

### *Partnering to preserve and restore healthy aspen ecosystems*

**MEMBER PARTICIPATION:** The WAA is a virtual science-based community. Send us aspen-related publications, management plans, and media mentions and we'll help spread the word. Contact Paul Rogers, Director: [p.rogers@usu.edu](mailto:p.rogers@usu.edu).

Share *Tremblings* with your friends and colleagues.

**New members welcome!** [Sign up here](#)

### WAA HAPPENINGS

**The WAA Back Machine**—The Western Aspen Alliance (WAA), based at Utah State University, has existed for 17 years. We will not exist after 2025 without your help. The WAA has a track record of sound quaking aspen conservation science via outreach, education, resource access, and research. With the retirement of Director Paul Rogers, we are asking for your assistance in funding sources and future directions. Alternative proposals, for instance partnering philanthropists, NGOs, or science-based institutions, are welcome! If you value applied aspen sciences and have ideas about how to continue the WAA, please contact [Paul Rogers](#).

**WAA Supports Partners**—Federal employees, alongside state/local partners, are the heart and soul of sound aspen ecosystem management. Likewise, the value of federal researchers cannot be overstated. Collectively, the rich resource of aspen conservation science embodied by this organization's members—many of whom fall under the auspices of our unparalleled federal workforce—are what is holding this valuable forest community together. Thank you, land/wildlife/water managers and scientists for your service and dedication to healthy aspen landscapes!

**Research Indicates Aspen Repels Fire**—A [recent article](#) in the journal *Ecological Applications* examined Southwest U.S. aspen landscapes affected by recent wildfires and found that fires were slowed or stopped when burning from other vegetation/forest types into aspen. Where aspen cover was higher, fire progression

slowed. These findings will have value for fire managers and forest planners, especially near areas of human development.



*On a field excursion with the Ovando, Montana Aspen Workshop in July, it seemed that the bears were leaving more signs than humans. Perhaps this is their local Rosetta Stone, daily news, or simple travel directions? Either way, it's a good reminder that the various diverse uses of aspen communities are not limited to food and shelter (Photo: Paul Rogers, near Seeley Lake, Montana).*

**Wolf Reintroduction Aids Aspen Recovery**—Several news outlets, including [The Hill](#), chronicled a new paper by Oregon State University scientists describing the 30-year rebound of quaking aspen in the northern portion of Yellowstone National Park. Large herbivore browsing,

by Rocky Mountain elk, mule deer, and buffalo had dramatic impacts on aspen in this region through much of the 20<sup>th</sup> Century. Subsequent wolf reintroduction in 1995 appears to have, in part, impacted relatively rapid positive responses in aspen. While there are still problematic areas on the Northern Range of Yellowstone, these results showed that nearly half of aspen stands contained adequate recruitment (sapling-sized) aspen suckers.

**Art-Science Mash-up, Salt Lake City**—Dr. Paul Rogers teamed up with Hadley Rampton and Tom Howard to present “Pando to Pangea” at the Phillips Gallery (Hadley’s work is featured in this issue’s *WAA Creates*). The event featured discussions of aspen ecology, art, and inspiration among an array of fabulous works by numerous artists. Our intention was to highlight creative works as “bridges” to understanding the natural world. Judging by the warm and engaging reception this was a smashing success which we hope to build on!

### UPCOMING EVENTS

**Upcoming Poplar & Willow Conference:** The annual meeting of the Poplar and Willow Council of Canada will take place in Amos, Québec from August 17 to 20. The program includes oral and poster presentations by national and international experts addressing topics related to poplars (including aspen) and willows in North America and globally. Abstracts can be submitted online until May 30<sup>th</sup> 2025. Details of the program and procedures related to this conference may be found at the [Poplar and Willow Council of Canada](#) website. Specific questions may be directed to John Kort [here](#).

**Director Returns to Transilvania University**—Dr. Paul Rogers will be completing the second half of his Visiting Fellowship at Transilvania University during September and October. The program involves teaching, training in technical writing, and field work. While there is not a broad presence of Eurasian aspen in Romania, such opportunities afford mutual exchanges related to forest disturbance, biodiversity monitoring, and cultural interaction. The WAA will continue operations during this period, albeit at a moderately reduced level.

**Aspen Workshops:** There are no additional workshops scheduled for 2025 or 2026 at this time. If your group is

interested in scheduling an aspen workshop, contact [WAA Director](#) Paul Rogers. This may be the final year of the WAA co-hosting such events in the absence of resources to support a new director.

### COMMENTARY

#### **Small-stand Challenges in the Northern Rockies**

**Brytten Steed, PhD**, USFS Forest Entomologist (retired)  
Forest Health Protection - Missoula Field Office



Aspen in the Northern Rocky Mountains exist more often as small, scattered patches or “stringers” than the iconic landscapes of aspen found elsewhere. Like early-season fireflies, they dot the landscape where moisture is present, ringing potholes, lining streams, or clinging to topographies rich in subsurface moisture. Their rarity belies their importance to wildlife, livestock, fire movement, and humans. Aspen are preferred browse for large herbivores, a hotspot for birds, and home to a diversity of plants. People, too, gravitate to these communities for camping, hunting, photography, and retreat.

Stand sizes range from one to a dozen or even a few hundred stems; often small enough that they are difficult to map. Whether due to limited land cover or commercial importance, our aspen have historically been considered “junk trees.” And now, without accurate mapping of their presence, extensive ground surveys may be needed to identify opportunities for supportive stewardship.

