# Forestry Source

News for forest resource professionals published by the Society of American Foresters

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The biographical sketches and campaign statements of the 2013 SAF vice-presidential candidates. Also included are interviews with both candidates. **Page 8** 

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For an acquisition of two million acres, the size of several recent lidar campaigns in Oregon, dozens of billions of data points are recorded. Once processed, these incredibly precise light detecting and ranging (lidar) data can provide a detailed, three-dimensional description of the forest below. **Page 12** 

#### Field Tech: Forest Metrix Offers Custom Inventory Software on an iPad Mini

Would you be willing to pay \$1,199 for forest-inventory software that runs on a tablet computer? Plus a \$299 annual service fee? What if that software was customized to meet your needs, and only your needs, with an interface designed around the way you cruise timber or collect other data? Too good to be true? Wait until you try Forest Metrix, from Field Truth Inc. Page 14

## SAF to Honor Field Foresters at National Convention

SAF will honor 10 foresters from 10 SAF voting districts with the Presidential Field Forester Award at the 2013 SAF National Convention. **Page 16** 

## **National Committee Positions Now Open**

SAF has 16 national committees established to help it accomplish ongoing and long-term goals. National committees work with the SAF Council and the national office staff to help shape present policy and the future direction of SAF. Page 17

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## The Pinchot Institute at 50: A Conversation with Al Sample

Events will commemorate 1963 dedication by President John F. Kennedy

#### **By Steve Wilent**

eptember 24 will mark the 50th anniversary of President John F. Kennedy's dedication of the Pinchot Institute for Conservation Studies and its headquarters, Grey Towers, the former home of Gifford Pinchot. In his speech that day, Kennedy said the institute would serve as "a living memorial" to Gifford Pinchot's "practical idealism" in developing "a professional approach to the management of our nation's resources."

The event came at a time when the people of the United States were becoming increasingly aware of conservation issues that have had profound effects on natural-resources management policy and practices.

"Today's conservation movement must embrace disciplines scarcely known to its prophets of the past," said Kennedy. "Government must provide a national policy framework for this new conservation emphasis. But government at any level needs sound information, objective research, and study. It is this function which the Pinchot Institute can serve most effectively."

Commemoration events will be held September 19–22 at Grey Towers, which will be open to the public. See the Grey Towers Heritage Association's website, www.greytowers.org, for hours and details. Grey Towers became a National His-



President John F. Kennedy dedicates the Pinchot Institute for Conservation Studies and its headquarters, Grey Towers, on September 24, 1963.

toric Landmark in 1966.

Earlier that week, the institute will offer a free workshop, "Forest Conservation and Restoration in the Anthropocene: Adaptation of Science, Policy, and Practices," in Washington, DC, on September 17 and 18. Numerous speakers at the workshop will summarize the current sci-

entific understanding of the projected effects of climate change on forest ecosystems and their responses to natural disturbance and human interventions, and will discuss strategies for adapting current resource-management practices to sustain

(See "Sample" page 3)

## The Challenges of Active Forest Management in an Ecological Reserve

#### **By Andrea Watts**

Then your habitat conservation plan (HCP) requires the accelerated development of a second-growth forest into a late-successional forest, that's a tall order, especially when there isn't an established silvicultural prescription to create such a forest structure. But when your prescriptions call for thinning in a landscape that is designated as an ecological reserve

and your stakeholders—which include the state's Sierra Club chapter, a city council, Native American communities, and the public—support your management strategy, you must be doing something right. In Seattle Public Utilities' (SPU) Cedar River Municipal Watershed, silviculturist and SAF member Rolf Gersonde, along with mem-

(See "Seattle" page 5)



SAF member Rolf Gersonde, a forester with Seattle Public Utilities, talks about the "ecological thinning" that was conducted in this stand several years ago in the Cedar River Municipal Watershed.

#### Forestry Career Check:

## For Elizabeth Bly, Two Degrees and Persistence Pay Off

#### **By Steve Wilent**

It is pure coincidence that SAF member Elizabeth Bly works on the Bly Ranger District on the Fremont-Winema National Forest and lives in the town of Bly, a small community in south-central Oregon. (For the record, according to Oregon Geographic Names, Bly was taken from the Klamath Indian word, p'lai, which means "high" or "up." The town's elevation is 4 360 feet.)

Since she was hired in 2010, Bly's primary focus is the district's timber shop, where she does "a little bit of everything."

"I help with planning and National Environmental Policy Act (NEPA) writing for restoration projects. We mostly do fuels reduction and commercial thinning, and I go out to the woods to lay out sales, cruise the timber, and write appraisals and contracts. It's really cool to be able to work on these projects from beginning to end. One of the first sales I worked on is being harvested this year," she said.

Appeals and litigation related to timber sales on the Fremont-Winema are uncommon, Bly said.

(See "Career Check" page 6)

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#### **Society of American Foresters**

The mission of the Society of American Foresters is to advance the science, education, technology, and practice of forestry; to enhance the competency of its members; to establish standards of professional excellence; and to use the knowledge, skills, and conservation ethic of the profession to ensure the continued health and use of forest ecosystems and the present and future availability of forest resources to benefit society.

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## Editor's Notebook That Old Devil, Wind, Takes 19 Firefighters

t this writing it has been just five weeks since the deaths of 19 members of the Granite Mountain Hotshots on the Yarnell Hill Fire on June 30. Thoughts of those tragic, unimaginably horrible deaths have haunted me ever since. I didn't know any of those young men, but they were part of the forestry family, the wildland fire family, and it hurts.

The fire burned 8,400 acres west of Yarnell, Arizona, and left more than 200 structures destroyed, including many homes. And the 19 dead. According to the US Fire Administration (USFA), they were: Garret Zuppiger, age 27; Kevin Woyjeck, 21; Clayton Whitted, 28; William Warneke, 25; Travis Turbyfill, 27; Joe Thurston, 32; Jesse Steed, 36; Anthony Rose, 23; John Percin, 24; Wade Parker, 22; Scott Norris, 28; Sean Misner, 26; Grant McKee, 21; Eric Marsh, 43; Christopher MacKenzie, 30; Dustin Deford, 24; Travis Carter, 31; Robert Caldwell, 23; and Andrew Ashcraft, 29.

The number of fatalities on the Yarnell Hill Fire is surpassed only by the infamous Griffith Park Fire of 1933, near Los Angeles, California, where 29 died. More perished at Yarnell Hill than on the 1937 Blackwater Fire, where 15 died on the Shoshone National Forest in Wyoming; the 1953 Rattlesnake Fire, where 15 died on the Mendocino National Forest in California; the 1994 South Canyon Fire, where 14 died on Storm King Mountain near Glenwood Springs, Colorado; and the infamous 1949 Mann Gulch fire, where 13 died near Helena, Montana.

The USFA reports that 11 wildland firefighters died in 2012, the same number as in 2011 and 2010.

The Yarnell Hill Fire started on June 28 with a lightning strike on Arizona state land, according to a preliminary report from the National Interagency Fire Center. Among the crews dispatched to the fire: the Granite Mountain Hotshots, whose members are City of Prescott Fire Department personnel, but operate under Arizona State Forestry Division jurisdiction. An Arizona State Forestry Division Type 3 team was managing the fire at the time of the blow-over. The report summarizes the event:

"Nineteen members of the Granite Mountain Hotshots were entrapped when flames overran their position on June 30. Eye witnesses state that fire behavior was extreme with heavy winds. The crew of 19 deployed fire shelters late Sunday afternoon but did not survive. The Maricopa County Medical Examiner's Office in Phoenix determined the firefighters died from burns and inhalation problems. The 20th member of the crew was serving as lookout on a small ridge a short distance away and was able to retreat when the fire reached a predetermined trigger point."

The report notes that an interagency Serious Accident Investigation Team is conducting an investigation, with the primary goal to "learn from the events leading up to this accident and to help prevent future occurrences."

Like so many other firefighters, active and otherwise, I knew that a tragedy like Yarnell Hill was sure to happen again, sooner or later. No amount of investigation and analysis and improved training will eliminate future wildland fire fatalities, because nature always has at least one wild



A July 9 procession through Yarnell, Arizona, honored the 19 members of the Granite Mountain Hotshots who died June 30 on the nearby Yarnell Hill Fire.

card: wind. As a wildland fire-management instructor for a dozen years, every one of my final exams asked students to name the most common factor in the deaths of wildland firefighters. The answer: A change in wind speed and direction.

In my experience as a member of various wildland fire crews many years ago, no one on my crews died or was seriously injured (thankfully) because of wind. In one case, my crew had to move quickly to avoid flames pushed by a sudden wind shift that blew up a draw where we had been building line at what we had thought was a safe distance from the fire. On one prescribed fire, unexpected gusts blew embers across the containment line and sparked small spot fires on a neighboring property; the spots were quickly controlled and caused no serious damage or injury. Wind, or the possibility of wind, is always a factor. Sometimes wind surprises even the most experienced, best-trained crews, as it did on June 30.

In a post about the Yarnell Hill Fire on his Wildfire Today blog (wildfiretoday .com), Bill Gabbert described the change in wind speed and direction, which is thought to have been caused by nearby thunderstorms: "From 10 a.m. until 4 p.m. local time at the Stanton RAWS weather station four miles south of the fire, the wind was from the south-southwest or southwest, but at 5 p.m. it began blowing from the north-northeast at 22 to 26 mph gusting up to 43 mph — a 180-degree change in the wind direction."

At 5 pm the temperature was 95 degrees, and the relative humidity was 17 percent.

At 5:55 pm, some or all of the 19 Granite Mountain Hotshots reportedly deployed their fire shelters.

"Unlike the 78 mostly skid row bums—some shoeless—who died fighting

the Great 1910 Fire in northern Idaho, these young men were well-trained and well-equipped professionals. They knew what they were doing, and they knew the risk," wrote *Evergreen* magazine editor Jim Petersen in a July 8 essay, "The View From 30,000 Feet" (evergreenmagazine .com). Petersen is the founder and executive director of the Evergreen Foundation.

"But no amount of knowing or doing can account for nature's vagaries, and certainly not the vagaries of wind-driven wildfires; so while there will surely be an exhaustive investigation, we can never satisfy our deep desire to have tragedy explained in a way that has Tragedy lose," Petersen continued. "We will still be sifting these ashes long after they are cold, but all they will tell us with certainty is that 19 young men are dead and the fire that killed them will soon be gone too."

I am reminded of something John Maclean said in my interview with him in the January edition of the *Source*, when we talked about his book, *The Esperanza Fire: Arson, Murder, and the Agony of Engine 57*. I asked him why it was worth risking a single life to protect an unoccupied home, let alone the five firefighters who died doing so in California in 2006. He replied, "We all know the three top priorities: protect people's lives, forest values, and property, in that order. That's what [firefighters] are paid to do. You cannot fight fire in Southern California without engaging in structure protection."

Although Maclean had the order wrong, he was right. The Granite Mountain Hotshots were protecting people's lives, their property, and forest resources. That's what they were paid to do. You cannot fight wildfire, anywhere, without risking the lives of firefighters.

#### Mourning the Losses, Supporting the Families

A fund-raiser banquet and auction was held August 29 in Prescott Valley, Arizona, to benefit the families of the 19 Granite Mountain Hotshots and the lone survivor. The event was sponsored by the National Wild Turkey Foundation and several other conservation organizations. The group will accept donations through September. See yarnell19banquet.com for

more information. Mailing address for donations: Arizona State Chapter, NWTF, c/o Debra Pedersen, 1197 Demerse, Prescott, AZ 86301.

For additional information on the firefighters and other ways to make donations, visit www.YarnellFallenFireFighters.com and the Wildland Firefighter Foundation, www.wffoundation.org.

## **Sample** (continued from page 1)

these evolving ecosystems and the array of social, economic, and environmental services they provide. An essay by one of the speakers, SAF member Daniel Botkin, appears on page 11 in this edition of *The Forestry Source*. The workshop is convened by the Pinchot Institute, with the support of the US Forest Service, the Kelley Family Foundation, the Doris Duke Charitable Foundation, and Resources For the Future. For more information, see anthropoceneworkshop.eventbrite.com.

I recently spoke with Pinchot Institute president V. Alaric Sample about the institute's first 50 years, as well as its future.

## Why was it so important to President Kennedy that he personally made the dedication?

If you think about what was going on at that time—Rachel Carson's *Silent Spring* had been published in 1962, and the reverberations were just hitting federal policymakers in 1963. There was a lot of con-



Pinchot Institute president V. Alaric Sample.

cern about clean air and clean water-it was really the beginning of the environmental movement as we know it. The first lawsuits over clearcutting were several years away, but there was already a fair amount of tension between conservation organizations and the US Forest Service. And the Forest Service was really scratching its head about this, because they thought they were on the side of the angels. Lassie was still on prime-time TV. They were the good guys, but they were beginning to catch a lot of criticism from their erstwhile friends and colleagues, particularly in the wildlife and wilderness arenas. Gifford Bryce Pinchot [Gifford and Cornelia's son] was one of the cofounders of the National Resource Defense Council at about this time.

There was concern that what was happening on the public forests was starting to look too much like industrial plantations and that other public values were suffering. Ed Cliff [Forest Service chief, 1962–1972] and other leaders at the Forest Service were already sensing that there was something really different going on, and they wanted to understand society's perspective on what they were doing as an agency.

So Gifford Bryce Pinchot suggested to the Forest Service that the family would be willing to transfer Grey Towers and 100 acres of woodland around it to the agency for independent studies on critical conservation issues. And for conservation education, which was the other major

component of the Pinchot Institute as it was conceived of by the Pinchot family, by the Forest Service, and by other leading conservationists at the time. The other partner in this was the Conservation Foundation, which no longer exists—it was folded into the World Wildlife Fund in 1990. The Conservation Foundation, which had been founded by Henry Fairfield Osborn [Jr.] back in the late 1940s, had been very active in monitoring changes in land use, water quality, and air quality. Osborn, Lawrence Rockefeller, and other people from the conservation community who were involved with creating the Pinchot Institute were some of the leading thinkers of their time.

#### And Gifford Pinchot Senior was one of the leading conservation thinkers and doers of his time.

One of the ways that he used Grey Towers, when he and Cornelia were living there, was as a place to gather people with lots of different perspectives—as Cornelia put it, to have the conversations that needed to be had—in a neutral atmosphere of mutual respect, to help people to understand one another's viewpoints. That's a value that permeates everything the Pinchot Institute does to this day. We have a strong mission to improve conservation, but we don't claim to have any monopoly on wisdom. And the issues continue to change. Ten, 15 years ago, we weren't thinking about things like the effects of climate change on the ability of forests to provide clean water, wildlife habitat, and protect biodiversity. Now, we have to think about that. We continue to recognize the value of respecting the legitimacy of all perspectives and bringing people together in an atmosphere of mutual respect, so that we can actually move forward instead of just talk, talk, talk.

## How does the Pinchot Institute work to improve conservation?

Gifford Pinchot was, on one hand, very much a consensus builder, but on the other hand, he had a strong bias for action, not just thinking about it or talking about it. It's kind of interesting that after helping to establish the forestry school at Yale University, technically he was on the faculty there. I don't know if he taught a single course or gave a single lecture, but he thought it was important to have that institution as a source of training. He was definitely not an academic—he was very action oriented. And we are as well. We don't do independent studies. We're not as academic as a university or even organizations such as Resources for the Future. We tend to put our information out there to potential actors, whether they're in government, NGOs, or the forest industry. We focus on actionable findings, recommendations, and conclusions, and we work to put them in the hands of people who can take action.

## What are some of the Pinchot Institute's key accomplishments?

In its early years, the institute focused on environmental education. As we started getting into the era of the National Forest Management Act and forest planning, that's when it stepped forward and began playing a leadership role. But it wasn't a leadership role that was bringing a lot of fame and glory to the institute. In fact, we felt that it was important to deemphasize our role, to say that this is not our dialogue, it is your dialogue, a dialogue that we're helping you to have.

In 1993 the Institute held a "New Per-



Grey Towers, the former home of Gifford Pinchot, is the headquarters of the Pinchot Institute for Conservation Studies.

spectives" conference just as things started hitting the wall following the spotted owl litigation and as timber harvests were falling precipitously on federal forest lands. We had to ask ourselves, how do we define our mission going forward? Out of that New Perspectives meeting came the policy of ecosystem management, and that became the new mantra for the Forest Service. The idea was that, yes, we intend to continue to provide resources, including timber, water, minerals, grazing, and so on, but we're going to be doing that in the context of restoration and the long-term sustaining of ecosystems. What we were getting from these forests in the previous generation was different from what the current generation was getting, and we

know it's going to be different for the next generation. But we don't know what the next generation's needs will be, so we need to focus on making sure that the resources themselves are healthy and productive and continue to meet those needs, whatever they may be. That was a fundamentally different perspective. So I think that was one of the early positive influences that the institute had, through this inclusive approach to problem solving.

## And you also have focused on other issues, such as forest certification.

Certification was coming along in the early 1990s as a way to develop standards

("Sample" continues on page 4)



## A Note to SAF Members: Thank You and Farewell

#### By Michael T. Goergen

It has truly been an honor to serve the forestry profession for the last 17 years, including 10 as executive vice president. I feel overwhelming gratitude to all of our members, and merely saying thank you is not nearly enough. So many of you have mentored me, provided me with excellent counsel, volunteered countless hours to support our efforts, and, most important, become lifelong friends. I have also had the pleasure of working with an outstanding group of colleagues in the national office, a group of people who have really become an extension of my family.

