How Trees Grow to Deal with Gravity & Wind

Greg Dahle – Associate Professor, West Virginia University

Description of Presentation

We will explore how researchers from ecology, forestry and arboriculture have utilized biomechanics to understand how trees contend with the forces mother nature can throw at them during the long-life span. Biomechanics approaches integrate biology and engineering principles to explore how organisms deal with their environment. While this integration may initially seem simple; trees and buildings have substantial differences. Unlike buildings, trees are every growing, and the increase in size results in larger environmental loads (wind, snow or ice). During the talk we will learn the difference between the static and dynamic approaches to tree biomechanics and how these complementary methods are beginning to help the arboricultural community better understand tree stability.

Speaker Bio

Greg Dahle is an Associate Professor at West Virginia University where he teaches courses in urban forestry & arboriculture. Dr. Dahle's arboricultural research utilizes biomechanical approaches to understand how trees grow and survive environmental loads. Greg was a practicing urban forester in California for seven years, working with municipal, commercial and utility clients developing and implementing short- and long-term urban forest management plans. Dr. Dahle is an ISA Board-Certified Master Arborist and Qualified Tree Risk Assessor.