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IN THIS ISSUE

Recreation Education

The recreation industry is expected to increase in the next decade, both in terms of the number of people recreating and the jobs needed to meet demand. To learn how universities are training the next generation of recreation professionals, *Forestry Source* associate editor Andrea Watts talked with Steve Selin, a professor at the West Virginia University (WVU), and John Daigle, a professor at the University of Maine (UM). Both of these universities offer SAF-accredited recreation programs. **Page 12.**

Presidential Field Foresters

SAF will honor one member from each of the 11 SAF voting districts with the Presidential Field Forester Award at the 2019 SAF National Convention (www.safconvention.org), to be held October 30–November 3 in Louisville, Kentucky. The award recognizes foresters who have dedicated their professional careers to the application of forestry on the ground using sound, scientific methods and adaptive management strategies. Here are the 2019 awards winners. **Page 17.**

SAF Chapter Resources

Several SAF initiatives over the past two years have endeavored to increase the diversity and inclusion (D&I) of our membership and the forestry and natural-resources profession. Building on a D&I session included at its 2018 annual meeting, Ohio SAF presented an R.I.P. Uniformity (Respect, Identity, Privilege) workshop at its winter annual meeting this year. **Page 20.**

BC Curtailments

At this writing in mid-June, at least 20 mills in British Columbia have announced shutdowns or curtailments in the last two months, according to *Random Lengths* and other sources. For example, on June 11, *Random Lengths* reported that “Canfor Corporation announced June 10 it will be curtailing operations at all British Columbia sawmills, except WynnWood.” For more on this and other forest-products industry news, see **page 24.**

DEPARTMENTS

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Recreation: More than a Walk in the Woods

This special edition on recreation features a pack-load of articles and essays on the topic, including a Q&A with Michiko Martin, the US Forest Service’s director of recreation, heritage, and volunteer resources, who talks about the agency’s efforts to maintain and perhaps improve its offerings of recreational opportunities (page 4). That article is followed on page 5 by “Recreation as Shared Stewardship,” which is written by Martin and three of her colleagues. The essay by Steve Selin on this page, “Implementing Sustainable Recreation on the National Forest System: Aligning the Reality and Promise,” first appeared in *193 Million Acres: Toward a Healthier and More Resilient US Forest Service*, a book published by SAF in 2018.

For a look at how Weyerhaeuser, Port Blakely, and Hancock Natural Resource Group are managing recreation on their lands, see page 6. “Training the Next Generation of Recreation Leaders” examines educational programs at West Virginia University and the University of Maine (page 12), and the Student Con-



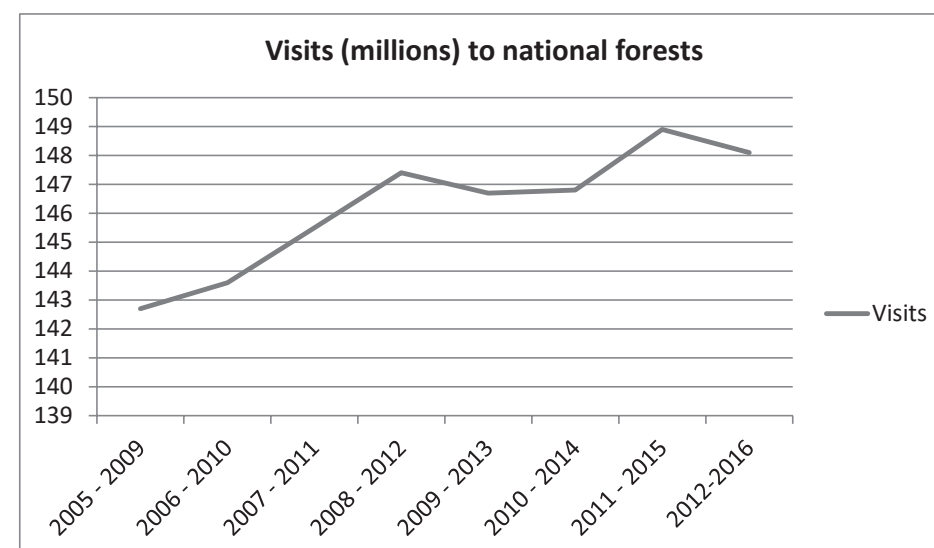
Fat-tire bicycling is a popular winter sport on the Superior National Forest’s Pincushion Recreation Area near Grand Marais, Minnesota. Photo: US Forest Service

servation Association Integrated Fire and Recreation Internship program is highlighted on page 13. On page 14, read about how mule teams helped build a boardwalk on the Ottawa National Forest in Michigan.

Two commentaries round out the recreation theme: “Wilderness Recreation: Misnomer or Intention?” by Cindy and David Chojnacky (page 10) and “Recreation: No Walk in the Woods,” by Nancy Myers (page 15). **FS**

Implementing Sustainable Recreation on the National Forest System: Aligning the Reality and Promise

The essay originally appeared in *193 Million Acres: Toward a Healthier and More Resilient US Forest Service*, published by SAF in 2018. The book, edited by *Forestry Source* editor Steve Wilent, is available in the SAF Store, eforester.org/store.