In these 17 years, much has been accomplished—and much remains to be done. The ongoing dedication of the SAF Council, countless volunteers, and an experienced professional staff have guided SAF in the right direction through a tumultuous time in forestry, and they will continue to work to improve and evolve forest management

When I reflect on successes we have had, I start with policy, where my career with SAF started. We have become one of the most respected voices in Washington, DC, on forest policy issues. These issues are relevant to the public and private sectors and include fighting for tax policy that makes sense for sustainable forestry, working on a sensible regulatory environment for forest management, contributing ideas to various Farm Bills to support conservation, and much more. There are specific pieces of legislation that would not have passed without SAF input at the national level and the grassroots involvement of SAF members. They include legislative and appropriations initiatives to strengthen vital programs like the US Forest Service's Forest Inventory and Analysis and providing new opportunities for managing federal lands with legislation to

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create the stewardship contracting authority for the Forest Service and the Bureau of Land Management, the Healthy Forest Restoration Act, and other important legislation at the national and state levels that creates a better environment for foresters and natural-resources professionals to manage our nation's forests. We even recently presented a brief before the US Supreme Court that was influential in a decision that favors sustainable forest management.

We have leveraged technology to create new opportunities for members to access information by archiving more than 100 years of SAF scientific articles; digitizing the *Dictionary of Forestry*; creating ForestEd.org, which brings together science, practice, and the network of SAF members to strengthen members' knowledge of the latest approaches to forest management; and providing a near constant flow of information through our website, social media, *The E-Forester*, and other electronic means.

Soon we will close on the sale of a portion of the land surrounding the SAF national office, marking the end of a difficult chapter of SAF's history while converting real estate assets to a significant endowment of more-liquid assets that will allow SAF to accomplish more for its members. This, of course, could not have been possible without the farsighted gifts that were essentially investments in SAF's future made by members more than 40 years ago. Our financial position is much improved, and our financial department continues to provide Council with objective analysis to guide decisionmaking about where SAF spends and invests for the future.

The Certified Forester program continues to grow, and, more important, it is used in many states in elements of their forester licensing and registration requirements. Accreditation of university forestry programs continues to have broad support and impact, and we are expanding our efforts to encompass more guidance to students and universities offering natural-resources

educational opportunities. Our National Convention continues to attract the best minds in forestry to present their latest findings and brings together forest management professionals from across the country. *The Forestry Source*, the *Journal of Forestry*, and our other journals continue to be the very best in forestry, and they hold up against the best in any professional society.

Of course, there are programs and challenges that are works in progress. For example, the SAF

ring program for new forestry graduates is wildly successful with student members, but is not broadly embraced by current members (whom we need to purchase rings to help pay for rings for students). We've had technological challenges with database implementations that members have patiently worked with staff to improve. We are working to establish a culture of giving in SAF and have just launched the 1900 Founders' Circle, which holds great promise in furthering the realization of our core language. We will see results from these efforts, and SAF will continue to grow and evolve. After the loss of a significant number of members, we are seeing signs of life, as we grew for the first time since the early 1990s last year.

While I hope to be able to tell you more about my new position in the future, I am sure many of you wonder why, with all the success we've had and a promising future ahead of us, I would leave at this time. First, I would say that the opportunity before me is incredibly exciting and chal-

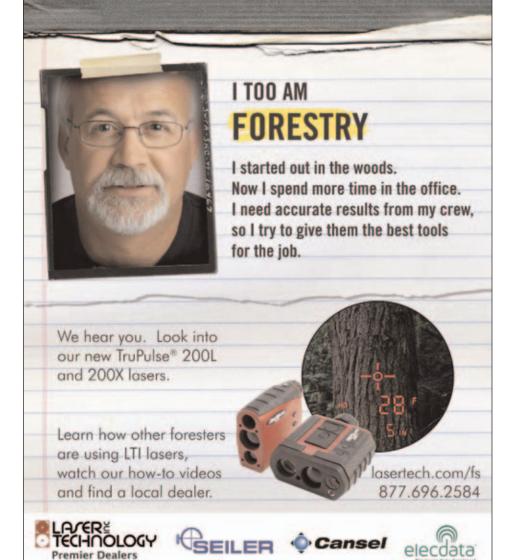
lenging. More important, I think SAF is in an excellent position to succeed. In addition to new financial assets and a Council that is committed to using them wisely, we have spent two years realigning the course of SAF to position our organization for the future. In past editions of *The For-*



world has changed, and SAF is positioned to leverage those changes to create future successes.

SAF could not have had all these past successes and future ones without you—loyal members, leaders in forestry, volunteers, and the people who care for this tremendous resource we care so much about. You have been with us every step of the way, along with our staff, Council members, and other SAF leaders. You can also be assured that I will continue to stay involved with SAF in the years to come, and in advancing the cause of sustainable forestry and professionalism.

Thank you for all you have done to care for the world's forests, and for all that you have given to me. Ultimately, I am most proud to have made a small contribution to the continued resiliency of the lands that mean so much to me, my family, and, ultimately, all of us. SAF will continue its vital work as a national leader in sustainable forestry for years to come. I look forward to being part of the future success of the organization that I care for very deeply.



#### ("Sample" continued ftom page 4)

by which timber harvesting can take place. We looked at that and thought, this is a potential breakthrough. For so long, through all of the forest planning wars and other conflicts, it had been a fight over whether timber harvesting was going to take place or not-it was a binary decision, either zero or one. We looked at certification and thought, this is very positive, because we were getting leading environmental organizations that, instead of asking whether or not there will be timber harvesting, they were asking under what circumstances, under what standards would timber harvesting be acceptable? What they were looking for was timber harvesting to be done in the context of longer-term sustainability. We thought, this was what Pinchot was all about.

So we devoted a lot of institutional resources to facilitating the conversation on the role that forest certification could play, both in sustainable forest management and, more important, in terms of strengthening public reassurance that these lands were being managed well, that the forests were being managed sustainably. I think that's been very successful. We have been a party to forest certification around the country, and the outcome has been very positive for all concerned.

# Climate change is on everyone's mind. Is helping foresters respond to climate change a grand challenge for the Pinchot Institute?

Absolutely. I see this as one of the major challenges ahead for the forestry community overall. Depending on what agency or company or NGO we're involved with, we're looking at sustaining

water resources, wood production, biodiversity, wildlife habitat, and so on. Every single one of those areas is going to be strongly influenced by what happens with the climate. So much of the existing forest science has been developed in the last couple of hundred years, when we assumed that climate was a given, that it was stable and predictable. Today we are engaged in a reconsideration of some of the basic scientific principles that we thought were conventional wisdom. We are looking at forests that are functioning in a climate that is in some cases different than when they began growing, so they are not going to function in the same way that we thought they would, and they're not going to respond to management intervention in the same way that we had thought they would.

# So President Kennedy's words, "Today's conservation movement must embrace disciplines scarcely known to its prophets of the past," still ring true today?

After the fires of 1910, everybody pulled back and said, well, we've got to do some major rethinking about what our role is in fire management and forest protection. In the 1950s and 1960s, there was the rise of multiple-use and sustainedyield management, and that was a major turning point. The 1990s, with the forest planning wars and endangered species is sues—that was another major turning point. I think we are in the midst of the next one right now. We have to think through how we're going to understand and prepare for and adapt to climate change. I really think that in the future we will look back on the period we're in right now as one of the major turning points in the history of forest science, policy, and management.

#### Seattle

(continued from page 1)

bers of the agency's Forest Ecology Work Group, are at the center of a demonstration project showcasing how active forest management and stakeholder involvement are helping to meet the watershed's ecological objectives of delivering quality drinking water and ecosystem services.

Two-thirds of the drinking water used by 1.4 million people in the Seattle metro area comes from the Cedar River Watershed, which spans 90,638 acres in the foothills of the Cascades in Washington State. More than 80 percent of the watershed was logged during the 20th century, with the last harvest done in 1995; since 1900, annual harvests have averaged nearly 60 million board feet. Now, less than 17 percent of the area remains unharvested, with the rest being second-growth forest of various ages. Douglas-fir and western hemlock forests of 50 to 90 years old cover much of the watershed's lower elevations, while western hemlock and pacific silver fir of 20 to 50 years old are found in the upper elevations.

### The ecological thinning received support from an unlikely ally: the local chapter of the Sierra Club.

Through a series of land transfers over the years, the city became the sole owner of its watershed lands in 1996. With the anticipated listing of Chinook salmon as an endangered species, SPU began work on the Cedar River Watershed Habitat Conservation Plan in 1993, as the diversion of water from the Cedar River was recognized as impacting the salmon.

When, in 1996, Seattle's citizens were presented with the draft HCP that proposed funding the HCP through revenues from commercial thinning timber, Gersonde said that they argued instead for setting aside the nearly 85,500 acres of second-growth Douglas-fir and late-successional forest as an ecological reserve, effectively prohibiting commercial timber harvesting for the purpose of generating revenue. To fund the HCP, the public agreed to pay higher water rates instead. Thinning, however, was still needed.

When he joined SPU in July 2004, Gersonde was immediately thrust into the intense stakeholder process of implementing the HCP's ecological thinning program. In addition to the primary forest management goals of protecting and restoring biological diversity and protecting water quality, the HCP called for "accelerating the development of late-successional forest attributes in second-growth forest, improving habitat for species of concern that depend on late-successional forest." Accelerating this development would be accomplished through restoration thinning of the younger stands to adjust spacing, reduce competition, and increase species diversity; the ecological thinning in the older stands would create more structural diversity within the canopy and accelerate the growth of understory vegetation.

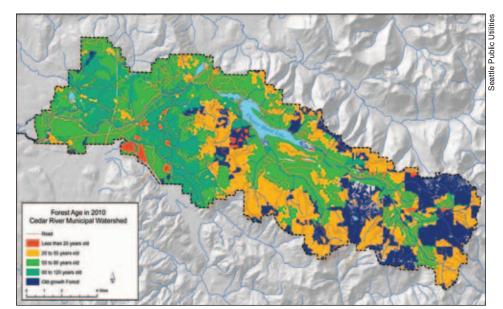
Although the public isn't receptive to logging, the thinning of young stands isn't controversial. "But when we get into thinning older forests to introduce a second cohort and create greater canopy heterogeneity," Gersonde said, "people have questions about that, about whether or not this is necessary, given that our expectations for forest-stand development patterns are such that eventually, no matter what we do, we anticipate that there eventually develops an old-forest structure anyway.'

To gain support for the ecological thinning of the older stands, Gersonde explained that SPU conducted one thinning operation without the stakeholders' involvement to demonstrate what the preand post-thinning would look like. For the succeeding projects, they involved the stakeholders by holding workshops, conducting field trips at the thinning sites, and discussing the benefits of thinning. One of these ecological thinning sites was the 700 Road project, which spanned 2006 through 2008. In this area, stands of mostly western hemlock with some Douglas-fir with a pre-thinning 190 to 350 trees per acre (TPA) were thinned to 140 to 280 TPA (from 330 square feet per acre to 250 square feet per acre).

"Overall, the stakeholders were appreciative of what we showed them," Gersonde said, though some had philosophical differences regarding the need for thinning. The ecological thinning also received support from an unlikely ally.

"The Sierra Club has the policy of not supporting any timber harvest on federal and public lands, but the local chapter actually has taken a stance apart from that policy and is supporting our program as being experimental and limited in scope, and not revenue-generating," said Ger-

The Cedar River Municipal Watershed Upland Forest Habitat Restoration Strategic Plan outlines the forest-management activities that will occur throughout the watershed. Although "this ties our hands in some ways to doing only a certain amount of activities every year," Gersonde explained, "we have since asked the city council for a case-by-case ordinance for a specific project, [and we] also asked for an ordinance to sell over six MBF over five years and to allocate that to certain areas that we specified, and that was ap-



Timber harvesting has occurred on about 83 percent of the 90,638-acre Cedar River Municipal Watershed since 1900. Areas shown in blue are old-growth stands.

ing passed since the HCP began, some of the restoration-thinning programs are winding down in the younger stands, and the Forest Ecology Work Group is transitioning from strategic planning into implementing elements of the HCP, such as road decommissioning. Gersonde estimated that 10 miles are being decommissioned each year. The roads being eliminated are those that models show as creating sedimentation problems or that are located in areas where logging won't occur.

Because the HCP requires the creation of a late-successional forest from second growth, something that hasn't been attempted before on such a large scale, Gersonde said SPU actively collaborates with the Washington State Department of Natural Resources, the US Forest Service, and the University of Washington on experimental silviculture prescriptions, such as variable density thinning, with the intention that these prescriptions could be implemented in other stands if proven successful. Collaboration also occurs with the Muckleshoot Indian Tribe, by conducting projects that enhance cultural resources, such as huckleberries and wildlife habitat.

To measure the success of these thinning and habitat projects, roughly 100 permanent sample plots across the watershed the monitoring expense within the watershed's budget.

In spite of the watershed being closed to public access, there are opportunities for the public to view the HCP in action, whether by visiting the Cedar River Watershed Education Center or joining public tours, or through school programs or field trips. There has been talk of allowing greater public access to the watershed, but that will be somewhere in the future, Gersonde said, as the maintenance of water quality, the security of the dam at Chester Morse Lake (the main water storage reservoir in the watershed), and the protection of the research installations would have to be addressed.

During his years of conducting outreach with the public, Gersonde has found that people have two misconceptions regarding forests.

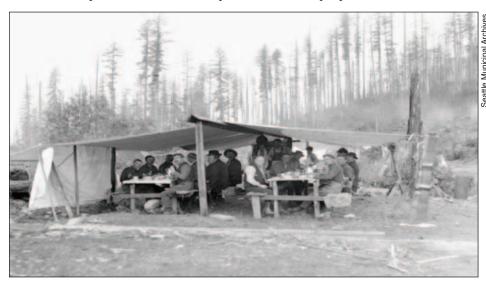
"Sometimes people look at our programs [and] are actually astounded that there is a period of forest development that is not very diverse. The idea that if you just let the forest grow, it will grow to this [characteristic old-growth] structure is just as misleading as well," Gersonde said, adding that he appreciates "getting new ideas from people who think [in] very different directions and [do] not necessarily adhere to certain ideas or effects. To pick up new ideas and not stick with the old patterns, necessarily, or the paradigms we've always thought of. Because there are new ideas that we need [to] at least

Gersonde sees the future of management of the watershed as focusing on ensuring resiliency.

"Much of what we do is monitoring for forest health," he said. "What we've come recently to look at is the question of whether or not the forest is resilient enough to retain its assumed trajectory of developing latesuccessional forest habitat."

With resiliency in mind, Gersonde and his colleagues have initiated a trial planting of Douglas-fir whose seed source is from Oregon, far to the south, and planting Garry oak in the lower elevations of the watershed, a species likely present before fire was excluded from the landscape.

Doing more education about the breadth of ecosystem services provided by the watershed, beyond just providing clean drinking water, is another aspect that Gersonde would like to focus on in the future. From this watershed, he said, society "derive[s] habitat values, carbon sequestration, cultural values. Those are nonexclusive benefits to society, and I think we still have a long ways to go to explain to people that public management of these lands provides so much more to society beyond the immediate goods [of] timber, water, wildlife."



A logging camp dining tent in Cedar River Watershed, 1911. Between 1900 and 1923, an estimated average of nearly 117 million board feet was harvested annually.

of flexibility for what we do, when we do it, and in what years."

#### **Reinvesting Profits**

While the thinning operations don't have revenue objectives, any profits that are realized are placed into SPU's water fund to offset the cost of funding the HCP. Gersonde said that the cost of the HCP is actually going down. With 13 years hav-

proved as well. [This gives us] a little bit have been established for collecting data on whether the silviculture prescriptions are working. Gersonde sees this data collection as making a difference in demonstrating to the public the success of the management efforts.

> "We monitor our outcome. We don't set up projects and walk away from them,"

Although he knows this monitoring is worthwhile, it does take effort to include

## Career Check (continued from page 1)

"In the recent past we haven't had a lot of issues. We have a strong emphasis on collaboration—we work very closely with multiple collaborative groups and with the Klamath Tribes," she said. "We do pretty well with these groups. We know what they want, and we engage with them a lot in the planning process to try to avoid issues at the end. We work with our local mill, too. We're lucky to have a mill on our forest, in Lakeview, and that makes it really easy to get the timber out, compared with other places, because the haul is the most expensive part of logging."

Bly has an associate's degree in natural-resources management, with a wild-life-management focus, from Mt. Hood Community College, in Gresham, Oregon, and a bachelor's degree in forest management with a concentration in wildland-fire management from Oregon State University. As a student, she fought fire as a member of a Willamette National Forest hand crew for three seasons. She credits her fire experience and the two degrees—and a certain amount of persistence—for being hired by the Fremont-Winema.

"They really wanted a forester that had experience in fire. We have a lot of fire on the Fremont-Winema, a lot of lightning, and they wanted someone who could help out with that," Bly said.

#### **Two Diplomas**

Having two degrees gave her a well-rounded education, Bly said.

"Going to Mt. Hood was extremely valuable—it gave me the tools to physically do what I do. When I went to Oregon State, I



With associate's and bachelor's degrees, plus three seasons as a wildland firefighter, Elizabeth Bly landed a job as a forester on the Fremont-Winema National Forest in Oregon in 2010.

met some juniors and seniors who did not know how to use a Relaskop, and I was absolutely blown away that they didn't know how to use some of the basic tools that every forester or natural-resources professional should know how to use. So Mt. Hood definitely gave me a leg up on some of the other students," she said.

