

SOBOBA BAND OF LUISENO INDIANS ENVIRONMENTAL DEPARTMENT

By: Emma Arres

SOCAL NATIVE PLANTS

WHAT IS A NATIVE PLANT?



A native plant is one that has evolved and adapted naturally to a local ecosystem or location without direct or indirect human intervention. They adapt to climate, rainfall, soil, insects, animals, and fungi of particular places. In California, there are more than 2,100 species and more than 7,000 subspecies and varieties that occur naturally. Native plants are known for their beauty, intrinsic value, and are essential components of ecosystems and natural processes. A few California Native plants include California Scrub Oak (*quercus berberidifolia*), Sugar Bush (*rhus ovata*), California Sycamore (*platanus racemosa*), Coast Live Oak (*quercus agrifolia*), and Red Willow (*salix laevigata*).

California Scrub Oak

Sugar Bush

California Sycamore



The California Scrub Oak is a small evergreen scrubby oak that can grow up to six meters high. They are tightly packed with leaves and twigs. They are native to scrubby hills in California and a common member of chaparrals ecosystems. They support various wildlife including birds, mammals, reptiles, and insects (lots of butterflies). The California Scrub Oak is shade intolerant meaning it requires full sunlight. Also, they have an extensive root system that allows them to sprout quickly after fires. The scrub has adapted to mostly sunny, hot weather and intense fires California experiences. Common uses include bank stabilization, hedges, and bird/butterfly gardens.

The Sugar Bush or Sugar Sumac is an evergreen scrub – small tree that grows in chaparrals and dry canyons (in foothills and mountains). It grows best in the sun and is fire resistant meaning it takes time for the plant to catch fire. The Sugar Bush has adapted to the hot weather and extreme fires California experiences. It has flower clusters at the end of branches, fruit that is small, reddish, and sticky called Drupe. The fruit is edible and Natives have used the fruit as a sweetener by smashing it into a porridge as a remedy for colds. They support insects that are attracted to the flowers and birds attracted to its fruits. Common uses include bank stabilization, hedges, and bird gardens.

The California Sycamore grows in canyons, floodplains, and along streams in several different types of habitats. It can grow up to 35 meters and grows mostly on the coast of central and southern California. The tree has small flowers that eventually become seed balls which persist through the winter allowing the seeds to disperse. The tree provides food for squirrels and beavers, and nesting sites for red tail hawks, hummingbirds, butterflies, and woodpeckers. Common uses include bird and butterfly gardens. In the past, Natives have used the inner bark for food and medicine and its branches were used for the construction of houses.



