



TREMBLINGS

NEWSLETTER & BULLETIN BOARD

Vol. 13(4), November 2022

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.

Share *Tremblings* with your friends and colleagues.

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

WAA HAPPENINGS

Survey Documents All North American Trees—A new work by a research team led by Christina Carrero (Morton Arboretum, Lisle, Illinois) documents all 800+ tree species in the United States, as well as their current status and threats. From the authors: “An estimated 11–16% of US tree species are threatened with extinction, with the most common threat being invasive and problematic pests and diseases.” This publication presents a link to a checklist of the trees, as well as a standardized Global Tree Assessment methodology. The full publication may be downloaded from the journal [Plants, People, Planet here](#).

WAA Director Visits Mongolia—Paul Rogers spent the first half of September with a consortium of European and Mongolian scientists touring Mongolia’s imperiled forests. The chief issue? You guessed it, excessive



herbivory by a wide range of mostly domestic livestock species (goats, sheep, horses, cattle, yak). Additionally, the group discussed commercial and conservation practices for birch and aspen forests. The photo here shows Eurasian aspen (*Populus tremula*) in north-central Mongolia. A return visit is planned to another region of the country in 2023 in order to plot long-term

plans for national forest conservation.



Autumn colors have come and gone in most of the western United States, but the fond images remain etched in our minds for the season. This offering comes from a WAA member in northern Arizona on the Aspen Trail, San Francisco Peaks, Coconino National Forest (Photo: Bill Waters, Friends of Northern Arizona Forests).

Good Ol’ Forest Service Email Blues—October 1 came with a shock as the cessation of the old, lingering behind the scenes, “@fs.fed.us” U.S. Forest Service email system kicked in. The WAA, having actively accumulated members for over a decade, was chock full of these suddenly outdated email addresses. Since both email prefixes and suffixes changed, a simple automated fix was impossible. With nearly 200 members from this agency, the one-by-one process became a tedious multi-day task. The upshot: I hope we included all active members (we certainly lost a few retired employees), but if you know anyone from this agency who is suddenly missing their quarterly *Tremblings*, please simply ask them to sign up anew at the [WAA website](#).

Pando News Flurry—The early September publication of a new status report in [Conservation Science and Practice](#) on the fate of the embattled Pando aspen clone garnered significant media attention with articles in [Newsweek](#), [Science Magazine](#), and [Phys.org](#). [ABC TV](#) (Salt Lake City) also aired an October 12, 2022 interview

with Paul Rogers and field supervisor Etta Crowley. Utah Public Radio's podcast [Undisciplined](#), hosted by Matthew LaPlante, recorded an extended interview November 10 that may be accessed at UPR or wherever you get your podcasts.

UPCOMING EVENTS

Aspen Workshop Roadshow—The WAA has been co-hosting aspen technical workshops for 12 years (see [special insert map, p. 5](#)). We're now taking bids for summer 2023 aspen workshops. Eastern Washington and the annual Wyoming Aspen Days have both shown early interest in hosting aspen workshops next summer. These multi-agency professional workshops are part of the WAA's core mission. Typically workshops consist of regional experts addressing practical management issues based on the most current available aspen sciences. We've yet to co-host a workshop in Canada, Texas, southern Arizona, the Lakes States, or in the East. Contact [WAA Director](#), Paul Rogers, with suggestions or questions about future workshops.

Historic Research Site to Host Symposium—The U.S. Forest Services' Great Basin Environmental Education Center (near Ephraim, Utah) has seen many uses over the past 80 years as an early research locale for watershed conservation, aspen investigations, grazing practices, as well as for educational retreats. Stanley Kitchen, recently retired Forest Service scientist, will be hosting an exploratory meeting between July 31-August 3, 2023 to discuss future uses of this facility. Potential endeavors may include investigations of tall forb and subalpine treeless communities, future stressors (e.g., climate, drought, grazing & recreation impacts), pollinators, aspen ecology, and silvicultural practices. The symposium is open to federal employees and potential cooperators. Contact [Dr. Kitchen](#) if interested in hearing more or offering subject matter ideas.

COMMENTARY

Facing forest change with humility

Jess Kirby, GISP, Summit County Public Lands Manager, Coalville, Utah



I feel the ultimate beauty of forests is their need for constant change and their willingness to adapt to new conditions. However, if there is one thing I have learned in twenty-five years of public service with federal, state, and local government, when it comes to forests, people do not like change. But ecological change, whether humans like it or not, is integral to healthy and resilient forested landscapes.

As a Public Lands Manager in Summit County Utah (greater Park City area) I am constantly thinking about, planning for, and being confronted with change. The success or failure of management action is dependent on my ability to adapt. Experience, and a lot of [Brené Brown books](#), have taught me that change requires the ability to be vulnerable. What does this mean? It's having the courage to get the job done, to keep learning and asking questions along the way. As a public servant I challenge myself to be the best version of my vulnerable-self daily. I must be willing to enter the arena for the forest, speaking for the trees, even knowing I may get my ass kicked.