From the US Forest Service National Visitor Use Monitoring Survey, National Summary Report, 2016.

By Steven Selin

One hundred years ago, a Forest Service landscape engineer named Frank Waugh authored a report titled *Recreation Uses on the National Forests*. To prepare this report, Waugh embarked on a five-month field study, visiting a number of national forests across the country where recreational development was occurring. He knowingly observed that “Outdoor recreation is a necessity of life, and as civilization becomes more intensive the public demand will grow

keener” (Waugh 1918, 3). From his field investigation of current recreation conditions, Waugh concluded that managing recreation should become a central priority of national forest management. “The moment that recreation is recognized as a legitimate forest utility the way is opened for a more intelligent administration of the National Forests. It seems obvious that this utility must be fairly conserved and developed in proportion to its value

SELIN ■ Page 8

THE FUTURE OF SAF

Rebeca Rodriguez: Finding a Path in Forestry

Editor’s note: Continuing with our profiles of up-and-coming SAF members who will continue managing our nation’s natural resources in the coming decades, this month we feature Rebeca Rodriguez. She is an undergraduate at Stephen F. Austin State University (SFA) and will graduate this summer with a bachelor’s degree in forestry with a concentration in forest recreation management. In 2016, she joined SAF and was selected as an SAF Diversity Scholar in 2018 (for information on the scholarship, see tinyurl.com/yy7g4rvj). She also served as the treasurer of SFA’s SAF student chapter for two years.

In her own words, Rodriguez describes her path toward a career in forestry and recreation.

By Rebeca Rodriguez

How she developed an appreciation for the outdoors

While I was growing up in Houston, Texas, my parents never took my brother and me to any state parks or national parks; even going to the city park was a rare thing, because they didn’t feel comfortable going to those places. Being Hispanic and not really knowing a lot of English, it was hard for my parents to go to one of these

RODRIGUEZ ■ Page 19

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Recreation: The Trail to Forestry



From the US Forest Service photography archive: Camping at Woodward Forest Camp on Langdon Lake, Umatilla National Forest, Oregon, September 1956. Photo by Frank Flack.

By Steve Wilent

Like most SAF members of my generation—I turned 60 last year—recreation instilled in me a love of the out-of-doors. Some of my earliest memories are of playing outside, in the yard, at first, and then in the field at the end of the road. Though the field was perhaps five acres, it was a vast wilderness for me as a four- and five-year-old. Its narrow game trails became my own, the shrubby hedge with its green tunnels my castle, the majestic oaks at one end the guardians of my kingdom. And it was all accessible—by tricycle.

My first memory of recreation beyond my neighborhood was a campground at Yosemite National Park where my parents and brother and I slept on the ground wrapped in blankets—we had little camping gear aside from a Coleman stove and an ice chest. The aroma of frying bacon and wood smoke on the chilly mountain air was intoxicating. As a six-year-old, the trails to the park's awesome waterfalls, wading in the Yosemite River, and eating meals by a campfire made for an adventure far beyond any I had known.

Before I was 16, I walked, hitchhiked, or rode a bicycle to parks and campgrounds, a rucksack on my back or on a rack on the back of the bike. My first car, a 1964 Pontiac Tempest station wagon—a sport utility vehicle, as far as I was

concerned—took me all across western North America. I kept camping gear in the back so I could strike out for a national forest or state or county park on a whim, after school or work. On one memorable excursion to the King Range National Conservation Area, a remote stretch of Northern California coastline managed by the Bureau of Land Management, I backpacked on sand and cobble beaches for miles without seeing more than three or four people. I camped on the sand above the high-tide line one night and spent another at the edge of a meadow bisected by a rushing creek and dotted with wild iris in bloom, with Pacific waves crashing on a cobble beach, air filled with the tang of salt water and the earthy forest nearby, not another soul in sight. I caught a nice greenling and steamed it for dinner over a driftwood fire. Heaven on Earth. I only reluctantly returned to civilization.

When I told my parents that I would go to college, not to study engineering or business, but forestry, I wondered why they were surprised.

Recreation for Everyone

Several of the articles in this special edition on recreation focus on the US Forest Service, which provides more developed

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Biking in the Mount Rogers National Recreation Area, George Washington and Jefferson National Forests, in southwestern Virginia. Photo: US Forest Service Southern Region.

Deer Browse Impacts

In “New Visualization of Browse Impacts Points to Restoration Challenges in Deciduous Forests of the Midwest and Northeast” (*The Forestry Source*, January 2019), Will McWilliams suggests that browsing by white-tailed deer is both damaging to young forest habitat and has made “restoring broadleaf deciduous forests in the Midwest and Northeast ... nearly impossible in many areas.” His conclusions are based in part on the US Forest Service’s browse impact assessment (McWilliams et al. 2018), which is undoubtedly the most-extensive browsing assessment conducted at such a large scale. As such, McWilliams’s fieldwork and data set are important and admirable, but I found his conclusions in this article unwarranted and ultimately misleading to forest practitioners and the general public.

