TREMBLINGS

NEWSLETTER & BULLETIN BOARD

Vol. 3(4), November 2012

"…partnering to preserve and restore healthy aspen ecosystems."

NOTICE: The WAA is a user-driven organization. *Tremblings* will attempt to capture the greater aspen user group's wants and needs. Please send news items and announcements, contributions, **recent reports & publications**, photos, and commentary ideas to Paul Rogers (p.rogers@usu.edu). We encourage you to share *Tremblings* with your friends and colleagues!

WAA HAPPENINGS

Aspen Restoration vs. Conifer Removal—Numerous western National Forests are considering plans for removing conifers in efforts to "restore" seral aspen communities. While these efforts vary in their scope, methods, and justifications, many are now embroiled in public controversy. A recently published article in the *Sacramento Bee* is illustrative of issues being raised and considered in such instances. Many managers are facing similar issues and may find valuable lessons in this tale...or at least a fairly balanced description of this Tahoe National Forest situation.

New Steering Committee Members—Please welcome Daryl Lutz and Mary Lou Fairweather to the WAA Steering Committee. Daryl is a habitat specialist working for Wyoming Game and Fish. Mary Lou is a forest pathologist with the US Forest Service's Forest Health Protection unit in Arizona. Outgoing Steering Committee member Mark Fowden has been promoted to Chief of Fisheries at Wyoming Game and Fish. WAA members interested in serving on either the Steering Committee or Science Advisory Panel may contact Paul Rogers with a brief statement of background and interest which will be circulated among respective committees.

Black bear (Ursus americanus) *scarring of mature aspen tree at Wolf Creek Ranch, Utah. Citizen Science survey crews recently completed 50 quick-survey plots to monitor aspen structure, regeneration, and recruitment where browsing by elk* (Cervus elaphus) *and sheep* (Ovis spp.) *is impacting long-term aspen sustainability (Photo: Jim Shuler, Wolf Creek Ranch).*

UPCOMING EVENTS

North American Forest Ecology Workshop—The 9th North American Forest Ecology Workshop (http://nafew.org/) will be held June 16–20, 2013 in Bloomington, Indiana. The conference will allow forest ecologists, silviculturists, wildlife biologists, and other forest researchers and managers from Canada, Mexico, Central America and the United States to gather and

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exchange current research and management approaches within the backdrop of the US central hardwood forests.

Aspen Restoration Activities in Arizona—The volunteer-based Friends of Northern Arizona Forests is involved in several aspen restoration and fencing projects. Further information on current and future activities can be found in their most recent newsletter here.

Deer & Elk Workshop—The Western State and Provinces Deer & Elk Workshop will be held May 6-9 in Missoula, Montana. Numerous issues have arisen in recent years involving both deer and elk pertaining to aspen habitat, herbivory, sustainable populations, and watershed/stream protection. This notice is particularly for wildlife and land managers, but may be of interest to other conservation groups, wildlife advocates, citizens, and scientists. Find details about the workshop at this link.

COMMENTARY

Manager's View: Sheep Creek Aspen Restoration

Tim Benedict, Forester, U.S. Forest Service, Helena National Forest, Helena, Montana

The intrigue of quaking aspen is shared by many because of colorful expression, soothing almost melodic sound, and biological diversity amid an ocean of conifers. Consider someday managing and researching aspen stands where restoration has never been tried and being able to claim, "A first." When creating vision, it has been said, "Seek out partners that have similar goals and connect with a cause waiting to happen." What you do today will be the history of tomorrow. That describes the spirit this project was launched with and today the Sheep Creek Aspen Restoration Project is underway in the Little Belt Mountains near White Sulphur Springs, Montana. Fire exclusion and conifer succession have significantly reduced aspen stands. Prior to this point, no research and minimal aspen restoration had occurred documenting aspen responses. We set out to restore and enhance aspen stand health and vigor.

The Sheep Aspen Project was ripe for opportunity as a result of vision, goals, funding, and partnerships. Common vision was to restore and enhance aspen stand health and vigor to historic levels where aspen was more abundant because of lack of fire suppression. The intent was to identify sites and experiment with different aspen restoration techniques to learn site specific aspen responses in the Little Belts. Techniques varied from removal of conifers, fencing, and prescribed fire on a total of 62 sites. Project components completed include spring burning, removing encroaching conifers via a timber sale and slashing, sampling first year suckering, and starting fencing around one stand.

Lessons learned include:

- Projects like the Sheep Creek Aspen Restoration lend themselves to research opportunities to help understand central Montana aspen regeneration under different management approaches.
- Restoration is in small incremental phases requiring adapting to the challenges and setbacks of funding and implementation schedules.
- Develop good working relationships with those that are interested (pro and

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con) from inception of the project to help design outcomes.

