



# The Ohio Hetuch



Winter 2008

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## Chair Comments—Stephanie Miller, OSFA Chair

Happy New Year! As I write this, the snow is falling and it's well below freezing. It's hard to accept that our planet's getting warmer on days like today. However, as I look back on recent years a handful of local experiences are reminders that change is in the air. Is greater, more intense flooding in Northwest Ohio a sign of poorly planned development into rural areas, extreme rains caused by global warming, both, or neither? Several communities I work with have noted their concern for earlier spring bud breaks and later hardening off. My meteorologist father often reminds me that weather is extremely cyclic, but even he admits that we are experiencing statistically different weather patterns. (Foresters love statistics don't we?)

So what does this have to do with forestry? Lots. We seem to have just *begun* figuring out how forests grow and we hit a little snag. Whether it's climate change, invasive species, pressure to create biofuel markets, new measuring gadgets and methods, or market demands we foresters are on a constant learning curve.

I had the honor of attending the National SAF Convention in Portland this past fall. The student representation was the biggest ever. I watched which presentations had large student populations. They weren't attending the "traditional" topics en masse. They filled the rooms where speakers discussed many of the topics that are on the 2008 OSFA Winter Meeting Agenda. I wondered if they knew something I didn't, so I attended several of these sessions too. What I discovered is that much of the information about biofuels, carbon, and new technologies are *so* new that we don't even have enough information to make management decisions or understand the short or long-term impacts. However, there is a lot of extremely good research going on and some lessons we can take home from other foresters' experiences with these issues. That's at least a start.



Stephanie Miller

Is change coming? Certainly. Do we, as foresters want to be a part of responsible decision-making when it comes to forest system management? I sure hope so. We must continue our efforts to educate ourselves, effectively share our messages, set an excellent example, and maybe even think outside the box sometimes.

As I revel over the names of past OSFA Chairs, I am humbled to be in this position. Tremendous thanks go to 2007 Chair, Dave Apsley and 2007 Past Chair, Lee Crocker for their many hours of work during their tenures. I've learned so much from both of you. It is my goal to honor our past leadership by guiding OSFA through today's unique challenges in our profession here in Ohio and worldwide.



Lee Crocker receiving Field Forester Award at 2007 National SAF Convention

My door is always open. If you have any questions, concerns, ideas, or extra time that you'd love to dedicate to OSFA, please contact me anytime. Have a Happy New Year and see you at the Winter Meeting.

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## In Memoriam Ralph Elmer Hershberger



We were saddened to receive word that 30-year SAF member and Fellow, Ralph Elmer Hershberger, 76, passed away on November 16, 2007 at UHHS Geauga Regional Hospital.

Born in Tiffin, Ohio, he lived in the Burton area for 33 years. Elmer earned his degree in Botany from Heidelberg College and then went on to study forestry at the University of Montana in Missoula. He owned and operated Custom Forest Services as a consulting forester after retiring as a project surveyor for the Geauga County Engineer's Department. In addition to OSAF, Elmer was an Ohio Forestry Association Board Member and was elected to four terms as a Township Trustee. Elmer was an outspoken proponent of private property rights and the need for forest management in Ohio.

Elmer was OSAF's Forest Soils chair for many years and he loved attending the Forest Soils Workshops... always helping plan the event when Ohio hosted. He was known by many at the Soils Workshops as the Liar's Dice organizer, playing into the wee hours of the morning.

Elmer's daughter, Jenny Hershberger, notes that botany and forestry were a family affair. "It wasn't just a job, he loved being in nature and the woods and had a thirst for knowledge." He taught Jenny and her brother Ralph Elton the names of flowers and plants every time they walked in the woods. The entire family often worked at the Paul Bunyan Festival together. Attending forestry activities together was like attending a family reunion. Ralph Elmer is survived by his children, two grandchildren, and former wife, Lynne Ebel also of OSAF.

## OSAF 2008 Winter Meeting

*The Future is Now*

**March 5-6, 2008**

**The Ohio State University Campus, Columbus**

Early Bird Registration Deadline February 20th: OSAF Members- \$35 per person

After February 20th: OSAF Members- \$45 per person

Non-SAF Members- \$50 per person

<http://www.ohiosaf.org/>

The winter meeting is an excellent opportunity to learn and to earn SAF Continuing Forestry Education (CFE) Credits and ISA Continuing Education Credits (CEU). Please join us for informative presentations, participation in the affairs of OSAF, fellowship, and good food.

