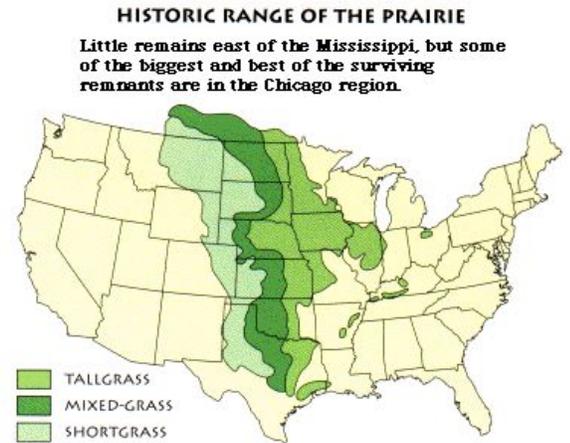


A Prairie Ecosystem

The Kansas grassland biome is divided into tallgrass, mixed-grass, and shortgrass prairies. Emporia, KS is located in the Tallgrass prairie ecosystem. Before settlement, the tallgrass prairie occupied a north-south strip which encompassed the eastern third of Kansas. The tallgrass prairie exists today since much the land is not farmable due to terrain (slope, rock layers, soil depth, etc.). The grasses can grow in excess of six feet tall during moist years if they reside in deep soils. The annual precipitation, or rainfall, in this region exceeds 30 inches. The original tallgrass prairie spanned almost 250 million acres. Today, about four percent remains with the largest areas being the Flint Hills of Kansas and the Osage Hills of Oklahoma. Examples of grasses found in tallgrass prairies include big bluestem, indian grass, switchgrass, and eastern gamagrass.



The sun is the main source of energy for every living thing on earth. An organism that makes its own food from the sun is called a **producer**. Examples of producers in the prairie are grasses and wildflowers because they use the sun to make their own food through a process called photosynthesis.

An organism that depends on others for food is called a **consumer**. Examples of consumers in the prairie include coyotes, snakes, mice and prairie chickens because they hunt or scavenge for their food.

An organism that breaks down materials in dead organisms is called a **decomposer**. Examples of decomposers in the prairie are worms. Recycling happens in the prairie through decomposition. Recycling means to reuse something once it has died or has been thrown away.

Prairie animals can be classified into three categories based upon what they eat. An **herbivore** is an animal that feed chiefly on plants. A **carnivore** is an animals the eats meat or flesh. An **omnivore** is an animal that eats both plants and animal material. Table 1 shows the diets of several prairie organisms and their predators.

Table 1

Organism	Diet	Predator(s)
Bison - Consumer	Herbivore: grasses	Man, coyotes, bobcats, rattlesnakes
Bull Frog - Consumer	Carnivore: insects, worms, small fish, snakes	Raccoons, hawks, snakes
Cattle - Consumer	Herbivore: grasses	Man, coyotes, bobcats, rattlesnakes
Coyote - Consumer	Carnivore (mainly): rabbits, insects, fruit	Man, disease
Grass - Producer	Sun, soil, water, nutrients	Bison, cattle, rabbits, mice, birds
Grasshopper - Consumer	Herbivore: plants	Birds, beetles, mice, snakes
Meadowlark - Consumer	Omnivore: insect, worms, spiders, snails, seeds	Owls, hawks, skunks, foxes
Mouse and Shrew - Consumer	Omnivore: seeds, grasses, worms, fruits, roots	Birds, snakes, skunks
Prairie Chicken - Consumer	Omnivore: Grain, weeds, seeds, insects	Coyotes, hawks, bobcats, skunks
Rabbit - Consumer	Herbivore: grasses, leaves, bark, twigs	Coyotes, hawks, bobcats, foxes
Skunk - Consumer	Omnivore: insects, rodents, reptiles, eggs, berries, roots, grasses	Birds of prey, mountain lions
Snake - Consumer	Carnivore: mice, gophers, rabbits, eggs	Hawks, eagles
Spider - Consumer	Carnivore: insects and animals in some cases (insectivore)	Frogs, birds, shrews, beetles
Wildflower - Producer	Sun, soil, water, nutrients	Grasshoppers, spiders, birds
Worm - Decomposer	Omnivore: dead plant and animal material	Birds