

V

OPEN SPACE ELEMENT APPENDIX

DESCRIPTION OF HABITAT COMMUNITIES

Grassland Communities

Grasslands with native perennial bunch grasses originally covered much of the Central Valley floor, but with irrigation most of this habitat has been converted to agricultural or urban uses. Many alien plant species now dominate the region including wild oats, brome, and foxtail. Common native wildflowers in the grasslands are California poppy, buttercups, goldfields, lupines, buckwheat, fiddleneck, and clovers. Resident animal species include western toad, southern alligator lizard, common king snake, western rattlesnake, mourning dove, horned lark, western meadowlark, valley pocket gopher, and the California ground squirrel.

Chaparral and Shrub Communities

Chaparral (Spanish for scrub oak) and shrub communities are characterized by dense, impenetrable thickets of woody, evergreen plants with thick, leathery leaves. These communities extend from the lower elevation foothills to the crest of the Sierra Nevada mountains. Within Calaveras County, there are three chaparral and shrub communities: (see Vegetation Data map, Open Space Element, Page V-3)

Chamise Chaparral

Pure stands of chamise, or greasewood, are found on dry, south-facing slopes below the 4,000 foot elevation. This habitat is adapted to the hot, dry summers and quickly re-sprouts after wildfires. During the first three years after a fire, grasses are generally abundant, then the chamise plants grow taller forming a close canopy. The grasses recede and the understory becomes mostly bare ground until the next fire cycle.

Mixed Chaparral

Mixed chaparral is usually present in the foothills on wet or north-facing slopes or at higher elevations than the chamise chaparral. This habitat has a wide variety of plants including monkeyflower, ceanothus, manzanita, scrub oak, poison oak, and California buckeye. Wildlife species commonly found both in chamise and in mixed chaparral include the western rattlesnake, California quail, scrub jay, wrentit, brush rabbit, and mule deer.

Montane Chaparral

Montane chaparral is generally present at higher elevations than chamise or mixed chaparral, and is often associated with conifer forests up to the 9,000 foot elevation. Compact and low to the ground, montane chaparral typically forms a dense thicket less than six feet tall. This community occurs in recently burned areas or areas disturbed due to logging or avalanche. Common plants include greenleaf manzanita, snow bush, chinquapin, huckleberry, and oak. This habitat provides important foraging for migratory deer. Other wildlife species commonly associated with this community include orange-crowned warbler, rufus-sided towhee, brush rabbit, and dusky-footed woodrat.

Woodland Communities

This is the dominant community which covers most of the lowlands to 3,000 feet in the western portion of the county. Characterized by moderately spaced stands of oak trees with an understory of grasses or shrubs, these woodlands occur on well-drained soils. Woodlands provide important habitat for wildlife because they are structurally complex and diverse; they occur at lower elevations with mild temperatures; and they produce acorns, an important food source. Characteristic bird species in woodlands include California quail, hawks, turkey vultures, scrub jay, acorn woodpecker, and great horned owl. Resident reptiles are western rattlesnake, gopher snake, and common kingsnake; common mammals are western gray squirrel, gray fox, bobcat, coyote, and mule deer.

Valley Oak Woodland

Valley oak woodlands commonly occur on deep alluvial soils of valley flood plains. The community varies from open savannas to dense forest-like stands of massive, deciduous valley oaks with understories of annual grasses and herbaceous plants.

Blue Oak Woodland

This plant community dominates the foothill woodlands of the Sierra and occupies slopes of moderate steepness, on shallow, rocky soils of moderate moisture. Spindly, deciduous blue oaks can form a savanna with an understory of annual grasses or can be associated with an understory of shrubs such as poison oak, buckbrush, manzanita, or California coffeeberry.

Blue Oak-Digger Pine Woodland

This woodland is dominated by the deciduous blue oak and the evergreen digger pine, with the interior live oak also present. The understory is commonly a mixture of annual shrubs and grasses similar to those in the blue oak woodland community.

