

# Coastal Sage Scrub



## What is coastal sage scrub and where is it found?



Coastal sage scrub is a rare habitat type found along coastal terraces and foothills of southern California and northwestern Mexico. Interspersed with chaparral, oak woodland and salt marsh, coastal sage scrub typically grows below 3,000 feet among a diverse assemblage of plants.

The coastal sage scrub community is designated as threatened by the state of California, but is considered as globally imperiled—more endangered than the forests of the Pacific Northwest and tropical rainforests!

Less than 10% of the original sage scrub community now exists within a few counties of southern California, including Los Angeles, San Bernardino, Orange, Riverside and San Diego. Considering the high human population density and urban sprawl, it is fortunate that remnants of this unique habitat survive. Unfortunately, human impact continues to threaten this unique community.

## What animals live in the coastal sage scrub?



Blue-gray Gnatcatcher

The coastal sage scrub community supports a great diversity of wildlife. The diversity of plants acts as a foundation for an extensive food web. The flowering plants provide nectar for an abundance of insects which, in turn, become food for other animals. Many plants produce fruit and seeds that are eaten by a variety of small animals that are preyed upon by other larger animals.

Of the many animals that live in the coastal sage scrub, 120 are considered rare, threatened or endangered. Of these, the blue-gray gnatcatcher and Stephen's kangaroo rat are federally endangered. Protection of this unique habitat is critical to the survival of a

diversity of animals, including the western spadefoot toad, gopher snakes, rosy boas, bobcats, coyotes and nearly 150 different species of birds.



Alligator Lizard



## What plants live in the coastal sage scrub?

Characterized by low growing, aromatic shrubs, coastal sage scrub plants often have extensive, fibrous root systems and buds around the base and roots. The extensive roots help to absorb water from deep in the soil during droughts, and the root buds are critical for vegetative regeneration after a fire. Many plants have seeds that lie dormant for years, germinating only after a fire.

Fog is an important component of this community as most of the plants require fog for water during the dry season. Also known as "soft chaparral," coastal sage scrub tends to have plants with thinner leaves that are less adapted to the extreme drought and heat typical of chaparral communities. Nevertheless, the aromatic, volatile oils in the leaves help to cool the plant as they evaporate.

Some of the more common species of coastal sage scrub plants are black sage, white sage, purple sage, California sagebrush, California buckwheat, bush sunflower, toyon, lemonade-berry and a variety of succulent plants such as dudleya and sedum. Twenty native species of sage dominate this community.



Purple Sage

© 2006 Annie Presler De Anza College



Bush Sunflower

© 2006 Annie Presler De Anza College



Nightshade

© 2006 Annie Presler De Anza College



Sugar Bush

© Prabha Venu

## Why is the coastal sage scrub important for insect species?



Mission Blue Butterfly

Andrew Sanchez © California Academy of Sciences

The Coastal sage scrub community hosts a great diversity of organisms. It provides habitat for more than 150 different butterfly species (many being endangered), 21 species of scorpions, many spiders, reptiles, birds and mammals. Coastal sage scrub attracts the largest diversity of endemic bees in North America. In fact, California has about 1,500 different bee species! Of these, 95% lead a solitary lifestyle, often living in underground nests.

© J. H. Robinson/Animals Animals or Earth Scenes

Contrary to popular belief, most bees are not aggressive unless provoked. Male bees are stingless, although they may act aggressively toward other bees. Females are often seen dancing from flower to flower, sipping nectar and gathering pollen. Look for the bright blobs of yellow, white or purple pollen covering the legs, head or abdomen of the female.



Carpenter Bee

© Marc Hoshovsky