COAST LIVE OAK

RED WILLOW

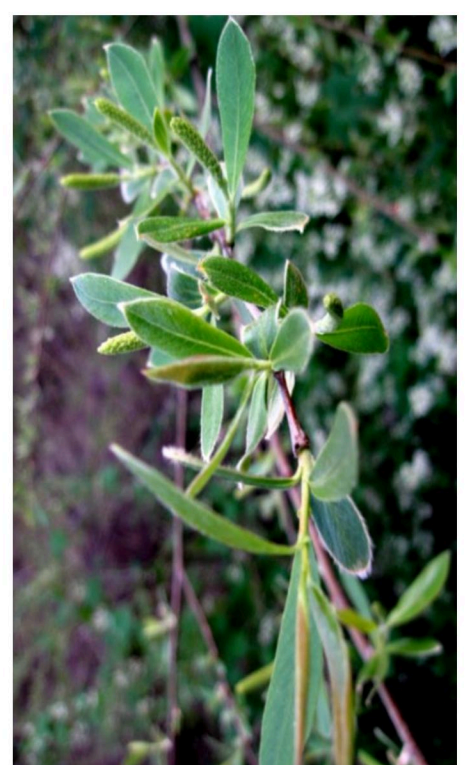
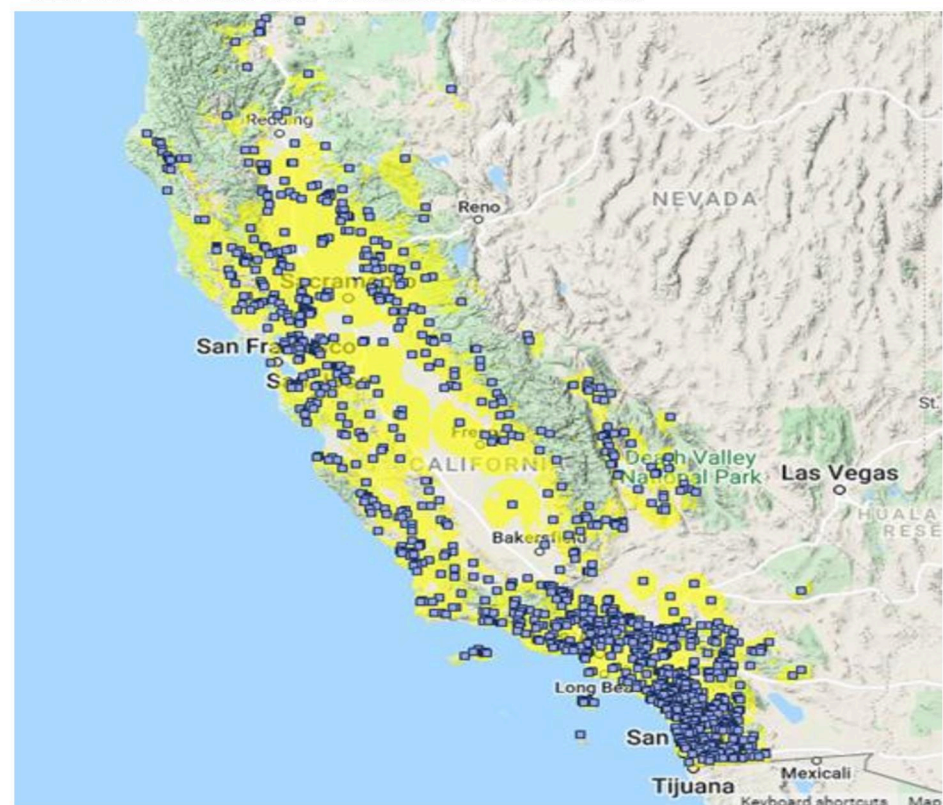
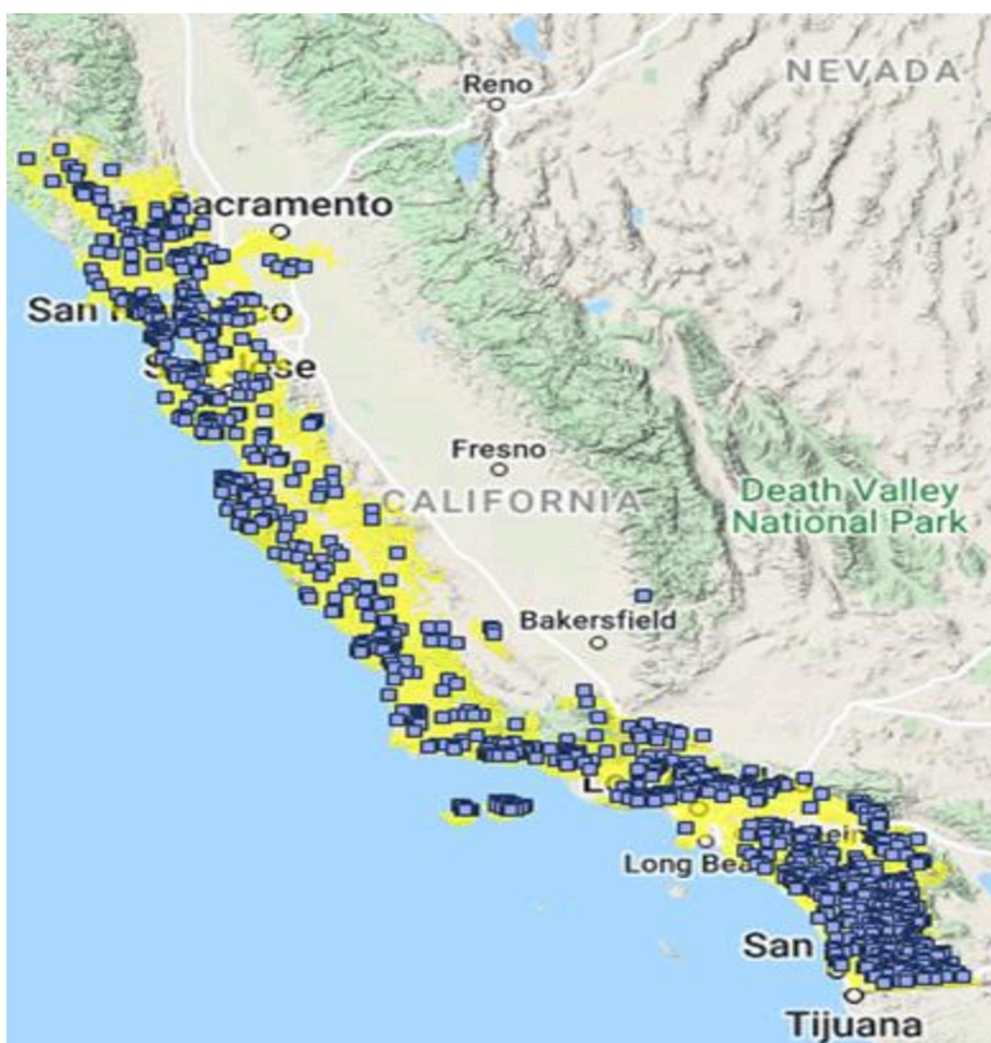
The Coast Live Oak is a beautiful evergreen oak that grows on the coast of central valley and southern California. It can grow up to 25 meters. The Coast Live Oak is the most common oak tree within California. It is the only oak tree that can thrive in the coastal environment. It is dominant within a woodland habitat. In the image below, you can see where it grows in California and places where it is suitable to grow. The tree has dark evergreen oval leaves with spiny leaf margins. The bark is smooth, grey brown and over time darkens to a mature bark with lighter grey streaks. The flowers are produced in the spring and produce fruit which are narrow-shaped brown acorns. In the past, Native Americans consumed acorns. They were stored, dried, ground, and boiled into an acorn mush or wiiwish.