Hardwood Forest Communities

Hardwood forests are dominated by broad-leaved deciduous and evergreen tree species, however some conifer trees may also be present. Hardwood forest communities include the montane hardwood and montane hardwood-conifer forests along drainages of the major rivers and streams at middle elevations on the west slope of the Sierra Nevada, and aspen forests at high elevations. Valley pocket gopher, Swainson's thrush, Stellar's jay, deer mouse, mule deer, and black bear are found in these communities.

Montane Hardwood Forest

Montane hardwood forests are comprised of a mixture of trees that occur on rocky, poorly developed, and well-drained soils associated with the slopes of major river canyons. At lower elevations, common species include canyon live oak, digger pine, tan oak, Pacific madrone, and California bay. Black oak and Douglas fir may occur at higher elevations.

Common shrubs in the montane hardwood forest are wood rose, snowberry, manzanita, and poison oak.

Montane Hardwood-Conifer Forest

Montane hardwood-conifer forests include components of both conifer forests and hardwood forests. This is a transitional plant community between the montane hardwood, mixed chaparral, and woodlands of low elevation and the conifer forests of high elevations. Common associates include California black oak, ponderosa pine, Douglas fir, white fir, and incense cedar.

Conifer Forest Communities

Conifer forest communities form the dominant vegetation type for Calaveras County above the 2,500 foot elevation, which basically account for the eastern half of county. These forests cover valuable watersheds that yield water for domestic and agricultural use, provide timber for commercial logging, and provide extensive recreational opportunities. Because of the large area covered by these forests and the range of environmental factors affecting this area, five distinct types of conifer forest are described in Calaveras County.

Ponderosa Pine Forest

Ponderosa pine tolerates hotter and drier locales than most other forest conifers. Due to this, they are found at the lower limit of the forest where precipitation is low. These forests can be open, park-like forests limited to ponderosa pine or they can take the form of dense forests where the ponderosa pine is associated with other species such as the white fir, Douglas fir, or sugar pine.

Sierran Mixed Conifer Forest

Sierran mixed conifer forest is present in the central portion of Calaveras County between 2,000 to 6,000 feet. As many as five or six different conifers may be found together including ponderosa pine, white fir, incense cedar, sugar pine, Jeffrey pine, and giant sequoia. Black oaks are also associates. Common shrub species are deerbrush, manzanita, Sierra gooseberry, and mountain misery.

White Fir Forest

White fir forests are present above the 5,000 foot elevation, between Sierran mixed conifer and red fir forests. These forests generally grow on coarse, well-drained soils on cool north and east-facing slopes. White fir trees do not have a long life span compared to other conifer trees, and often contract diseases that weaken the trees. As a result, tops and large limbs break and fall, providing snags and cavities well-suited for nesting habitat. Cavity-nesters such as the pygmy nuthatch, red-breasted nuthatch, pileated woodpecker, and hairy woodpecker are present. The white fir forest is more lush in terms of shrubs, herbs, and wildflowers than most other Sierran forest communities.

Lodgepole Pine Forest

Lodgepole pine forests are symbolic of the High Sierra. Found at elevations between 6,000 and 8,000 within Calaveras County, these forests are characterized by stands of similarly sized trees and a sparse understory. These trees are able to tolerate a wide range of soil and moisture conditions, but are most often associated with streams and meadow borders. Diversity of wildlife species is low in this plant community because of the correspondingly low diversity of tree and shrub species that provide food and habitat.

Red Fir Forest

These dense, shady forests are present between 6,000 and 8,000 feet in the county on fairly deep, well-drained soils. In mature stands, no other tree species are found because of the dense canopy formed by the red firs and the thick layer of needles on the forest floor. Animal life is scarce because of the shortage of food sources. Woodpeckers and other birds feed high in the canopy. Occasionally, lodgepole pine or aspen may be found near wet meadows or riparian areas within the red fir forest.

Riparian Communities

Riparian communities are present along all watercourses and are one of the most important wildlife habitats in California. All perennial streams, most intermittent streams, and most lakes and reservoirs have some riparian vegetation.

