

The Great Plains: North America's Vast and Varied Grasslands

I. Location

Within craton of North America

Western limit: Rocky Mountains

Eastern limit: about 95° W longitude (not clearly defined)

Northern limit: fescue grassland and mixed moist grassland of Canada

Southern extent: southern Texas

II. Climate

West to East moisture gradient

North to South temperature gradient

Overall, continental climate (warm-hot summers, cold winters)

III. Terrain

Variable: mountain foothills, buttes and scarps, rolling hills, flat plains

IV. Vegetation

A. Has been divided into 20 different ecoregions (US EPA)

B. Includes various native plant communities or associations

1. Short-grass prairie associations: grama-buffalo grass; mesquite-buffalo grass
2. Mixed-grass prairie associations: wheatgrass-bluestem-needlegrass; wheatgrass-needlegrass; bluestem-grama grass; Nebraska sandhills
3. Tallgrass prairie association: bluestem prairie
4. Shrub-steppe prairie associations: sandsage-bluestem (and grading into tree-dominated communities)

V. Some well-known characteristic animals

Prairie dogs, bison, pronghorn

VI. Mixed-Grass Prairie

A. Extent

Central part of Great Plains

Divided into Northern and Central Mixed Grass Prairie

B. Climate

Pronounced North to South temperature gradient due to large latitudinal extent

West to East moisture gradient—not as pronounced as temperature gradient

C. Vegetation

Largely a mixing zone between short-grass and tallgrass prairies; few endemics

Maximum height of grasses ca. 1 m

Unique species may be found in Nebraska sandhills region

D. Regional variation

1. Glaciers directly shaped areas north and east of Missouri River plus eastern Nebraska and northeastern Kansas; non-glaciated areas to the south covered in “loess” soils
2. Northern cool-season grasslands bordering aspen parklands
3. Buttes/badlands of South Dakota
4. Nebraska Sandhills region
5. Riverine habitat

VII. Wetlands of the Great Plains

- A. Prairie Potholes
- B. Sandhills wetlands
- C. Cheyenne Bottoms
- D. Playa lakes

Note: important breeding areas for wetland birds and staging areas for migratory birds;
home to prairie amphibians