## Forester Spotlight

*The face of Service Forestry in Ohio seems to be changing every time you turn around. With all these fresh faces it may be difficult to keep everybody straight, the idea behind having the Forester Spotlight is to help all foresters learn a little more about each other.*

Pat Migliozi, the Service Forester in southwest Ohio covering Warren, Hamilton, Butler, Greene, and Clinton Counties, has been with the Division of Forestry since 2004. He started as an intern at the front desk and filling in for another Service Forester who was on medical leave. In 2005, Pat was one of the project foresters hired to work with Emerald Ash Borer and in 2006 he moved into the permanent Service Forester position he holds today.

Pat's love for the outdoors began at a young age when he went on fishing trips with his dad and other family members. He also found a 30-acre woodlot near his home in Niles, a suburb of Warren Ohio, where he and his friends would spend time in the afternoons. When it was time to go to college, Pat decided a career in natural resources would be a good choice. Getting his Forestry degree from Ohio State University in 2005 and working as an intern with the Division of Forestry helped him conclude that he made a good choice.

As a Service Forester, Pat enjoys doing something different everyday, seeing different woods, and meeting a variety of people. His advice for students considering becoming foresters is, "try to intern somewhere, whether you are answering phones or out in the field".



## Ohio's Forests and Carbon Storage

-Robert Long, OSAF Forest Science and Technology Coordinator

Ohio's forests provide wildlife habitat, clean water, wood products, fiber, and many other societal benefits. New to this roster of benefits, is the key role that forests play in sequestering and storing carbon. This storage is not just limited to wood and above ground portions of the forest, but also includes the below ground soil and forest floor components that store significant amounts of carbon. Sustainable management of these forests is increasingly important since forests are major carbon sinks that help mitigate the effects of global climate change. Forests currently take up 25% of all carbon released from the burning of fossil fuels. The recent UN climate change conference in Bali, Indonesia highlighted the importance of maintaining forests. Developed countries agreed to consider a system to pay developing countries to limit harvests and maintain their tropical forests, which act as major carbon sinks.

Temperate forests also play a significant role in sequestering carbon. New research conducted at the Harvard Forest shows cases how much we still have to learn about carbon storage. For a long time it was believed that old-growth forests were carbon-neutral. It was thought that the amount of carbon taken up was mostly equal to the amount released as trees died, decayed and decomposed. However, in an old growth portion of this forest with hemlock, maple and birch, carbon is being sequestered at a rate greater than amount being released by respiration and decomposition. Hemlocks capture as much as a ton more carbon per acre than they release in this old growth forest. Surprisingly, only about half of the carbon fixed from the atmosphere is going into wood. Instead, much of this carbon is being stored in the forest floor and/or soils and scientists have not determined what process or mechanism is driving this increased carbon sequestration.

But all the news is not good. A report released by the U.S. Climate Change Science Program on the North American carbon budget found a high degree of interannual variability in the amount of carbon being stored by North American forests. However, the most recent data showed a decline in the amount of stored carbon due to harvesting and forest maturation. More precise data from managed and unmanaged forests will be needed to determine whether this decrease in forest carbon storage is a trend or a temporary phenomenon. [As statisticians like to say --When is a trend a trend or just a bend?]

**What about management practices and their potential effects on carbon storage?** A 25-year thinning study was conducted on the Kane Experimental Forest in northwestern Pennsylvania starting in 1976. Plots were thinned to similar residual relative density (60% to 70%) by removing trees from different portions of the diameter distribution. The study stands originated after clearcutting in 1922-23 and were composed of sugar maple, American beech, black cherry and red maple. Three thinning regimes: 1) thin from below (non-commercial), 2) thin from middle (commercial), and 3) thin from above (commercial) were evaluated. Thinning from below actually increased the amount of carbon fixed to 0.59 metric tons of carbon per acre per year compared to the uncut control stand with 0.53 metric tons of carbon per acre per year, though this difference was not statistically significant. Thinning from above actually decreased the amount of carbon stored to -0.04 metric tons of carbon per acre per year, and thinning from middle increased carbon storage to just about 0.12 metric tons of carbon per acre per year. Both of these latter amounts were significantly less than the control and thin from below treatment. Merchantable volume followed similar trends with the thinning from below treatment having 9,270 bd ft/acre compared with the control at 6,700 bd ft/acre. Both the thin from middle, about 5900 bd ft/acre, and the thin from above, 148 bd ft/acre, were significantly less than the control or thin from below treatments.

Why do different thinning methods affect carbon storage so drastically? While detailed data is not available, it is likely that in the stands thinned from below, growth is being concentrated on the trees that were already growing the fastest—the canopy codominants and dominants at the time of thinning. In the thin from above treatment the smaller, suppressed residual trees could not respond to the release enough to increase carbon storage.

