

Effect of Phosphonate Treatments for SOD on Tanoaks in the Landscape Setting

SOD Symposium 2011

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SOD Symptoms in Tanoaks





AGRI-FOS[®]

SYSTEMIC FUNGICIDE



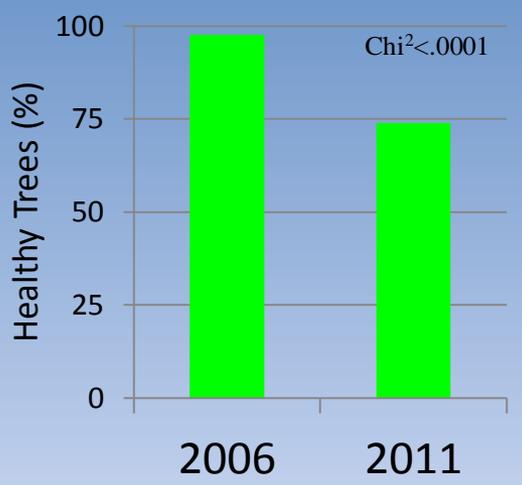
PENTRA-BARK[®]

BARK PENETRATING SURFACANT



Phosphonate Treatment of Tanoaks

Comparison of Untreated Trees



Inverness

Santa Cruz Mountains

Carmel Valley x2

2006-Present

- 28 Control and Topical Spray Plots
- 6 Sites in 3 Counties
- 672 Tanoaks > 8cm DBH