- Make use of timber sales as a tool.
- Recent and ongoing research on migratory birds from University of Montana reveals: large aspen stand holds more species and birds, as conifers increase predators increase, and conifer invasion is directly proportional to bird species decreases.
- Encourage existing and potential partnerships to gain support, funding and resources.
- Browsing is an issue; do not proceed without a post-treatment plan protecting regeneration. Fencing is a major option for protection but may be of limited use where treatment sizes make fencing costs prohibitive.
- Aspen mortality will increase with prescribed burning, if conducted, prior to breaking dormancy.
- Spring burning decreases fire intensity and success because of lingering surface moistures.
- The main carriers of fine fuels for spring burning are grasses and small branches (remaining after whole tree length skidding), not compacted leaf mats.
- A recent wind event resulted in residual trees blowing down in a harvest/prescribed fire unit and could yield additional aspen suckering post-disturbance.

The aim of this project is the ongoing discovery of how aspen responds in this part of Montana. There are many lessons yet to be discovered as this is a "work in progress" of aspen restoration in the Little Belt Mountains.

RECENT ASPEN PUBLICATIONS

Auer, S. K. and T. E. Martin. 2012. Climate change has indirect effects on resource use and overlap among coexisting bird species with negative consequences for their reproductive success. Global Change Biology. DOI: 10.1111/gcb.12062

Blanc, L. A. and K. Martin. 2012. Identifying suitable woodpecker nest trees using decay selection profiles in trembling aspen (*Populus tremuloides*). Forest Ecology and Management **286**:192-202.

Brodie, J., E. Post, F. Watson, and J. Berger. 2012. Climate change intensification of herbivore impacts on tree recruitment. Proceedings of the Royal Society B **279**:1366-1370.

Calder, W. J. and S. B. St. Clair. 2012. Facilitation drives mortality patterns along succession gradients of aspen-conifer forests. Ecosphere **3**:Article 57.

Jelínková, H., F. Tremblay, and A. Desrochers. 2012. Herbivore-simulated induction of defenses in clonal networks of trembling aspen (Populus tremuloides). Tree Physiology **32**:1348-1356.

Lawrence, D. J., N. Luckai, W. L. Meyer, C. Shahi, A. J. Fazekas, P. Kesanakurti, and S. Newmaster. 2012. Distribution of white spruce lateral fine roots as affected by the presence of trembling aspen: root mapping using simple sequence repeat DNA profiling. Canadian Journal of Forest Research **42**:1566-1576.

Lehmer, E.M. J. Korb, S. Bombaci, N. McLean, J. Ghachu, L. Hart, A. Kelly, E. Jara-Molinar, C. O'Brien, and K. Wright. 2012. The Interplay of Plant and Animal Disease in a Changing Landscape: The Role of Sudden Aspen Decline in Moderating Sin Nombre Virus Prevalence in Natural Deer Mouse Populations. EcoHealth **9**:205-216.

Liknes, G. C., C. W. Woodall, and C. H. Perry. 2012. Using inventory data to determine the impact of drought on tree mortality. In: McWilliams, W.; Roesch, F.A. eds.

2012. Monitoring Across Borders: 2010 Joint Meeting of the Forest Inventory and Analysis (FIA) Symposium and the Southern Mensurationists. Gen. Tech. Rep. SRS-157. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 109-112.

Locher, A., H. Campa, L. Leefers, and D. E. Beyer. 2012. Understanding Cumulative Effects of Aspen Harvest on Wildlife Habitat and Timber Resources in Northern Michigan. Northern Journal of Applied Forestry **29**:113-127.

McColley, S. D., D. B. Tyers, and B. F. Sowell. 2012. Aspen and willow restoration using beaver on the northern Yellowstone winter range. Restoration Ecology **20**:450-455.

Mech, L. D. 2012. Is science in danger of sanctifying the wolf? Biological Conservation **150**:143-149.

Mock, K. E., C. M. Callahan, M. N. Islam-Faridi, J. D. Shaw, H. S. Rai, S. C. Sanderson, C. A. Rowe, R. J. Ryel, M. D. Madritch, R. S. Gardner, and P. G. Wolf. 2012. Widespread Triploidy in Western North American Aspen (*Populus tremuloides*). PLoS One **7**:e48406.

Pettit, T. W. and K. T. Wilkins. 2012. Canopy and edge activity of bats in a quaking aspen (*Populus tremuloides*) forest. Canadian Journal of Zoology **90**:798–807.

Strand, E., T. O'Sullivan, and S. C. Bunting. 2012. Time Series Aerial Photography Can Help Land Owners and Managers Understand Local Aspen Dynamics. Rangelands **34**:21-29.

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