As practitioners and scientists, it is easy to forget public perceptions may be very different from management intentions. We must constantly check whether public engagement is clearly communicating key points. Though we have a wealth of knowledge in each of our specialty interests and we are good at our jobs, is that enough? When was the last time you checked your social license to operate? As experts, it's far too easy to think that we are communicating effectively and efficiently. Like the rest of the world, we are experiencing a paradigm shifts *and* rapid ecological change. Are we prepared to communicate shifting landscapes?

You are probably asking yourself what this has to do with Aspen? Well, everything! Aspen communities are

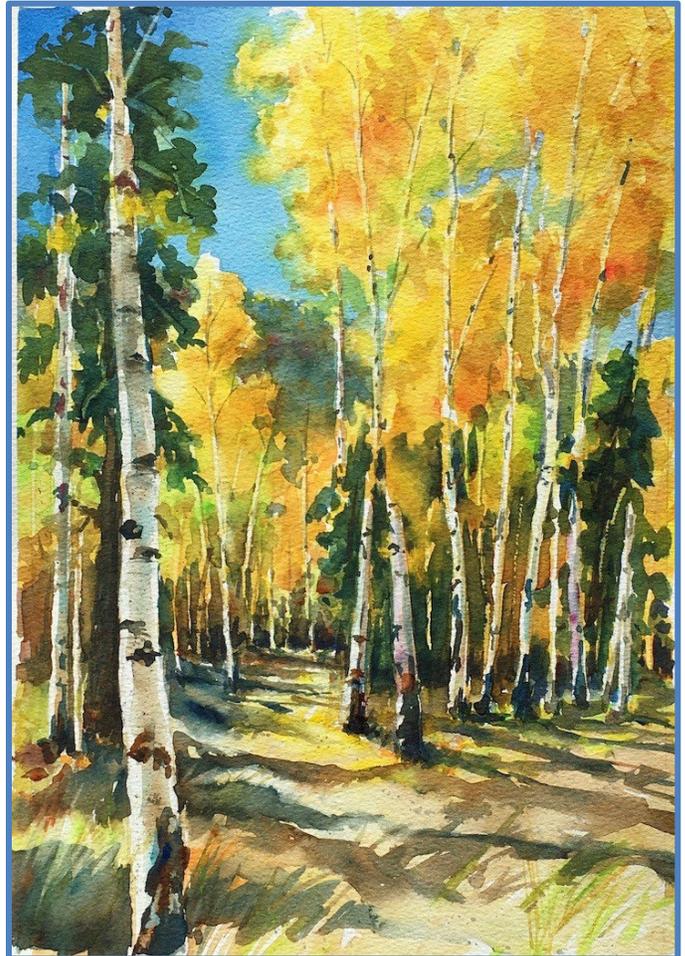
biologically rich and ecologically valuable, yet they face myriad threats, including changing climate, altered fire regimes, excessive browsing, and habitat loss due to development. While we may be able to recognize the different types of aspen communities, (e.g., seral and stable) to inform management actions, being able to communicate to the public effectively and with vulnerability is essential. Otherwise, the message is only that the trees are dying, and management is either doing nothing about it (e.g., allowing a self-replacing stable aspen community to thrive) or is assisting with the kill (e.g., use of regeneration treatments such as fire or thinning).

Looking ahead, one of the most important things we can do is support the natural capacity of ecosystems to cope with change. By ensuring that forests are healthy and resilient, we put them in the best position to withstand many kinds of stressors and bounce back from various maladies. While there are several actions that can be done to help improve resilience, as natural resource professionals, or as [The Lorax](#) himself, we must not forget to face the critics of change, be vulnerable and willing to persist, and tell our story well.

WAA Creates

“WAA Creates” requests diverse artistic aspen-related contributions from a broad geography. We encourage fiction, folklore, poetry, drawings, paintings, photography, and other artistic expressions. [Send your stuff](#) to share with WAA readers.

Locket Meadow Aspens



Marsha Owen
Flagstaff, Arizona

From the artist: *Perhaps I'm biased but I think the San Francisco Peaks have the most noble aspens. I love the distinctions of these family members and the variety of colors I can use for them.* Marsha Owen is an award-winning artist who has been painting in watercolor for over 20 years and is known locally for her depiction of aspens. You may find more of her work at [Marsha Owen Fine Art](#).

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.

Bennett, J. A., J. Franklin, and J. Karst. 2022. Plant-soil feedbacks persist following tree death, reducing survival and growth of *Populus tremuloides* seedlings. Plant and Soil. <https://doi.org/10.1007/s11104-022-05645-5>

Ding, C., and J. S. Brouard. 2022. Assisted migration is plausible for a boreal tree species under climate change: A quantitative and population genetics study of trembling aspen (*Populus tremuloides* Michx.) in western Canada. Ecology and Evolution 12:e9384.