Oaks are one of the most important wildlife plants supporting a variety of animals and smaller plants. Various wildlife supported include birds, mammals, reptiles, and invertebrates. A few companion plants – plants that enhance each other's growth – include Coyote Brush, California Buckwheat, Coast Sagebush, and Toyon. Common uses include bank stabilization, habitat restoration, bird and butterfly gardens. With its extensive root system, it helps stabilize hills, and prevent erosion. Wildlife depends on the tree for its fruits and shelter.

Coast Live Oaks are susceptible to sudden oak death but are fire resistant. Sudden oak death is caused by a pathogen *Phytophthora ramorum*. It is a water mold that produces spores in humid, moist environments which makes them highly vulnerable to this disease.

The Red Willow is one of the most common riparian trees in California as seen below. It grows in/near creeks and grows extremely fast due to the high soil moisture. At a young age, the twigs are reddish and flexible. The leaves are 3-4 inches long and shiny on top and dull green on the bottom. Yellow flowers grow on Red Willows as well.

Red Willows support a variety of wildlife including birds, butterflies, bees, and other insects. Common uses include bogs and ponds, and bird, butterfly and bee gardens. Red Willows can also be helpful for erosion control and runoff areas. The water loving tree is fire resistant, able to withstand extreme events and weather in California.

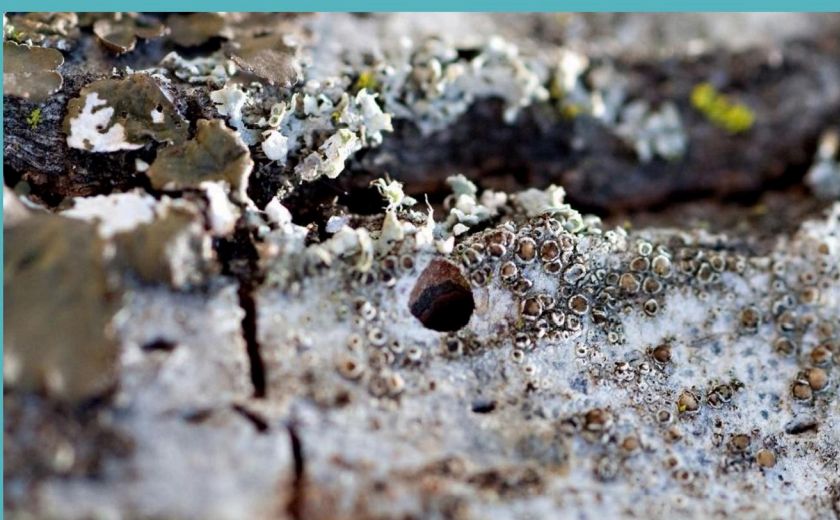


Invasive insect Gold Spotted Oak Borer



The gold spotted oak borer is an invasive insect contributing to the on-going oak tree mortality. Isolated areas of infestation have been confirmed in Riverside, Orange, Los Angeles, and San Bernardino Counties in Southern California. It has contributed to the mortality rate of over 80,000 trees over 4,900 km². The infested area continues to increase as the population of the gold spotted oak borer grows and spreads. The invasive insect was first detected in 2004 in San Diego County. Oaks are a keystone species in southern California's woodlands. Their widespread loss is causing detrimental impacts to the natural landscapes of different areas. Biodiversity is significantly affected due to loss of habitat and a decrease in food resources used by a variety of species. With a loss of oak trees, shading is significantly reduced which threatens water supply.