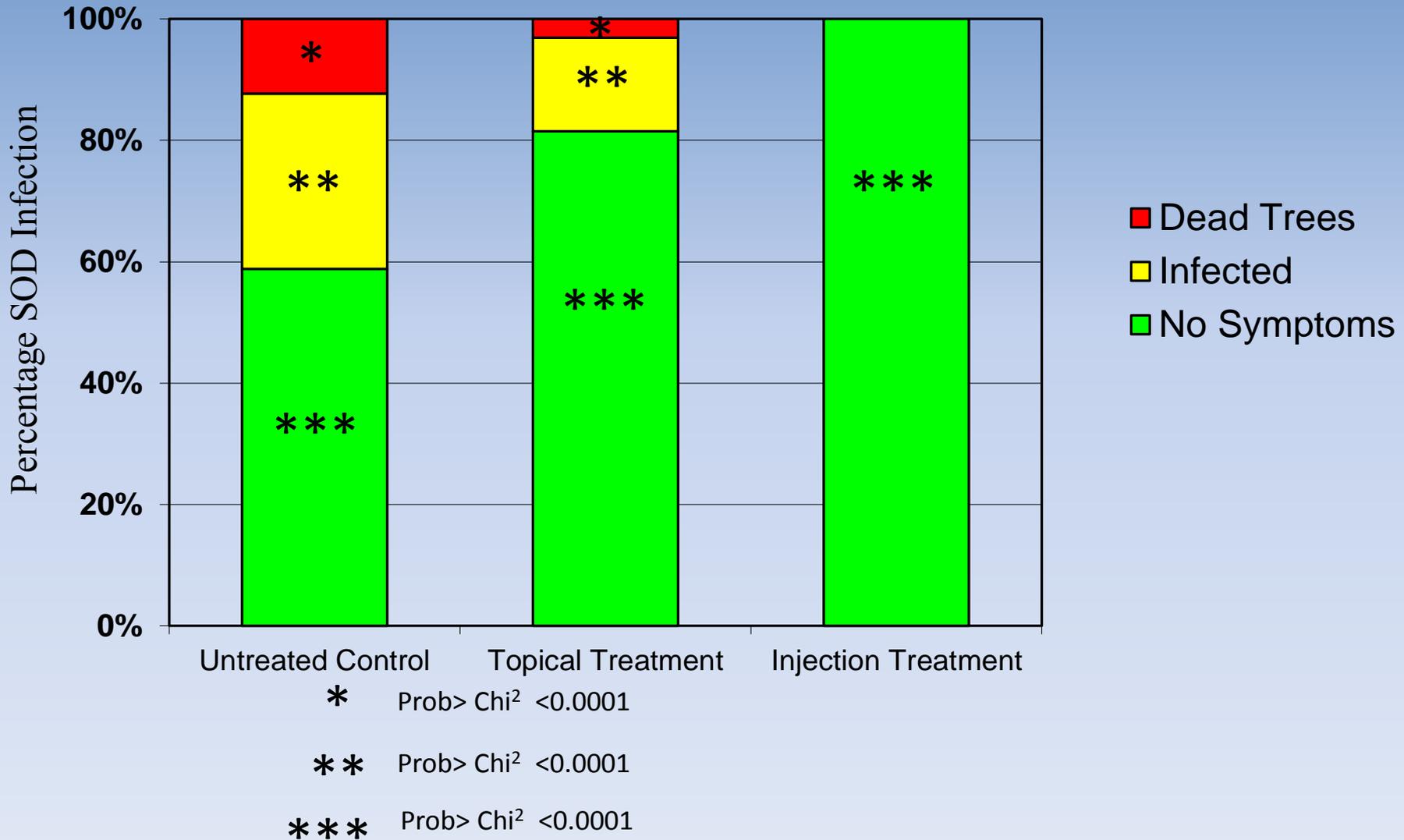
2009

- Added 5 Injection Plots
- Marin, Santa Cruz, & Carmel
- 86 additional Tanoaks > 8cm DBH