Forestry students would do well to pursue a two-year technical degree, Bly said, whether or not they plan to go on to a four-year program: "I definitely think that going to a community college is a good choice. It gives you skills that can serve you well if you want to stop at the associate's degree. Because you have those

skills, you can still compete for jobs with the Forest Service—it's almost like having work experience."

Oregon State's College of Forestry helped her build on that technical foundation.

"I learned a lot at the university, but it was definitely different than at the community college. At the university, in most of your classes you're using computer programs. It's a lot of lectures, a lot of math. These classes help me in my job, because now I'm more comfortable with using GIS, which we use all the time, and other computer programs," Bly said. "The other thing the university does is get you to see the bigger picture. I had classes in economics, forest policy, collaboration—in other words, I learned to focus on more than just the technical aspect of forestry. You begin to look beyond the data to see what different forestry practices mean from different angles, what questions come up, what conclusions you can draw, and how you apply that in the real world."

In one project at Oregon State, Bly and other students wrote a management plan for a tract on the college forest, which included developing a silvicultural prescription, calculating harvest costs, and so on.

Knowledge gained in fire ecology, fire behavior, and fuels-management classes, combined with her experience as a fire-fighter, have proved invaluable in her forestry work on the Fremont-Winema. For example, she served as a fuels specialist for a fuels-reduction project's NEPA documentation team.

You've got to be very proactive. You don't just submit your résumé and expect to hear back from them. If you don't call them, you probably won't hear back from them.

Yet Bly said her experiences at Mt. Hood and Oregon State left her hungering for more knowledge.

"I don't think there is a class like this, but I wish the university or the college would give you a long-term project that's more like a real-world project, one that lets you learn as you go," Bly said. "The scenarios you're presented with at the university are pretty straightforward. But working for the Forest Service can be very challenging and frustrating. There are a lot of hoops to jump through, things that are thrown at you that you didn't expect. Maybe there's a new policy that somebody doesn't agree with, or you come across a sensitive species on a project you're working on, and you're not going to be able to use the main haul road for six

months out of the year, and now you got a figure out a way to deal with those things. Or maybe you've always done things a certain way, but now you have a new hydrologist and they don't want to do things the old way. So you got to stop and switch gears, and then maybe something else will be thrown at you. It would be nice if there was at least one class that could mix things up and make things complex like the real world does, one that could go beyond the by-the-book way of doing things."

#### **The Power of Persistence**

"I have one more piece of advice for students," Bly said. "If you want a job, you really need to go for it. You might not think you're quite qualified, but you have to go for it. When I say that, I mean that you have to submit your application and résumé, and then call the people who might hire you, show up at their office, do whatever you have to do to get them to remember your name. Show them that you want the job more than the other guy. So often, people ask me how I got my job, saying that this kind of job is hard to come by. Well, go to every job fair—you never know who you're going to run into."

A connection she made at a job fair at Oregon State was crucial for Bly.

"There was a Forest Service booth and I went over to talk with them. I was hoping to get some phone numbers so I could start calling people. There happened to be a recruiter there, and he offered me an interview on the spot. I interviewed and then kept in touch," she said. "If I called him and he said he would call me back, and he didn't call me back the next day or the next week, then I called him back again. You've got to be very proactive. You don't just submit your résumé or an application and expect to hear back from them. If you don't call them, you probably won't hear back from them."

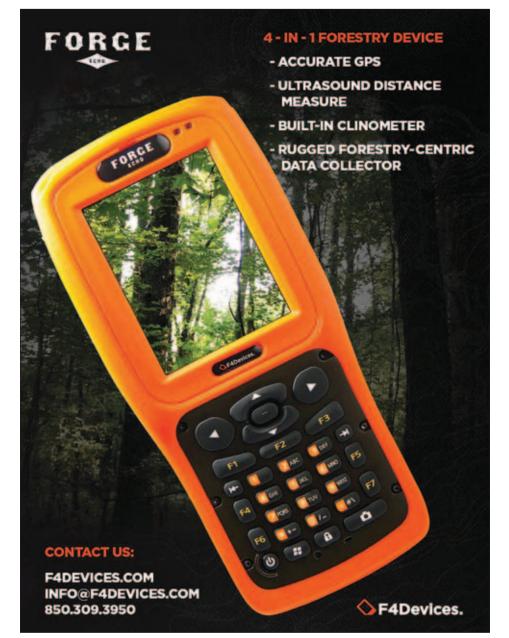
When Bly learned that she was one of several candidates under consideration for the position on the Fremont-Winema, she called the district office to introduce herself.

"I called the district ranger. I had no idea who he was, but I called and said I'd love to come out and meet him and see the office. I wanted that job, so I showed them that I was willing to take the time to drive out there. I think that's partly how I beat out some other folks and got the job. Persistence can pay off.

"I heard from so many students at Oregon State who said, I applied for a thousand jobs! How did you get your job? Well, I applied for two jobs, and I tried really, really hard to get them. You can't just submit an application and wait for a job. You have to go out and get it."

Wilent is editor of The Forestry Source and a part-time forestry instructor at Mt. Hood Community College. Bly was a student in two of his classes.

To read previous installments of The Forestry Source's Forestry Career Check, visit the education page in the professionals section of the SAF website at www .eforester.org/fp/education.cfm.



#### Do You Have a New Job in Forestry or Natural Resources?

Are you a young forester with a few years of work experience since graduating? Or do you employ a promising young forester? Many SAF members would value your perspective. Contact *Forestry Source* editor Steve Wilent at wilents@safnet.org or (503) 622-3033.

#### INDUSTRY NEWS

#### Log Exports Up

US log exports increased by more than 20 percent in the first half of 2013, compared to the same period in 2012, while the value of the exports increased by more than 27 percent, according to the US Forest Service's Pacific Northwest Research Station. US lumber exports in the first half of 2013 increased by more than 6 percent, compared to the same period in 2012, while the value increased by about 12 percent.

About 66 percent of US log exports were shipped from West Coast ports during the second quarter of 2013, a 5 percent increase compared to the second quarter of 2012. During the same period in 2013, West Coast lumber exports represented

about 27 percent of the total US lumber exports, nearly the same as in the second quarter of 2012.

Log exports from Washington, Oregon, Northern California, and Alaska jumped about 28 percent in the second quarter of 2013, compared to the first quarter of this year. Log exports from the region totaled 540 million board feet, with a value of \$398 million, which was up about 34 percent from the first quarter of 2013.

Second-quarter West Coast lumber exports increased by 5 percent to 230 million board feet, with a value of \$172 million, up 12 percent compared to the first quarter of 2013.

"Demand from China is the major reason for the increased log exports we're seeing," said Xiaoping Zhou, a research economist with the station who compiled the data.

At West Coast ports, 65 percent of outgoing logs and 35 percent of outgoing lumber were destined for China.



US log exports increased by more than 20 percent in the first half of 2013, compared to the same period in 2012, while the value of the exports increased by more than 27 percent, according to the US Forest Service's Pacific Northwest Research Station.

## **SAF Career Fair**

Friday, October 25 • 1:00 pm – 4:00 pm

Sharpen your interviewing skills, make connections, then land your dream job. With on-the-spot interviewing and hiring, candidates and employers get to go beyond résumés and cover letters to create win-win situations for employment. Leading organizations from the private sector, academia, state and federal government, and more will be present to select from top candidates.



## Learn more at www.safconvention.org

#### China's Appetite for Wood

During the second quarter of this year, China imported softwood logs and lumber with a total value of more than \$2.2 billion, an increase of nearly \$600 million from the previous quarter, reports Wood Resources International (www.woodprices.com). WRI attributes China's higher demand for wood products to increased construction. Year-over-year, residential building investments in China were up 13 percent, and commercial building investments were up 23 percent, according to recently published official Chinese statistics.

#### **New Pellet Plant in Louisiana**

German Pellets Group, a German company, said it would soon begin construction work on a wood pellet production facility in Urania, Louisiana. The plant will have an annual capacity of about 1 million tons of pellets. According to the company, "The decisive factor for the choice of location was the availability of raw materials in this densely forested region, where the annual timber increment is significantly higher than in Germany owing to the subtropical climate."

The company is constructing one other pellet plant in the United States, in Woodville, Texas; this plant, which is expected to begin operations next spring, will have a capacity of about a half-million tons per year. Pellets from both mills will be shipped to Europe via Port Arthur, Texas.

"Once again, we have chosen a site with well-established wood supplies and logistics," said Peter Leibold, manager of the German Pellets Group, in a press release announcing the Louisiana facility.



## **2013 SAF Vice President Elections**

#### Robert L. Alverts, CF Tigard, Oregon (503) 639-0405 balverts@teleport.com

**Current professional position:** Owner-Operator, Science and Management Consulting, Tigard, OR.

Previous work experience: Regional Science Advisor, US Geological Survey, Biological Resources Division, Portland, OR 2002–2006 (ret. 2006); Natural Resource Manager, US Bureau of Land Management, Portland, Rose-

burg, Burns, OR 1973–2002; Forester, Bureau of Land Management, Medford, OR 1966–1973.

**Education:** BS, forest management, University of Washington, College of Forestry, 1966.

**Professional development:** SAF Certified Forester since 2002. Attended 20 SAF National Conventions.

Year joined SAF: 1966

National offices and positions: Council member, District 2, 2011–2013; Ethics Committee 2008–2010; National Convention Committee 2007 Portland, OR; Arrangements Committee cochair 1999 National Convention, Portland, OR; Communications Committee 1990–1993; Membership Committee 1986–1988; House of Society Delegates member 1983.

State offices and positions: Awards chair,

s an active SAF member for more than 40 years, I consider it my professional obligation to stay engaged in my professional society throughout my lifetime. The time I've devoted to SAF work has been rich and fulfilling. I have made lifelong friends, worked on issues of importance to our profession, developed leadership skills by serving SAF at the Chapter, State and National level, and been associated with some of the finest people anyone could ever know. I am honored to have been asked by the Nominations Committee to run for the position of SAF Vice-President.

I believe SAF has a bright future if we stay focused on the key programs that will help us achieve our mission: 1) an effective membership program and associated member services; 2) a credible and sought-after accreditation program along with excellent relationships with our universities and community colleges; 3) a strong forest policy program; 4) a foundation of forest science, including quality publications, conventions, meetings, and workshops; and 5) a financially stable and viable organization.

To achieve that bright future SAF needs to boldly adapt to opportunities and changes that will help us meet our goals. I fully appreciate and support the strength of the regional variances and diverse cultures that represent SAF members across this great nation and help make SAF stronger. The work being done on private forest land today is exemplary, and I want to be sure that SAF continues to support the working forests on our nation's private lands, including support for tax incentives and reduction of burdensome regulations. I also applaud the work being done by state agencies on state lands. However, the Congressional hearings held this past win-



Oregon SAF 1984–1987; chair, Oregon SAF 1983; chair-elect Oregon SAF 1982; education chair, Oregon SAF 1977–1980.

Chapter offices and positions: Chair, John Day Chapter, Oregon SAF 1974–1976; chair-elect, Siskiyou Chapter, Oregon SAF 1973; delegate-at-large, Siskiyou Chapter, Oregon SAF 1972; pub-

lic affairs/education chair, Siskiyou Chapter, Oregon SAF 1968–1971.

Professional accomplishments: Member, University of Washington, College of Forest Resources Advisory Board 1996–2006; member, Western Governors Association Forest Health Advisory Committee 2002–2005; technical session speaker, 2000 National Convention, Washington, DC; *Journal of Forestry* article on professional recognition, March 1989; House of Society Delegates dinner speaker, Rochester, NY, National Convention 1988; technical session speaker 1979 National Convention Boston, MA.

Awards and recognition: (SAF) John A. Beale Award 1993; Elected SAF Fellow 1987; Oregon SAF Forester of the Year 1978-1979. (Other) University of Washington, College of Forest Resources Distinguished Alumnus Award 2002; US Department of the Interior Superior Service Award 1986

ter pointed out the major differences between the management practices on state versus federal forest land areas. I remain deeply concerned about the condition of America's federal forest and rangelands, and the current policies that influence their management. SAF must remain an active voice in helping improve the federal land dilemma, by providing the necessary science, demonstrating successful management practices, and helping inform political leaders of the consequences of choice.

My term on the SAF Council has been abundantly rewarding, and I am honored to have served with such fine and dedicated colleagues. During my time on the SAF Council I have also had the privilege of working with the excellent staff members at our national office. These are hard working professionals, who deserve and need our continued support as they conduct their important work.

As a member of the Council Finance Committee, we have worked hard to improve SAFs financial position, while also helping grow a culture of giving among SAF members. The new Founders' Circle effort is a positive example. This program, launched in Spokane, has already generated \$70+ k in the first six months. Looking ahead to 2014, our goal is to provide a balanced budget to the Council for the first time in over 4 years. I want to be sure we continue to keep our balance sheet in the black, and use our investment funds carefully, spending only on those activities that help us meet mission objectives.

The other candidate for Vice-President is also a fine professional and friend, one who would serve SAF well if elected. While I would appreciate your vote, I will remain active in SAF regardless of the outcome.

#### Sharon T. Friedman, Golden, Colorado (303) 941-3334 terraveritas@gmail.com

Current professional position: Executive Director, C-3 Common Ground, Common Interest, Common Sense, Golden, CO, 2012– present.

Previous work experience: (US Forest Service) Director of Planning, Rocky Mountain Region (2005–2012); Assistant Director for NEPA, Washington, DC (2001–

2005); Silviculture and Genetics Program Leader, Washington, DC (1998–2001); (CSREES) Forest Research Program Manager (1996–1998); (U.S. Forest Service) RPA Research Coordinator, Washington, DC (1991–1995); Laboratory Director, Placerville, CA (1988–1991); Visiting Scientist, North Carolina State University (1984–1985); Area Geneticist, South-Central Oregon (1979–1988). Attended 8 National Conventions, and Leadership Academy in 2001.

**Education:** University of New Hampshire, PhD 1982; Yale School of Forestry, MS forest science 1977; University of California, Berkeley, BS forestry 1975.

**Year joined SAF:** 1979

National offices and positions: Chair, Forest Policy Committee 2013–2014; Member, Forest Policy Committee 2012–present; Voluntary Organizational Structure Taskforce 2004; Leadership Academy Steering Committee 2002–2003; National Convention Program Committee 2002; 2001–2003 Chair, Forest Science and Technology Board; 1999–2001 Board Member, Forest Science and Technol-



ogy Board, Decision Sciences; 1997–1998 Chair, Technology Assessment and Future Analysis Working Group; 1995–1996 Chair-Elect, Technology Assessment and Future Analysis Working Group; 1992–1994 Secretary, Technology Assessment and Future Analysis Working Group; 1987–1989 Secretary, Tree Genetics Working Group.

**State offices and positions:** District IV Fellows Committee, member 2009–present

**Chapter offices and positions:** Secretary-Treasurer, Berkeley Student Chapter 1974

**Professional accomplishments:** Author of 23 professional and technical articles in genetics, forest management and science policy. Numerous presentations at meetings and conferences. (2009-present) Founded "New Century of Forest Planning" blog, administer the blog and regularly blog and host discussions on forest issues (2001). Organized "Biotech Branches out Workshop" with SAF, Ecological Society of America and Pew Agbiotech; also presented on biotechnology regulation (1996). Presented on "Forest genetics for ecosystem management" at the Creating a Forestry for the 21st Century meeting in Portland, Oregon, and published as a book (1978). Co-edited book Handbook of Quantitative Forest Genetics.

**Awards and recognition:** (**SAF**) Fellow, 2001; (**Other**) Certificates of Merit, Forest Service

hen colleagues asked me to run for Vice President, it was a nobrainer to say "yes!" My enthusiasm is based not only on the people in the Society, and the community we have; what excites me about SAF right now is the Brand Framework and the Strategic Plan. As Forest Policy Chair, I was privileged to get engaged in the process of bringing these ideas into reality.

I've worked long and hard for SAF, in the working groups, with the NCSAF chapter, as the Chair of the Forest Science and Technology Board, and, in 2004, as a member of the Voluntary Organizational Structure Task Force. It seemed like many of us thought change was needed to move into the future, but change is not always easy. And changing a large organization, while remaining true to the essential core, is even more challenging.

Then, when I saw the Brand Framework and read the words: "bringing science, best practice and the best people together to actively shape the future." I said, yes, that's it—I've always known it inside, but there it is, right out in the open. At our best, our strength is that we have diverse groups in the same conversation, treating each other with respect, united by our caring about and for forests. We come from all ownership categories, from all parts of the country, from different disciplines and with different worldviews, with forests in common. I have seen this firsthand by working in California, New England, North and South Carolina, Oregon, Washington, DC, the Rocky Mountains, and the Great Plains.

As Vice President and President of SAF, I would continue to push in the direction set by previous leadership. As we move forward, I would encourage exploring different ways to work across the society to better take advantage of our volunteer horsepower. For example, the Forest Policy folks have been having phone calls with the state society policy chairs to get feedback on position statements and talk about possible joint efforts. What could we accomplish if we were working together on targeted efforts?

Certainly, social media is something we are doing, that we can grow. I started a blog on forestry in 2009, and I learn every day about new ways people talk to, and learn from, each other. I'd like to encourage the younger folks to spread their wings into creative efforts with whatever new technologies or ideas they generate.

If I have a special interest, it would be seeing what kinds of collaboration we could do nationally with other groups, other resource professional societies, state and federal agencies, and all kinds of others. Tackling some of the tough issues that our society faces in forest management requires more than we can do on our own

SAF has built a strong foundation, and set strategic direction. This is the time for us to move forward. Together, we can make the world better for forests, and for people who live and work in, enjoy, and use them.

