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Aspen in a State of SADness: A Statistical Analysis of the Decline of Populus tremuloides, Phase III

The purpose of this project was to determine the effect and progress of Sudden Aspen Decline (SAD) on the South flank of the Grand Mesa. This study was conducted to determine the extent of SAD by studying the severity of secondary invaders, namely the Poplar Borer (Saperda calcarta) and Cytospora Canker (Cytospora chrysosperma), and the extent of aspen (Populus tremuloides) regeneration with respect to elevation. Twenty aspen stands, in twenty different locations, were studied over a time period of three years. As is common in forest and wild land studies, transect study methods were used for this project. Three year's data indicates that SAD has been progressing in severity the past three years. The results indicate a peak in severity of Cytospora Canker occurred in 2009. The severity of Poplar Borer continued to increase with the passing of each year. Aspen re-growth was constantly declining throughout the three-year period. All three aspects of SAD that were studied for this research show similar trends that SAD is highly prevalent. However, in general, it appears that SAD has reached its peak and is starting to decline or decelerate on the South flank of the Grand Mesa.