It is extremely important to quickly and accurately identify infested oaks because it will help track the movement of the gold spotted oak borer. With that, we have the power to slow down and stop the future spread of this destructive insect before it invades our land any further. To determine whether an oak is infested, there are a few symptoms to look for such as crown thinning and exit holes of the invasive insect. Crown thinning may become evident two to three years after an attack. Exit holes are D-shaped and about 3mm in width.



INVASIVE SPECIES STINKNET



As of recent, **Stinknet** is arguably one of the biggest “problem weeds” in the Southern California region with its ease of spread and ongoing issue of eradication. It starts to emerge in late November and continues to germinate and emerge through May. The first records of Stinknet date to early 1980's in western Riverside County. It is dark green (as shown in the image above) and has a strong odor of turpentine, pine or tar. Flowering (as shown in the image above) starts in late February through May. The plant grows in dense clusters that can easily displace native vegetation. It can also cause severe allergic reactions. Stinknet has heavily infested counties in California between Los Angeles and San Diego and is currently heavily invading the Soboba Reservation. The plant requires repeated manual removal and/or repeated post emergent herbicide applications.



In the image above, there is a landscape shot that demonstrates how dominant and problematic the Stinknet can be. As a result of the species being newer, we do not know what the exact impacts are.

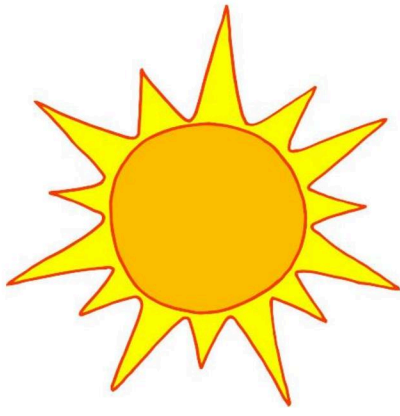
Stuart Schwab, a PhD Candidate in Botany and Plant Science from UC Riverside researched the soil community of the Stinknet and to study the impede of native species growth and recovery. To address the soil impacts, they grew over 1,000 plants in a greenhouse and found that native species began to grow progressively worse in the more Stinknet impacted soils. With impacted soils, removal is necessary but recovery for native species will be difficult. Current practices of burning these invasive species does not hinder the progression of the species. After burning, the seeds were still found intact. Overall, the Stinknet is an aggressive invasive plant; it will be challenge to get rid of.

If you have any questions, comments, and/or concerns please reach out to the Soboba Tribal Environmental Department: (951) 654 – 5544 ext. 4154 or caceves@soboba-nsn.gov

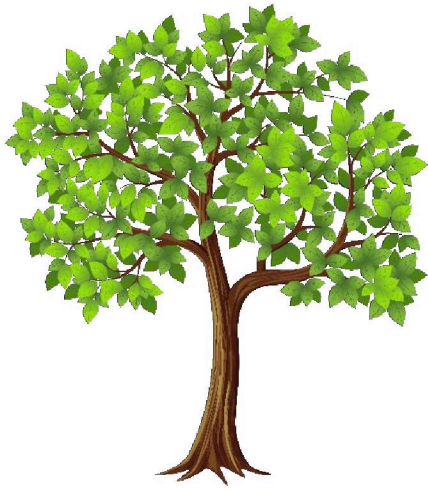
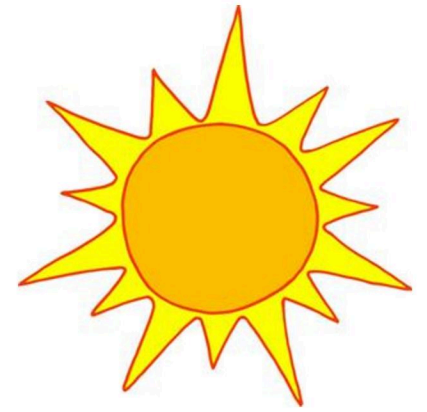
**UPCOMING: SOBOBA
TRIBAL EARTH DAY
APRIL 28, 2022 FROM
10AM – 1PM**



SOCAL NATIVE PLANTS WORD SEARCH



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GOLD SPOTTED OAK
 BORER
 SUGAR BUSH
 STINKNET
 SCRUB OAK
 SEEDS

WOODLANDS
 WILDLIFE
 PLANTS
 CALIFORNIA
 RED WILLOW
 SYCAMORE

NATIVE
 COAST LIVE OAK
 ECOSYSTEM
 INVASIVE
 ANIMALS
 BIODIVERSITY

WOODLANDS
 WILDLIFE
 PLANTS
 CALIFORNIA
 RED WILLOW
 SYCAMORE
 NATIVE

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