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Probing through woods on a snowy transect

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Probing through woods on a snowy transect
Measuring variability across forest-stand boundaries in a moderate snowpack

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Snow is the largest source of water for agricultural, industrial and municipal use in much of the Southwestern United States. As climate change continues to affect snowfall each year, more accurate snow budget estimates will become increasingly important. The advancement of snow measurement methods and technologies has allowed for greater efficiency in data collection for calculating snow water equivalent (SWE) distribution. In order for these technologies to be effectively utilized, a better understanding of the influences on snowpack variability is necessary. This study observes snow depth and density variability that could affect the accuracy of SWE estimates across forest stand boundaries. A snow survey site in the Sandia Mountains was studied to investigate variability between open and canopy transects. Snow pits were utilized to study snowpack properties and changes thereof in the transect plot area. The results have the potential to increase the accuracy of water supply estimates from snowpack to increase the effectiveness of future water management budgets.