



AQUATIC ECOLOGY 9

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- **Heterotrophs = consumers**
- Organisms that must obtain energy by consuming other organisms (autotrophs or other heterotrophs) as food.
- **Herbivores** are called *primary consumers* because they eat only plants.

- **Carnivores** are called *secondary consumers* because they feed on other animals.

- **Omnivores** feed both on autotrophs and on other heterotrophs; that is, they eat both plants and animals. Many aquatic organisms, including fish, are omnivorous.

- **Detritivores** consume dead organic matter (detritus).

- Aquatic insects, for instance, shred dead leaves, but also consume bacteria and fungi growing on the leaves.

- Detritivores include many bacteria and fungi, invertebrates such as worms and insects, and some scavenging vertebrates.

- **Heterotrophs** can also be classified according to how they obtain food energy (i.e., functional feeding groups), and by their specific roles in the aquatic ecosystem (Cummins and Klug 1979)