## Talking with the 2013 Candidates for SAF Vice-President

#### Robert L. Alverts, CF

#### What is the most important issue facing the forestry profession, and how can the Society address it?

I don't think there's a single issue. I think it's a set of complex issues that varies across the world, based on the countries in which we live and work, and in the societal values that are attached to them. Forestry in the United States is in a challenging period. In Canada and in Europe, forestry enjoys greater respect than it does here in the United States.

Part of the reason for that difference is that people in this country have some misconceptions about who and what foresters are. In the United States, people have an understanding that management is important in certain aspects and dimensions of our lives. For example, to maintain a long, healthy life, they believe that you've got to eat right and exercise regularly. People believe that you have to change the oil in your car every 3,000 or so miles. But when it comes to managing the natural environment, people seem to have a very different attitude: that we should leave it alone and live happily ever after. They don't understand the nature of disturbance events. For example, between five to 10 million acres of forest and rangeland have burned every year for the last two decades, and in the Western United States that's largely driven by the fuels buildup and overstocked stands. We have proven that if we manage that vegetation, if we reduced the fuel loading and density, we can reduce the loss of resources and make it a win-win-win outcome.

SAF's core mission is to advance the science, education, and practice of forestry for the benefit of society. We need to stay the course. We are known as people of high integrity and honesty, and I don't think that's changed at all through the years. We work with a lot of different landowners with different values and interests to manage their lands, and part of that is helping them understand the consequences of the management choices they make. We need to continue to demonstrate that we know how to do that, by having an active voice in the development of forest policy, at all levels of our government and in all sectors of society, by showing that we have a robust education system through our accredited forestry schools, and by advancing a natural-resources management curriculum that broadens our profession.

I think we need to focus on five areas to help us achieve that core mission. One is to maintain an effective membership program and all of the associated member services that we expect from our national office staff. I want to grow that membership through seeing employers encourage their people to be members of this organization, and I want to see forestry school deans and faculty encourage their students to

Second, we need a credible and sought-after accreditation program, one that even more schools than we currently accredit seek out, to grow the kind of excellent education that it takes to manage our natural resources for the fu-

Third, we need to grow and maintain a rong forest policy program. Thankfully, we have really turned the corner nationally in this area. We have made a huge difference in some of the discussions on Capitol Hill regarding forestry-related legislation. It is amazing how offbase some of the draft legislation is. We've been able to get some of those bills back on the right track and help advance some of the bills that include appropriate, professional choices. We don't always win, but at least we're being listened to and respected in that arena.

Fourth, we have to continue to provide a sound foundation of forest science. That includes quality publications, quality conventions and meetings, and quality workshops that address current and continuing science, but also the wonderful, rich legacy of science that has been done by our profession over the years.

Finally, we must maintain a financially stable organization. In my time on Council I've been on the Finance Committee, and I can say that we're working really hard to keep us in good financial shape. For 2014, as I leave Council, our goal is to have a balanced budget for the first time in four years. We're working hard to make good choices in our investments and to spend wisely on things that are going to help this organization.

If we do these things, then I think we will be relevant and we will be viable.

#### What is the most important issue facing SAF, and how can the Society address it?

I think it all comes down to the notion of relevance, to be seen as setting the standard for forest management. We've been working hard over the last few years to develop the language of our core mission, our brand promise. Embracing our history while maintaining relevance in the future is a big challenge for us. I've already addressed several of the tools we'll need to use in meeting that challenge.

It's also going to be very important to use tools that the younger generation relates to, to help us connect with young people. All organizations are experiencing challenges in reaching out to the younger generation, many of whom are not "joiners," are not inclined to join organizations—it's not just forestry, and it's not just SAF. But these young people are smart, and if we can show them the benefits of belonging to an organization like ours over the long term, then I think we can change some of that dynamic. Mentoring is one of the best ways that we can do that. Since I joined SAF, I've been mentored by some of the best people in the business. Some of them are still mentoring me, and I value very highly the special bond I have

#### How can SAF attract and retain new members, especially students and recent graduates, our future leaders?

This goes back to what I was saying a few moments ago about mentoring. As members, we all need to take a more active role in encouraging our younger members to communicate with their peers about the benefits of belonging to SAF, because they know better than we do how to use the communication tools that are appropriate for the younger generation. At the same time, we need to mentor these young students ourselves. We need to work with them in the field, help them with career choices, and help them become strong leaders. We can't just leave it to the younger generation—we need to take an active role in bringing in them into the Society and mentoring them as they develop in their careers.

#### What else would you like to pass along to SAF members?

I'd like to say to SAF members that I appreciate who and what they are, and what we as professional foresters are all about. We are people of integrity and honesty, and we have a commitment to effectively manage the nation's forests and range lands. I'm proud to be a member of this profession and to work with so many great people.

I encourage SAF members to continue to stay active and to help this organization advance, so that 100 years from now it will be a strong, viable voice for forestry in America and

#### **Sharon T. Friedman**

#### What is the most important issue facing the forestry profession, and how can the Society address it?

The most important issue facing the profession is the same as it's always been: How does the forestry profession help people understand how to manage forests to meet their needs and protect the environment? That's our job is forestry professionals, and it's something we've been struggling with for a hundred years. SAF can address this through some of the concepts that are in our brand framework, our core language: by being a credible source of information. Our organization includes both practitioners and scientists, and between the practitioners and the academics, we know a great deal about managing forests.

Conveying that information to the public is something that we could do better, and we need to work on that. We need to provide more and better information to state and federal legislators and policymakers, and we need to improve how we give information to people through the media. We have a lot of horsepower within the society, a lot of very knowledgeable people who can help provide an understanding of forest issues, but I don't think we have encouraged SAF members enough, or provided them with training and support for communicating with these groups.

What's most important is that SAF is seen as a trusted source of information. If a member of Congress, for example, says, "I'm going to ask SAF, because I know that they're going to help me understand both sides of this issue, I know they're going to be fair,"—that's how I'd like us to be seen.

Another issue that facing the profession is about our identity. What is our place in the world? Forty or 50 years ago, it was pretty clear who foresters were and what they did. And they did a lot of things that other people do now—wildlife biologists, landscape architects, and so on. An important issue facing us now is, what is our role, given that there are societies devoted to forest restoration ecology, conservation biology, and a whole host of other sciences. There's the Wildlife Society, and we work with them, but there are other disciplines that don't have professional societies. Where do we fit? How does our professional society of practitioners and academics who are dedicated to the management of forests fit into that professional and academic natural resources landscape? SAF can address this by spending more time and effort in developing relationships with the other natural-resources professional societies. That already goes on to some degree at the local level, but I think it would be helpful to pursue this at the national level, and in a more conscious way. We need to look at which things we might do together and which things we need to do separately.

#### What is the most important issue facing SAF and how can the Society address it?

By developing the brand framework over the past couple of years, we have taken steps toward becoming a great organization. Our leadership and our Society have chosen to evolve, to focus on evolving forest management. The most important issue facing SAF today is taking that to the next level, to the concrete level. In the book Good to Great, [author Jim Collins] says that for some of the companies he profiles, the ideas they came

up with never became concrete until they discussed actual things to do. At SAF, we've come up with some good words, but the rubber is going to meet the road when we start talking about what SAF should do, based on those words. I think this is a very critical time for SAF. A program of change, as this is, or what you might call focused evolution, can't be completed in a year or two years. We have focused on our identity, but now we need to decide what we are going to do about it, and this is critical.

Here's one example. Maybe SAF should start a task force on BMPs that looks at which ones are working and then gives states some helpful hints on developing or improving their BMPs. Maybe the task force could partner with hydrologists and fish biologists. So I would say to the Society, okay, let's come up with some ideas like this, look at whether we have the staff time, volunteer horsepower, or the partnerships needed to take them on, and figure out which ones should be our priorities going forward. It is through that kind of conversation that we will begin to put the words of the brand framework into action.

Is there something that we can point to in five years and say, wow, I'm really proud that as SAF chose to do that? What if we put out an array of the things we might do and look at them through that lens—the lens of, would I be proud that SAF chose to do this five years ago? Would everybody agree all of them? No. But could we agree on a couple of them? I think so. That's the challenge for us right now. That's what I'd like to help SAF

#### How can SAF attract and retain new members, especially students and recent graduates, our future leaders?

The evolution that SAF is going through is not ultimately for us, the members like me and Bob [Alverts] and others who are in our 50s and 60s. This evolution is about the Society that students and recent graduates and other young members are going to have in the future. I would establish a task force of members in their 20s and 30s, maybe including students, and ask them what they want from SAF. They've been working in SAF chapters. They've been to school, they're looking at the job market, they're working with today's technology. What do they want from their professional society? Given that a professional society has two main goals: helping professionals become as excellent as they can be, and trying to translate the profession's expertise so that the world can understand and use it, what would they do? I would take such a group's responses very seriously.

## What else would you like to pass along to

I don't know of many professional organizations in which the practitioners and academics in the same field have a chance to talk to each other. To me, that's one of the most important things that we do as a society—it is a key strength of our Society. That dialogue is incredibly rich. But we don't always structure our activities to take advantage of that. Say, for example, we have a panel discussion about some aspect of fire management. Maybe we could invite five academics to talk about that topic, and we also invite five fire practitioners, and we asked them all the same questions. We can design structured conversations in which the questions are framed to be helpful to people doing management today. I bet you would learn a lot from that kind of discussion.

## Update of SAF Governance Documentation to Appear on Elections Ballot

AF will soon ask you to vote on a resolution to be governed by a new incorporating law as part of this year's SAF election process. The SAF Council has endorsed this resolution and opted to include it on the ballot that you will receive on or about October 1:

#### **Resolved:**

To elect to accept the District of Columbia Nonprofit Corporation Act of 2010 (D.C. Code, Title 29, Chapter 4) to govern this corporation, the Society of American Foresters.

DC's revised Nonprofit Corporation Act of 2010 took effect on January 1, 2012. The enactment came as part of a complete revision of all the District's business-organization laws, covering for-profits, nonprofits, partnerships, and other business entities.

The previous major revision of DC's laws governing nonprofit corporations was in 1962. Because SAF was incorporated in DC in 1928, long before 1962, it is a special kind of corporation: an "Old Act" entity incorporated under a 1901 DC law that was in effect before adoption of the 1962 law. After

1962, Old Act corporations had two choices: remain governed by the 1901 law (with its relatively few requirements) or elect to be governed by the 1962 law (with its greater requirements but also its greater certainty). SAF did not file an election to accept the new law and has continued to be governed by the 1901 law.

In its current form, the 2010 act requires Old Act corporations to file a statement within two years after the effective date of the new law (by January 1, 2014, since the law didn't take effect until 2012) to elect to be governed under the new law and its regulations (which are not yet final). Old Act corporations that do nothing by the end of 2013 will likely either be assumed by the DC government to be governed by the new law or be administratively dissolved. There are benefits to updating our incorporation with DC, as we are granted various new options for operating electronically and other important protections. Because SAF was incorporated in DC, it is best to keep our incorporation in DC. If we were to reincorporate in another state, we would have to dissolve SAF as it currently exists and reap-



As part of this year's election process, SAF members will soon be asked to vote on a resolution to govern SAF under a new incorporating law. The SAF Council has endorsed this resolution and opted to include it on the 2013 elections ballot.

ply for tax-exempt status with the Internal Revenue Service, among a host of other legal processes.

The first step for SAF is to elect to be governed under the new law. This election then requires SAF to update its governing documents. SAF President Joann Cox has created an ad hoc committee to begin the process. The committee is tasked with rewriting SAF's articles of incorporation and modernizing its constitution and bylaws to comply with the DC law. Under this new format, the constitution would largely be incorporated into a new bylaws document, which would also comprise components of the existing bylaws. The DC law prescribes the various elements needed in the bylaws documentation. Anything that does not fit within the DC law's structure from the existing constitution and bylaws will be combined into a policies and procedures manual.

All of this effort provides a strategic opportunity to modernize SAF's governance processes and procedures and to continue to position SAF for the future. In 2014, Council will review the new articles of incorporation, the new bylaws (that replace the constitution and elements of the old bylaws) and the policies and procedures manual. They will make a recommendation on the articles of incorporation and bylaws and present them for referendum to the entire SAF membership in the fall of 2014.

In addition to the resolution regarding the new incorporating law, the ballot you receive in October will ask you to vote for an SAF vice-president and Council members

#### **National Office Update**



Sam Delfing recently served as SAF's Henry Clepper forest policy summer intern. In this role, Delfing supported SAF's forest policy initiatives by preparing daily

news updates on forest and naturalresources policy; monitoring legislation and attending relevant congressional hearings; recording and organizing information from conference calls, conferences, and meetings; and serving as a liaison to other natural-resources organizations. In addition to her work at SAF headquarters in Bethesda, Delfing organized an Intern Luncheon for interns working on naturalresources issues in Washington, hosted by the National Capitol SAF. Delfing served as moderator of the event and led a panel discussion focused on the experiences of natural-resources interns in Washington, DC, and what the NCSAF and other groups could do to improve the intern experience. Delfing is a graduate student at the State University of New York College of Environmental Science and Forestry-Syracuse, where she is completing a master's degree in forest and natural-resources management. She also holds a bachelor's degree in environment and natural resources from the Ohio State University.



Kelton Chapman is SAF's new assistant manager of exhibits and registrar for the Society of American Foresters. Chapman is a seasoned events management profes-

sional with a broad base of knowledge within the meetings industry. In this position, she is responsible for overseeing the collective coordination of all SAF event information and resources, as well as account services, sales prospecting, and business development for the SAF annual convention. Chapman has more than 10 years

of experience managing events and trade shows. Most recently, she was assistant manager of meetings and special events for the Patient-Centered Outcomes Research Institute (PCORI), where her primary responsibilities included managing workshops, trade shows, receptions, and board and committee meetings. Chapman has also held positions at the American Jail Association, BioReliance Corporation, and the American College of Cardiology. She has a bachelor's degree in business administration with a concentration in marketing from Bowie State University, and is also a certified trade show marketer (CTSM) candidate.



Danielle M. Watson is SAF's new forest policy associate. In this position, Watson will support the Society's national forestpolicy efforts to influ-

ence the legislative

and administrative actions that affect federal, state, and private forestlands. She also will support SAF's state societies as they address state-specific policy issues that may have national implications. Before coming to SAF, Watson worked for the Washington, DC-based economic consulting firm ARPC, where she managed teams assisting in mass tort litigation related to asbestos exposure. Prior to joining ARPC, Watson was an intern with the National Association of State Foresters. She also served as the communications intern at the Public Information Office in Harrisonburg, Virginia, where she assisted with revamping the city's water quality website, educating citizens on common sources of pollution, and implementing community-level solutions, such as adding trees and other green infrastructure to control stormwater runoff. Watson holds a juris doctor from Vermont Law School and a bachelor's degree in communication studies from James Madison University.



## What Forestry Needs in the Anthropocene

n September 17, 2013, I will be giving a presentation at a Pinchot Institute Conference in Washington, DC. The focus of this conference is Forest Conservation in the Anthropocene. The idea behind the conference is that people are having such large effects on the environment, globally, that we can consider that, from a geological point of view, we have entered a new era. I have been asked to talk about Adapting Forest Science, Practice, and Policy to Shifting Ground: From Steady-state Assumptions to Dynamic Change.

My work in ecology began in forests and forests continue to be a major emphasis. I have spent almost half a century trying to understand how forests work, and to use that understanding to solve forest-related environmental problems, and to come to know what our place within forests should be, both in terms of what is best for us and for forest ecosystems. To understand forests as environment and how we are and should manage and conserve them, we have to deal with three questions: Who owns and controls our forests, how do management and concepts have to change, and what has happened to public attitudes, interests, and appreciation of forests?

The simplest of the questions to answer is the second: How does management have to change? What forestry needs in the Anthropogenic Era is what has been needed for the past 30 years. The proper methods, theory, and goals have been clear and are available; the failure has been, and continues to be, that our laws, policies, and actions are misdirected because we confuse a truly scientific base with nonscientific beliefs. That is, we call it science while its fundamental assumption is a folktale. Specifically, the folktale is the belief that there always has been and must be a balance of nature —nature in its single equilibrium state, unchanging forever, except for our actions, which are always considered negative. In reality, modern science makes clear that the environment and all ecosystems are dynamic, nonsteady-state systems; that species have evolved with and adapted to the changing conditions of these ecosystems; and that many, perhaps most, species require changes in the state of the environment.

The result is a confusion of folklore and science that is counterproductive, both for forests and for human needs and desires. Our love of forests gets confused with our attempts to understand them. Perhaps the most familiar example is policies and actions about forest fires. Although forest scientists, foresters, and forest ecologist have long known that frequent and therefore light forest fires are necessary to sustain many, perhaps most, kinds of forests, and that prescribed burnng is an important tool, public policy continues to put forward Smokey Bear, "Only you can prevent forest fires," and there is continual opposition to prescribed burning. But the problems run deeper.

For 10 years I directed studies in the states of Oregon and Washington concerning the relative effects of forest practices on salmon. During the Clinton ad-

ministration, laws and policies were established that required no-touch zones near to salmon streams, expressed as no closer that the distance twice the height of the tallest old-growth tree characteristic of the forest. The underlying assumption appears to be that old-growth, and only old-growth, is necessary for the persistence of salmon.