Developed and developing countries are facing important decisions regarding energy consumption and carbon storage. It seems only a matter of time until carbon emissions are capped or regulated in some manner. One way of managing emissions is with carbon credits that are currently traded on the Chicago Climate Exchange (CCX). Forests and forest managers will likely play key roles in maintaining or enhancing carbon storage, and future programs might entice landowners to maintain forest cover by providing compensation (carbon credits?) or tax incentives. Whatever happens, it is important for forest managers to realize that management actions have both local and global consequences.

### For more information, please see these references:

Hoover, C. and Stout, S. 2007. The carbon consequences of thinning techniques: Stand structure makes a difference. *Journal of Forestry* 105(5):266-270.

The First State of the Carbon Cycle Report: The North American Carbon Budget and Implications for the Global Carbon Cycle. Available at: [www.climate-science.gov](http://www.climate-science.gov). See chapter 3.

Yanai, R.D., Currie, W.S. and Goodale, C.L. 2003. Soil carbon dynamics after forest harvest: an ecosystem paradigm reconsidered. *Ecosystems* 6:197-212.

## District 9 Report -Roger Weaver, District 9 Council Rep.

District 9 SAF Members,

This past weekend was the final SAF Council meeting for 2007, completing my first year as your Council Representative. Even though I'm proud of the accomplishments, the slow process of change is quite frustrating. There will be some big issues that all of you will be involved with in 2008, i.e. membership classifications, etc. and other big announcements as well coming out soon. Overall, the rewards from being a Council Member truly outweigh the efforts needed to make sure the District is represented well.

First off, congratulations to our new Fellows in District 9: **Tom Kuzmic, Wayne Geyer, and Dan Yaussy**. To be recognized by your peers and pass the tight standards set by our District Fellows Committee is truly an honor.

Now a recap of the December Council meeting:

Five new Council members were introduced.

1. Rod Brevig, District 4, filling the Council role for Lyle Laverty who has resigned due to a new job appointment.
2. Joann Cox, District 8
3. Jan Davis, District 11
4. Greg Russell, District 5
5. Clark Seely, District 2

We were also introduced to the new Student Representative to Council, Stephen Purvis, from the University of Georgia. This is the first time that a Student Representative will be included in Council meetings.

**Electronic Balloting:** The electronic balloting was a success for SAF, both nationally and locally where it was used. Overall, the balloting represented only 35% of our membership, compared to 40% in 2006. This is probably due to the new process, a higher than normal turnout on previous elections, a poor job by the National Staff on communicating the new process, and the untimely death of a candidate thereby changing the print materials that usually precede the ballots. It will work better next time and continue to save us dollars.

In addition, six state societies held their votes through the national electronic election system: Mississippi, Ouachita, Allegheny, South California, Kentucky/Tennessee, and the Inland Empire. Allegheny did report that they doubled their participation in voting this year.

**Portland Convention:** Overwhelming success. The total registration was 2,284, about 15% of the SAF membership. Also, 566 student members were in attendance.

**Financial Shape:** SAF has been in the black since 2003 and in great financial shape for 2007, up around \$600,000 in net revenues.

**Foresters Fund:** We are looking at about \$40,000 available for projects in 2008. Just to let you know, every submitted request in 2006 and 2007 received partial funding from the Foresters Fund. So, submit your projects for funding help.

**Membership Survey:** Survey results show the overall value of SAF was high, but tended more toward moderate than high. Most likely, this is at least partially driven by discontent over the cost of membership by a fairly large number of members, in the younger and less experienced subsets. Here are some other findings: accreditation is important; the members are split on Certified Forester; members use the website but feel it could be improved; the working groups need to be reestablished; members like the lobbying effort and the networking provided by SAF; and getting Continuing Education at the local level is important. A plan to address the results in the membership survey will be developed and implemented during 2008.

**Group Forester Certification:** SAF is proceeding with a group certification model to expand the reach of the Tree Farm System and help expand the role of family forests in the marketplace. If we succeed, more acreage will fall under sustainable forestry certification.

**Membership Classifications:** This issue will be discussed at our next Council meeting, preparing a resolution that will be voted on by the membership. Look for these changes coming out soon.

As always, please contact me with your concerns, questions, complaints, and suggestions. Thanks for letting me serve you.





## Tree Roots Do Not Cause Sidewalk Damage!

– Steve Sandfort, Retired Cincinnati City Forester and Supervisor of Hamilton County Soil and Water Conservation District

Each of you who has dealt with sidewalk damage near trees has heard that tree roots caused the damage and you've probably agreed. When you, the tree expert, and the city engineer both say this, does it have any affect on city council's funding for street tree planting? (Such statements probably make it difficult for city council to pay to plant more trees that will destroy more city infrastructure.)