McWilliams reports that about 60 percent of the 182 million acres of forestland across the study area was either moderately or heavily browsed, and thus, “areas of concern.” But a closer look at the data set reveals that, in four-fifths of a roughly 110-million-acre area, browsing was not common (i.e., rated as medium). In fact, in 88 percent of the entire region, browsing was either not observed at all (rated as low) or it was uncommon (medium). By lumping the far more frequent medium browsing with the far less frequent high browsing, and collectively labeling these occurrences as areas of “concern,” McWilliams effectively inflates the importance of intensive browsing in the region and suggests that *any* observed browsing is a problem. Given that deer are an integral part of eastern forest ecosystems, this perspective does little to further a broader understanding of forest ecosystems.

Of course, deer (and moose) do browse some areas heavily (i.e., 12 percent of the study area), and heavy browsing often occurs in young, regenerating forests. Young forests provide habitat for a suite of scrub-shrub species, such as blue and golden-winged warblers, chestnut-sided warblers, and common yellowthroats. These ephemeral habitats soon disappear (along with these associated species) as their initially open-grown structures fill in with dense, tall trees and a closed canopy. However, the only natural process that occurs with any regularity in the eastern forest to delay the growth of woody plants and extend the period of young forest habitat (i.e., low vegetation and few trees) is intensive browsing by ungulates. Hence, it makes no sense to argue, as McWilliams does, that deer are both suppressing forest growth and “obliterate[ing] habitat for young-forest obligate animal species.”

As somebody who studies the impacts of deer and moose browsing in forests, I understand, firsthand, the remarkable changes that these animals can cause. However, I also understand that browsing is not just “damage” to a forest, but is also a fundamental ecological process that often has complex and surprising outcomes—

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US Forest Service Recreation: Renewing Body and Spirit

By Steve Wilent

At the top of the US Forest Service's Recreation, Heritage and Volunteer Resources web page is this 1919 quote by Arthur Carhart, a Forest Service landscape architect:

Perhaps the rebuilding of the body and spirit is the greatest service derivable from our forests, for what worth are material things if we lose the character and quality of people that are the soul of America.

In the following paragraphs, the agency explains that "The National Forests and Grasslands provide the greatest diversity of outdoor recreation opportunities in the world, connecting you with nature in an unmatched variety of settings and activities. You hike, bike, ride horses, and drive off-highway vehicles. You picnic, camp, hunt, fish, and navigate waterways. You view wildlife and scenery, and explore historic places. You glide through powder at world-class alpine resorts and challenge yourselves on primitive cross-country ski or snowmobile routes.

"Outdoor recreation is fun—and so much more. It provides physical challenge, requires development of life-long skills, provokes interest and inquiry, and inspires wonder and awe of the natural world. Recreation thereby contributes greatly to the physical, mental, and spiritual health of individuals, bonds family and friends, instills pride in heritage, and provides economic benefits to communities, regions, and the nation. Indeed, outdoor recreation has become an essential part of our American culture."

I recently spoke with Michiko Martin, director, Recreation, Heritage, and Volunteer Resources, about the agency's work to maintain and perhaps improve and expand its offerings of recreational opportunities. She and her colleagues face a daunting challenge: a \$5-billion deferred-maintenance backlog and a shrinking recreation budget.

Martin has worked for the Forest Service for about five years. During the previous 30 years or so, she worked for the National Oceanographic and Atmospheric Administration's National Marine Sanctuaries System, which encompasses more than 600,000 square miles of marine and Great Lakes waters; she also served in the US Navy as a meteorologist and oceanographer. What follows are excerpts from our conversation.

The most recent National Visitor Use Monitoring system report shows that visits to the national forests and grasslands increased, overall, from 2012 to 2017. Has the trend continued?

Yes, we've been seeing an increase in the number of visitations to our national forests of about one-half of one percent per year. The latest numbers show that we have about 149 million per year on National Forest System lands. Some of those are repeat visits, of course, but it shows how much people love visiting their national forests. The number one reason

people visit is because of hiking or walking—about 40 percent of all visitors cite hiking, walking, or jogging as the primary reason for their visit.

What changes have you seen in recreation?

One of the things we're seeing is a slight increase in the number of women who are visiting our national forests, and there has been an increase in the number of Latino visitors. We're also seeing that the visits tend to be longer in duration—there have been increases in the number of visits lasting from three to six hours. Another trend that we're seeing is an increase in the number of visits by people over 60 years of age.

Aside from hiking and walking, what are the other popular types of recreational activities?

Other areas where we're seeing steady or increasing participation include driving for pleasure, picnicking, and wildlife viewing. It's interesting to note that we have 300 million travelers each year who pass through our national forests on scenic byways or other roads. These are people who are just driving through—they are not included in the 149 million visits per year on National Forest System lands.

