Collaborative Restoration Workshop

Call For Posters

Title: Engaging Communities in Ecosystem Monitoring: A Rapid Forest Assessment Method

Presenting author: Cory Davis (University of Montana, cory.davis@umontana.edu, 406-471-3314)

Full author list: Cory Davis, R. Travis Belote, Matt Williamson, and Elaine Caton

Abstract: Citizen scientists are being increasingly used for multi-party monitoring efforts on public lands. Some of the challenges to using citizen scientists are capacity for sustained coordination and participation, limits of participants’ expertise, and reliability of data. Given limited financial, time, and personnel resources there exists a tradeoff in any monitoring program between the numbers or precision of variables measured and the number of sites sampled. We developed a Rapid Forest Assessment (RFA) approach for monitoring key characteristics of conifer-dominated forests that reconciles the tradeoffs between extensive and intensive data collection and capitalizes on the growing interest for citizen science-driven monitoring. We chose our variables and methods to maximize field efficiency while maintaining ease of analysis and understanding. We reduced the number of variables that need to be precisely measured by “binning” or categorizing responses into a few quantitative classes. Variables measured include trees, fuels, woody debris, understory, horizontal cover, weeds, and soil disturbance. We tested the methods with several school groups and have developed curriculum around several of the variables focused on forest ecology and management. The simplicity and efficiency of the RFA make it a useful tool for multi-party, landscape forest monitoring.