TREMBLINGS

NEWSLETTER & BULLETIN BOARD

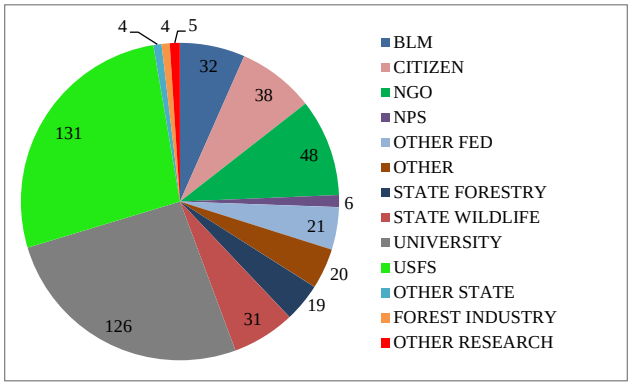
Vol. 7(1), January 2016

"…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 to Paul Rogers, Director/Editor: p.rogers@usu.edu. We encourage you to share *Tremblings* with your friends and colleagues. **New members welcome!**

WAA HAPPENINGS

Who is the WAA?—The WAA continues to grow within a diversity of institutions (graphic below) and standing at 485 current members. We are pleased to bring objective aspen-related science to professionals of all stripes. So, as we near a landmark total membership we will offer **a prize to the 500th person to join**. The WAA will mail a hard copy of *Forest Ecology & Management's* Vol. 299 (2013) to the lucky winner, a Special Issue sponsored by the WAA Science Advisory Panel entailing 10 review articles addressing the state-of-the-science in aspen research and management.



Dr. Ron Ryel Memorial—As a follow-up to our previous newsletter's announcement of Ron Ryel's passing, there will be a memorial service in northern Utah on Feb. 14, 2016. Details of this and related events can be found here.

Find the WAA on Facebook—In November 2015 the WAA launched its first social media platform. Please consider adding us to your Facebook feed by "liking" us here. This mechanism allows for timely updates, news, media happenings, and user feedback. For many, this provides a more convenient avenue than our webpage for staying apprised of WAA activities.

Winter scene facing Steam Mill Peak, Wasatch-Cache-Uinta National Forest, Utah. Seral and Stable aspen often form a mosaic, along with non-forest communities, in the Middle Rocky Mountains (Photo: Paul Rogers).

Welcome New Partners—The WAA recently formalized new partnerships with Great Basin Fire Science Exchange, Western Landowners Alliance, and Natural Resources Conservation Service. Check out our Partners tab at our homepage and feel free to let our cooperators know we are grateful for their support!

UPCOMING EVENTS

Aspen Webinar Series—The WAA will continue to partner with Utah State University Forestry Extension to offer aspen-related webinars during 2016 in their "Learn at Lunch" series.

Western Aspen Alliance

TREMBLINGS

NEWSLETTER & BULLETIN BOARD

Vol. 7(1), January 2016

- **April 19**: Kevin Krasnow will look at "New Paradigms in Aspen Ecology & Management: impacts of stand condition and fire severity on vegetation dynamics." Also, Tara Bal will discuss maple dieback.
- **July 12**: Vachel Carter will present information on ancient aspen during the "Populus Period" in the central Rockies.

All webinars begin at noon and are one hour in length. Check the full schedule for other programs.

Summer Aspen Workshops—There are two aspen workshops currently scheduled for summer 2016. Dates are tentative, so please check with local organizers or the WAA Director for additional information. July 12-14, Wyoming Game and Fish/WAA will host the fifth annual Aspen Days in Lander, Wyoming (Organizer, Amy Anderson, WYGF). U.S. Forest Service will host an eastern Montana aspen workshop on August 30-31 in Red Lodge (Organizer, Tim Benedict, USFS).

COMMENTARY

Growing Aspen in Cultivated Landscapes

Michael R. Kuhns, Department Head and Professor, Wildland Resources Dept., Extension Forester, Utah State University, Logan, UT

Quaking aspen (*Populous tremuloides*) is a beautiful tree when it is growing on native sites, which in the West is normally at a fairly high elevation. In native locations trees are exposed to less heat and have greater moisture availability than when they are planted in cultivated landscapes at low elevations. Problems that pose minor problems at high elevations become major problems on those more stressful low elevation sites. Leaf spot diseases get worse, borers seem more attracted to them and damage seems much worse, stem cankers seem to be more common and to have a greater effect, and nutritional deficiencies occur that do not occur at high elevations where soil pH is less than at low elevations. The heat and low humidity found in valleys also causes leaf scorch or browning of the leaf margins, meaning that aspen have less fall color because of less leaf area. The trees end up less healthy and also less esthetically pleasing than they are in the mountains.

Another problem not related to elevation, but unavoidable wherever aspen grow, is aspen's root sprouting. Sprouting is probably the single most common reason that causes people to remove aspen from their cultivated landscapes. They get tired of mowing and digging the sprouts and don't like the woody knobs that grow in their grass.