It is well-known among salmon ecologists, however, that the food chain on which young salmon depend in fresh water streams begins with the nitrogen fixing capability of alders and their bacterial symbionts. The nitrogen necessary for the salmon food-chain gets into the streams through the fall of alder leaves, and twigs, and possibly through groundwater and subsurface seepage. But alders are characteristic of early successional stages. Therefore, some disturbances at some recurrent rates are necessary for the persistence of salmon. Thus the policy that requires no-touch is based either on a belief that supply of alder nitrogen is not necessary, or that somehow, in the great balance of nature, natural disturbances will always provide sufficient early successional stages for the growth of alder. Instead, we can propose a careful ecological management of salmon streams in which the equivalent of a river keeper watches over the stream and determines when some clearing is necessary. That would be forest conservation and management in an ever-changing environment.

If this is obvious and the methods have been available, why aren't management and conservation acknowledging the dynamic character of forests in practice? Especially since the understanding of nature's dynamism has been clear for at least more than two decades, as discussed in my 1990 book *Discordant Harmonies*, and updated in my latest book, *No Man's Garden: Discordant Harmonies Reconsidered*.

Of course, we who study and manage forests have to admit that a lot of the opposition to timber harvest is a reaction to long-standing misuse of many forests, of poor practices, of mining rather than attempting to sustain the forest, especially in the 19th century and early 20th century. In addition, there is the continued dominance of the balance of nature belief, and two other reasons that forest conservation and management are stuck. One is the great change in forest ownership. Until the 1980s, most private forests were owned by 15 major timber corporations, and forest research was expanding. Today, not a one of the major timber corporations owns any significant forestland. They sold their forests. The major, large private owners are real estate investment trusts (REITs) and timber investment management organizations (TIMOs). From the environmental side. The Nature Conservancy has grown to become one of the largest owners of private forestland in our nation. One cannot overestimate the importance of this change. Oddly, almost nobody knows about it. Almost nobody talks about it.

According to Peter Stein, writing in *Forest History Today*, "By 2004 only six of these fifteen were traditional forest

product companies; of the remaining nine, seven were TIMOs and two were REITs. In 2010, only one of the top fifteen US forestland owners was a traditional owner, while ten were TIMOs and four were REITs. In addition, since 1995, more than half of the nation's 68 million acres of private industrial timberland has changed hands, most within the period from 2000 to 2005" (Stein 2011).



Before this change in ownership, forest corporations and environmentalists held many different opinions about how forests should be managed, but both were in it for the long-term. Timber companies saw their profit from the sustained yield of their lands. The primary goal of REITs and TIMOs, however, is to make a profit by buying and selling land. There is less inherent interest in how these lands are used and to what degree the forests achieve sustainability. Some REITs seem to be attempting to do a decent job of forest management, even so. But those of us who hope for best management have to add a new level of watchfulness and

Forest research and its funding appear to have declined since the 1980s, when forestry was one of the central environmental issues. The traditional timber companies supported their own research, some of it substantial, like that of Weyerhaeuser Corporation. Research conducted by the former major traditional timber companies is over. In addition, a 2002 National Academy of Sciences report noted, "The USDA Forest Service has experienced a 46 percent decrease in number of scientists in the last 15 years, from 985 in 1985 to 537 in 1999." Since then, the number of Forest Service scientists has dropped even more, to 498 in 2008, the most recent estimate I have found (Committee on National Capacity in Forestry Research, 2002).

This NAS report warns "The waning Forest Service research base may be challenged as demands on forest resources increase. Enhancing the nation's forestry-research capacity must deal with the tangible matters of substance—funding, facilities, and equipment, and personnel—and with intangible matters of perception and values—priorities, organizations, structures, and leadership" (Committee on National Capacity in Forestry Research, 2002).

How could this have happened? Part of the answer is the decline in media attention to forests and public interest in forests. Almost nobody I talk with, including professional forest scientists, know about the great change in forest ownership. Consider this: through the 1980s, forests were among the most talked about environmental problems. Then, most aspects of forest use were the subject of lively discussions, including the importance of old-growth, the role of forests in affecting salmon habitat, the certification of forest practices as sustainable, whether timber corporations and the Forest Service were managing forests properly, and what were the roles of stages in forests succession other than old growth.

Today we hear about forests as possible carbon sinks and players in climate change, and we get alarmed about forests when there are major wildfires. Much of public and media attention about forests is reduced to very simple statements, such as "Stop tropical rainforest deforestation." Therefore, one of our tasks is to renew public interest and concern about forests, which in turn may help promote more governmental and private monitoring and research.

So the challenge that lies before those who wish to see ecologically sound management and conservation of forests is to reawaken public, and therefore, policymakers' interest in forests. This includes helping society move away from the deep-seated belief in the balance of nature. Can this be done?

Here is one encouraging case. Bob Williams, a certified forester practicing in the Pine Barrens of New Jersey, received New Jersey Audubon's Conservationist of the Year Award. He has successfully planned timber harvests for commercial and government forests for more than 20 years, converting what had become littleremembered and poorly cared–for forests into stands that provide valuable timber products, make profits for the landowners, and improve the conservation of biodiversity in the unusual oak-pine forests of the southern New Jersey coastal plain. His management includes prescribed burns, done very carefully, as well as timber harvest of carefully selected trees.

There is hope for forests and forestry in the United States, if we have the will and commitment to make this happen, and if we open our minds to new ideas and to the connections between people and nature that can be constructive for both the forest ecosystems and ourselves.

Daniel Botkin, an SAF member, is a scientist who studies life from a planetary perspective. His latest book, The Moon in the Nautilus Shell: Discordant Harmonies Reconsidered, was published last year (www.danielbbotkin.com).

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## Science & Tech

# **Demystifying Lidar Technologies for Temperate Rainforests in the Pacific Northwest**

#### By Rhonda Mazza

small plane cruises above the steep slopes of Oregon's Coast Range. It's early morning, and the air is still. Flying low at about 3,000 feet, the plane adopts a methodical flight pattern, moving back and forth across 20,000 acres of mountainous topography, where snatches of fog lie trapped in the deeply creviced range.

The aircraft is equipped with remotesensing technology. A laser instrument on board typically emits more than 100,000 pulses of light per second toward the ground. When each pulse encounters something solid below—a treetop, vegetation, the ground—some of its energy bounces back toward the plane. A very sensitive sensor records the number of nanoseconds it takes for the pulse to return and the strength of the return. During an 11-hour flight over the Siuslaw National Forest and adjacent private forestland, a billion precisely referenced points in space were generated. For an acquisition of two million acres, the size of several recent lidar campaigns in Oregon, dozens of billions of data points are recorded.

Once processed, these incredibly precise light detecting and ranging (lidar) data can provide a detailed, three-dimensional description of the forest below. These data are used to map, monitor, and assess the condition of forest resources.

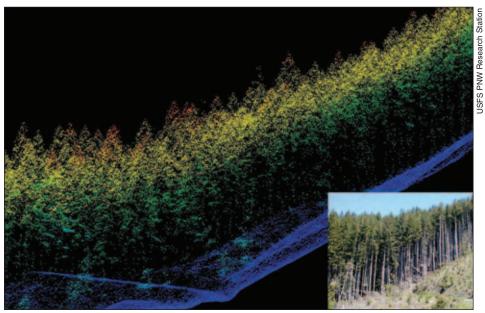
"Lidar enables a three-dimensional description of trees because it penetrates their crowns," says Demetrios Gatziolis, a research forester with the Pacific Northwest Research Station. "For foresters, that is a big advantage. Other tools such as aerial photography and satellite imagery only capture the tops of trees."

# Tropical rainforests with six or seven canopy layers and wide variety in vegetation were posing their own problems for interpreting lidar data.

The value of data, of course, lies in the analysis. Left unprocessed, billions of data points are simply space hogs taking up an exceptional amount of disk space on one's computer. Much of Gatziolis's recent work has involved testing and writing computer code that is used to translate gigabytes of data from airborne laser scanners into meaningful information.

#### **Emerging Technology**

"Lidar is very young technology," Gatziolis explains. Airborne laser scanning systems were introduced in the late 1970s and first used by the US military. It wasn't until global positioning systems (GPS) became commercially available in the 1990s that lidar became a feasible tool for use in other fields. Astrophysicists and meteorologists, for example, use it to study the gaseous composition and wind speeds in the atmosphere. It enabled the creation of a detailed topographic map of



This synthetic image shows the distribution of lidar laser returns colored by height. Objects near or on the ground are depicted with darker tones, whereas those near the tops of trees are lighter.

Mars, as well as advanced mapping on Earth that revealed a previously unknown fault line. It is used to track the subtle movement of glaciers, and much more.

Forestry professionals in Scandinavia were the first to embrace lidar as a tool for conducting forest inventories. Thus, many of the initial "best practices" for acquiring lidar data and their application to forestry were developed for use in Sweden, Norway, or Finland. Most of the commercial forests in those countries have relatively simple structure and grow in areas with gentle topography. Those conditions are far different from the dense, multilayered canopies on rugged terrain that characterize the coastal temperate rainforests of the Pacific Northwest.

In the mid 2000s, when Gatziolis and his colleagues compared lidar products generated by standard specifications and methods with field observations, they often noticed discrepancies. They hypothesized that elevation was being overestimated and thus tree height was underestimated. If tree heights were off, this would lead to further errors when tree heights were fed into equations estimating wood volume and biomass—key forest inventory attributes used in forest management and planning.

Following their hunch, the scientists designed a study to verify that the discrepancies were indeed real.

#### **Ground Truthing**

For this study, Gatziolis selected a 20,000-acre area on the Siuslaw National Forest in Oregon and some adjacent private land. Collecting the lidar data was the easy part; the harder part was obtaining the field measurements. Gatziolis recalls with a grimace the experience of hiking through neck-high brush to get to study plots. He used survey-grade instruments to establish the plot centers. These tools are capable of accurately locating a point on the Earth's surface within half an inchbut only with clear access to a satellite signal. More often than not, satellite reception was blocked by the tree canopy. To accommodate this, Gatziolis and his crew would triangulate from the nearest open areas and identify plot center. They then recorded the elevation throughout the plot

and measured tree heights and diameters. Back in the office, Gatziolis used the lidar data to create a three-dimensional model of the plots and checked his results against the field measurements.

Indeed, after processing the lidar data from the Siuslaw acquisition and comparing them to the field measurements, Gatziolis's hunch was verified: the leading software for processing lidar was being fooled. The density of the evergreen tree canopies in western Oregon and Washington, combined with the terrain, were leading to inaccurate findings. Gatziolis explains: "The energy of the pulse was not strong enough to consistently get through the canopy. The model didn't have enough information, because there were not enough ground returns."

Shortly after Gatziolis published these findings, he began hearing from other lidar users around the world. "I heard from people working in the Amazon and in Southeast Asia. They'd say 'you reported some problems in western Oregon, but I think we have worse problems here." Tropical rainforests with six or seven canopy layers and wide variety in vegetation were posing their own problems for interpreting lidar data.

Gatziolis and his colleagues began pinpointing ways to better adjust lidar equipment during flyovers. To do this, they worked closely with Watershed Sciences Inc., a lidar data vendor based in Oregon. They discovered that better information could be obtained by adjusting equipment to acquire data at narrower scan angles, using lower scan frequencies, and slightly changing the technique for processing the laser return signal. These adjustments have since been adopted as general specifications by the Oregon Department of Geology and Mineral Industries, which leads a consortium of laser data users in the state.

The researchers also began reworking the mathematical algorithms and writing new computer code so that modeling based on lidar data will produce results that better match conditions on the ground. As part of this, Gatziolis developed an automated processing technique that delivers consistent lidar intensity data, which helps users more accurately classify

groups of tree species.

"It's easy to be lulled into thinking the perceptions from computer visualizations of lidar data are accurate," Gatziolis explains. "You have this nice picture on the screen; it appears plausible and is aesthetically pleasing. Unfortunately, they can contain serious systematic errors that remain undetected unless there is a provision for independent evaluation."

Field measurements are costly and time-consuming to obtain. Gatziolis points out, however, that for large laser acquisitions, researchers may be able to use the field measurements collected as part of the US Forest Service's national Forest Inventory and Analysis (FIA) program to assess the accuracy and precision of their lidar output.

The cost of acquiring lidar data has dropped steadily in the last decade. "With the same budget, it is possible to do much more than before," Gatziolis explains, "This appeals to land managers."

Seven years ago, the amount of data collected in a single acquisition was a problem—the sheer volume of data was more than a standard hard drive could handle. Now, the data collected from the Siuslaw study can fit on a thumb drive. Efficient processing of the data is still another matter. That requires far more computer processing power than available from the average laptop computer.

Much of the forested area in Oregon has been scanned at least once with high-density lidar. It's common for researchers from various federal and state agencies to pool resources and share lidar acquisitions—a hydrologist and forester can both gain useful but different information from the same cloud of data.

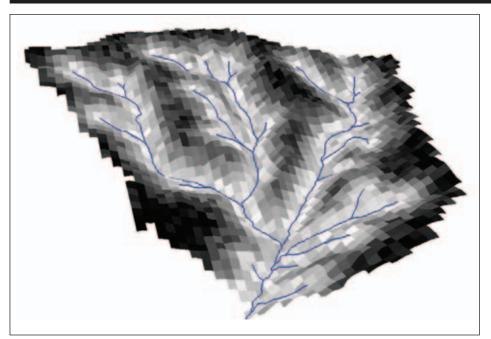
"As a forester, my data are the trees. A hydrologist needs a detailed description of the ground. Instead of each of us paying for two independent acquisitions, we can do one together and then focus on the data that we each need. We sometimes say, 'your noise is my data,'" Gatziolis explains. This type of collaboration can help make lidar-based investigations financially feasible.

#### **Estimating Productivity**

As a side study, Gatziolis used the lidar data from the Siuslaw acquisition to assess site index, a measure of the land's ability to grow trees. "When I was pleading with tree-farm owners to let me put study plots on their land, they educated me about rules the government puts on their management practices. One of their top complaints was that they couldn't use the most productive land to grow trees as it was next to a creek and within the riparian buffer."

In Oregon, landowners are required to maintain riparian buffers along most streams to protect water quality. Limited management is permitted within these buffers. "Although it wasn't the original intent of my work," Gatziolis says, "I thought maybe I could help determine where the most productive land actually was."

To determine site index, one needs to know the tree's age, species, and height. This information is then fed into equations and measured against growth curves to see how the tree's growth compares with its



In a novel application, a station scientist used lidar data to evaluate site index in the Oregon Coast Range. The lighter tones in the figure above denote areas of higher forest productivity. The dark lines are the stream network.

species' potential growth in optimal conditions. Normally, this is a fairly laborious and costly endeavor. In this case, however, Gatziolis already had the lidar data containing information on tree height for the area. Conveniently, he found planting dates in management archives from the Siuslaw National Forest and in operation plans shared by tree farm owners, thus eliminating the need to take core samples from individual trees and count growth rings to determine their age.

Gatziolis found that within the study area, the highest site index was not along the creek. It was 100 feet upslope, outside the buffer zone within which management operations are regulated. "When I talked with a biologist, he said, 'Of course, it's too wet down by the creek.' But knowing and proving it is a different story." Gatziolis points out that this study examined a small area where water is not the limiting factor to growth. In a drier environment in which water is the limiting factor, the findings would be different.

"In my current research," Gatziolis says, "I'm trying to teach the computer how to convert the lidar cloud data to three-dimensional models of the trees that

are there and then assess the lighting regimes within the tree stand. Initial results indicate that wherever high-density lidar data are available, it is now possible to compute if and for how long during a specific day of the year an area of interest receives direct sunlight."

This type of information can be used in assessments of habitat suitability, tree regeneration potential, location-specific stream shading, and temperature regimes.

Nickolay Strigul, a professor at Washington State University, is incorporating this modeling into his work examining the self-organizing patterns of forested ecosystems.

"This technique allows us to judge shade for individual trees and helps us understand how they compete for space," Strigul explains. "This is otherwise very hard to determine from an aerial view, and from the ground it would take an enormous amount of time. Using lidar in this way creates an unbelievably powerful tool and opens up another dimension into what we can do.

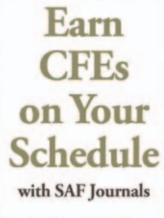
"It helps us understand nutrient flows and ultimately better understand carbon cycles," Strigul continues. Trees that create more shade have bigger, fuller canopies. This makes shade a good proxy for helping evaluate productivity of individual trees. The trees that are getting more nutrients and water ultimately sequester more carbon because they have the resources to grow bigger compared to a tree in a less-productive site. With calculated information about the performance of individual trees, researchers can better estimate the carbon dynamics of a forest.

It's applications like this that get people excited about lidar. Assuming acquisition specifications and analysis methods are adjusted to local conditions, the unprecedented ability to identify the distribution of forest resources means that lidar output can contribute much to forest management and planning.

Rhonda Mazza is a science writer with the Pacific Northwest Research Station in Portland, Oregon. She can be reached at rmazza@fs.fed.us. Gatziolis can be reached at dgatziolis@fs.fed.us. This article was first published in the Science Findings newsletter, April 2013. The original, at www.fs.fed.us/pnw/publications/scifi .shtml, has additional images.

#### **Erratum**

In "AFRIDS Helps Weyerhaeuser Use Lidar to Improve Forest Inventories" (August), we erred in stating that lidar data "wasn't sufficient" for "calculations of gross merchantable volume, stand height, and diameter distribution of stems in a block." According to Weyerhaeuser forester Vashti Dunham, the lidar data provided useful results on height, volume, and diameter distribution, but separate field inventory data was needed to verify tree species.



