

13.4 Food Chains And Food Webs

KEY CONCEPT

Food chains and food webs model the flow of energy in an ecosystem.



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- ▶ **A food chain is a model that shows a sequence of feeding relationships.**
 - A food chain links species by their feeding relationships.
 - A food chain follows the connection between one producer and a single chain of consumers within an ecosystem.

GRAMA GRASS



DESERT COTTONTAIL



HARRIS'S HAWK



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- Consumers are not all alike.
 - Herbivores eat only plants.
 - Carnivores eat only animals.
 - Omnivores eat both plants and animals.
 - Detritivores eat dead organic matter.
 - Decomposers are detritivores that break down organic matter into simpler compounds.



carnivore



decomposer

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- Specialists are consumers that primarily eat one specific organism or a very small number of organisms.



- Generalists are consumers that have a varying diet.

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- Trophic levels are the nourishment levels in a food chain.
 - Primary consumers are herbivores that eat producers.
 - Secondary consumers are carnivores that eat herbivores.
 - Tertiary consumers are carnivores that eat secondary consumers.
 - Omnivores, such as humans that eat both plants and animals, may be listed at different trophic levels in different food chains.



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- ▶ **A food web shows a complex network of feeding relationships.**
 - An organism may have multiple feeding relationships in an ecosystem.
 - A food web emphasizes complicated feeding relationships and energy flow in an ecosystem.

