Natural Community
Prairie

Prairies are gently sloping land, covered by grasses, sedges (grass-like plants) and other flowering plants called forbs (like coneflowers, black-eyed susans and milkweed). Most prairies lie between deserts and forests; they are found on all continents except Antarctica. The first European settlers used the French word for meadow to describe the 'sea of grass' that once dominated the center of our continent. Rainfall generally determines the type of prairie: shortgrass (least rain), mixed grass (moderate rain) and tallgrass (most rain). In the early nineteenth century, 15 million acres of Missouri's landscape was tallgrass prairie; because of agriculture and other human development, fewer than 75,000 acres remain.

Climate on the prairie is a product of its mid-continental location. Without the moderating effects of oceans, prairies experience a wide range of temperatures, with extremely hot summers and extremely cold winters. Strong winds blow across the plains all year long. Rainfall varies dramatically during the year in prairies; winter snows and spring rains are followed by a long dry period during the rest of the year. Every 30 years or so, there is an even longer drought period which may last for several years. The most famous drought occurred in the 1930s; the heavily-farmed prairies were transformed into the "Dust Bowl".

Fires, whether caused by lightening or set by man, help to maintain the prairies. Moving rapidly across the land, fires do not penetrate very deeply into the soil but they kill most saplings and remove the thatch of dead

grasses. Modern day land managers use prescribed burns to maintain healthy prairies that support thriving plant and animal communities.

Prairie plants have adapted to these harsh growing conditions. They have deep and complex root systems that absorb water much better than the shallow roots of imported grasses like fescue or crops like corn. (Switch grass is on the left in the photo and corn is on the right.) As much as 2/3 of a prairie plant may be underground and its roots are often longer than the plant is tall; big bluestem is 5 feet tall and has roots that are 7 feet long. In addition, growing points are at or below ground level to help withstand periodic fires and grazing.

Prairies support a huge variety of life ranging from microbes to large

mammals. The most common kinds of animals living on Missouri's prairies are insects. Ants, bees, butterflies, moths and beetles do most of the work of maintaining the prairie. They pollinate the plants, build soil by recycling nutrients and provide food for birds and other animals.

The most visible and audible inhabitants of prairies are birds. Most of the prairie birds are ground-nesters; you can see and hear upland sandpipers, goldfinches, meadowlarks, dickcissels and bobwhite quail. Hawks soar above the grasslands and kestrels hover looking for grasshoppers. If you're very lucky, you might encounter prairie-chickens strutting and booming.

Most prairie mammals are small like the voles and shrews who spend most of their time in underground burrows. Coyotes, deer and rabbits live on Missouri's prairies and are perhaps the largest mammals now that buffalo no longer roam the plains. Box turtles and bull snakes live in the prairies, but they aren't often seen. Grassland crayfish dig burrows that may be six feet deep to reach ground water. Even amphibians live on prairies; some frogs breed in shallow, fishless vernal prairie ponds.