



Sudden Aspen Decline (SAD)

FY 2009 President's Budget

ISSUES

Groves of mature quaking aspen trees have been dying within a 1 to 2 year period with little or no sprouting from the roots. Aspen must sprout back from the roots in order to persist. However, these recent mortality reports indicate that in some instances the root systems are dying completely. As a result, aspen groves that have persisted for hundreds, and perhaps thousands, of years, are disappearing from the landscape throughout the Interior West. A total of 140,000 acres of aspen have disappeared in the San Juan area of western Colorado, and also several thousand acres east of Cedar City in southern Utah.

IMPORTANCE

Aspen is one of the few broad-leaved hardwood trees in the Interior West. Aspen stands provide desirable scenic value, increased species diversity, critical wildlife habitat, grazing resources, and soil and water protection. Large acreages of aspen mortality can also impact tourism, the ski industry, mountain home developments, and other ecological and socio-economic values.

FUTURE PLANS

The Rocky Mountain Research Station (RMRS) supports new coordinated research on the decline and die-off of aspen, involving both managers and scientists. In 2007, RMRS joined with Utah State University to form the Western Aspen Alliance. A charter is being developed. Other groups are being invited to join the Alliance, including universities, National Forest Systems, State and Private Forestry, state foresters, and non-government organizations. This effort will help us understand the agents affecting aspen



Dead aspen clone, 2002, on Cedar Mountain, UT

viability, so we can develop management actions to deal with current and future die-offs.

EXPECTED OUTCOMES

First, an evaluation of the extent and magnitude of the problem will be completed. This will lead to developing a protocol to determine “at risk” aspen stands. RMRS would then develop a targeted, multidisciplinary, forensic ecology research effort to identify casual agents or environmental factors contributing to aspen die-off. We would determine whether any “pre-emptive” management options exist to reduce the risk of die-off or loss of parent roots. Results of this research should substantially improve the health of aspen stands throughout their range. Research results will significantly benefit wildlife habitat, biodiversity, and water.