The only areas where we are experiencing statistically significant decreases in visitation activities are hunting and fishing. These aren't drastic declines—I think fishing has been declining by about 2 percent per year and hunting by about one percent per year. But these numbers are of concern to our partners, so they have been rethinking the ways in which they can recruit more hunters and fishers to enjoy their public lands.

In 2017, a USDA Office of Inspector General report described the Forest Service's \$5-billion deferred-maintenance backlog. Much of that backlog is directly or indirectly related to recreation—road maintenance, for example, has by far the largest percentage of the backlog, and the backlog for maintaining trails and trail bridges is \$288 million. Why are there such large backlogs? Has the so-called fire borrowing had an impact?

The backlog for recreation site maintenance is about \$400 million. The fire budget has been just eating us alive. The fact that the agency has had to put more money into fighting fires than has been allocated means that money has to come from other areas. Usually, we can count on that money being repaid, but often that money comes at a time in our budgetary cycle where it's not the same as if we had been given that money on schedule at the beginning of our fiscal year in October—we can't use the funding in the most-effective manner before receiving it late in the fiscal year as a repayment.

More broadly, most of our funding is appropriated by Congress. Appropriations for our capital improvement and maintenance

US Forest Service Recreation-related Deferred Maintenance, 2016 (\$million)	
Roads	\$3,214
Trails and trail bridges	\$288
Bridges	\$233
Minor constructed features (signs, kiosks, picnic tables, water pedestals, etc.)	\$90
Heritage sites	\$23

Data from Forest Service Deferred Maintenance, audit report 08601-0004-31, US Department of Agriculture Office of Inspector General, May 2017.



Recreation on the Ocoee River at Mac Point in the Cherokee National Forest, Tennessee. Photo by Cecilio Ricardo, US Forest Service



A man jogs early one morning in Davidson River Campground, Pisgah National Forest, North Carolina. USDA photo by Lance Cheung.

nance budget have remained relatively flat over the last five years. And when I say flat, that doesn't account for inflation and rising costs. So a flat budget gives us less funding to put toward maintenance. We simply don't have the money we need to put toward our roads, trails, facilities, and structures.

In February 2018, US Secretary of Agriculture Sonny Perdue announced the selection of 15 priority areas to help address the more than \$300-million trail-maintenance backlog on national forests and grasslands [see tinyurl.com/yczhww3h].

What has been accomplished since then?

It was in the spirit of the agency's shared stewardship strategy that the 15 priority areas were designated. We have groups all across the nation who really cared deeply about their trails. Shared stewardship is a recognition that we can't do everything alone, nor should we. We went through a solicitation process to invite comments on the designation of priority trail areas.

We are using these designations as a way to bring attention to these trail areas and invite a larger collaboration around the stewardship of those trails. We're re-

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To Share and Sustain: Stewarding Recreation Resources in the US Forest Service

By Monika Derrien, Lee Cervený, Michiko Martin, Matt Arnn

The residents of rural Athens County, Ohio, saw an opportunity to address their public-health and economic challenges by tapping into the natural and social capital of the Wayne National Forest. Community visionaries pulled together local business owners, government officials, and university faculty to develop a concept for an expansive mountain-bike trail system, with trail-heads in several small towns, connecting them to federal, state, and local public lands. The trail system would promote physical activity for residents, create new jobs to serve out-of-town trail enthusiasts, and improve the community's overall quality of life. US Forest Service officials began working with a network of national and community partners to solidify local investment in the proposed Baileys Mountain Biking Trail System. With an innovative financing strategy structured through a social impact bond (see tinyurl.com/yyd5z93o), this ongoing community visioning and investment process exemplifies how the Forest Service is building recreation capacity through shared stewardship.

What is shared stewardship? The US Forest Service uses the term to describe an agency-wide commitment to work with others on relevant scales to identify, prioritize, plan, and accomplish mutually beneficial work on national forests and grasslands and beyond. Shared stewardship approaches are motivated by a common vision for how lands might be managed in a way that achieves shared benefits. The approach is implemented through partnerships and capitalizes on shared interests, values, and interdependence, encouraging the engagement of long-standing partners as well as new and diverse groups. [See "Federal-State Shared Stewardship Strategy Takes Hold," *The Forestry Source*, June 2019] In California, for example, the Eastern Sierra Sustainable Recreation Partnership helps gateway communities, such as Mammoth Lakes, invest in mutually beneficial projects across public lands (Eastern Sierra Sustainable Recreation Partnership, essrp.org). Here, local tax measures fund trails projects on the Inyo National Forest, as well as a trails website, supporting local tourism interests in a way that Town Council member John Wentworth describes as "innovative, replicable, and necessary."