Big Sur Area x2



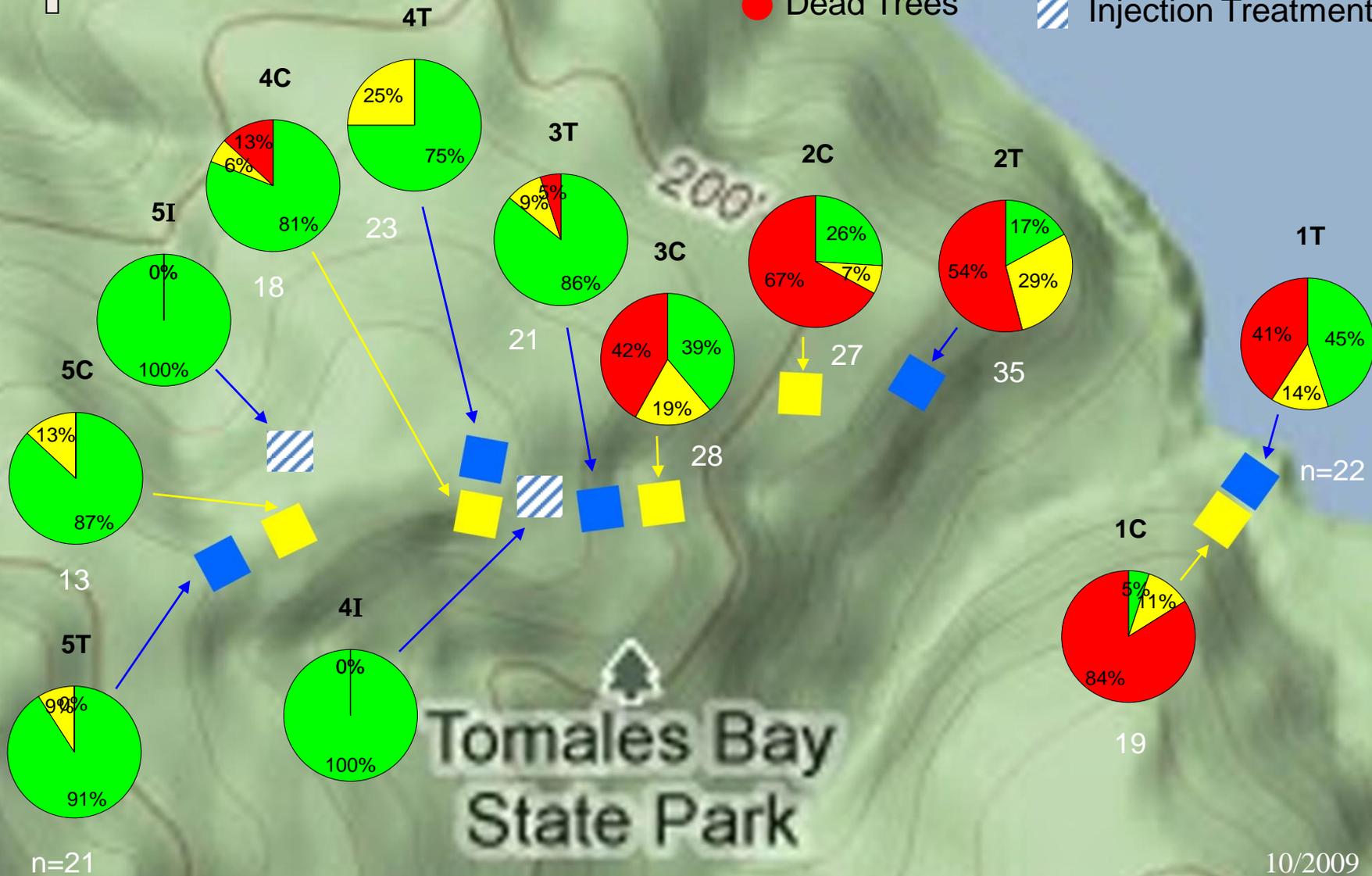
Tanoak Phosphonate Treatments 2011



Long Term Phosphonate Treatment of Tanoaks



