

Progress Report: Assessing the health and vulnerability of scattered old-growth ponderosa pine in southern Utah

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We have completed the first objective, in collaboration with managers from the BLM, to identify locations of old-growth ponderosa pine groves on Ray Mesa. We have also completed the second objective, to prioritize and select stands for study during this phase of the project. We selected two stands that have been treated with thinning and prescribed fire and two stands where no management actions have been taken and tree density is high.

In April, May, and June, we completed the third objective which was data collection in the four selected stands. We added a component to our study that we did not include in the proposal, which was to inventory all of the old-growth ponderosa pines within each stand so we have a spatial map of every old tree. We used a Juniper Systems GPS unit with <1 m accuracy so the map is both precise and accurate. We mapped a total of 421 trees in the four stands, noting the presence or absence of pests for every tree. We collected two cores from each of approximately 25% of those mapped trees and are currently processing them in the lab. We also collected 9 fire-scarred samples in two of the stands and plan to use previously collected data from the area to round out our analysis of fire history on Ray Mesa.

The last step is to compare tree growth and mortality in managed and unmanaged stands. That will take place after we finish measuring tree growth using the cores we collected.

Overall, we have made excellent progress and are on track to complete our objectives during the timeframe of the project.