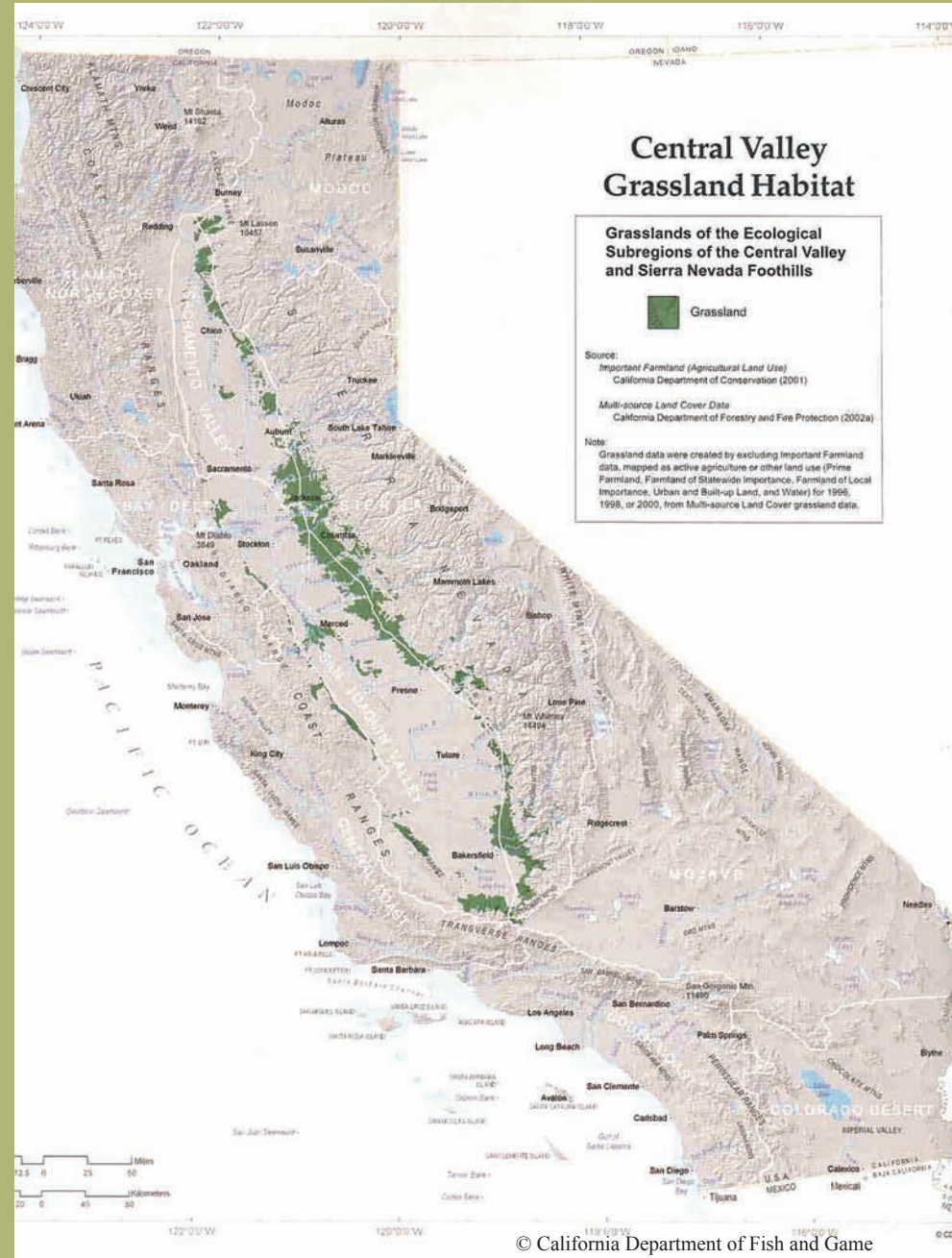


Grassland Community



What is a grassland and where is it found?



California grasslands are found throughout the state from near sea level to the large interior valleys and in dry mountains up to about 4,000 feet.

Integrated with pine and oak woodlands, chaparral, coastal sage scrub and riparian areas, grasslands can be found in clay rich alluvial soils deposited at the base of hillsides. Grasslands are often found in areas that are too dry and hot to support woody plants.

Grasslands once covered about 13% of California, but are now one of the most endangered ecosystems in the United States. Most of the native perennial grasses have been eliminated due to pressures from non-native annual grasses, agriculture, ranching and urban development. Now, less than 1% of the native grasses dominate our grasslands with the remainder being non-native grasses and forbs. In addition, only 4% of the extant grasslands are in formal reserves while 88% are privately owned.

What animals live in the grassland?



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Grasslands provide a blanket of green fodder for grazing animals such as elk, deer and bighorn sheep, while providing shelter and nest building materials for an array of ground-dwelling animals and birds. Ground squirrels excavate tunnels in

the grasslands that may become home for other rodents, rabbits, burrowing owls, or even rattlesnakes! The burrowing animals help to keep the grasslands fertile by aerating the soil, depositing nutrient rich scat and by dispersing seeds.