As a forest entomologist, I have had the opportunity to monitor damage agents over the past 18 years on 76 permanent plots throughout the Northern Rockies, participate in many aspen workshops, and review aspen conditions with managers often concerned with stand persistence. Data suggests that many stands in the Northern Rockies now consist of old stems >80-100 years of age that are



dying out, often with help from insects, diseases, and other stressors. But it is not just these damage agents and the loss of mature stems that threaten aspen here. There is often limited advancement of the grass-high regeneration to heights above browse level necessary to recruit future stands.

Chronic browsing by wild and domestic ungulates and related physical damage are playing an important role in decreasing the vigor of these small clones. With few resources it takes very little to overwhelm the energy reserves of these communities. Within conifer forests, competition and shading add to the drain on small-clone resources. Still, a few remnant stems persist. Whether relic aspen are sufficient to rebuild these bright spots of diversity depends on their energy reserves. Carbohydrates stored in the roots not only provide energy to minimize effects of endemic maladies but are critical for producing regeneration and subsequent recruitment-sized stems required for future stands.



Managers may be challenged by, among other factors, slow growth response from depleted clones, heavy use by ungulates, proportionally greater impacts from insects and diseases, stem decline due to old age, and high costs for conventional protection of regeneration (e.g., fencing). With significant conifer mortality from bark beetles and an increased emphasis on timber production there may be opportunities to identify and revitalize these small aspen stands if their importance is recognized and championed. However, novel management techniques may be needed to determine what works in these small stands. Establishing a flexible framework for monitoring and adjusting treatments for optimum results (i.e., stand reestablishment) will be a critical part of future efforts to maintain and improve aspen health and landscape diversity in the Northern Rockies.

### WAA Creates

“WAA Creates” requests diverse aspen-related art from across our membership. We encourage fiction, folklore, poetry,

drawings, paintings, photography, and other artistic expressions. [Send your stuff](#) to Tremblings.

**Elan**  
(oil on canvas)



**Hadley Rampton**  
Salt Lake City, Utah

From the artist: *I painted this piece in July in the mountains of northern Utah. I worked on site (plein air) in a grove of aspen trees lit by dappled aspen light. Just to be among the trees was poetry. My heart soared while my breath calmed. I hope to have captured this feeling in this painting.*

Find Hadley’s work at: <https://hadleyrampton.com/>.

### RECENT ASPEN PUBLICATIONS

*A word on Open Access: The Western Aspen Alliance strongly supports open access publishing (CC-BY). Articles with hyperlinks below are available for download and sharing following [Creative Commons](#) rules for attribution.*

Cook, J. D., G. G. Cotterill, M. C. McEachran, T. A. Graves, E. K. Cole, and P. C. Cross. 2025. Decision framing overview

and performance of management alternatives for bison and elk feedground management at the National Elk Refuge in Jackson, Wyoming. 2328-0328, US Geological Survey.

Cook, M. C. 2025. Engineering Fire-Resilient Forests: Applications of Remote Sensing to Assess Aspen's Distribution and Potential to Reduce Fire Hazard. University of Colorado at Boulder, Boulder, CO. [[PhD dissertation](#)]

Dawe, D. A., E. Whitman, M. Michaelian, A. J. Tepley, and M.-A. Parisien. 2025. Sexual and vegetative recruitment of trembling aspen following a high-severity boreal wildfire. *Fire Ecology* **21**:32.

Hardalau, D., V. Stefanescu, M. Bakševičius, M. Manton, C. Ruffner, G. Brazaitis, G. Ionescu, and O. Ionescu. 2025. Bite by Bite: How Ungulate Browsing Shapes North America's Forest Future. *Forests* **16**:1079.

Harris, M. P., J. D. Coop, J. A. Balik, J. R. McFarland, S. A. Parks, and C. S. Stevens-Rumann. 2025. Aspen impedes wildfire spread in southwestern United States landscapes. *Ecological Applications* **35**:e70061.

Meyer, T. K. 2025. Initial Fungal Decomposer Community Determines Wood-Derived Carbon in Discrete Soil Carbon Pools in Aspen Clearcuts. Michigan Technological University, Houghton, MI. [[Thesis](#)]

Morrow CJ, L.-R. J., Cole CT, Rubert-Nason K, Ané C, Lindroth RL. 2025. Canopy insect communities are shaped by the genes and phenotypes of their aspen hosts. *PLoS One* **20**:e0327554.

Painter, L. E., R. L. Beschta, and W. J. Ripple. 2025. Changing aspen stand structure following large carnivore restoration in Yellowstone. *Forest Ecology and Management*:122941.

Semper, C. C., J. M. Zobel, S. S. Scherer, M. R. Reinikainen, M. B. Russell, T. S. Gifford, and M. A. Windmuller-Campione. 2025. The Perfect Pairing: Early Stand Dynamics in Conventional Aspen and Mixedwood Forests in Northern Minnesota, USA. *Journal of Forestry*.

Takahashi, S., E. Takahashi, N. Kurachi, and A. Osawa. 2025. Variation in frost ring severity in the trunk of a trembling aspen tree growing in a boreal forest in northwestern Canada. *IAWA Journal*:1-12.

Wang, D., M. Zhang, M. Gong, and Y. H. Chui. 2025. Evaluation of bending performance in full-scale cross-laminated timber made from trembling aspen lumber. *European Journal of Wood and Wood Products* **83**:100.

Yocom, L. L., M. R. Kreider, O. T. Burney, T. Parsons, R. T. Choi, E. K. Liese, and K. E. Mock. 2025. Experiments to enhance post-fire aspen seedling survival and growth. *New Forests* **56**:41.

Zhang, Y., S. Peng, Z. Ma, C. Chen, B. Gao, X. Chen, and H. Y. H. Chen. 2025. Increased positive tree species mixture effects on the abundance and richness of Collembola with

stand development in Canadian boreal forests. *Forest Ecosystems* **13**:100294.

### CONTACT WAA:

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