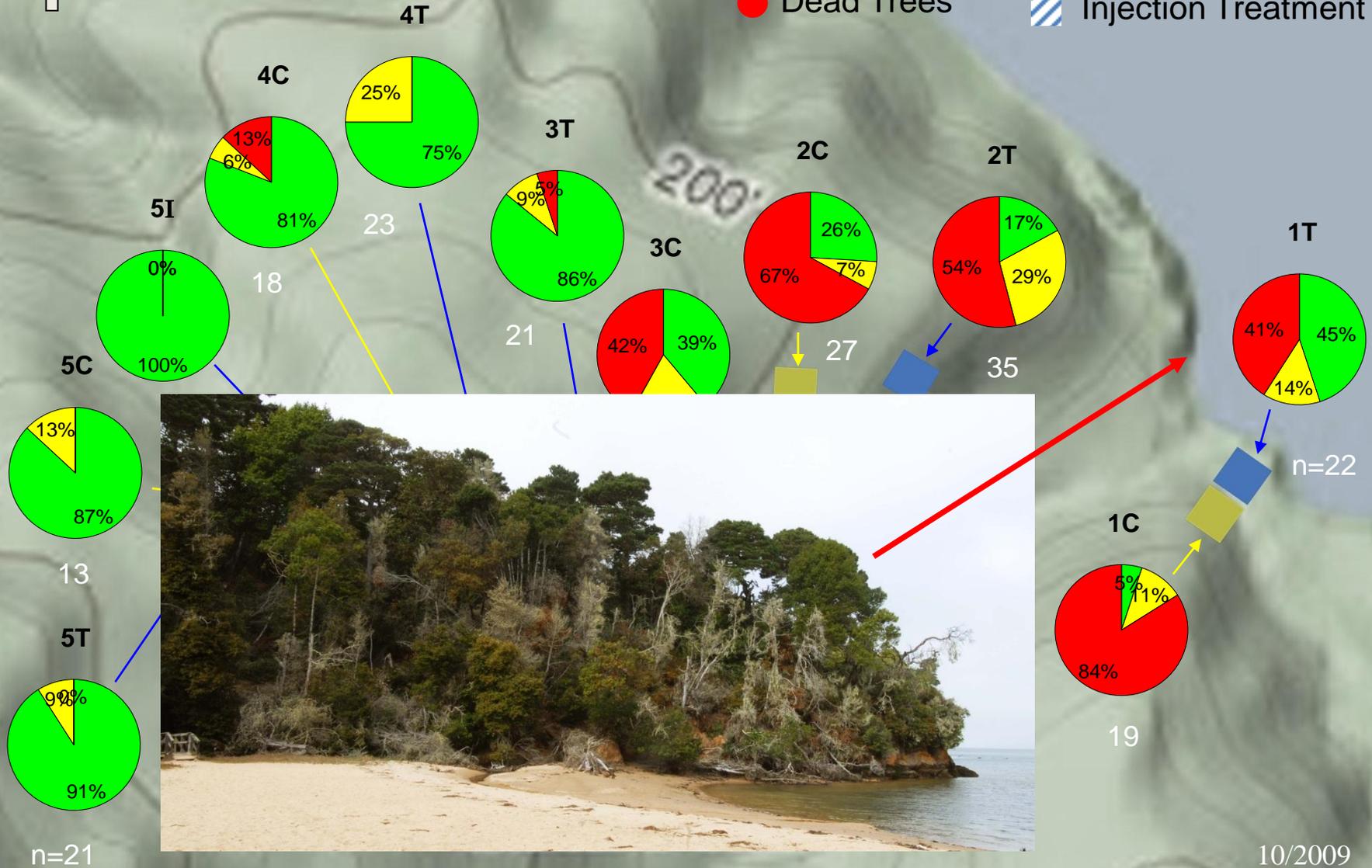
- Healthy Trees
- Infected Trees
- Dead Trees
- Untreated Control
- Topical Treatment
- Injection Treatment



