

PRESENTATION OVERVIEW

2019 WESTERN CHAPTER ISA
CONFERENCE & TRADE SHOW

Invasives from a Bi-Coastal Perspective: local research matters

Date/Time/Session: **TUESDAY, 4.30.2019, 11:00:00 AM, in the GENERAL session**

Presentation Length: **45 minutes**

Presented by: **Drew Zwart, PhD**

Co-Presenter (if scheduled): **NA**



Overview of Presentation:

Plant pests and pathogens are continuously introduced into new regions of North America and the world. When considering the potential impact and mitigation options for invasive species, it makes sense to consult existing research from areas where the potential invader is native or has previously been introduced and established. However, this does not always tell the full story, and we must consider subtle differences in factors such as host species, weather/climate, and ecosystem resilience.

An example of this is illustrated by *Phytophthora ramorum*, cause of 'sudden oak death'. Early risk assessments for this pathogen predicted the southeastern US to be at high risk of invasion, yet decades later southeastern forests and landscapes remain unaffected. Another example is 'boxwood blight' (*Calonectria pseudonaviculata*). Research from eastern states where the disease is highly lethal predicted this pathogen would cause widespread host mortality in western areas, yet the actual impact following introduction has been limited.

The differences in host and environmental factors underlying these faulty predictions will be discussed. In addition, a few notable invasive species currently affecting other regions with the potential to move west will be discussed within the context of local differences that can influence the outcome of introduction.

Presenter Bio:

Dr. Drew Zwart is a plant pathologist and physiologist and has been on staff at the Bartlett Tree Research Laboratories for 15 years. He provides scientific support throughout Bartlett's western operations, and conducts research on plant stress physiology, and plant disease and insect concerns. Drew earned his PhD at the University of Washington Center for Urban Horticulture studying the interaction of plant stress and disease susceptibility.