Fortunately there is a partial and fairly effective solution to most of these problems that allows a better way to cultivate aspen at low-elevation. It uses the natural sprouting of aspen to your advantage. Basically, to grow attractive aspen at low elevation, establish a mulch bed where you want them and remove the suckers outside of that bed. To partially suppress sprouting you can treat cut surfaces with herbicides like glyphosate or triclopyr. Then select a few of the healthiest aspens and remove the rest from the mulch bed. The healthier ones will tend to be the smaller ones, since stem defects accumulate in trees and aspen don't put a lot of energy into healing or protecting themselves from decay. Again, you can treat the cut surfaces with herbicide if you want. The amount that you leave will depend on the area and your esthetic preferences—maybe leave one every 10 feet or so. You may also plant somewhat shade tolerant shrubs and herbaceous perennials, either native or non-native, to establish a mini aspen woodland that you can enjoy.

As sprouts come up outside the mulch bed remove them as you did before (if you aren't willing to deal with the sprouts, don't grow aspen). As sprouts come up within the mulch thin them out within a few years. Over time, let a few sprouts remain and these will become replacement trees for the older stems. Remove any stem before it reaches 5 or 6 inches in

TREMBLINGS
NEWSLETTER & BULLETIN BOARD
Vol. 7(1), January 2016

diameter. In doing so you will be removing the oldest, most defective stems, and you always will have replacement stems.

This type of aspen grove leads to a natural-looking planting that is healthier and blends in better than typical "lollipop trees" isolated in a lawn. The only cost is your time and the result can be quite nice.

WAA *Creates*

"WAA Creates" will showcase creative aspen-related contributions from our members. After all, the aim of science is to inform AND inspire. 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 and/or feedback on this feature.

Aspen on a Winter Morning (watercolor)

Emmon H. Rogers, Logan, Utah

RECENT ASPEN PUBLICATIONS

Bandau, F., V.H.G. Decker, M.J. Gundale, and B.R. Albrectsen. 2015. Genotypic tannin levels in Populus tremula impact the way nitrogen enrichment affects growth and allocation responses for some traits and not for others. PloS one 10:e0140971.

Bartels, S.F., and H.Y. Chen. 2015. Species dynamics of epiphytic macrolichens in relation to time since fire and host tree species in boreal forest. Journal of Vegetation Science 26:1124-1133.

Burns, K.S., J.W. Hanna, N.B. Klopfenstein, and M.S. Kim. 2015. First Report of the Armillaria Root Disease Pathogen, *Armillaria sinapina*, on Subalpine Fir (*Abies lasiocarpa*) and Quaking Aspen (*Populus tremuloides*) in Colorado. Plant Disease 100:217-217.

Hansen, W.D., W.H. Romme, A. Ba, and M.G. Turner. 2016. Shifting ecological filters mediate postfire expansion of seedling aspen (Populus tremuloides) in Yellowstone. Forest Ecology and Management 362:218-230.

Holt, E.A., N. Zemp, M. Van Orman, J. Perry, B.T. Williams, and M. Ogden. 2015. Macrolichen substrate selection: Patterns among aspen, non-aspen hardwood, and conifer-dominated forests in the Wasatch Mountains, Utah. The Bryologist 118:357-366.

Jones, G.P. 2015. Survey of Aspen Woodlands within the Bureau of Land Management's Rock Springs Field Office, Southwestern Wyoming. [Report to USDI Bureau of Land Management.] University of Wyoming, Laramie, WY. 47 p.

Paudel, S.K., C.R. Nistchke, S.W. Simard, and J.L. Innes. 2015. Regeneration Dynamics of White Spruce, Trembling Aspen, and Balsam Poplar in Response to Disturbance, Climatic, and Edaphic Factors in the Cold, Dry Boreal Forests of the Southwest Yukon, Canada. Journal of Forestry.

Pinno, B.D., and R.C. Errington. 2015. Maximizing Natural Trembling Aspen Seedling Establishment on a Reclaimed Boreal Oil Sands Site. Ecological Restoration 33:43-50.

Sloan, J.L., M. Uscola, and D.F. Jacobs. 2016. Nitrogen recovery in planted seedlings, competing vegetation, and soil in response to fertilization on a boreal mine reclamation site. Forest Ecology and Management 360:60-68.

Smith, D.S., S.M. Fettig, and M.A. Bowker. 2016. Elevated Rocky Mountain elk numbers prevent positive effects of fire on quaking aspen (*Populus tremuloides*)

recruitment. Forest Ecology and Management 362:46-54.

Uelmen, J.A., R.L. Lindroth, P.C. Tobin, P.B. Reich, E.G. Schwartzberg, and K. F. Raffa. 2016. Effects of winter temperatures, spring degree-day accumulation, and insect population source on phenological synchrony between forest tent caterpillar and host trees. Forest Ecology and Management 362:241-250.

CONTACT WAA:

Paul C. Rogers, Director, Western Aspen Alliance, Utah State University: Email

Wanda Lindquist, WAA Webmaster: Email

Emmon H. Rogers, *Tremblings* Reviewer (occasional artist)

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

S.J. & JESSIE E. QUINNEY COLLEGE of NATURAL RESOURCES
UtahStateUniversity