

Forest Health Research Program Grantee Webinar:

Mapping surviving trees by drone to improve predictions of post-fire forest recovery

Derek Young, PhD, UC Davis



Wednesday, April 26, 2023

3:00 pm – 4:00 pm

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Abstract: An important predictor of natural post-fire forest recovery – and thus of the need for active reforestation – is the abundance and proximity of surviving trees, which serve as seed sources. We developed methods for mapping surviving trees across burned landscapes using imagery from low-cost drones. We used the resulting tree maps to fit Bayesian dispersal models to predict tree seedling densities in a dense grid of plots that we surveyed in the same landscapes. Our work may help inform and improve tools for predicting natural post-fire forest recovery.



Speaker Bio: Derek Young is a research ecologist and data scientist at UC Davis and director of the Open Forest Observatory. His research is largely focused on understanding forest recovery from large-scale disturbances like drought and wildfire. Underlying all of Derek's work is the aim to use ecological data to improve the efficiency and effectiveness of forest management in a changing world.

The Forest Health Research Program is part of [California Climate Investments](#), a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment — particularly in disadvantaged communities.