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#### **Lidar Technologies: Key Findings**

idar-derived terrain models describ-Ling bare earth surfaces under dense temperate rain forest vegetation on steep slopes often substantially overestimate elevation and thus underestimate tree and vegetation height. The bias can be reduced by adjusting equipment to acquire data at narrower scan angles, lower scan frequencies, and by specialized processing of the laser return signal.

► A novel approach for correcting intensity—a lidar parameter used to discern species groups—now dramatically improves the accuracy of species-group classification over mountainous terrain.

The assessment of site index, hich describes forest productivity, is notoriously challenging and costly to obtain. For the first time, site index maps were produced by combining data management records from private and public lands with lidar data.

#### **Land-Management Implications**

► Lidar processing software that is dynamically adaptive to local topographic conditions and continuous analyst evaluation is essential for processing lidar data collected over mountainous terrain. If processed without these, the generated information would likely lead to suboptimal or wrong decisions when applied to the Oregon and Washington Coast Range or other similar regions.

► Advances in processing lidar data are improving their utility for a variety of applications such as assessing wood volume, carbon sequestration levels, biomass, canopy cover, stand structure, land productivity, wildfire risk, and more.

▶ Ground truthing is essential to any modeling exercise. For larger lidar acquisitions hand-collected data from FIA plots across all biomes within the US can be used to assess the accuracy and precision of lidar outputs.

► When combined with local expertise, lidar outputs are ideal for tactical decision-making. This research helps to identify areas where lidar output may not be accurate, and thus enables users to plan accordingly.



## Forest Metrix Offers Custom Inventory Software on an iPad Mini

**By Steve Wilent** 

ould you be willing to pay \$1,199 for forest-inventory software that runs on a tablet computer? Plus a \$299 annual service fee? That's not an unreasonable price, though it may be too high for some small consulting firms. What if that software was customized to meet your needs, and only your needs, with an interface designed around the way you cruise timber or collect other data? Too good to be true? I would have said so myself, until I tried Forest Metrix, from Field Truth Inc.

Forest Metrix was designed for the iPad Mini, a smaller version of the iPad tablet (iPad Mini dimensions are 7.9 inches by 5.3 inches by 0.28 inches, and it weighs 0.68 pounds—about typical for most consumer-oriented tablets). The software also runs on the iPad and iPhone, as well as the Microsoft Surface Pro tablet, which uses the Windows 8 operating system, and Field Truth says it will run on most desktop computers, including Macintosh (OS X 10.6 or higher) and Windows (XP, Vista, 7, and 8). However, Forest Metrix was designed primarily for use on the iPad Mini.

If you buy Forest Metrix, you won't get a shrink-wrapped box with a CD inside. Here's how it works in most cases: You sign up for a free trial and then talk with the company about how you work in the woods.

"Typically, it starts with a phone conversation," said Donn Downey, who founded the company in 2012 with partner Tig Tillinghast. "We'll talk for an hour or so to get to know what they're actually doing in the woods, to understand their region, their markets, who they're serving. If they're still using paper forms, we'll ask them to send us copies. We want to know what their management plans look like, so we can get an idea of what data they're gathering, and that informs our design process. It usually takes a week to two weeks, depending on our backlog, to rough together a prototype interface."

Field Truth then sends you a brand-new iPad Mini, unless you already own one, loaded with the customized version of Forest Metrix.

"After they get the unit in hand, we provide tutorials, using GoToMeeting [an Internet meeting and collaboration service] or just over the phone, to help them understand how the product is structured and to get them started so that they can start playing around with it on their own," Downey said.

Through "playing around," users give Field Truth feedback for further customizations, if need be.

"Usually, we go back and forth a couple of times," said Downey. "They'll say, can you tweak this? Or, can you move this field over here? Eventually, we get to the point where they're up and running."

Revised versions are delivered via e-mail. Trial periods are advertised as two weeks, but Downey says the company is often flexible with the length. Happy with Forest Metrix? Keep it and pay the purchase price. Don't like the product? Send the iPad back to Field Truth and pay only the shipping.

"We obviously hope that they will keep them," said Downey. "You really have to get the product in your hands to understand its capabilities. Basically, we get to the 99 percent level before they decide whether they're going to keep it."

In only a few cases have prospective clients returned the iPad Mini, according to Downey.

If you choose to keep the software and the iPad Mini, you pay \$1,199 for the software, including customization and the first year's annual service agreement, plus \$329 for the iPad Mini with 16 gigabytes of memory and WiFi, or \$459 if you want to add Verizon, AT&T, or Sprint cell-phone service. (These iPad Mini prices match the retail prices at the Apple online store, Walmart, and other retailers.) Field Truth may charge more for some complex customizations, such as dynamic value lists, in which the values allowed in one field depend on the values entered in another field (for example, to prevent a five-inch diameter spruce from being counted as a saw log). Downey said that one client is paying for an interface that looks and acts like an old-fashioned dot-tally inventory form.

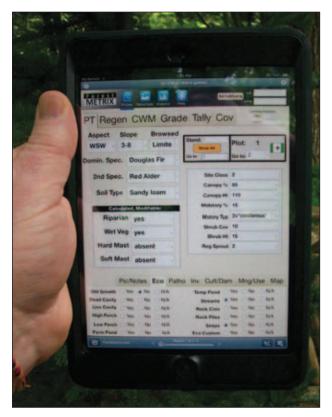


Figure 1: Forest Metrix can be customized to fit a wide range of natural-resources inventories.

Bottom line, if you don't have an iPad Mini: \$1,528. After the first year, you'd also have to pay the \$299 annual service fee, which includes unlimited phone support and training, plus two hours per year of additional customization, such as adding or modifying interface features, data collection methods, or customized analyses.

I don't know of any comparable software that you can have customized to suit your work. The customization alone could pay for itself, if helps make your time in the field more efficient. But what about the software? Is it robust enough for real-world forest inventory projects?

#### **Using Forest Metrix**

Downey sent me an iPad Mini with a version of Forest Metrix designed for one of the company's clients, with the interface designed mainly for a traditional timber inventory. The interface included three main sections, each accessed by buttons at the top of the screen: Point Data, Stand Data, and Analytics (see Figure 1). The Point Data area included a number of subsections for describing the plot, recording tree measurements, and

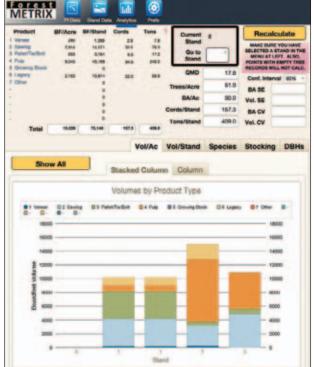


Figure 2: Through its Analytics section, Forest Metrix offers inventory summary data and charts.

entering information about regeneration, course woody debris, and understory vegetation. Tapping on a "Set Lat/Long" button on the Forest Metrix Point screen records the latitude and longitude of a plot center or other feature. For each of several example plots, I selected information from pre-defined lists for slope, shrub species, canopy closure, and so on. I also recorded data for a number of trees at each plot, such as species, DBH, height, and grade and cull percent for each log. The company did no customization for me, except to load a list of species for my region.

The Stand Data section included information such as stand type, size, growth-model variables, and so on, and the Analytics area provided a summary of the timber inventory and charts, such as volume per acre and by species and stand (see Figure 2). When I returned to my WiFi-enabled office, I was able to send data and reports as Excel (.xls and .csv) and PDF files by e-mail.

Although this version of Forest Metrix was not designed for me, I could see how it might serve the actual client well. Downey sent a second, very different version created for another client who focuses on wildlife habitat and ecological values rather than timber, and it naturally had a much different interface (Figure 3). This, too, seemed well-designed for its purpose. It also demonstrated Forest Metrix's flexibility: It can be designed to fit inventories of most any forest resources.

To get another perspective, I asked Downey to point me to one of the company's clients. He directed me to Jeff Smith of Butternut Hollow Forestry, a consulting firm based in Thetford, Vermont. Smith manages about 10,000 acres in Vermont and New Hampshire held by more than 50 clients, mostly private landowners, but also some municipal forests. After seeing a demonstration of Forest Metrix last winter, he tried the product and eventually bought it, along with an iPad Mini. Smith said the customization process went smoothly.

"We went back and forth several times. It actually evolved in a hurry, once I understood what the software could do," Smith said. "Initially, I didn't think that I could customize the interface as much as I could, but once I learned that I could have certain buttons with drop-down menus in certain places, and that I could have them sequenced in a way that fits the way I collect data, I said, 'Well, how about arranging it this way,' and 'Let's put that over here.' And it worked. It seemed like they understood what I wanted and were able to make it work. One of my clients is interested in songbird habitat, and they were able to develop an interface where I can collect certain data related to that, which is pretty neat."

Smith said Forest Metrix takes the place of some of the desktop-computer software he has used.

"Since they're including a lot of volume equations and that kind of thing, it actually eliminates the need for separate forest inventory software, because it's crunching all the numbers," he said.

Smith has found the output from Forest Metrix to be

"I like to take certain tables, charts, graphs, or whatever and cut and paste them into my forest management plans. That can save a lot of time and helps you make a high-quality, professional-looking report, and that's important."

However, the output of some data types could be better, he said.

"I think they need to streamline the output process, so it's a bit smoother. For example, there's a fair amount of data that you can collect that isn't for number-crunching—narratives, notes, photos, and those kinds of things, and there needs to be a better way to output all of that. But otherwise the data-collection part is working very well," said Smith.

Field Truth has been responsive to Smith's requests for assistance, which most often has been related to the iPad Mini, rather than the software.

"Support seems pretty good," he said. "It's available when I need it. Many times—since I'm not so iPad savvy—it's for some of the simpler things that other people would know how to do or be able to figure out. So for

me to be using this so efficiently—that probably says something."

Smith recently purchased a book about using the iPad Mini.

Although Forest Metrix does not include GPS or GIS tools, numerous apps are available for iPad and other de-

If you buy Forest Metrix, you won't get a shrink-wrapped box with a CD inside. Here's how it works in most cases: You sign up for a free trial and then talk with the company about how you work in the woods.

vices with iOS (Apple's mobile-device operating system). Downey recommends two products from Garafa LLC (garafa.com), GPS Kit HD (\$14.99) and GIS Kit (\$99.99), both of which are available via the Apple App Store (itunes.apple.com).

"The idea of trying to be everything for everybody just doesn't make sense, because you can use two or three different applications that really nail it for you, without having

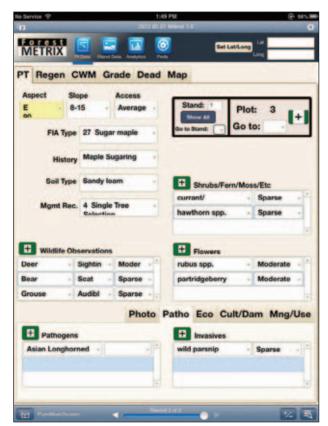


Figure 3. A version of Forest Metrix developed for a user who focuses on wildlife habitat and ecological values.

it all in a single piece of software," Downey said. "We typically encourage people to run Forest Metrix in tandem with

GPS or GIS apps. With iOS, you can have multiple applications running at the same time, and easily switch from one to the other. Personally, I run a GPS app while I'm running Forest Metrix, and I just swiped back and forth. I use the GPS app to navigate my plot and then I switch back to Forest Metrix."

The accuracy of the iPad Mini's GPS receiver—about five meters—is typical of consumer-oriented tablets. Companies such as Bad Elf (bad-elf.com) and Dual Electronics (gps.dualav.com) offer GPS receivers that communicate with the iPad Mini via Bluetooth, and reportedly can provide accuracy in the two- to three-meter range. According to Downey, submeter GPS accuracy on the iPad Mini has been achieved with GPS antennas from SX Blue (sxbluegps.com) and Trimble (www.trim ble.com)

Although Smith found that the iPad learning curve was steep, he has come to appreciate the device.

"I really like it. It fits right in my cruising vest, so I don't worry about it while I'm collecting other data," he said. "For younger foresters—those who are already familiar with how iPhones and other relatively new technology works—this will be all the more intriguing. I'm not one to want to check my e-mail when I'm out in the woods, but I find the device to be very handy. Having some of your files with you, some of your maps, is helpful. I have some of my forest management plans on the iPad, and I can be in the woods and consult the plan to see what I actually wrote about a certain stand. These features of the iPad are not absolutely necessary, but they're pretty darn handy sometimes."

For more information about Forest Metrix, visit forestmetrix.com.



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## SAF to Honor Field Foresters at National Convention

The Society of American Foresters will honor 10 foresters from 10 SAF voting districts with the Presidential Field Forester Award at the 2013 SAF National Convention, to be held October 23-27 in Charleston, South Carolina. The award recipients were selected by SAF Council members, who were asked to identify an outstanding field forester from the voting district they represent. Each member was given the option of soliciting nominations from state society chairs and, from those nominations, selecting a nominee for recognition, or using any other process that would identify a worthy candidate based on the selection criteria.

#### District I: Paul W. Wagner



Wagner is project manager for Atterbury Consultants Inc. in Washington State and provides his clients with services in timber appraisal and valuation, forest management planning, harvest-

ing assistance, and wood supplies studies. He's regarded as an expert in field technology involving hand-held data recorders and field GIS applications, and serves as an instructor of Atterbury's Professional Timber Cruising Seminar.

Regionally he has been active in promoting natural-resources management and good forest stewardship, and his involvement has included encouraging continued management of the Mount Baker/Snoqualmie through organizing opposition to the closing of the Illabot Creek Road system and encouraging management of the Finney Adaptive Management Area, as well as writing the Washington Board of Natural Resources to keep trust lands in the Lake Whatcom watershed open to management.

A colleague of Wagner's referred to him as "a practicing forester in every sense of the definition: cruising timber, conducting timber appraisals, and providing general forest consulting services. His professionalism and conduct have made him the go-to forester in northwestern Washington."

In addition to his work with Atterbury Consultants, Wagner serves SAF as cochair of the North Puget Sound Chapter of Washington State SAF (WS SAF) and as a member of the WS SAF Executive Committee. As another of his colleagues put it, he "is the only reason the North Puget Sound Chapter is still a viable chapter of the Washington State SAF."

#### District II: Dale M. Claassen



Claassen is chief forester and forest lands manager for Sperry Ridge, Inc., and, for the past 25 years, has served as forester, tree farm manager, and logging manager for Swanson-Superior Lum-

ber Co, now Swanson Group, Inc., which helped Swanson grow into a Sustainable Forestry Initiative—certified 34,000-acre tree farm. He has participated in both private and public land timber sales, and has extensive knowledge and experience with federal agency (BLM and USDA Forest Service) and Oregon Forest Practices Act management and contract requirements. Claassen has led work on habitat surveys for key fish and wildlife species, fragile

areas, threatened and endangered species protection, road and landing layout, and logging design. He has also helped implement the use of high-tech (including GIS) tools for the Swanson-Superior tree farm and a detailed quality control program for log merchandising and fiber utilization.

Claassen has served on the board of directors of the Western Lane Forest Protective Association for more than 20 years and currently serves as secretary-treasurer. In addition, he has been an active member of the Forest Protection and Forest Policy and Management Committees of the Oregon Forest Industries Council, and a stalwart member of SAF for more than 30 years. He served as student chapter chair at Oregon State University in 1982 and is currently chair of the Oregon SAF's Emerald Chapter.

#### District III: Richard G. Wade



Before joining Sierra Pacific Industries in 1995, where he currently serves as district manager and is responsible for the management and administration of 120,000 acres of timberlands in northern

California, Wade worked in a variety of forestry positions for employers, including James Nicklos and Associates, the USDA Forest Service, Western Timber Services, and the Cal Oak Lumber Company.

In 1991, he became involved with the California Licensed Foresters Association, serving on its board of directors for six years, including serving as president from 1995 to 1996. During that time revisions to the Forest Practice Rules to Protect Archaeological Resources were proposed, and he served as the lead contact with the California Department of Forestry and Fire Protection to provide input from the registered professional forester community regarding the archaeology rules. In recognition of his efforts, Wade received the 2003 Golden Trowel award from the board.

In 2011, Wade was nominated for membership on the California Board of Forestry and Fire Protection. In November of that same year, he received an appointment to the board by the governor, making him a member of the major California forest policy organization. His extensive field and management experience provide a sound base for his work framing California forest policy and regulation.

An active member of SAF at the local level, Wade has served as treasurer for the Sacramento-Tahoe Chapter of the Northern California SAF since 2004. He has also simultaneously served as treasurer for the Amador-El Dorado Forest Forum, an organization that brings foresters and the interested public together to discuss pertinent issues of importance in both field forestry and forest policy.

#### District IV: Marvin E. Levert, CF



Levert began his forestry career in 1960, and worked for the US Forest Service as a firefighter and forestry technician while in college. After graduating from Southern Illinois University in

1963, Levert started his own consulting business and soon thereafter accepted his first permanent position with the USDA Forest Service, which led to a 31-year career with the agency.

After retiring as a district ranger on the Beaverhead-Deerlodge National Forest in 1996, Levert returned to Montana to manage 245 acres of his own forestland under Tree Farm certification. Around this same time, Levert began instructing forest stewardship workshops through Montana Extension Forestry, and he became involved with the Montana Forest Stewardship Committee and the Montana Forest Stewardship Foundation. He has since served as chair of both groups and, through his leadership with the Montana Forest Stewardship Foundation, has helped educate citizens of the state by publishing the foundation's journal, conducting conservation easement workshops, and cosponsoring landowner conferences.

