



# TREMBLINGS

## NEWSLETTER & BULLETIN BOARD

Vol. 8(4), November 2017

*“...partnering to preserve and restore healthy aspen ecosystems.”*

**NOTICE:** The WAA is a user-driven organization. Please send news items and announcements, contributions, **recent reports & publications**, photos, and commentary ideas or rebuttals to Paul Rogers, Director/Editor: [p.rogers@usu.edu](mailto:p.rogers@usu.edu). We encourage you to share *Tremblings* with your friends and colleagues. **New members welcome!**

aspen ecosystems. As context, there are two common species and 4-5 more limited aspens; all have similar ecologies and face similar challenges.

**Aspen Artwork Requested**—*Tremblings* wants to show off your art: brief stories, poems, paintings, photography, or other original works. Contact the [WAA Director](#) if you have interest in showing us your creative aspen ideas and items.

### WAA HAPPENINGS

**New WAA Website Launches**—The new WAA website is taking its first baby steps as of November 1, 2017. Please [look it over](#) and give us your feedback. What are we missing that would enhance your use of this website or your aspen knowledge more broadly? As we make this transition the WAA would like to give special thanks to Wanda Lindquist for years of service in building and maintaining the original website. It served us well, but change is a definite constant in maintaining an internet presence.

**Aspen Field Guide Update**—Still time to order your copy of “Guide to Quaking Aspen Ecology and Management,” by WAA Director Paul Rogers. This field guide applies recent advances in aspen science for professional use. Order by emailing [Thomas Adamson](#), typing “Aspen Field Guide” in the subject line, and clearly indicating your mailing address.

**WAA Facebook Page Gains Momentum**—The Western Aspen Alliance Facebook page now has 75 followers. Like us [now on FB](#) and pass it on!

**Aspen Conservation Consortium**—The initial launch of this international network of aspen scientists and professionals is taking place this month from a base at Mendel University, Czech Republic. The goal of this organization will be to exchange and understand science connecting aspen ecosystems around the Northern Hemisphere with the ultimate objective being improved “mega conservation” of



*When the leaf becomes a portrait a personality emerges. Photographer and new WAA volunteer extraordinaire Lance Oditt’s photos have already added a new dimension to this organization’s reach. (Photo: Lance Oditt/Studio 46.70° North, Fish Lake, Utah).*

### UPCOMING EVENTS

**Arrange a 2018 Aspen Workshop**—Winter is the time to begin planning 2018 workshops and conferences. WAA’s basic objectives include holding workshops in every western state. While some states hold annual events and others have hosted



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more than one workshop, there are some states we haven't been to: TX, NV, CA, OR, WA. To date there have been six workshops in WY; two ID, UT, NM; and one AK, AZ, CO, MT in these states. Contact the [WAA Director](#) if you have an idea for a field location or a local speaker.

**Aspen Days 2018 Announces Site**—The annual Wyoming Aspen Days series will be held in Laramie next summer. Details of dates, program, and participants are still being decided. If you'd like to host a field visit in this area or just attend the workshop, please contact [Ryan Amundson](#), Habitat Biologist, Wyoming Game & Fish.

### COMMENTARY

#### **Aspen Regeneration for Wildlife in Alaska**

**Tom Paragi**, Wildlife Biologist, Alaska Dept. Fish & Game, Fairbanks, Fairbanks

**Sue Rodman**, Wildlife Biologist, Alaska Dept. Fish & Game, Fairbanks, Anchorage



Where aspen reaches its northernmost distribution in North America, land and wildlife managers have taken creative steps in the absence of a fiber market to regenerate aspen for wildlife habitat in accessible sites near communities. Stable aspen communities exist on scattered south-facing bluffs, but most aspen occurs in seral communities facilitated by wildland fire.

A central goal is to provide winter forage for moose and a mosaic of stand age classes beneficial to forest grouse; both are hunted by residents and visitors. Additionally there is a growing importance of maintaining young aspen stands in strategic locations as hazardous fuel breaks in spruce-dominated forests where settlements can be at risk of wildland fire incursion.

Much of Alaska's human population lives in forested landscapes. Fire management options have identified resources at risk (life, property, timber, etc.) since the 1980s and guided the allocation of suppression resources to minimize loss of resources. With increasing effectiveness of fire detection and suppression and little timber harvest, by the 1990s the amount of young forest near communities was declining.

The Alaska Department of Fish and Game partnered with the state Division of Forestry for a decade beginning in the 1990s on experiments to top kill dormant aspen and stimulate sprouting. Spring burns and felling with chainsaws occurred on south-facing loess sites, whereas shear blading with dozers was done on flat terrain (Fig. 1). Debris jackstraws in mechanical treatments hindered public access and shaded soil, with lower sprouting density associated with colder soils in the rooting zone.