What might a national commitment to shared stewardship mean for outdoor recreation? It means more creative, collaborative efforts such as the Baileys and Eastern Sierra partnerships. While recreation partnerships in the US Forest Service are as old as the Appalachian Trail Conservancy (founded in 1925), the agency's nationwide commitment to ensuring that partnerships are empowered, inclusive, and better supported is new. It marks a change from a culture of expertism to one in which the agency acknowledges that important insights will emerge from the collective knowledge of diverse partners. It recognizes local and indigenous knowledge alongside corporate and scientific knowledge, extending one of Gifford Pinchot's maxims for foresters, to "Get rid of the attitude of personal arrogance or pride of attainment of superior knowledge."

Theodore Roosevelt invoked the "sense of common duties and common interests, which arise when [people] take the trouble to understand one another, and to associate together for a common object." Economist Elinor Ostrom posited that sustainable resource management can be achieved through building trust, cooperation, and institutions for collaborative governance. Shared stewardship for outdoor recreation builds on these traditions.

Recreation Today

As foresters across the country know, outdoor recreation is popular. The Bureau of Economic Analysis recently estimated that outdoor-recreation industry contributes to 2.2 percent of the nation's gross domestic product, with more consumer spending than the pharmaceutical and gasoline/fuels industries combined. The growth of outdoor recreation has outpaced the overall economy. At the same time, many public-land agencies have experienced declines in budgets for operations and maintenance, as well as personnel, alongside increasing levels of deferred maintenance for recreation facilities and infrastructure. A 2013 audit from the Government Accountability Office found that only about one-quarter of the Forest Service's trail miles met the agency's standards.

Shared stewardship is more than a new catchphrase for getting help from others. National forests and grasslands already get a lot of help, benefiting from tens



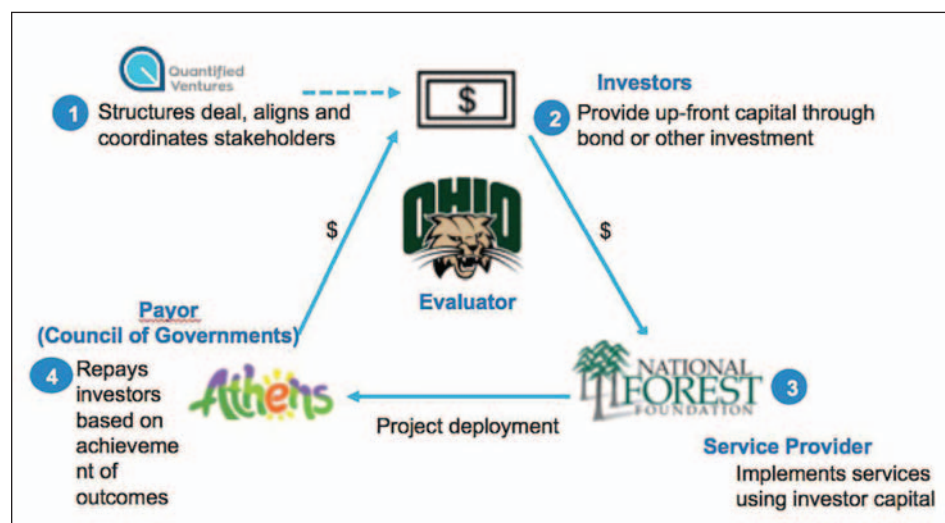
Mountain biking on the Pisgah National Forest. Photo by Cecilio Ricardo, US Forest Service

of thousands of generous volunteers and service participants putting in millions of hours annually to maintain trails, patrol the backcountry, and manage campgrounds. Partners extend the reach and relevancy of this work in many communities. While all of this is an important component of shared stewardship, the shared-stewardship concept encourages broadening, deepening, and weaving together new and existing commitments. Shared stewardship is about sharing not only in the work itself, but also in the risks and returns of shared investments. For example, by encouraging longer-term special-use permits to recre-

ation service providers, the agency is helping reduce uncertainty and de-risk capital investments, encouraging private businesses to invest in public-land infrastructure projects—such as deferred maintenance in campgrounds—that will serve business interests and further the agency's goal to facilitate high-quality outdoor experiences for the public.

Shared stewardship requires building social capital, nurturing nascent partnerships, and sharing leadership and decisionmaking space. For many people,

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Transaction model for the Baileys Mountain Biking Trail System on the Wayne National Forest in Athens, Ohio. See tinyurl.com/yyd5z93o.

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Private Timberland Owners' Views on Balancing Access and Recreation



In the Pacific Northwest, Weyerhaeuser offers access via recreational access leases to nearly two million acres of its timberlands. Leaseholders can camp, ride horses, hike, hunt, and fish. Photograph courtesy of Michelle Metcalf.

By Andrea Watts

Although public lands are touted for their recreational opportunities, private timberlands also provide similar valuable opportunities. Unlike state and federal agencies, however, private landowners aren't required to open their lands to the public. Those who do contend with the same issues that public agencies must grapple with: determining when and where different types of recreational activities are permitted, managing security and trash, and balancing access with management activities.

To learn how several well-known private forestland owners in the Pacific Northwest structure their recreational programs, I chatted with representatives from Weyerhaeuser, Port Blakely, and Hancock Natural Resource Group.

