

# San diego vegetation



San Diego is designated as the first county in the western United States after having been settled by Europeans. Today, the San Diego region has greater numbers of endangered species of plant and animals than any other comparable continental landmass in the United States. Its rapid urban sprawl into more remote areas increases the need for conservation of land and water resources (SANDAG).

San Diego's environment consists of beaches, wetlands, sage-scrub hills, chaparral and elfin forests, deciduous and conifer covered mountains, and flowering deserts. These habitats were once homes to grizzly bears, pronghorn antelope, California condors and jaguars. Today, rare plants, cougars, bighorn sheep, kit foxes, and bald eagles roam these areas. San Diego resides in a Koppen Csb/Csa climate zone. This temperate zone has hot, dry summers, and cool winters. There are also summer water deficits followed by winter surpluses. The ecosystem is designated as Mediterranean Shrubland that is characterized by sclerophyllous shrubs and an Australian eucalyptus forest. Sclerophyllous vegetation is stunted and able to withstand hot-summer droughts. In California, this vegetation is named from the Spanish word chaparro meaning "scrubby evergreen" and is called chaparral (Christopherson).

This county's diverse plant community is composed of more than a dozen species of conifers and a dozen species of oak trees located primarily in the mountain elevations (Janssen). For our remote sensing project, we noticed approximately 25% of the San Diego areas was covered in mixed forests. We noted 20% of the land as cultivated, and some of this land is well known. For example, the second largest state park in the nation, Anza-Borrego, is

located here. Another state park, Cuyamaca Rancho, is embraced for its hiking trails, campgrounds, and ample wildlife and trees. Other areas appeared to be farmlands and perhaps vineyards. Below the mountains lie the lowland chaparral (10%) and coastal sage scrub (40%). Chaparral consists mostly of dense shrubs and low lying trees, whereas coastal sage scrub has fewer leaves, a shallower root system, and is lower in height (Oleary).

Finally, at the lowest elevations, one can find riparian woodlands or wetlands. California has suffered a historical wetland reduction of 91%, and there are currently fifteen wetland areas remaining in San Diego counties, which is a fraction of what there used to be. These wetlands consist of estuaries, lagoons, marshes, and sloughs (Seaworld). By definition, an estuary is the tidal mouth of a great river, where the tide meets the current of fresh water (Oxford English). Lagoons are a shallow sound, channel, or pond near or communicating with a larger body of water. Marshes are a tract of soft wet land usually characterized by monocotyledons (as grasses or cattails), and sloughs are places of deep mud or mire. (Merriam-Webster). For our project, we noticed that less than 5% of our map consisted of wetlands.

Environmental planning can help preserve shorelines, streams and rivers, and other untouched areas (SANDAG). Similar to GIS, Remote Sensing can be used to interpret layers and data evaluation for resource planning. However, with Remote Sensing one is never in direct contact with an object or area.