In 2001, he was appointed by Lincoln County to lead the efforts in wildfire preparedness for the county. In this capacity as county forester, he has secured more than one million dollars in grants for fuels reduction projects, written a county wildfire protection plan, implemented the national FireWise Community educational program, and begun a fuel risk rating of Wildland Urban Interface communities and fire spread analyses. In addition, Levert has been a vital part of the formation and success of the Kootenai National Forest Stakeholder Coalition, a group composed of a wide range of stakeholders that works to build consensus on national forest projects.

Levert had served the Montana SAF in a variety of roles at both the state and local levels and is currently a member of the Libby Chapter Executive Committee. He is also an active member of Trout Unlimited and the recipient of several awards and honors, including the Montana SAF, Citizen of the Year (2009) and Montana SAF Field Forester of the Year (2012).

#### District VI: Donald P. Schaufler, CF



Schaufler has been involved with forestry and the forest products industry in central New York for almost 40 years, beginning soon after he received a forestry degree from the State University

of New York College of Environmental Science and Forestry. He spent seven years as an employee of Gutchess Lumber, where he gained experience bucking logs, grading lumber, buying timber and land, and managing harvests on private and state forests. In the early 1980s, he began offering consultant forestry services to forest landowners in central New York and, a few years later, was hired to manage Cornell's Arnot Forest, where he put his knowledge to work for the university while continuing to consult on the side. During his time with Cornell, Schaufler improved many acres and, in the process, supported the local economy with a steady stream of forest products. He has also provided educational expertise and opportunities, such as hosting maple syrup weekends at Arnot Forest for the general public, and writing articles for Cornell's Cooperative Extension.

Schaufler has been an SAF member since 1974, and is a longtime supporter of the New York Forest Owners Association. He presently serves as chair for New York SAF's Central Chapter and has regularly assisted as coordinator of sponsors and exhibits for the state society's annual meetings.

#### District VII: Terry L. Jones, CF



Jones's forestry career began in Lewis County, West Virginia, where he worked as a service forester providing private landowners with technical assistance for cost-share programs. At this same

time, he began a part-time consulting career wherein he conducted timber sales, timber trespass assessments, and timber appraisals associated with gas and coal exploration.

In 1989, he transferred to Randolph County, where he worked as a service forester with the Division of Forestry and developed one of the strongest forest management programs in the state. In this position, Jones also worked on the Stewardship Practice Guidelines committee that developed practice standards—guidelines that led to federal cost-share programs becoming more credible and cost effective.

In 2002, Jones became state lands forester on the Kumbrabow, Calvin Price, and Seneca State Forests, where he was instrumental in steering state forest management away from permissible cut guidelines and toward Silviculture of Allegheny Hardwoods (SILVAH) and other more up-to-date concepts of timber management.

In 2005, Jones took a position with the wildlife section of the West Virginia Division of Natural Resources. In doing so, his perspective shifted from managing forests to enhancing wildlife habitat, and in this capacity he worked with the wildlife biologists to carry out harvests that would maximize this objective. While in this position he also served as the agency's national forest coordinator with the Monongahela, George Washington, and Jefferson National Forests, where he participated in the coordination, review, and preparation of agency comments on national forest projects.

In March 2012, after a tornado damaged approximately 3,200 acres of the East Lynn Wildlife Management Area in Wayne County, Jones initiated the planning of timber salvage harvests so much of the timber resource would not be lost. Within a year, he conducted five sales encompassing approximately 1,600 acres.

Given these success stories and his varied career, Jones has a reputation throughout West Virginia for his ingenuity and ability to adapt science-based forest management prescriptions to a wide range of scenarios.

#### District VIII: Leslie P. Hunter



A series of early forestry positions—foreman for Asplundh Tree Expert Company, research technician for North Carolina State University, logging contractor and silvicultural contractor for Ever-

green Forestry—provided Hunter with a solid foundation in field forestry and gave him the skills—logging, planting, the knowledge of the business of urban forestry, applied silviculture, and landowner relations—that would serve him throughout his career.

In 1988, Hunter accepted an urban forestry position with Carolina Power and Light, where he worked on right-of-ways, encroachments, and timber sales. In 1994 the company launched a forestry program, and Hunter was part of a two-person team that developed the company's forestmanagement business from the ground up. Among the tasks involved in this work was the management of 50,000 acres in North and South Carolina, Georgia, and Florida. In the process, Hunter's goal was to manage the company's resources as a hallmark of professional forest management. To that end, he planned and executed an annual forest-management program to maximize income on timber sales while using best management practices and forest-management guidelines in each state.

Hunter's early retirement from Carolina Power and Light in 2005 and worked as a private consultant for the rest of the year planting trees, cruising and marking timber, conducting timber sales, and other forest management work. Then, in 2006, Hunter secured his current position: forest legacy coordinator and forest stewardship program coordinator with the North Carolina Forest Service.

An active member of SAF throughout his career, Hunter was secretary-treasurer of Triangle Chapter for several years and then served as chapter chair. In 2005, he was elected chair of the North Carolina SAF Division.

#### District IX: James H. Strine



Strine began his career as a research assistant with the Kansas State University Department of Forestry. Then, in 1978, he accepted the position of district forester with the Kansas Forest Service,

which he has remained in for the past 35 years.

In this capacity, he works in 24 counties in northwest Kansas, and his primary duties include working with private landowners, communities, and government agencies. He provides technical assistance for rural landowners in windbreak design, windbreak management, riparian tree planting, timber management, and insect and disease diagnosis and control recommendations. He also provides assistance to the communities in his district by assisting in tree selection, proper planting and pruning techniques, and hazard tree identification. Strine also works with other agencies within his district and is a technical service provider for the Natural Resources Conservation Service, providing assistance for requests made by Kansas State University extension agents, Kansas Department of Wildlife Parks and Tourism wildlife biologists, and various other personnel from public and private entities.

In addition to these duties, Strine puts a high priority on educating the young people in his district and serves as the coordinator of the forestry section of the Kansas Environthon and, since 1998, has participated in the annual SAF-sponsored Walk in the Woods, held in south-central Kansas. During that time, he has worked with more than 3,000 students with this event.

Strine has been a member of SAF since 1983 and served as chair of the Natural Area Committee of the old Ozark Section, as chair of the Great Plains SAF, and currently serves as the chair of Great Plains's Education Committee. He has hosted the Great Plains SAF Annual Meeting in his district and jointly hosted the annual meeting of the Great Plains SAF and the Kansas Society of Soil and Water Conservation Society. He also coordinated the planting of a ceremonial bur oak tree at

the Geography Center of the United States near Lebanon, Kansas.

#### District X: John R. Stivers, CF



Stivers worked for the USDA Forest Service in Arkansas, Alabama, and Georgia in a wide variety of positions, including reforestation forester, timber sales specialist, contracting offi-

cer, forest service representative, silviculturist, soil-watershed program manager, district safety officer, prescribed fire manager, burn boss, prescribed fire planning specialist, incident commander, operations section chief, and fire behavior specialist. During that time, he received 25 certificates of merit in recognition of his work and ability in such roles as agency representative to the Joint Fire Sciences Program Prescribed Fire Training Center, where he developed coursework for advanced prescribed fire courses at the national level, and as Southern Area representative for a national fire regime mapping effort with the Joint Fire Sciences Program.

In 2002, he left the agency to launch his own consulting business. Since then, he has gained a reputation for his expertise in assisting landowners with conservation easements, estate planning, the use of cost-share programs at the state and federal levels, forest stewardship and carbon sequestration programs, and conservation banking. He is also known for writing silvicultural prescriptions based on sound science and sustainable, adaptive management techniques, and for his willingness to work with a wide variety of collaborators, from citizen groups to federal agencies, to achieve his client's goals.

Yet, perhaps the best indication of Stivers's success in the field are the national, state, and local awards his clients have received for management activities in which he was involved.

#### District XI: John R. Fletcher



Fletcher received his forestry education at Holmes Community College and Mississippi State University and has been a member of SAF since 1994. He has been

a registered forester in Mississippi since 1985 and formerly worked as a procurement forester for B&G Wood Products from 1980 to 1998. From 1998 to 2000, he worked as a procurement forester for Forest Sales and Services, and then he and his wife Karen started a private forestry consulting business, Fletcher Professional Forestry Services, based in Lexington.

Since then, Fletcher has worked with approximately 250 clients in his 13 years, and more than 90 percent of his clientele are nonindustrial private forest landowners. He is a certified tree farm inspector and is consistently one of the top preparers of forest stewardship plans in northwest Mississippi.

In addition to membership in SAF, he has been a member of the Mississippi Forestry Association since 1985 and, since 2004, has served as president of the Homes County Forestry Association, one of the strongest forest landowner associations in the state. Prior to being president, he served as vice-president, and he has been a member of the organization's board of directors since

## **National Committee Positions Now Open**

AF has 16 national committees established to help it accomplish ongoing and long-term goals. National committees work with the SAF Council and the national office staff to help shape present policy and the future direction of SAF

In June of each year, the staff liaisons of SAF national committees review the committee rosters and provide the executive vice-president with a list of potential openings. This information is then shared with SAF's vice-president, who solicits the names of those members interested in serving on a committee. National committees are structured so that only a portion of the membership rotates off a committee in any given year. The president appoints new members and chairs to assume their positions on January 1.

The list below details each of the SAF's national committees that have upcoming openings, and lists the number of vacancies and the length of each committee appointment. Members interested in serving on a national committee should send a letter of transmittal indicating their choice of committee(s), a one-page résumé, and a brief statement indicating why they are qualified to fill that position by September 3, 2013.

The information should be sent via e-mail to president@safnet.org, or Society of American Foresters, Attention: Dave Walters, CF, Vice-President, 5400 Grosvenor Lane, Bethesda, MD 20814. For more information, contact Michael Goergen at (866) 897-8720, ext. 120; go ergenm@safnet.org, or Louise Murgia at ext. 118; murgial@safnet.org

## **2015** Committee on National Convention Programs

Develops the general program outline of the national convention, with emphasis on pragmatic national issues, SAF affairs, and subjects of interest or significance to the profession; identifies and selects plenary session speakers; develops broad themes for scientific and technical program. **Staff contact:** Carol Redelsheimer (redelsheimerc @safnet.org) **2 openings:** one 1-year term, one 2-year term (field forester)

#### **Certification Review Board**

Manages the process and procedures of SAF's Certified Forester® program. **Staff contact:** Louise Murgia (murgial@saf net.org); **3 openings:** 3-year terms (certified foresters and SAF members)

#### **Committee on Accreditation**

Evaluates and periodically reviews educational programs for professional forestry and makes decisions concerning SAF's accreditation of such programs. COA members are required to attend the annual meeting of the committee. SAF does not provide financial support. **Staff contact:** Carol Redelsheimer (redelsheimerc@safnet.org); **2 openings:** 3-year term (1 faculty member of an urban forestry program, 1 nonacademic practitioner)

#### **Committee on Cultural Diversity**

Recommends to Council policies and programs aimed at achieving diversity within the profession, reflecting the diversity of the nation, in accordance with the diversity principles of the Society. Provides leadership for diversity programs among the membership. **Staff contact:** Michael Goergen (goergenm@safnet.org); **3 openings:** 3-year terms

#### **Committee on Forest Policy**

Develops recommendations to Council on forest policies and position statements on specific issues; screens and selects forest issues for further study; assists SAF Policy Team on national policy issues. **Staff contact:** John Barnwell (barnwellj@safnet .org); **3 openings:** 3-year terms

## Committee on Forest Technology School Accreditation

Evaluates and periodically reviews educational programs for forest technology and makes decisions concerning SAF's accreditation of such programs. CFTSA members are expected to attend the annual meeting of the committee. SAF does not provide financial support. **Staff contact:** Carol Redelsheimer (redelsheimerc@safnet.org); **2 openings:** 3-year terms (1 active forest technology program administrator, 1 nonacademic practitioner)

#### **Committee on Professional Recognition**

Oversees the SAF national awards process and recommends candidates to the SAF Council for each award. **Staff contact:** Patricia Adadevoh: adadevohp@safnet.org; **1 opening:** 3-year term

#### **Communications Committee**

Advises the national office and local units on improving the Society's internal and external communications. **Staff contact:** Christopher Whited (whitedc@safnet.org); **4 openings:** 2-year terms

#### **Educational Policy Review Committee**

Concerns itself with professional and technical forestry education in the broadest sense, with particular emphasis on the evolution of accreditation standards, procedures, and policies, and makes recommendations on such matters to Council. Members are expected to attend the annual meeting of the committee. SAF does not provide financial support. Staff contact: Carol Redelsheimer (redelsheimerc@safnet.org); 2 openings: 3-year term (active faculty member and/or administrator of an SAF-accredited degree program)

#### **Ethics Committee**

Hears and investigates ethics charges, sustains or dismisses charges, and determines what disciplinary measures shall be imposed. **Staff contact:** Michael Goergen (goergenm@safnet.org); **1 opening:** 5-year term

#### **Leadership Development Committee**

Develops programs that enhance local unit/ working group success and assist in training activities that enhance the skills and abilities of current and future leaders.**Staff contact:** Louise Murgia (murgial@safnet.org); **5 openings:** 3-year terms (1 representative from the Forest Science and Technology Board, 1 working group representative, 1 state society/division representative, 1 faculty representative, 1 general membership representative)

#### **World Forestry Committee**

Advises Council and members regarding development and implementation of programs and activities for SAF in the international forestry arena. **Staff contact:** John Barnwell (barnwellj@safnet.org); **2 openings:** 3-year terms

For more information about SAF's national committees, visit the SAF website at www.safnet.org/members/committees.cfm.

#### In Memoriam

Walter T. Ahearn, 90, died December 18. 2012. Ahearn's interest in forestry led to his being a "Hot Shot" crew chief for the USDA Forest Service in California's Angeles National Forest. He graduated cum laude from State University of New York College of Environmental Science and Forestry-Syracuse in 1943 and immediately entered the Marine Corps. In World War II, he served in the 1st Marine Division as a Codes and Ciphers officer with the Navajo Code Talkers in the Pacific Theatre, including Okinawa and China. After the war he began work as a forester in South Carolina and then joined the South Carolina Forestry Commission, retiring as assistant state forester after 36 years. He was South Carolina affiliate for the National Wildlife Federation for many years and served as a South Carolina Wildlife Federation Emeritus Board member. His many honors include recognitions from the US Department of Agriculture, the South Carolina Water Resources Commission, and Alpha Zi Sigma. He received The Conservation Award from the Woodmen of the World, the Golden Cross Award from Bailey Manor for outstanding service in the US Marine Corps, the Distinguished Service Award from the Appalachian SAF, and Forest Conservationist of the Year from the South Carolina Wildlife Federation, National Wildlife Federation, and Sears-Roebuck Foundation. He was awarded the first F. Bartow Culp award from the South Carolina Wildlife Federation for distinguished service. He was "Ranger Parks" on a weekly statewide radio program. Ahearn joined SAF in 1946 and was named Fellow in 1981.



Timothy Tao Ku, 87, died July 15. Ku was professor emeritus in the School of Forest Resources at the University of Arkansas-Monticello (UAM), where he served for 38 years before his re-

tirement in 1997. He obtained a bachelor's degree in forest management in 1948 from the Nanking University, a master's degree in forestry in 1950, and then completed a PhD in 1954, both from Michigan State College of Agriculture and Applied Science (now Michigan State University). Ku began his career as a consulting forester for T.S. Coile, Inc. and then joined the School of Forest Resources faculty at the University of Arkansas at Monticello (then Arkansas A&M College) in 1959. He became a full professor in 1963 and also served as a visiting professor at National Taiwan University in 1983. While at UAM he taught multiple courses, including forest soils, forest ecology, forest biology, photogrammetry, forest inventory, forest products, forest entomology, and several others, and influenced more than 700 forestry graduates through his teaching and mentoring. After the merger of Arkansas A&M College into the University of Arkansas System in 1973, Ku served as the principal investigator of a number of national, regional, and statewide research programs in forestry. In 1981, he received a USDA Forest Service Certificate of Appreciation for his participation and accomplishment in a regionwide southern pine beetle program. Ku authored or coauthored more than 40

**Joe J. Brown,** 76, August 1. Brown was a US Army captain serving in Vietnam and worked as center director of Ouachita Job Corps for two years. He also was a registered forester and a 33-year employee of the USDA Forest Service. He served as forest supervisor of several national forests and retired as director of urban affairs at the agency's regional office in Atlanta, Georgia. He joined SAF in 1964 and was named Fellow in 1987.

Gordon R. Cunningham, 91, died June 28. Cunningham enrolled at the University of Illinois, but his studies were interrupted when he enlisted in the US Army. He served for more than three years and saw combat in Europe and on occupation duty in Japan. After the war, he enrolled in the forestry program at Michigan State College in 1946 and graduated with a bachelor's degree in 1948. He then went on to Penn State, where he received a master's degree in forest economics and farm management. In 1950, he was hired by the University of Illinois, Department of Forestry to work with 4-H programs, plan windbreaks, and assist in research. In 1954, he became associate extension forester at Cornell, where he worked with youth programs focused on Christmas tree and maple syrup production. In 1961, he returned to Michigan State, where he received a PhD. In 1963, he moved to Madison, where he worked for the University of Wisconsin as an extension forester. He retired as professor emeritus in 1983. Cunningham joined SAF in 1949.