Seriously ponder these questions: What percentage of sidewalk blocks in your town is within 20' of a tree and what percentage is not? (Probably a higher percentage is not.) Have you ever been asked to study a damaged sidewalk where there is no tree? (Of course not - you're the tree guy - without looking at all damaged walks you may then be biased against trees.) Do sidewalks where there are no trees ever become defective? (All the time.) What causes damage there? (Later) What is the designed-in life expectancy of your sidewalks? (Most are 25 to 30 years.) What if the sidewalk near a tree becomes defective in year 23, should the tree get 100% of the blame? (Looks like the walk mostly met its design standards.) How thick must the sidewalk concrete be poured to meet design standards? (5" is used in many towns.) Are the walks built to those standards? (2x4 forms are used.)



Here are a few more to think about: Does your town have areas with weak, shrink-swell soils and other areas with strong, stable soils? (Check your county's Soil Survey available at your local Soil and Water Conservation District - you'll probably find dozens of different soils under your walks.) Might a standard walk built on strong, stable soil have fewer problems and last longer than one built on a weak, shrink-swell soil that moves around a lot? (I'll bet that your engineer does not build one standard length bridge regardless of the width of the river but that he does build one standard walk regardless of the underlying soil.) Have you noticed that where there are strong, stable soils other infrastructure such as retaining walls, home foundations, driveways, and private sidewalks show little damage over very long periods of time? (Chances are that in those areas huge, old trees growing in narrow tree lawns have "caused" no sidewalk damage - the old walks

are quite safe far after their designed life has expired.) Have you noticed that in other areas where trees are "causing" all that sidewalk damage other infrastructure as listed above all are falling apart and have been repaired frequently? (You must keep your eyes open and mind humming while driving at your engineer's request to that danged tree that's destroying the sidewalk.) Could it be that lousy sidewalk design and/or construction is the actual CAUSE of sidewalk damage on certain soils regardless if trees are nearby? (Consider building at least two kinds of walk - normal walk on strong, stable soils and super walk on a weak, shrink-swell soils to lengthen sidewalk life, improve safety, reduce repair costs, and take the heat off of trees. After all, 60-year old standard engineering drawings and specifications call for this approach!)

Now, two final critical questions: When your engineer tells folks, including City Council - that it's those @#\*% trees are CAUSING so much sidewalk damage, can he produce the research papers he's basing his statements on? (Nope - it's easier to shift the blame to trees than to admit the problem might have more to do with sidewalk construction and soils, and do something about it.) When you tell people that regardless of how reasonable it seems, tree roots DO NOT CAUSE sidewalk damage, can you produce the research paper that you're basing your statements on? (Yes, you sure can! Check out Journal of Arboriculture January 2000 for an excellent report by one of our own - Dr. Davis Sydnor at TOSU - the T stands for *The*.)

Need a copy of that report, let Davis or me know. Be sure to read the part that says his research seems to show that sidewalks near trees have LESS damage than those away from trees and ask yourself why. You know how trees affect the ground underneath them and how roots grow. But this one like all good research papers say, "More research is needed." So Davis, get to it; maybe team up with some of the good Ohio SAF readers of *The Hetuch* in their towns.

## Special Notes

### Calling All Proofreaders!!!

Would you like to help proofread the *Hetuch*?

I am currently looking for 2 or 3 folks who would like to be a little more involved with the SAF. Please send me an email if you are interested, Casey.Munchel@dnr.state.oh.us. The only requirements are a keen eye and Microsoft Word.



### Don't Forget to Pay Your SAF Dues!

Also, don't forget to update your contact information, including email addresses so we can better contact you!



**Jeremy Scherf**  
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## Announcements

### Forest Management Seminar Series

Seminar Series hosted by Ohio State University School of Environment and Natural Resources

Thursday, February 14, 2008—Chad Sanders

Thursday, February 21, 2008—Gary Wilson

Thursday, February 28, 2008—Paul Myer

1:00 –2:30 PM at 333 Kottman Hall

For more information contact: Roger A. Williams, 614-688-4061 or [williams.1577@osu.edu](mailto:williams.1577@osu.edu)



### Southwest Ohio Urban Wood Utilization Workshop

Friday, February 22, 2008 8:30 to 3:30

Maple Ridge Lodge, Mt. Airy Forest, Cincinnati, Ohio

Registration is Required

Registration Deadline and Payment by

Friday, February 15, 2008—\$15

Contact [Annemarie.Smith@dnr.state.oh.us](mailto:Annemarie.Smith@dnr.state.oh.us) for more information.

### 2008 Ohio Woodland, Water, & Wildlife Conference

A conference for natural resource professionals and land managers

Tuesday, May 11, 2008 8:45 am– 3:30 pm

Mid-Ohio Conference Center, Mansfield, Ohio

Registration is Required

Early Registration Deadline:

February 29, 2008—\$55

After February 29, 2008—\$80

This conference qualifies for 5 hours of Category 1 SAF CFE credit

