

Big Sagebrush Scrub

VEGETATION ASSOCIATION: BIG SAGEBRUSH SCRUB

BIOGEOGRAPHY

Big sagebrush scrub occupies a large portion of the Great Basin region of Utah, Nevada and adjacent surrounding states (Holland and Kiel 1995). In California, big sagebrush scrub is widely distributed east of the Cascade-Sierra crest within the counties of Modoc, Lassen, Mono and Inyo. The most extensive area of sagebrush scrub occurs on the Modoc Plateau. This community extends as far north as the upper drainages of the Cuyama River of cismontane California and as far south as San Diego County. Within southern California, scattered localities of big sagebrush scrub occur along the fringes of the Mojave and Sonoran deserts and in interior cismontane areas.

RANGE AND DISTRIBUTION WITHIN WESTERN RIVERSIDE COUNTY

Big sagebrush scrub occurs mostly in the southeastern portion of the western Riverside Plan Area. One occurrence of big sagebrush scrub is mapped in the southwestern corner of Riverside County. Big sagebrush scrub occupies approximately 0.9 percent (11,852 acres) of the Plan Area. Large acreages of the vegetation occur north and south of SR-371 within Tule Valley, Culp Valley, Wilson Creek, Cahuilla, the Ramona Indian Reservation and the Community of Anza.

VEGETATION CHARACTERISTICS

Big sagebrush scrub is mostly a treeless, soft-woody shrub-dominated community, composed of shrubs approximately 0.5 to 2.0 m tall. The understory is characterized by patches of bare ground and scattered herbs. Big sagebrush scrub often is found in close proximity to woodlands and coniferous forests. This vegetation can occur in the understory of tree-dominated, high elevation communities of pinyon-juniper woodlands, montane mixed coniferous forest and alpine forest (Holland and Kiel 1995). At lower elevations, big sagebrush scrub occurs adjacent to saltbush scrub, blackbush scrub, Joshua tree woodland and creosote bush scrub communities. In areas where soil salinity and alkalinity are high, big sagebrush scrub typically is replaced by saltbush scrub.



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SPECIES COMPOSITION

The dominant shrub within this Habitat type is big sagebrush (*Artemisia tridentata*), which sometimes forms pure stands but often occurs with other shrubs (Holland and Kiel 1995). Common associates include bitterbrush (*Purshia tridentata*), rubber rabbit-bush (*Chrysothamus nauseosus*), yellow rabbitbrush (*C. viscidiflorus*) black bush (*Coleogyne ramosissima*), Mormon-tea (*Ephedra viridis*), horsebrush (*Tetradymia canescens*), plateau gooseberry (*Ribes velutinum*) and hopsage (*Grayia spinosa*). The herbaceous cover generally is dominated by a mixture of perennial bunch grasses such as ricegrass (*Achnatherum hymenoides*), needle-and-thread (*Stipa comata*), letterman's needlegrass (*S. lettermanii*), needlegrass (*S. occidentalis*), needlegrass (*S. thurberiana*), desert needlegrass (*S. speciosa*), one-sided bluegrass (*Poa secunda*), bluebunch wheatgrass (*Agropyron spicata*), and Great Basin wild rye (*Leymus cinereus*). Annual grasses and forbs may occur also within big sagebrush scrub. Cheatgrass (*Bromus tectorum*), an introduced annual grass, has become the dominant herbaceous species in many areas.

The species composition of Big sagebrush scrub in Riverside County was not reviewed.

PHYSICAL ENVIRONMENT

Big sagebrush scrub often is found on alluvial washes within interior regions where frost may occur. This community persists at elevations of 1210 to 2730 m (Holland 1986) but may extend to 3600 m in the White Mountains. Big sagebrush scrub is well-suited to a variety of soils and terrain ranging from rocky, well-drained slopes to fine-textured valley soils with high a water table (Holland 1986). This community typically occurs on south or southwest facing slopes of variable steepness (Gordon and White 1994). The Big sagebrush scrub environment is characterized by cold, harsh winters and dry summers (Barbour and Major 1988).

LITERATURE CITED

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