If you have an announcement for the Source's "In Memoriam" or "People in the News" columns, please send it, along with a press-quality digital photo, to Joseph Smith, Forestry Source managing editor, at source@safnet.org.

scientific publications and reports, and presented at numerous professional conferences. His research focused on forest soils, nutrient cycling, and productivity. In 1987, Ku led an Arkansas forestry group to represent the state in a Sino-American seminar on forest productivity and site evaluation hosted by the Council of Agriculture of Taiwan, Republic of China (ROC). In 1990, he led an USDA Forest Service delegation, which included the associate chief, deputy chief for research, and the director of international forestry, to participate in a Sino-American workshop on forestry administration and forestry technology, again hosted by the Council of Agriculture of Taiwan. Ku was inducted into the Arkansas Foresters Hall of Fame in 1995 in recognition of his accomplishments and many contributions to the forestry discipline. He was very active in several professional organizations, including the Society of American Foresters, the Soil Science Society of America, the International Society of Soil Science, and the Arkansas Forestry Association. In 1980, Ku was appointed by then Governor Bill Clinton as a member of the Arkansas State Board of Registration for Foresters and served as its chair from 1983 to 1985. Ku joined SAF in 1959 and held all elected offices in the Southeast Chapter, Arkansas Chapter, and Ozark Section, and was charter chair of the Ouachita SAF in 1983. He served on several SAF committees, including the National Task Force on the Development of a Certified Professional Program from 1984 to 1986. Ku was elected Ouachita SAF Outstanding Forester in 1984 and Fellow in

## **CLASSIFIEDS**

### FROM HTTP://CAREERCENTER.EFORESTER.ORG

#### Job ID:13888436

Position Title: Assistant Professor Company Name: Mississippi State University

Job Function: Faculty in Forestry/Natural Resources

Location(s): Starkville, Mississippi

Posted: July 21, 2013 Entry Level: No Job Type: Full-time

Min Education: PhD

To apply: See job announcement

#### Job ID: 14501038

Position: Starker Chair in Private and Family Forestry and Extension Specialist, Forest Economics, Management & Policy Company: Oregon State University

Job Function: Faculty in Forestry/Natural

Resources Location(s): Corvallis, Oregon Posted: August 15, 2013 Job Type: Full-time

Min Education: PhD Min Experience: None Required Travel: 10-25%

Contact: James E. Johnson E-mail: Jim.Johnson@oregonstate.edu

Phone: (541) 737-8954 Fax: (541) 737-3008

To apply: http://oregonstate.edu/jobs/

#### Job ID: 14491394

Position: Natural Resource Specialist 4 Company: Oregon Department of Forestry

Location(s): Salem, Oregon Posted: August 14, 2013 Job Function: GIS Analyst Job Type: Full-time

begin the application process.

To apply: http://www.oregonjobs.org Note: Search for opportunities with the Department of Forestry or search for announcement number ODF13-0113. Click on the job announcement and then the "Apply" button to

#### Job ID: 14468873

Position: Area Forester Company: Hancock Forest Management Location(s): Smethport, Pennsylvania Posted: August 12, 2013 Industry: Forest Management Job Type: Full-time

Contact: Jean Squire E-mail: ssquire@hnrg.com Fax: (617) 210-8509

To apply: www.johnhancock.com/careers

#### Job ID: 14447942

Position: Forester Company: Milliken Forestry Company, Inc.

Industry: Forestry Consulting Location(s): Statesboro, Georgia Posted: August 9, 2013

Job Type: Full-time

Min Education: BA/BS/Undergraduate Min Experience: 2–3 Years

Required Travel: 0-10% Contact: Trip Chavis

E-mail: chavis@millikenforestry.com

Phone: (803) 788-0590 Fax: (803) 788-0596

To apply: www.millikenforesrty.com

#### Job ID: 14385733

Position: Assistant Professor of Geospatial Analysis & Remote Sensing Company: University of Maine, School of Forest Resources

Job Type: Full-time Location(s): Orono, Maine Posted: August 6, 2013

Min Education: PhD Min Experience: None Required Travel: 10-25% Contact: Aaron Weiskittel

E-mail: aaron.weiskittel@maine.edu Phone: (207) 581-2857

Fax: (207) 581-2875

To apply: http://jobs.umaine.edu/blog/2013 /08/05/assistant-professor-of-geospatial-

analysis-remote-sensing/

#### Job ID: 14346933

Position: Logging & Road Construction

Administrator

Company: Green Diamond Resource Company

Job Function: Forester Location(s): Klamath, California Posted: August 2, 2013 Job Type: Full-time

Job Duration: Indefinite Min Education: BA/BS/Undergraduate

Min Experience: 5–7 Years Required Travel: 50-75%

Contact: Debi Callahan E-mail: dcallahan@greendiamond.com

Phone: (707) 668-3781 Fax: (707) 268-3028

#### Job ID: 14346877

Position: #7583 Forestry Chair Tenure-Track Position

Company: Humboldt State University

Location(s): Arcata, California Posted: August 2, 2013 Job Type: Full-time Min Education: PhD

Min Experience: 2–3 years Contact: Susan Marshall Phone (707) 826-4064

E-mail: susan.marshall@humboldt.edu To apply: see job announcement

#### Job ID: 14344166

Position: Area Manager

Company: Hancock Forest Management,

Inc.

Job Function: Forester Location(s): Zwolle, Louisiana Posted: August 2, 2013 Job Type: Full-time

Job Duration: Indefinite Min Education: BA/BS/Undergraduate

Min Experience: 5–7 Years Required Travel: 0-10% Contact: S. Jean Squire Fax: (617) 210-8509

To apply: www.johnhancock.com/careers

#### Job ID: 14303211

Position: Inventory Analyst Company: Rayonier

Location(s): Fernandina Beach, Florida

Posted: July 31, 2013 Job Function: Forest Inventory Job Type: Full-time

To apply: see job announcement

#### Job ID: 14299142

Position: Assistant/Associate Professor of Plant Physiological Ecology Company: Yale School of Foresti

**Environmental Studies** Location(s): New Haven, Connecticut

Posted: July 31, 2013 Job Type: Full-time Job Duration: Indefinite Min Education: PhD Min Experience: None Required Travel: None Contact: Angela Kuhne

E-mail: fesdeansoffice@yale.edu

Phone: (203) 432-6865

To apply: https://academicjobsonline.org/ajo

#### Job ID: 14284646

Position: Fire Aviation and Investigation

Program Manager

Company: Idaho Department of Lands

Industry: Land Management Job Type: Full-time

Job Duration: Indefinite

Location(s): Coeur d'Alene, Idaho

Posted: July 30, 2013

Min Education: High School Diploma

/Equivalent

Min Experience: 1-2 years Required Travel: 25-50% Pay rate: \$25.82-29.00/hour Contact: Human Resources E-mail: careers@idl.idaho.gov Phone: (208) 334-0205 To apply: www.idl.idaho.gov

#### Job ID: 14275052

Position: Assistant Professor

Company: Northern Arizona University

Location(s): Flagstaff, Arizona Posted: July 29, 2013

Job Type: Contract Min Education: PhD Required Travel: None Contact: Yeon-Su Kim

E-mail: ysk@nau.edu Phone: (928) 523-6643 Fax: (928) 523-1080

To apply: http://nau.edu/forestry

#### Job ID: 14247481

Position: Utility Forester Company: Utilimap Corporation Industry: Forestry Consulting

Entry Level: Yes Job Type: Full-time

Location(s): District of Columbia

Posted: July 26, 2013 Job Duration: Indefinite Min Education: None Min Experience: 0-1 year Required Travel: 10–25% Pay rate: \$15.00-18.00/hour Contact: Nate Strickland

E-mail: NStrickland@Utilimap.com

Phone: (636) 533-4016 Fax: (636) 533-4056

#### Job ID: 14238186

Position: Assistant Professor of Forest/ Natural Resources Biometrics Company: University of Tennessee-FWF Job Function: Faculty in Forestry/Natural

Resources Entry Level: Yes

Job Type: Full-time Location(s): Knoxville, Tennessee

Posted: July 26, 2013 Min Education: PhD Min Experience: None Required Travel: 10-25% Salary: \$70,000-75,000 Contact: Penny Barnhart E-mail: pbarnhar@utk.edu Phone: (865) 974-7988 Fax: (865) 946-2085

Job ID: 14234286

To apply: apply via email

Position: Dear

Company: Warner College of Natural Resources

Posted: July 25, 2013

Location(s): Fort Collins, Colorado

Job Type: Full-time Job Duration: Indefinite Min Education: PhD

Contact: Jeffrey McCubbin E-mail: wcnrdeansearch@colostate.edu

Phone: (970) 491.5841

To apply: http://warnercnr.colostate.edu /home/about-wcnr/employmentopportunities

#### Job ID: 14231655

Position: Timber Marketing Manager

Company: Rayonier

Location(s): Waynesboro, Mississippi

Posted: July 25, 2013 Industry: Forest Management To apply: see job announcement

#### Job ID: 14230440

Position: Portfolio Analyst

Company: Hancock Natural Resource Group

Location(s): Boston, Massachusetts

Posted: July 25, 2013 Job Type: Full-time Job Duration: Indefinite

Min Education: BA/BS/Undergraduate

Min Experience: 2-3 years Required Travel: 0-10% E-mail: jobs@hnrg.com Fax: (617) 210-8509

To apply: www.johnhancock.com/careers

#### Job ID: 14229821

Position: Resource Planning Analyst Company: Hancock Forest Management,

Industry: Forest Management

Job Function: Other

Location(s): Charlotte, North Carolina Posted: July 25, 2013

Job Type: Full-time Job Duration: Indefinite Min Education: BA/BS/Undergraduate

Required Travel: 0-10%

E-mail: jobs@hnrg.com Fax: (617) 210-8509

To apply: www.johnhancock.com/careers

#### Job ID: 14196914

Position: City Forester

Company: City of Albuquerque Parks and Recreation Department

Job Function: Urban Forester Job Type: Full-time Job Duration: Indefinite

Location(s): Albuquerque, New Mexico

Posted: July 22, 2013

Min Education: BA/BS/Undergraduate Min Experience: 5-7 Years Required Travel: None Pay rate: \$24.48-29.57/hour Contact: Sherri Hines E-mail: shines@cabq.gov Phone: (505) 768-5308

Fax: (505) 768-5307 To apply: www.cabq.gov

#### Job ID: 14196863

Position: Forest Inventory Analyst Company: F&W Forestry Services, Inc.

Location(s): Albany, Georgia Posted: July 22, 2013

Job Function: Forest Inventory Job Type: Full-time

Min Education: BA/BS/Undergraduate E-mail: Jobposting1@fwforestry.com

Fax: (229) 435-2804

To apply: E-mail cover letter and resume to Jobposting1@fwforestry.com or fax to 229-435-2804

#### Job ID: 14192834

Position: Senior Policy Advisor, Fire & Forest Restoration

Company: The Nature Conservancy Location(s): Arlington, Virginia

Posted: July 21, 2013 Job Type: Full-time Job Duration: Indefinite

Min Education: BA/BS/Undergraduate

Min Experience: 5–7 Years Required Travel: 25-50% Contact: Ingrid Nyborg

E-mail: inyborg@tnc.org To apply: www.nature.org/careers

#### Job ID: 14161141

Position: Area Forest Manager Company: Oregon Department of Forestry

Industry: Forestry Location(s): Prineville, Oregon Posted: July 19, 2013 Job Function: State Forester Job Type: Full-time

Job Duration: Indefinite

Min Experience: More than 10 Years To apply: www.oregonjobs.org

Note: Search for opportunities with the Department of Forestry or search for announcement number ODF13-0108. Click on the job announcement and then the "Apply" button to begin the application process. Note that this job announcement requires answers to supplemental questions and a cover letter.

#### Job ID: 13857993

Position: Staff Forester

Company: South Dakota Department of

Agriculture Industry: Forestry Job Function: Urban Forester Job Type: Full-time

Location(s): Pierre, South Dakota

Posted: June 19, 2013 Job Duration: Indefinite

Min Education: BA/BS/Undergraduate

Min Experience: 0-1 Year Required Travel: 25-50% Pay rate: \$18.06/hour To apply: see job announcement

#### Job ID: 13792721

Position: Harvesting Supervisor Company: Irving Woodlands, LLC Industry: Forest Management Job Function: Forester

Location(s): Aroostook County, Maine

Posted: June 13, 2013 Job Type: Full-time Job Duration: Indefinite Min Education: Associate's Degree Min Experience: None

Required Travel: 0-10% Contact: Douglas Cyr

E-mail: meforestjobs@jdirving.com Phone: (855) 534-9663

To apply: see announcment

#### Job ID: 12703025

Position: Resource Forester Company: Potlatch Corporation

Industry: Forestry

Job Function: Resource Forester Job Type: Full-time

Location(s): Headquarters, Deary, Idaho

Posted: March 18, 2013

Job Duration: Indefinite Min Education: BA/BS/Undergraduate

Min Experience: 3–5 Years Required Travel: 0-10%

To apply: http://potlatchcorp.com/

#### Job ID: 12252727

Position: Purchase Stumpage Manager Company: Irving Woodlands, Inc. Industry: Land Management Job Function: Procurement Forester

Job Type: Full-time Location(s): Aroostook County, Maine

Posted: February 8, 2013

Min Education: Associate's Degree Min Experience: 3–5 Years Required Travel: 50-75%

Job Duration: Indefinite

Contact: Douglas Cyr E-mail: meforestjobs@jdirving.com

Phone: (855) 534-9663

To apply: www.jdirving.com/jdirving-Careers.aspx

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## "Silviculture Matters" Is Theme of 2013 SAF Convention in Charleston

AF's 2013 National Convention offers two main attractions: a fascinating lineup of presentations, workshops, and field tours, plus the opportunity to explore a grand old Southern city, Charleston, South Carolina. The convention theme is "Silviculture Matters"—to the forests and to the public. The overall focus will be a close look at how we manage our forests in an era when the demand for the broad range of forest products is increasing, while public scrutiny of the management of forest resources is sharper than ever.

"If you look at the speakers' topics, what we're really talking about is, *forests* matter," said convention chairperson Fred Cubbage, a professor in the Department of Forestry and Environmental Resources at North Carolina State University. "The speakers will be talking about all the ways in which forests are important. Forestry matters, not only to the forests themselves and our utilitarian interests, but also for environmental services—in other words, for the public interest."

The convention will offer more than 300 educational sessions and training opportunities.

"The core of the convention is the science and technical presentations, workshops, and concurrent sessions. We have an extremely broad and diverse set of technical presentations that cover not just forestry, but all forest resources—timber, water, fish, wildlife, and so on. We have a broad array of presentations looking at utilitarian products, environmental services, and other nonmarket goods and services," Cubbage said.

"These are state-of-the-art talks," he continued. "The plenary sessions largely will present overviews, syntheses, and reviews of what we know on the subjects,

and the concurrent sessions generally focus on brand-new, cutting-edge themes, presented by people who focus on new knowledge, new techniques, and new skills, many of which aren't so far along yet that they've made it into the *Journal of Forestry*—they're still works in progress and will be the state-of-the-art or state-of-the-inquiry, because we haven't resolved these questions yet."

Conference-goers can choose from among seven technical field tours, such as Longleaf Pine & Fire, a visit to the nearby 259,000-acre Francis Marion National Forest, and a Charleston Urban Forest Walking Tour. The Private Lands Forestry Tour offers a chance see "classic Southern forestry," Cubbage said.

"This tour will focus on Southern pine plantation management," he said. "The South is the breadbasket of the world—we produce more than 15 percent of all the industrial roundwood in the world."

Due to the popularity of the first social media training sessions held at last year's convention in Spokane, Washington, similar sessions will be held again this year. They are intended to help SAF members take advantage of Twitter, LinkedIn, and Facebook. Attendees will load and learn Twitter and will be able to join "virtual conversations" taking place during the conference.

Cubbage said volunteers are welcome and are very much needed to help the convention run smoothly. In all, as many as 124 volunteers are needed to work four-hour shifts before, during, and after the convention. The Appalachian SAF is recruiting volunteers from the three states in the region, and will gladly accept volunteers from outside the region. If you can work one or more shifts, contact volunteer coordinator Bill



Some people say that the "Angel Oak," on John's Island just outside of Charleston, South Carolina, is the oldest thing, living or made, east of the Rockies. The ancient *Quercus virginiana* is believed to be more than 1,500 years old. It has a DBH of more than 25 feet, and its crown covers an area of about 17,000 square feet.

Worrell, (276) 889-8056 or bworrell@vt .edu.

In conjunction with the convention, the fourth annual Forest Technology Users Conference, hosted by F4 Tech, will be held October 22–23. This conference will feature in-depth panel discussions, speakers, and workshops on emerging trends in forest technology. One afternoon will be devoted to hands-on demonstrations of measurement devices, handheld computers, and GPS receivers; this portion of the event will be held in a park in Charleston. For information and registration, visit ThinkF4.com.

The SAF convention will be held at the Charleston Area Convention Center in North Charleston, which is just over nine miles from historic downtown Charleston.

On Friday, October 25, SAF will provide complimentary bus service to and from the centuries-old city, between 4:15 pm and 12:30 am.

"Charleston is a great city, and we invite people to come and visit," said Cubbage. "It is one of the most enjoyable, scenic, and commodious of the classic, graceful old Southern cities. It has wonderful restaurants and nice shops in the downtown area. And the beaches are not so far away. There will still be comfortably warm water, even in the latter half of October, so you might want to bring your swimsuit and go wading or get a boogie board."

The convention will be held October 23–27. For more information, or to register, visit www.xcdsystem.com/saf/site13/.