Weyerhaeuser

Each region within Weyerhaeuser's timberlands portfolio has its own recreational access program. For the Northwest Region, which includes Washington, Oregon, and Montana, nearly two million acres of timberland are available to access. As the Northwest recreation access manager, SAF member Michelle Metcalf is responsible for overseeing them all. Public access onto Weyerhaeuser timberlands has evolved over the years, she said. What used to be open-access roads became gated because of garbage dumping and vandalism. Gates were then only opened during hunting season. Several years ago, in the Southern Timberlands Region, Weyerhaeuser's recreational access program started a recreational access lease program, and "they had great success with it, so we rolled it out in the West," Metcalf said.

Weyerhaeuser elected to use a fee-based annual permit model for motorized access that currently costs anywhere from \$225 to \$395. Permits are available for specific areas, with the number issued determined by the carrying capacity of the land. Included with the permission to access the land is the option to camp, remove two cords of firewood, and partake

in noncommercial picking of berries and mushrooms.

"We chose the permit model because of our large blocked-up landscapes, where we have huge ownerships with existing gates around the edges," Metcalf explained. "That worked better than dividing the area into individual leases, like they have in the South, and it also gave an opportunity to get more people out on the landscape."

The pilot permit program was offered in several areas in 2013, and the following year, it was unveiled across 18 permit areas. The number of permits issued each year was determined, Metcalf says, through "a little bit of trial and error." Weyerhaeuser picked what it thought was a reasonable number and then gauged the feedback from Weyerhaeuser employees, the timberlands security staff, and permit users to determine if the landscape felt crowded.

"We've been able to add some permits—not huge quantities—and a lot of that is in areas where we sell out quickly, because we do want to get people out on the landscape," Metcalf said, adding that the goal is to find that sweet spot between accessibility and over-use.

One change made since the permit program started is the availability of a nonmotorized annual permit, which currently costs \$75. With this permit, permittees are only allowed to bike ride, walk, or ride horses within the permit area. "We were getting feedback from neighbors who just wanted to walk in or horseback riders who didn't want all that other stuff," said Metcalf. "We tried to find something to accommodate their recreation use."

Another recent change for motorized-use permit holders was allowing the cutting of two cords of firewood, and in 2016, camping was added. "Weyerhaeuser was not in favor of camping in the beginning, but we've worked through that and it hasn't been an issue for us."

This year, permit holders can also purchase a two-day guest pass for a non-family member. Metcalf said that this addition was in response to feedback, primarily from the hunting community.

The fees collected from the permits are used to pay security staff who patrol the units daily, gate and lock maintenance (new keys are issued each year), and permit packets that include a paper map and permit. Within the permit agreement, it is made clear that permittees are responsible for their safety and surroundings, and Metcalf said that "we've been fortunate to not have any issues."

When there is an active harvest unit, the hauling route is posted and the road to the unit is closed to permit holders. Even if there isn't an active harvest in an area, forestry vehicles have the right of way, which is addressed in the permit rules. Although CBs aren't required, the channels are posted. "We do our best to keep our customers notified and safe," Metcalf said, "and most are repeat customers who are familiar with a working landscape."

Prohibited recreational activities include target shooting, Metcalf said. "Safety is a core value at Weyerhaeuser. Whether it's the clays left behind or the spent shells,

we have people working out in the woods, and it's important to have safety precautions in place and reduce resource damage."

Permitted motorized vehicles don't include motorcycles or ATVs, because as a working forest, Weyerhaeuser doesn't want these vehicles using the same roads as forestry vehicles.

With the influx of people onto the landscape, the likely question is: How respectful are people? "On any of our permit areas, we don't have a garbage problem," Metcalf said. "All of our garbage issues are in areas where it's open access or people just rolling up to the gate to dump a refrigerator and drive away."

In addition to its recreational access permit program, Weyerhaeuser also offers leases on 250 scattered or isolated parcels across Oregon and Washington. The leases are primarily used for hunting, but this year, a bike club leased a parcel in Multnomah County. Weyerhaeuser foresters will work with the group to construct sustainable, safe trails that minimize resource damage.

"We look forward to a very successful relationship," said Metcalf. "This club has leases on other industrial forestlands that have been very positive. I have faith that it's going to be a great partnership."

Just as the forest types in the Northwest and South are different, so too are the recreational programs. The Southern Timberlands recreational program offers only leases, with some customers having leased the same property for more than 20 years, Metcalf said. Hunting stands and food plots are allowed, and the lease areas are also smaller compared to those out in the Northwest, due to the differences in wildlife patterns.

One interesting difference is that mountain biking and hiking aren't as popular recreational activities in the South. "I'm teaching my southern colleagues about these other cool recreation opportunities that we have out here in the Northwest," said Metcalf.

Although the program is only six years old, Weyerhaeuser has built a loyal customer base. "People do appreciate the opportunity to get out on the landscape," she said, adding that the company is willing to listen to new recreational ideas the public suggests. "If we can make it work with our existing uses, we're more than willing to investigate ways to give it a try."