Long Term Phosphonate Treatment of Tanoaks



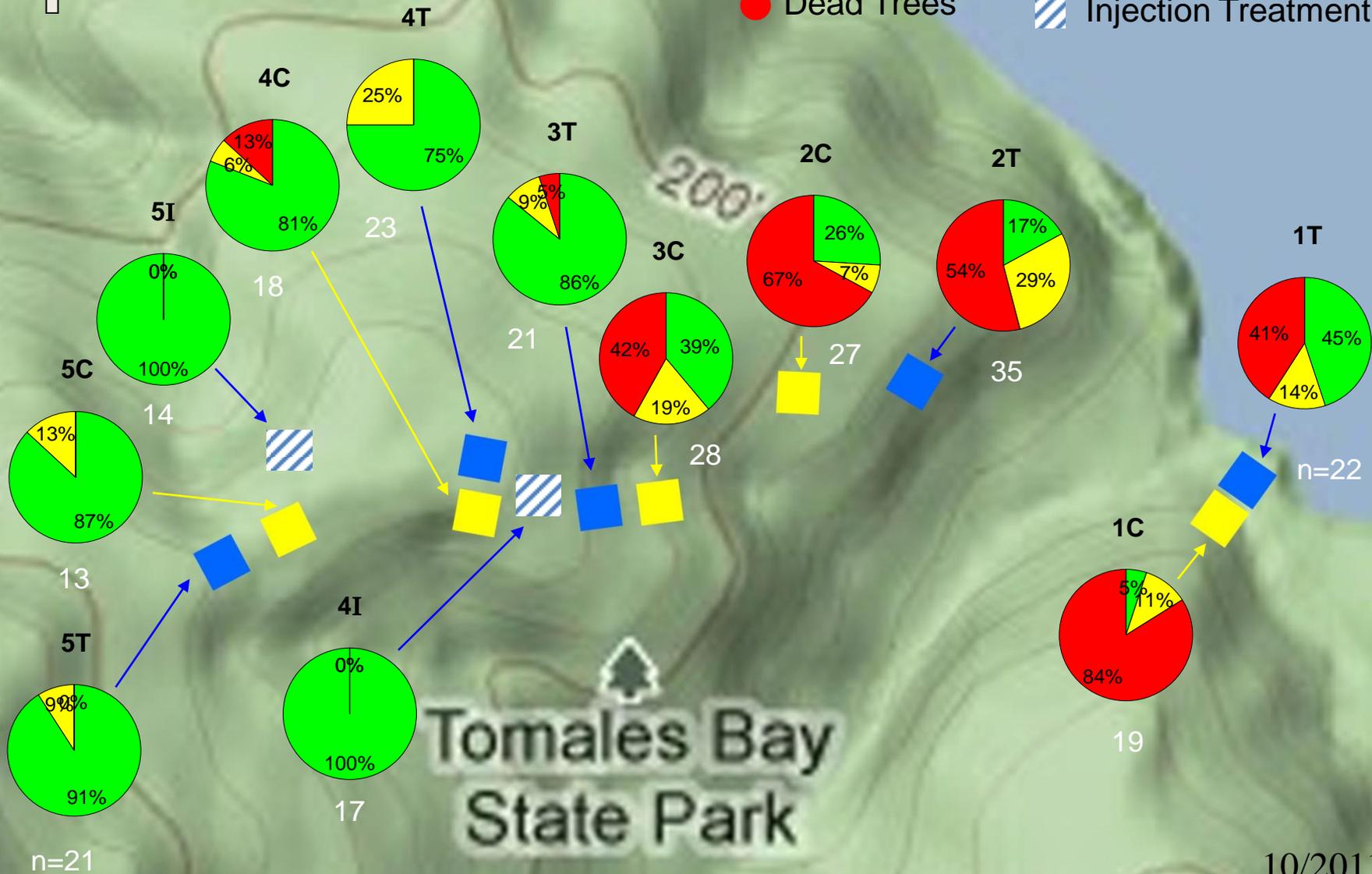
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