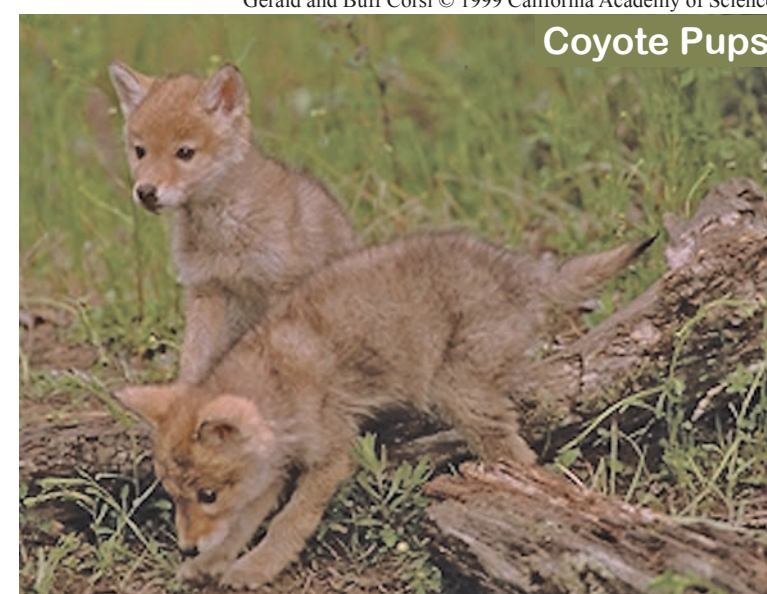
The small ground dwelling animals are preyed upon by larger carnivores such as fox, badgers, coyote and mountain lions, but they also have to keep an eye on the sky, watching for hawks, owls and other birds that might swoop down and make a meal of the unsuspecting.



Red Tailed Hawk

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Gerald and Buff Corsi © 1999 California Academy of Sciences



Coyote Pups



Ground Squirrel

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What plants live in the grassland and how are they adapted?



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Arroyo Lupine

Like an artist's canvas, grasslands come to life with vibrant colors in spring. A myriad of wildflowers mingle with the perennial bunch grasses in an amazing display of color after the winter rains. Enticing insects and wildlife alike, the dazzling array of blossoms reminds us of the beauty that lies dormant underground most of the year. From our state flower—the California poppy—to lupine, milkweed, blue-eyed grass and owl's clover, California grasslands are a sight to behold.

Like many drought and fire adapted communities, plants that live in the grassland are well suited to these environmental conditions. Our native perennial grasses, such as the state purple needle grass, form bunches of

grass with fibrous roots that can extend up to 18 feet deep and can live as long as 1,000 years! Many of the grassland wildflowers are bulbs that emerge only in spring after winter rains. After they bloom and are pollinated, they set seed and then disappear back into the underground bulbs to lie dormant during the summer drought.

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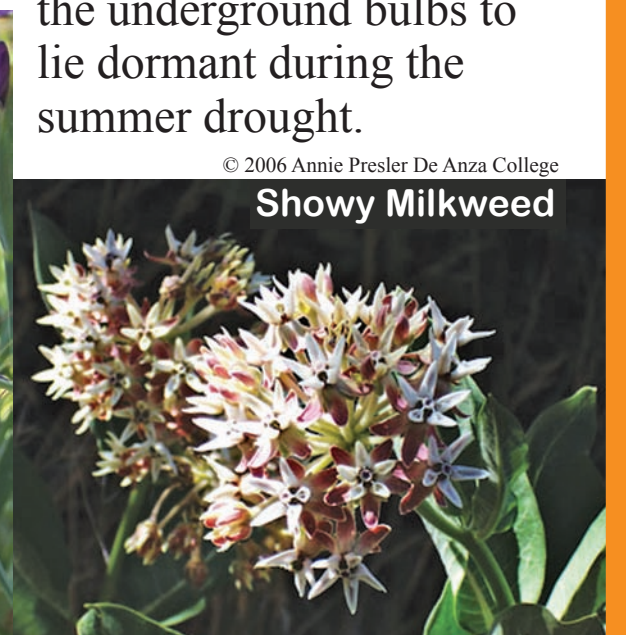


California Poppy

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Blue-eyed Grass



Showy Milkweed

Why should grasslands be protected?

Many unique species of wildlife depend on grasslands for survival. Several species of plants, insects, birds and other wildlife have co-evolved and have interdependent relationships. The larvae of the monarch butterfly, for instance, depend on milkweed species for food. Without the milkweed, the monarch would not survive. In California, there are currently 49 plants, 14 invertebrates and 9 vertebrates that are grassland-dependent and are listed as threatened or endangered. Without protection of the entire grassland habitat, many of these species will become extinct.

In addition to the pressures of urban development, ranching and agriculture, many grassland species are under attack from non-native plants, animals and pathogens that now dominate most grassland communities. These non-native

plant species not only compete with the natives for nutrients and water, they change the hydrology—often using up more water than the natives—the soil chemistry, and the fire frequency and intensity.

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Oneleaf Onion



Tule Elk

Robert Potts © California Academy of Sciences