Port Blakely

It's toward the end of my discussion with Court Stanley, president of Port Blakely Tree Farms; Mike Warjone, vice-president of operations; and Teresa Loo, Port Blakely's director of environmental affairs and community relations, about the company's approach to managing public access and recreation that we return to my first question: What is Port Blakely's philosophy on public access for recreation on its 140,000 acres of timberland in Washington and Oregon?

"We've never discussed it intentionally," said Loo. "But my sense is that public access, the way it's evolved, is part of our culture and part of our overall belief. It goes in hand with our environmental ed-

ucation. We want to get people out there, and what we've found through this way of doing things, [is that] it pays dividends to us."

The fifth-generation family-owned Port Blakely's corporate approach to recreation and public access is providing free access to its timberlands. "I think it's appreciated that people don't have to pay to access the lands," explained Stanley, and Warjone added that "we get some e-mails and calls in support of that."

That being said, "Weyerhaeuser and Hancock are creating a pretty cool experience for people who can buy a key," Warjone said.

However, Port Blakely's philosophy has evolved over the years, said Stanley. "We used to just gate portions of our property and open our land for motorized access during hunting season," he said. "But when the Forest and Fish law came in, we started realizing we were spending an awful lot of money repairing roads after hunting season, and there was an increased risk of silt getting into streams, so it was going against our road-maintenance policies."

To that end, motorized vehicles aren't permitted; people are welcome to walk, bike, or ride in on horseback. Picking mushrooms and berries is allowed, and cutting firewood is also allowed with a permit. Camping and campfires aren't allowed. The reason for banning camping was the result of seeing the aftermath of hunting season on a tract of land purchased in 2004.

"After hunting season, it was disgusting," Stanley said. "It was a mess. With fire danger, I can't foresee us allowing camping unless it's structured and by permit. A free-for-all doesn't work."

In addition to hunting, kayakers and motorcyclists can also secure permission to use specific tracts for special events. One unique type of recreation that the company's Morton Tree Farm hosts is hang gliding. According to Stanley, Dog Mountain is a world-famous hang-gliding site, and Port Blakely continued the lease agreement with the hang-gliding group after it purchased the tree farm. Not only is the group respectful, "they have our phone numbers, and if they see smoke, they call it in," Stanley said. "It's worked really well."

"If there's an organized group of people who approach us and say, 'We're interested in xyz,' we're open," Warjone said. "If they got insurance, and we think it's not going to harm the resource or cause issues with sediment in streams or cause a fire danger, we'll entertain any idea."

On its New Zealand property, Port Blakely also allows free access, but the company does issue permits to track users. In New Zealand, "they're more respectful of private property," Stanley said. "It's pretty well-known it's private forestland."

Group activities, such as motorcross, are allowed, and unlike in the United States, hunting season is year-round.

One concern with allowing free public access is the dumping of trash. Dumping is an issue, Warjone admitted, but the

people dumping aren't the members of the public using the landscape for recreation. "Port Blakely has a pretty high percentage of urban interface as a percentage of our land base," he said. "So we have quite a bit of trash dumping to contend with."

One change that Warjone has observed over the years is the public's acceptance of gates. In the '70s and '80s, when the gates went up, there was opposition and that generation has moved through, he said. "Now people understand that a managed industrial forest is not a public forest."

An issue that the company is currently addressing is what happens when a person inadvertently crosses the boundary of Port Blakely's property and onto that of an adjacent landowner. "We have a checkerboard ownership with Green Diamond, which can be problematic at times because people will be hunting on our property and not know they've left Port Blakely and are on Green Diamond," explained Warjone.

As for the number of people who recreate on their lands, neither Stanley or Warjone have a definitive number. "We know it's a lot," said Stanley, and Warjone remarked that on one particular weekend out at the company's seed orchard, a game camera captured 70 people using the trail.

With advances in technology comes new forms of recreation, such as electric bikes, and already Port Blakely has a response. "We do not consider an electric bike a motorized vehicle," Warjone said. "Suddenly, people are getting much deeper into the forest than they used to. That's

fine for me. They're not going to go off the road and tear up the soil."

To manage the liability of having the public on its tree farms when there are active logging operations, signs are posted and roads are closed. During the summer, security contractors are on patrol, and the woods are shut down when the company decides the fire danger is too great, even if the state hasn't ordered a general shut-down.

When the conversation circles back to the discussion of access by fee, Warjone said that "it's surprising to me how long it's taken for fee access to catch on here. Pretty much the rest of the country is using that model ... it can be a big part of your revenue stream if you operate a tree farm in the Southeast."

"It's our choice anyway to invite people in," Stanley explained. "On the flip side, every landowner [can manage as they choose]—it's their property. We've chosen to go our own way."

