

# Communities

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## Summary of Terms

- **Carrying capacity** The maximum number of individuals or the maximum population density that a habitat can support.
- **Commensalism** A form of symbiosis that benefits one species while having no effect on the other.
- **Community** All the organisms that live in a specific area.
- **Consumer** An organism that obtains food by eating other organisms.
- **Decomposer** An organism that obtains food by eating dead organic matter.
- **Ecological footprint** The amount of land and water area a human population needs in order to produce the resources it consumes.
- **Ecology** The study of how organisms interact with their environments.
- **Ecosystem** All the organisms that live in a specific area and all the abiotic features of their environment.
- **Exponential growth** A model of population growth in which a population grows at a fixed rate per amount of time.
- **Food webs** Diagrams that show “who eats whom” within a community.
- **Interspecific competition** Competition between organisms of different species within a community.
- **Invasive species** A species that has moved from its native habitat to a new area, where it does a lot of ecological damage.
- **Logistic growth** A model of population growth in which growth slows as the population approaches the habitat’s carrying capacity.
- **Mutualism** A form of symbiosis that benefits both species involved.



- **Niche** The total set of biotic and abiotic resources a species uses within a community.
- **Parasitism** A symbiotic relationship that benefits one member of the interaction and harms the other.
- **Population** A group of individuals of a single species that lives in a specific area.
- **Producer** An organism that makes organic molecules using inorganic molecules and energy.
- **Symbiosis** A situation in which individuals of two species live in close association with one another, such as is found in parasitism, commensalism, and mutualism.

## Detailed Chapter Summary

Species interact in many different ways within communities. A food chain or food web describes who eats whom. The feeding levels in a food chain include producers, various levels of consumers, and decomposers. Producers make organic molecules using inorganic molecules and energy. Consumers eat other organisms. Decomposers eat dead organic matter. Interspecific competition describes competition between species within a community. Interspecific competition occurs whenever two species use the same resource, and this resource exists in limited supply.

Interspecific competition describes competition between individuals of different species within a community. A species' niche describes the total set of biotic and abiotic resources the species uses. No two species can have exactly the same niche. Evolution and adaptation frequently result from interspecific competition.

Symbiosis occurs when two species live in close association with each other. Parasitism benefits one of the species and harms the other. Commensalism benefits one species while having no effect on the other. Mutualism benefits both species involved. Species involved in symbiosis typically have evolved in response to their partner.

Invasive species are species that have moved from their native habitat to a new area, where they do a lot of ecological damage. Today, most invasive species are introduced accidentally by humans. Invasive species have damaging effects on communities because they outcompete or prey on native species. Invasive species are responsible for the decline of many native species. Some also do considerable economic damage.

