

FOOD WEBBING

You will be working in a small group to draw each of the connections in the food web of a Mojave Desert ecosystem. After your group has determined the organization of the food web, each person will complete an individual assignment about the food web.

Group Assignment

1. Take a piece of butcher paper and write the names of each organism randomly over the entire piece of paper.
2. Identify the role of each organism in the ecosystem by writing one of the following letters beneath the name of the organism: Producer (P); Consumer (C); Decomposer (D); Scavenger (S)
3. Circle the name and letter of each organism.
4. Draw a line connecting all organisms to the food items they consume. For each connecting line that you draw, be sure to add an arrow head (→) to represent the direction of the flow of energy from food source to → consumer.
5. Write the name of each group member on the back of your food web.

Individual Assignment

1. Find and write out eight different food chains from your team's food web.
2. On two of your food chains, identify the producer and three levels of consumers.
3. Identify three organisms that are at the top of their food chains.
4. Explain what would happen if all of the primary consumers became extinct.
5. Describe what would happen if all of the decomposers became extinct.
6. Predict what would happen if a nonnative beetle began to kill most of the producers.
7. Explain why food webs with many species are more resilient than those with few species.

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Some organisms found in a California Mojave Desert Ecosystem

Mayfly Larvae (planktonic herbivore, detritivore)
Pinon pine
Wild flowers
Algae & Aquatic plants
Chipmunk & Squirrel sp. (Round Tailed, White-tailed Antelope, Mojave) (herbivore, insectivore)
Bobcat (Carnivore, omnivore, detritivore)
Bacteria
Grasshoppers (herbivore)
Salt Brush
Badger
Desert Bighorn sheep (herbivore)
Desert Cottontail & Black-tailed Jack Rabbit (herbivore)
Beetles
Mojave Yucca
Mouse sp. (Bush, Cactus, Deer, House, Pocket) (herbivore, insectivore, omnivore)
Raccoon (omnivore)
Swallowtail butterfly (nectar, manure)
California Juniper
Desert Apricot
Rat sp. (Wood, Kangaroo) (herbivore, insectivore)
Bat sp. (herbivore - nectar & fruit, insectivore,)
Joshua tree (producer)
Gopher sp (herbivore, insectivore, omnivore)
Coyote (omnivore, detritivore)
Mushroom
Creosote (shrub)
Vole sp. (Mojave, Armagosa) (herbivore, insectivore)
Cheese Bush
Fox sp. (Gray, Kit) (omnivore, detritivore)
Grasses (bunch, deer, salt)
Mountain Lion (carnivore)
Mosquitoes (plant nectars; females need blood to lay eggs)
Mule Deer (herbivore)
Striped Skunk (omnivore, detritivore)
Garden Spider (insectivore)
Mourning Dove (herbivore, seeds)
Red tailed Hawk carnivore)
Earthworms
Crickets (herbivore)
Desert Tortoise (small plant herbivore)
Western Fence Lizard (insectivore)
Western Pond Turtle (omnivore)
Ticks (mammal blood) mites, spiders,
Mojave Green Rattlesnake (small animal carnivore)
Green Tree frog (insectivore)
Gopher Snake (small animal carnivore, insectivore)
Mojave Toad (insects and small arthropods; ticks, caterpillars
Termites
Ants (red, harvester, black)
Birds (herbivores) Birds (insectivores)
Vultures

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