Santa Lucia Conservancy – *Keeping it Wild*

Sudden Oak Death

Sudden Oak Death (SOD) is a forest disease caused by an exotic fungus-like organism, *Phytophthora ramorum,* that arrived on the Preserve in 2005. It kills trees by girdling their trunks, arresting the flow of nutrients from the roots to the foliage. Its spread is dependent on host plants such as the California bay laurel. SOD has already killed more than a million trees in California, and the infected area is spreading rapidly in coastal areas. Learn how you can make a difference for our heritage oaks.

Which trees are at risk?

The SOD pathogen is lethal for tanoak, coast live oak, California black oak, and the rare Shreve's oak. California bays readily host the pathogen without sustaining fatal damage, and instead act as vectors of the disease. Susceptible trees within 100 feet of California bays and tanoaks are most at risk for infection by SOD. Valley oaks and blue oaks are not at risk. We are now learning that redwoods and manzanitas may also be affected by the disease.

Moist conditions, while vital to many native species, encourage the spread of SOD in forests where bays and oaks co-occur- (*H. Stickney)*

What is at stake?

Tanoaks are rapidly disappearing from the Preserve, and we remain concerned about our live, black, and Shreve's oaks. Tanoak and coast live oak are some of the most common trees on the Preserve, contributing to its beauty and biodiversity. These two species are our main acorn producers, providing essential food for wildlife. They also support wild mushrooms and play a key role in soil health and maintaining an optimal environment for redwoods.

Foliar damage seen on a California bay (left) and a young tanoak (right)- *(Flickr)*

The Conservancy Plan

There is no effective cure for Sudden Oak Death and prevention measures are still experimental. The Conservancy believes that hosting SOD research ensures the Preserve will benefit from emerging science and treatment options as they are identified. The SOD Blitz is our premier strategy in advancing this goal.

A grove of coast live oak trees- *(B. Guion)*

How you can make a difference on The Preserve

- During the rainy season, clean soil and mud from shoes, horses' hooves, pets' paws, and vehicles, before leaving SOD infected areas.
- Remain on established trails and respect trail closures.
- Care for healthy oaks on homelands. Avoid disturbing the root zone, prevent frequent irrigation, and minimize injuries to the trunk and large branches.

A tree weeps, indicating infection beneath its bark layer- (*Flickr)*

- Familiarize yourself with host plants and their symptoms, such as bark bleeding (pictured left) and leaf lesions.
- Purchase nursery stock from certified SOD-free nurseries.
- Disinfect gardening equipment after pruning host plants. Require the same from your landscape maintenance provider.
- **Give us a call** (831-626-8595) to share observations or concerns.

What is the SOD Blitz?

The SOD Blitz is an annual citizen science survey during which Preserve members assist in gathering data vital to scientists studying the pathogen. During this 3-day event, volunteers collect data that might otherwise take a lone scientist weeks. Matteo Garbelotto, a leading SOD expert and Conservancy partner, notes that Blitzes are key to California's monitoring programs: "Thanks to [citizen scientist's] help, we can maintain a pulse on the ebb and flow of pathogen spread, which enables communities and to homeowners make informed decisions" to safeguard their trees.

A SOD tag indicates which areas are to be sampled during the Blitz-. (*A. Calhoun)*

How urgent is this issue?

A single warm, wet, windy storm can advance the SOD pathogen's spread. If your home is near an affected area, *now* is the time to consider preventative treatment of "high risk" oak trees you particularly value. Initial findings show that keeping bay trees at least 30 yards away from oaks is our most effective strategy. The Conservancy is your partner in this effort.

Volunteers collect bay leaves during a SOD Blitz- *(Santa Lucia Conservancy)*