



A PROJECT OF THE SONOMA-MARIN COASTAL PRAIRIE WORKING GROUP



## DEFINITIONS

“Grasslands provide the fundamental matrix that connects a mosaic of communities. They are incredibly rich biologically; they are the connective tissue between these different communities.”

–Peter Hujik, Grassland Ecologist, The Nature Conservancy  
as quoted by Wade Belew, California Native Grasslands Association, 27 February 2011.

## GRASSLANDS

Grasslands cover about 33-41% of the earth’s terrestrial surface (White, et al. 2000). Grasslands are composed primarily of annual and perennial grasses and broadleaf herbaceous plants often called “forbs” or wildflowers. Many grasslands occur as openings or as large islands called meadows within forested areas. Grasslands with trees scattered evenly throughout are called savannahs. Tree seedlings and saplings have trouble surviving in open grasslands because they are destroyed by recurring fires and foraging animals. From their beginnings, grasslands have evolved with recurring disturbances such as fire, trampling, digging, wallowing and grazing by animals and their continued existence depends, to a large extent, upon disturbance to prevent them from being invaded and then succeeded by shrubs and trees.

- ▶ The terms grassland, prairie, and steppe have no standard definitions that precisely separate their use and are therefore considered to be synonymous by some authors (Keeler-Wolf, et al. 2007).



Forb is a general term used to describe any herbaceous (non-woody) plant other than grass.

- Most wild flowers are forbs
- From *phorbē*, Greek meaning fodder (American Heritage Dictionary).

## PRAIRIE

Prairie denotes a tree-less plain dominated by grasses and forbs found in moderately dry temperate regions (Lincoln, et al. 1998). “Prairie” is a French word derived from the Latin (“prata”) for “meadow.” It was first used by French trappers and traders, probably before LaSalle’s expedition in 1682, to describe the vast open plains of the Midwest. Although the most conspicuous plants in a prairie are

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often just a few species of grasses, prairies are populated by a great variety of species, including forbs, mosses, lichens, sedges, rushes, less abundant grasses, and shrubs.

Kuchler (Kuchler 1964), a geologist with the U.S. Geological Survey, used the term “prairie” for:

- ▶ Short, medium and tall grasslands and savannas in the Midwest.
- ▶ Coastal and island grasslands in Texas and Louisiana.
- ▶ Cordgrass prairies (*Distichlis* and *Spartina*) along the Atlantic coast and in southeastern Texas and southern Louisiana.

## COASTAL PRAIRIE

Coastal prairies occur in areas where grassland plants can obtain some moisture from fog. In the United States, areas where grasslands come into contact with fog lie predominantly along the coasts with the Pacific Ocean and Gulf of Mexico.

We use “coastal prairie” to describe the California North Coast and Central Coast grasslands as this is the term most often used by California grassland ecologists (Ford and Hayes 2007; Heady, et al. 1977). These grasslands are moderated by the cooling influence of the Pacific Ocean and are still dominated by perennial bunchgrasses interspersed with a vast array of annual and perennial wildflowers (Ford and Hayes 2007).

- ▶ The term “coastal prairie” was probably first used in the literature to describe California’s coastal grasslands by L. T. Burcham (1957) in his study of California’s rangeland resources.
- ▶ Kuchler (1964) did not use the term prairie or steppe for the north coast grasslands, but called them *Festuca-Danthonia* grassland (dominated by *Festuca idahoensis*, *Danthonia californica*, *Deschampsia holciformis*) and described them as dense, medium tall meadow-like grasslands.

## CALIFORNIA COASTAL GRASSLAND

This term is more inclusive and in addition to relatively intact or relict California coastal prairie, it refers to grasslands with coastal influence that are now dominated by non-native annuals (see California annual grasslands below), as well as those that are now invaded and dominated by non-native perennials, such as purple velvet grass (*Holcus lanatus*).

## CALIFORNIA ANNUAL GRASSLAND

Non-native annual grasses, such as ripgut brome (*Bromus diandrus*) and wild oat (*Avena* sp.), can be found throughout California. Although largely associated with the Central Valley, there are many coastal grasslands that are dominated by non-native annuals. Ford and Hayes (2007) suggest that these annual grasslands are in areas where perennial native plants were destroyed in the past by cultivation <link to cultivation section>. These grasslands are important because they harbor many native plants and continue to be utilized by grassland dependent birds and other animals (CPEFS 2010; Ford and Hayes 2007; Kie 2005).

## STEPPE

The term “steppe” to describe grasslands in California probably originated with Kuchler (1964), a geologist with the U.S. Geological Survey, who used the term “California steppe” for the needlegrass

grasslands (*Stipa cernua*, *S. pulchra*) in the Central Valley and in the California Central Coast regions south of San Francisco. He described these grasslands as dense to medium dense and as low to medium tall grassland. However, steppe is more often used for grasslands with varying amounts (from 20-80%) of woody shrubs (Keeler-Wolf, et al. 2007).

- ▶ “Steppe” is from Old Russian meaning “lowland” and is traditionally used to describe the vast semi-arid grass grass-covered plains, sometimes lightly wooded, as found in southeastern Europe, Asia and Siberia (Lincoln, et al. 1998; Morris 1978).