** refers to the production of organic matter, such as body tissue, produced mainly by photosynthesis.