

OAK WOODLAND

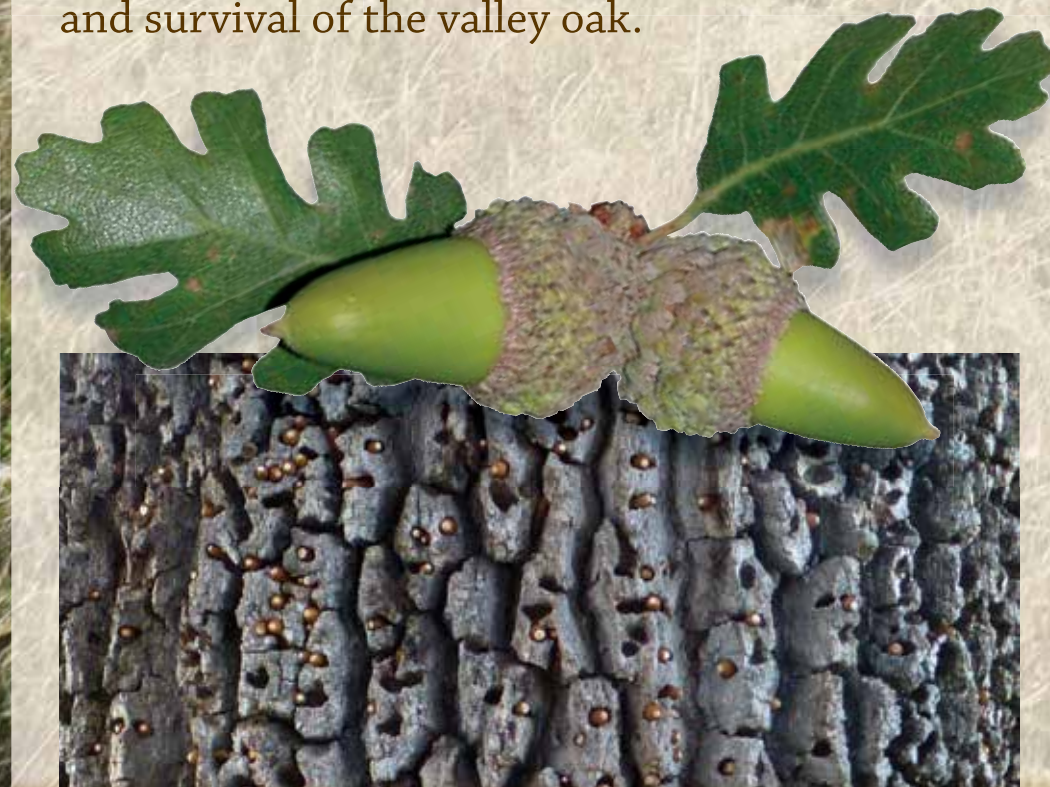
VALLEY OAK



Valley Oak (*Quercus lobata*) prefer low elevation drainages with high soil moisture, such as rich floodplains, seasonal creeks, and low foothills. These deciduous trees may live hundreds of years and be up to 100' tall, with massive trunks.

Valley oak leaves are deeply lobed, and the grayish bark displays a checkered pattern with vertical fissures. Acorns are 1" to 2" long, but shape and length vary. The acorn woodpecker loves to create caches of acorns in the bark of the valley oak, referred to as granary trees.

Historically, California had extensive oak woodlands. Changes in land management, development, and farming have left very little unfragmented bottomland for the valley oaks. Drought and excessive use of water has impacted the water table, severely threatening the health and survival of the valley oak.



COAST LIVE OAK



Coast Live Oak (*Quercus agrifolia*) grows in a broad range of conditions, elevations and soil moisture. Live oaks are found throughout this property, especially the upper elevations, clustered amongst moist drainages between ridges covered with chaparral.

Coast live oak is evergreen and may live 250 years or more. The bark of the coast live oak is relatively smooth and gray. The acorns are ¾" to 1½" long and a rich reddish brown. The dark green, oval leaves of coast live oak are convex, with spines along the margins.

