

Food Webbing

You will be working in a small group to draw each of the connections in the food web of an 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 around the outer edge of 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 an arrow from all food which points toward the organism which eats it. Use a different color for each trophic level. These arrows represent the direction of the flow of energy.
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 which 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 all of the oak trees.
7. Explain why food webs with many species are more resilient than those with few species.

Organisms found in the Sierra Nevada Ecosystem

California Bat (flying insects)
Mountain Lion (deer, rabbits, large rodents, bighorn sheep)
Black Bear (berries, insect larvae, small mammals, nuts, tubers)
Bobcat (small mammals, birds)
Valley Oak
Live Oak
Lodgepole Pine
Jeffrey Pine
Sugar Pine
Bigleaf Maple
Oak Moth Larvae (oak tree leaves)
Mosquito (protists, animal blood)
Coyote (scavenger, rodents, rabbits, vegetable matter)
Lodgepole Chipmunk (acorns, seeds, mushrooms, birds, insects)
Yellow-bellied Marmot (grasses)
Mule Deer (grasses, herbaceous plants)
Stellar Jaybird (insects, worms, insect larvae)
Great Horned Owl (rodents, lizard, snakes)
Alpine Grasses
Herbaceous Plants
Elderberry Bush
Mushroom (decomposer)
Bacteria (decomposer)
Beetles (plants, fungus)
California King Snake (rodents)
Spiders (insects)
California Poppy
Bracket Fungus (decomposer)
Thimbleberry bush
Raccoon (fruits, nuts, insects, frogs)
Golden Trout (mosquitoes, insect larvae)
Bighorn Sheep (grasses, herbaceous plants)
Mayfly larvae (aquatic plants)
Acorn Woodpecker (acorns, insects)
Worms (dead plants and animals)
Protists