Sprouting objectives (12,500 stems/acre; 30,875/ha) were easily met in all sites, even with debris shading. Moose browsing evidence shows the degree of winter forage attraction. Treatment sites (5-45 acres/ 2-18 ha), even grouped in management areas (200-600 acres/ 80-240 ha), were too small to cause a measurable moose population increase, but they attracted local moose to road-accessible sites for fall hunting.

A change in fire regime is underway with the warming trend in climate. Alaska fires during 1969-2003 burned an average of 0.8 million acres (0.8 M ha) a year. In contrast, fires during 2004- 2016 burned an average of 1.9 million acres (0.7 M ha), with a peak of 6.7 million acres (2.6 M ha) in 2004. Large burns occurred even near the road system in extreme years when suppression resources had to be prioritized, which has resulted in large even-age cohorts of aspen.

Habitat managers are utilizing these accessible seral patches by focusing efforts now on roller chopping and dozer crushing to create age class mosaics that optimize edge habitat and proximity

between forage and cover while producing relatively small debris loading from aspen regeneration 20-30 years post-fire (Fig. 2).

Fuels management will likely play an increasing role in collaboration on habitat enhancement. Making settlements safer against wildland fire incursion can allow natural fire to maintain productive boreal habitat on the larger landscape for wildlife species important for hunting. New challenges in aspen management, possibly from increased tree stress in warmer conditions, include outbreaks of aspen leaf miner and recent proliferation of an aspen [running canker \(p.13\)](#). It is important for wildlife managers in Alaska to stay abreast of these changes to more effectively enhance habitat in a changing climate.



### WAA Creates

“WAA Creates” showcases artistic aspen-related contributions. We encourage fiction, folklore, poetry, drawings, paintings, photography, and other artistic expressions that may be captured in a brief-form newsletter. Please [contact the Director](#) with suggestions, submissions, or feedback on this feature.

**Correction:** The artist from the previous *Tremblings* (Vol. 8[3]) WAA Creates was Jessica Glenn, not “Jessica Allen,” as improperly printed. We apologize to Jessica Glenn for this error.

(no title)  
(oil on canvas)



### Robert Dyer, Flagstaff, Arizona

*When Bob is not volunteering for Friends of Northern Arizona Forests, he is indulging his painting kicks. The painting is from a photo taken north of Flagstaff and west of the San Francisco Peaks. In his words, “Since my favorite color is yellow, painting aspen trees was a natural subject for me. The colors were at their peak and I tried to convey that, also taking a little artist’s privilege and embellished them slightly.”*

### RECENT ASPEN PUBLICATIONS

Allaby, A. C., G. P. Juday, and B. D. Young. 2017. Early white spruce regeneration treatments increase birch and reduce aspen after 28 years: Toward an integrated management of boreal post-fire salvaged stands. *Forest Ecology and Management* 403:79-95.

Britton, J., J. DeRose, K. Mock, and D. McAvoy. 2017. The Regeneration of Aspen Stands in Southern Utah. Utah State University Extension, Logan, Utah. 6 p. Available [online here](#).

Couture, J. J., T. D. Meehan, K. F. Rubert-Nason, and R. L. Lindroth. 2017. Effects of Elevated Atmospheric Carbon Dioxide and Tropospheric Ozone on Phytochemical Composition of Trembling Aspen (*Populus tremuloides*) and Paper Birch (*Betula papyrifera*). *Journal of chemical ecology* 43:26-38.

Gill, N. S., F. Sangermano, B. Buma, and D. Kulakowski. 2017. *Populus tremuloides* seedling establishment: An underexplored vector for forest type conversion after multiple disturbances. *Forest Ecology and Management* 404:156-164.

Greer, B. T., C. Still, G. L. Cullinan, J. R. Brooks, and F. C. Meinzer. 2017. Polyploidy influences plant–environment interactions in quaking aspen (*Populus tremuloides* Michx.). *Tree Physiology*:1-11. Available [online here](#).

Johnston, C. A. 2017. Beaver Loggers: Beaver Herbivory Alters Forest Structure. In: *Beavers: Boreal Ecosystem Engineers*. Springer. pp. 91-116.

Kweon, D., and P. G. Comeau. 2017. Effects of climate on maximum size-density relationships in Western



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Canadian trembling aspen stands. *Forest Ecology and Management* 406:281-289.

Stevens-Rumann, C., P. Morgan, and E. Strand. 2017. Quaking aspen in the Northern Rockies: considerations for retention and restoration.

### CONTACT WAA:

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