These leaves are uniquely equipped to use solar energy. The outer leaves are packed with 2-3 layers of photosynthetic cells whereas those in the shade only have one thin layer. This enables the leaves to photosynthesize in bright sunlight as well as low light situations.



BLUE OAK



Blue Oak (*Quercus douglasii*) are only found in California, above the valley floor in areas with good drainage. Blue oaks are deciduous and more drought tolerant than other native oak species. Though blue oaks may live up to 450 years, they are not a tall tree and may only grow to 90'.

Blue oak leaves usually have wavy margins along with a waxy coating to prevent moisture loss, giving them their characteristic bluish cast.

The bark is light gray and may appear white in certain light. The pattern of the bark is in narrow thin strips. Acorns are ¾" to 1½" long, and begin germinating with the first rain. By sprouting early and growing through the winter, the seedlings are better equipped to handle the heat of summer.



OAK GALLS

Oak Galls are a fantastic reaction to tiny gall wasps laying eggs in the leaves, stems, buds, acorns and roots of the host oak tree. As the galls grow, they protect and feed the larvae for months to years. The galls are not harmful to the host plant. Native Americans used galls for ink, dyes, eyewash and treating wounds.

Three distinct galls are visible at TBOP in the fall. The oak 'apple' gall (*Andricus quercuscalifornicus*) is recognizable for its apple-like shape. Notable by their bright pink color and unusual forms are the Crystalline oak gall (*Andricus crystallinus*), left, and the Urchin gall (*Antron quercusechinus*).



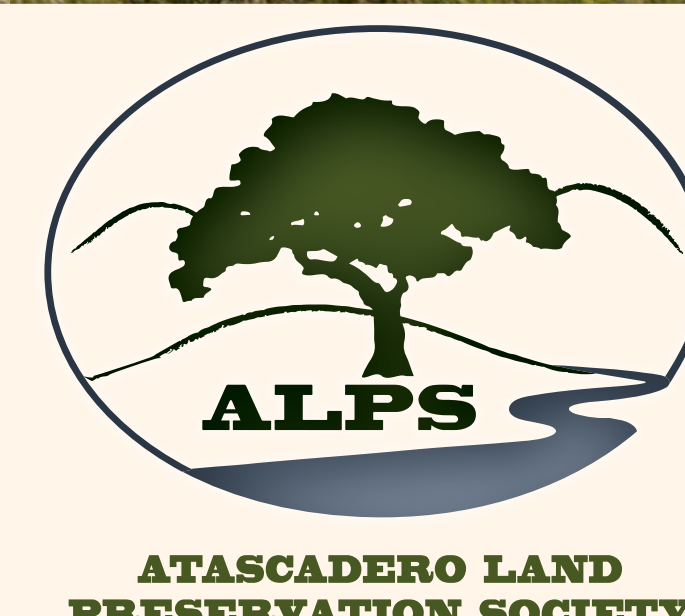
PRESERVATION

Atascadero Land Preservation Society is excited to preserve the natural habitat of this property, which has remained untouched for many years.

Oak woodlands and grasslands are being converted to other uses, making the preservation of sites like this one an important endeavor.

Impact from man and increasing populations of wild and domestic grazing animals all threaten the viability of our valuable oak woodlands. Oak regeneration has been declining for decades, especially in Valley and Blue oaks.

A healthy habitat and survival of native wildlife depend on a fully-functioning ecosystem.



LACE LICHEN

Lace Lichen (*Ramalina menziesii*) is not a parasite, but a symbiotic union of two unique species: algae and fungi.

Algae photosynthesize food from sunlight, while fungi absorb moisture and minerals.

Lichen acts as a filter, keeping particulates off the photosynthesizing leaves. When lichen decomposes, its nutrients are released back into the soil.

Lichens are food and a nesting resource for animals. The Native Americans used lichen for sanitary and medicinal purposes. Lace lichen does not survive in areas of poor air quality.