Valley Foothill Riparian Forest

Valley foothill riparian forests are located in the Central Valley and Sierra Nevada foothills in western Calaveras County. The community is generally associated with slow-moving streams that flow through valleys and rolling hills.

Dominant tree species are Fremont cottonwood, western sycamore, and valley oak. The understory typically consists of a shrub and herbaceous layer. Common shrubs include wild rose, California blackberry, blue elderberry, poison oak, and willows.

The herbaceous layer consists of monkeyflower, miner's lettuce, sedges, rushes, grasses, and nettles.

Many creatures visit the riparian woodland from nearby communities, but the following are some common resident species: tiger salamander, wood duck, belted kingfisher, great blue heron, black phoebe, willow flycatcher, yellow warbler, raccoon, striped skunk, gray fox. Valley foothill riparian forest also provides travel corridors for larger mammals including the mule deer, coyote, and mountain lion.

Montane Riparian Forest

These are present in the Sierra Nevada below 8,000 feet and are associated with shallow lakes and ponds, seeps and meadows, and rivers and streams. Common plants are white alder, aspen, black cottonwood, dogwood, willows, and wild azalea.

At this higher elevation, snowfall becomes the main source of precipitation. Animals found here include Clark's nutcracker, great horned owl, Belding's ground squirrel, mule deer, and black bear.

Developed Lands

Developed lands are those that do not support native plant communities or vegetation. These artificial or non-native habitats are agricultural lands, rangelands, and urban lands.

Agriculture and Rangeland

Includes annual grasslands, pasture, cropland, and orchards on flat to gently rolling terrain. Locations of agricultural lands include: vineyards in the Murphys, San Andreas, and Burson areas; Christmas tree farms near West Point; mixed agricultural use northeast of Salt Springs Valley Reservoir; and generally in the western section of the county.

Agricultural croplands provide limited habitat diversity because they are frequently manipulated during the harvest and planting cycles. Common rodents are present in the fields and provide prey for red-tail hawks and marsh hawks.

Undeveloped rangelands do provide important habitat for wildlife, especially where water is available. Wildlife species in the rangeland habitat are similar to those in grasslands and woodlands.

Urban

Urban vegetation categories include landscaped strips and medians along transportation corridors, shade trees, lawns, and shrub cover. The structure of the plant community varies with each vegetation category. Urban vegetation is common throughout developed areas, particularly at residences, parks, and schools.

Urban vegetation provides habitat for wildlife that are tolerant of human disturbance. Birds and mammals found in these areas include scrub jay, northern mockingbird, house finch, sparrows, great horned owl, rodents, raccoon, opossum, striped skunk, and the non-native European starling and fox squirrel.

Aquatic Communities

Aquatic communities such as rivers, streams, ponds and lakes, occur in every community previously described in Calaveras County. These aquatic communities provide critical wildlife habitat and serve industrial, agricultural, domestic, and recreational users. Because of their widespread distribution and relatively small individual extent, smaller streams, ponds, stockponds, and wetlands are not comprehensively mapped.

Rivers and Streams

The habitat of rivers and streams includes open water, the bottom substrate, and riparian vegetation. Open water is resting habitat for migrating waterfowl, and habitat for resident floating insects which in turn provide a food source for amphibians, fish, and birds. In fast-moving riverine habitats, the bottom substrate is rocky and provides habitat for prey consumed by the American dipper. Slow-moving riverine habitats have sandy bottoms favored by freshwater clams, a food source for great blue herons and waterfowl.

Ponds and Lakes

Ponds and lakes are inland bodies of water, varying in Calaveras County from small natural ponds and artificial stock-ponds, to large constructed reservoirs like New Melones Lake and New Hogan Reservoir. These habitats may contain algae and vegetation such as duckweed or pondweed. These habitats are important for fish-eating birds such as ospreys, wintering bald eagles, western grebes, and belted kingfishers, and also provide resting and feeding habitat for waterfowl and shorebirds.