

SOD Look-Alikes


There are many pathogens that cause SOD-like symptoms on tanoak and bay. Learning to distinguish between these symptoms and those associated with SOD can help focus your sampling efforts on material that has the most potential to test positive for SOD.

Diplodia spp.

- Two species: *D. corticola* and *D. mutila*
- Bot cankers of unknown origin
- Detected in a variety of tissues within host trees
- Damage ranges from single branch death to full tree death
- Drought opportunists
- Possible interaction with *P. ramorum*, but not confirmed
- Hosts include tanoak, California bay, some true oaks



Diplodia corticola



Die-off of individual
branches or branchlets
where dead leaves look
dry and brown may be
caused by *Diplodia*

Diplodia corticola



Roughened bark may be associated with *Diplodia corticola* infection or scale insect infestation

Comparing Symptoms

P. ramorum



Dead leaves look oily or wet
Dead leaves are olive to tan

D. corticola



Dead leaves look dry or crisp
Dead leaves are a neutral to warm tan

Comparing Symptoms

P. ramorum



Black, oblong stem lesions, most prominent on young twigs

D. corticola



Small to moderately sized cankers on woody stems with roughened or callused bark

Comparing Symptoms

P. ramorum



D. corticola



Similar symptoms may be caused
by different pathogens!

Comparing Symptoms on Bays

P. ramorum (circles)

D. corticola (squares)



Similar symptoms may be caused
by different pathogens!

Tubakia californica

- Foliar pathogen, likely native to California
- Widespread on the North Coast and elsewhere in California
- Causes progressive defoliation, but extent of damage dependent on environmental and climatic conditions
- Drought opportunist
- Notable hosts: tanoak, black oak, coast live oak, canyon live oak
- Seems to manifest differently on different hosts



Tubakia californica

Scattered leaf die-back
in small groups at
branch tips throughout
a tree is characteristic
of the early stages of a
Tubakia infection





Tubakia californica

Widespread leaf die-back in the lower two thirds of tanoak (or true oak) is likely associated with later stages of a severe *Tubakia* infection



Comparing Symptoms

P. ramorum



Dead leaves look oily or wet
Dead leaves are olive to tan

T. californica



Scattered leaf death at branch tips

Comparing Symptoms

P. ramorum



Sometimes forms shepherd's crook
with wilted leaves at tip

T. californica



Scattered leaf death at branch tips,
usually without notable wilting

Comparing Symptoms

P. ramorum



Black, oblong stem lesions, most prominent on young twigs

T. californica



Affected branches may have roughened bark with variably shaped small cankers

Comparing Symptoms

P. ramorum



T. californica



Similar symptoms may be caused
by different pathogens!