Eisenring, M., R. L. Lindroth, A. Flansburg, N. Giezendanner, K. E. Mock, and E. L. Kruger. 2022. Genotypic variation rather than ploidy level determines functional trait expression in a foundation tree species in the presence and absence of environmental stress. Annals of Botany. [mcac071](#).

Marchais, M., D. Arseneault, and Y. Bergeron. 2022. The rapid expansion of *Populus tremuloides* due to anthropogenic disturbances in eastern Canada. Canadian Journal of Forest Research 52:991-1001.

Porter, A., T. Assal, N. T. Hobbs, and J. Sibold. 2022. Wildfire Catalyzed Shift from Conifer to Aspen Dominance in Montane Zone, Colorado. [SSRN](#).

Ripple, W. J., C. Wolf, M. K. Phillips, R. L. Beschta, J. A. Vucetich, J. B. Kauffman, B. E. Law, A. J. Wirsing, J. E. Lambert, E. Leslie, C. Vynne, E. Dinerstein, R. Noss, G. Wuerthner, D. A. DellaSala, J. T. Bruskotter, M. P. Nelson, E. Crist, C. Darimont, and D. M. Ashe. 2022. Rewilding the American West. BioScience 72:931-935.

Rogers, P. C. 2022. Pando's pulse: Vital signs signal need for course correction at world-renowned aspen forest. Conservation Science and Practice. [e12804](#).

Stockstad, A. B., R. A. Slesak, A. J. Toczydlowski, C. R. Blinn, R. K. Kolka, and S. D. Sebestyen. 2022. The effects of combined throughfall reduction and snow removal on soil physical properties across a drainage gradient in aspen forests of northern Minnesota, USA. Forest Ecology and Management 524:120538.

Stockstad, A. B., R. A. Slesak, A. J. Toczydlowski, C. R. Blinn, R. K. Kolka, and S. D. Sebestyen. 2022. Limited effects of precipitation manipulation on soil respiration and inorganic N concentrations across soil drainage classes in northern Minnesota aspen forests. Forests 13:[1194](#).

Woods, H. A., G. Legault, J. G. Kingsolver, S. Pincebourde, A. A. Shah, and B. G. Larkin. 2022. Climate-driven thermal opportunities and risks for leaf miners in aspen canopies. Ecological Monographs n/a:[e1544](#).

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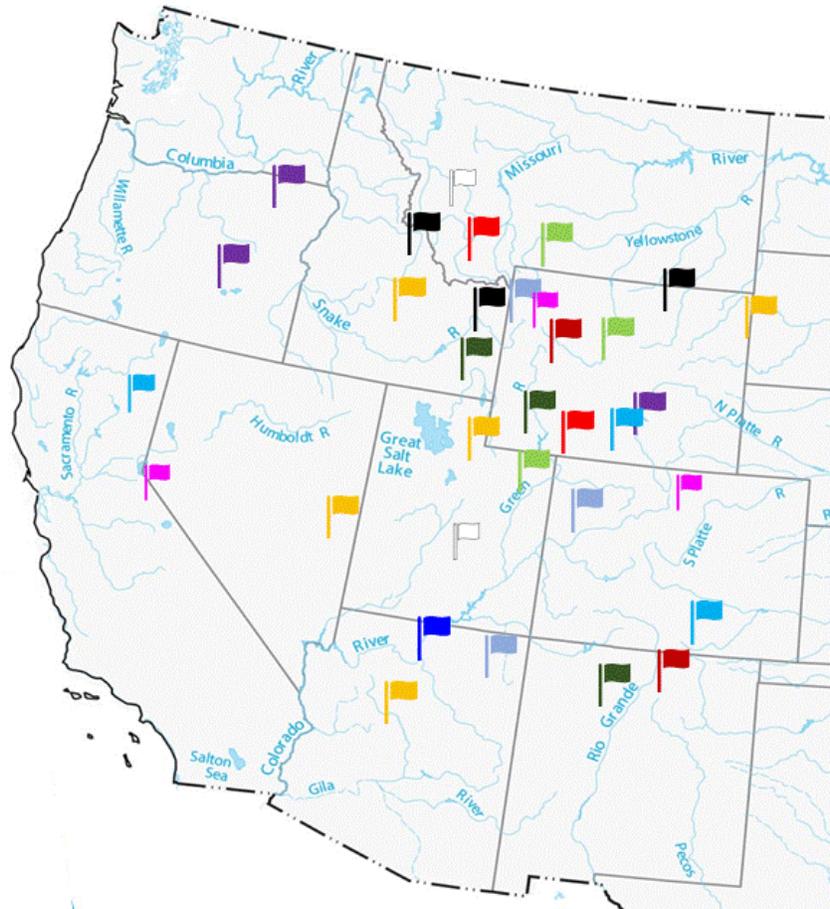
Website: <http://www.western-aspen-alliance.org/>



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