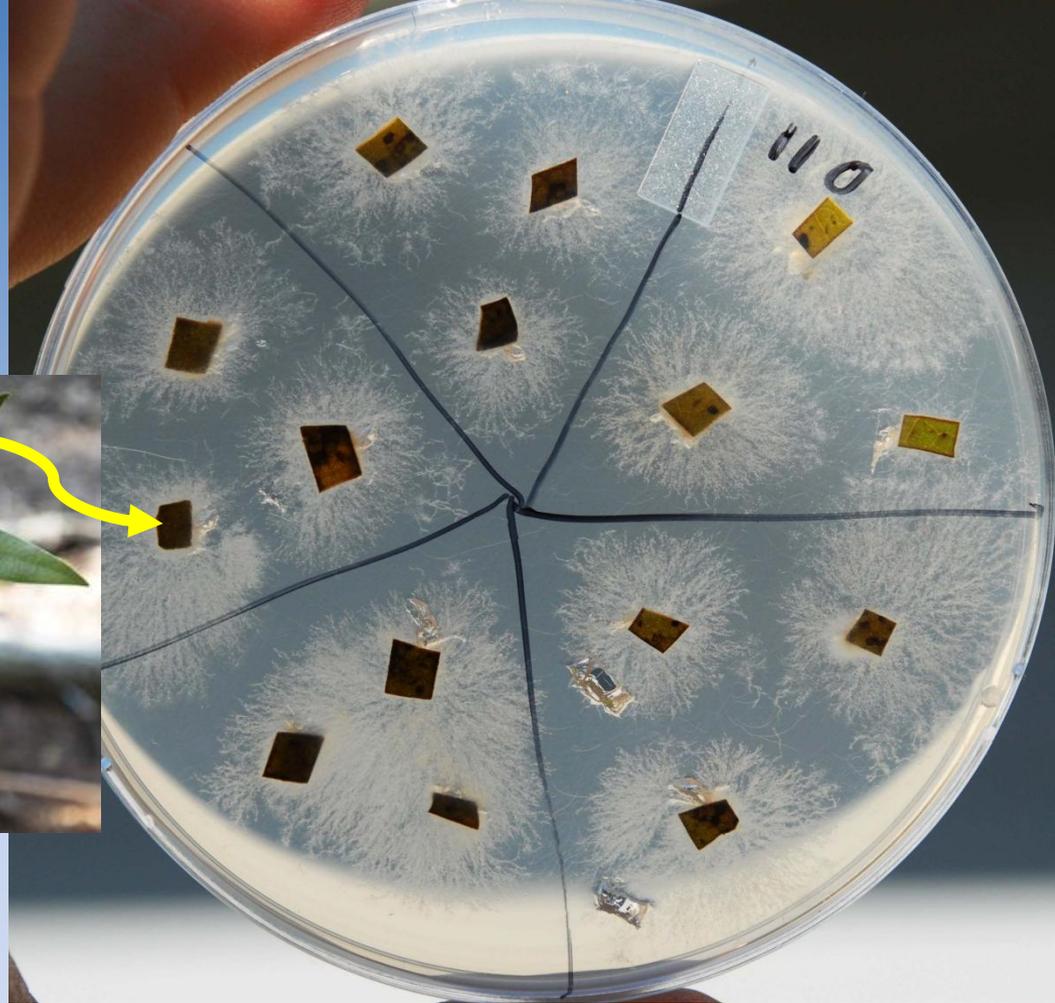
Long Term Phosphonate Treatment of Tanoaks



- Healthy Trees
- Infected Trees
- Dead Trees
- Untreated Control
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SOD Spore Collection and Baiting



P. ramorum spores are baited with bay laurel leaves in water and plated on PARP medium

Phosphonate Treatment of Tanoaks

SOD Spore Surveys



Inverness

Santa Cruz
Mountains

Carmel
Valley x2

Big Sur
Area x2



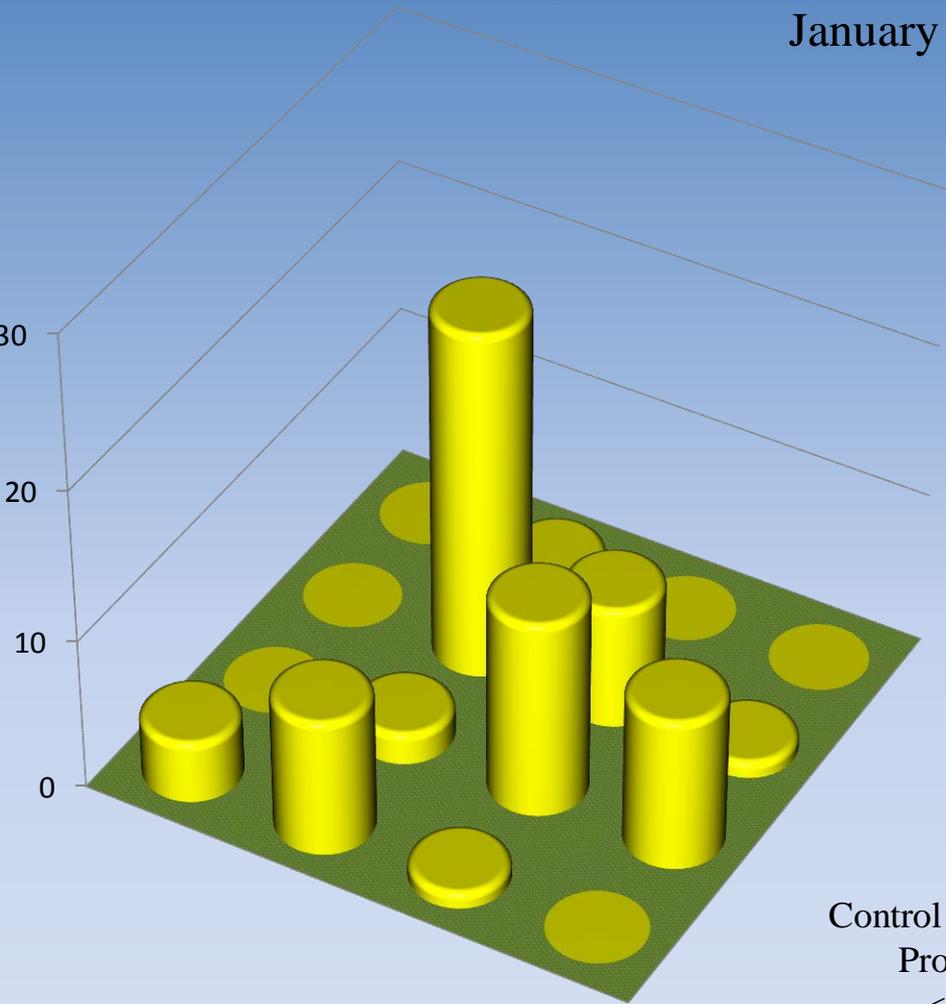
2010

- 4 Collection Buckets per Plot
- Humboldt and Mendocino Counties added

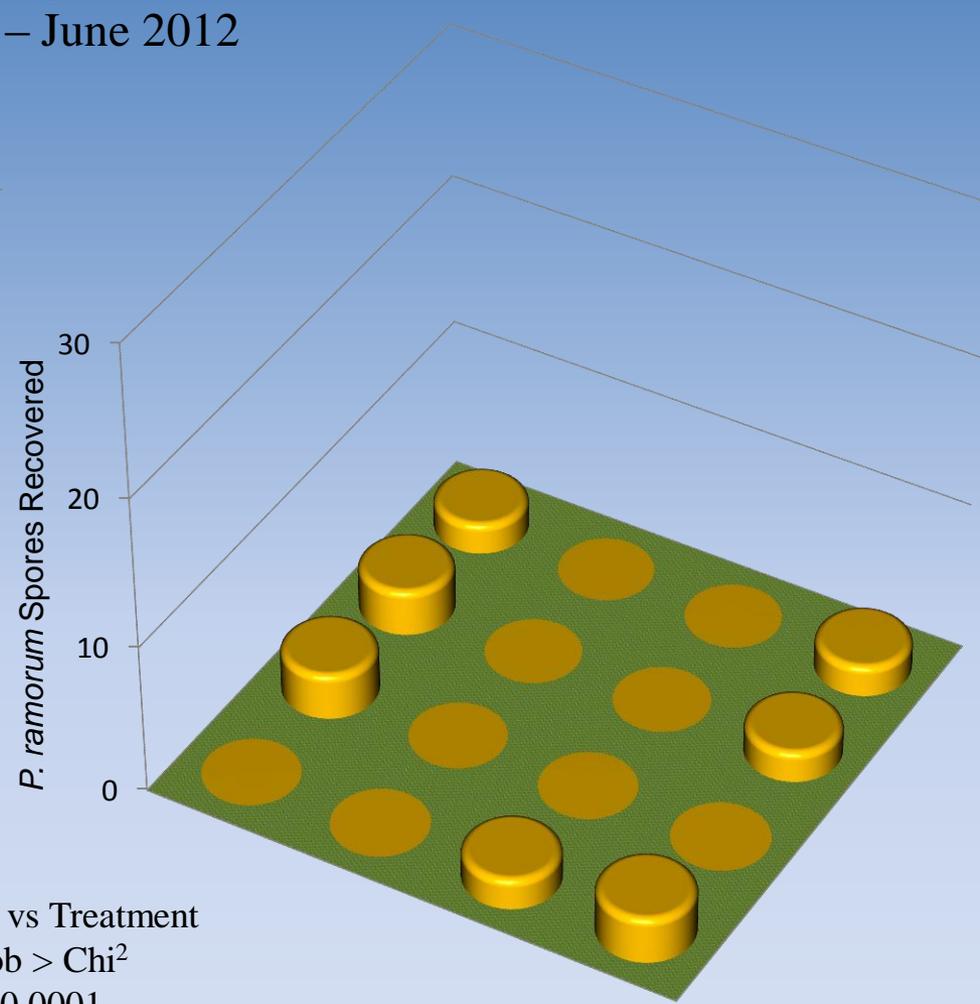
2012

- 16 Collection Buckets per Plot
- Marin and Santa Cruz Counties

SOD Spore Recovery in Phosphonate Treated Tanoak Plots January – June 2012



Untreated Controls



Topical Spray Treatments

Control vs Treatment
Prob > Chi²
<0.0001