Hancock Natural Resource Group

When Hancock Natural Resource Group (HNRG) purchased a 197,000-acre tree farm in Oregon's coast range six years ago, Jerry Anderson, CF, said that the locals feared that their public access would be lost. "There was concern we would go to a lease access-only program or no access," said Anderson. "Instead, their worst fears weren't realized."

As region manager, Anderson and his team have the discretion to set recreational policy, and he honored the recreational policies in place before HNRG assumed



One recreational activity popular on Port Blakely's Morton Tree Farm: hang gliding. Dog Mountain is a world-famous hang-gliding site, according to Court Stanley, president of Port Blakely. Photograph courtesy of Monique Taylor.

ownership of the tree farm.

"We want to have access for the public for a variety of reasons," Anderson explained. "It might generate revenue, and it definitely creates goodwill. It's easier to work with folks than against them."

That being said, he cautioned that "having the public on your property does cost money. We have to maintain the roads, maintain the gates, and maintain the signs."

To help offset these maintenance costs, HNRG pursued an Access and Habitat grant through the Oregon Department of Fish and Wildlife (ODFW). The program is funded through hunting

licenses. Four dollars from every hunting license are diverted to the Access and Habitat grant program, and its goals are to improve habitat and provide access to the public.

It took more than a year to work through developing the grant proposal and getting it approved by the ODFW commissioners. With HNRG receiving \$190,000 each year for the next three years, the result for the public is: "Before the Access and Habitat program, our policy was to have open lands when it's not fire season and then completely closed to

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to the public” (Waugh 1918, 5). To do so, he recommended that the Forest Service should employ men suitably trained in recreation, landscape engineering, and related subjects. If Waugh’s report ushered in the era of professionally and scientifically managed outdoor recreation on national forests, it begs the question of how well the institution has met his challenge. One hundred years later, what is the current status and what are the prospects for the Forest Service’s managed recreation program? Are there internal reforms that could help the agency more effectively achieve its mission with respect to recreation?

The Forest Service’s Managed Recreation Program

These questions frame the objective of this essay. I examined the Forest Service’s managed outdoor recreation program by reading relevant agency reports, reviewing the academic and professional literature, and speaking with field-level recreation managers, as well as recreation directors at a regional and Washington office level. While I reviewed many constructive comments about recreation and the Forest Service, the final conclusions of this essay are my own. Any acclaim or criticism should be directed my way.

It’s likely that Waugh would struggle to wrap his head around the scale of recreation investment that the Forest Service has made since 1918. For one thing, the US population has grown threefold since 1918, from 103.2 to 325.4 million residents. The number of recreation visits to the country’s 155 national forests has grown from about five million visits in 1925 to 149 million visits today (US Forest Service 2017a; see Figure 1). Overall, the Forest Service today manages more than 158,000 miles of trails, 115,000 overnight and day-use developed sites, and more than 380,000 heritage sites. In addition, the agency manages 36.5 million acres of designated wilderness, 122 waterways in the Wild and Scenic Rivers System, and 136 National Scenic Byways covering more than 9,100 miles. More than 230 million Americans live within 100 miles of a national forest or grassland.

Societal Challenges

With the scale of this recreation infrastructure and need to accommodate current and potential visitor use, agency leaders rightly tout the Forest Service as the largest, most diverse provider of outdoor recreation opportunities in the world. The agency has certainly built a strong tradition of scientifically and professionally managed recreation resources since Frank Waugh’s 1918 recreation report. However, it is presently grappling with many thorny recreation challenges as it strives to achieve its motto of “Caring for the land and serving people” during an era of unprecedented social and economic change (US Forest Service 2015a). Population growth and increased urbanization have severely tested the Forest Service’s recreation infrastructure and management systems, which were developed during the

post-WWII era of the 1950s and 1960s (Collins and Brown 2007). Rising visitation and competing public demands on the National Forest System have stretched the capacity of the agency to respond to these emerging social trends. For example, dramatic increases in the amount of dispersed recreation use (for example, camping outside of a designated campground) that occurs outside developed recreation sites have severely tested the agency. For example, the rising use of off-road vehicles to access remote regions of national forests has prompted a Travel Management Program to clarify policy about where motor vehicles are allowed or prohibited on national forest lands (US Forest Service 2008). User conflicts between motorized and non-motorized visitors are on the rise.

The face of national forest visitors is also changing as America becomes more diverse. According to the Pew Research Center, by 2055, the United States will not have a single racial or ethnic majority. Over the next 50 years, the majority of US population growth will be linked to Asian and Hispanic immigration (Pew Research Center 2016). The Forest Service and other federal land management agencies are working hard to employ conservation professionals and provide recreation opportunities that are responsive to these demographic changes. For example, a matter as simple as the design of a typical Forest Service campground can be problematic. A typical campsite often caters to the typical atomic family of the 1960s—two parents and three children taking a 1–2-week summer vacation (think Chevy Chase’s family in *National Lampoon’s Vacation*). Campsite design for the future will need to be responsive to the cultural needs of more-diverse visitors. Along with traditional campsites, the Forest Service may need to develop more “large group” campsites to accommodate the shifting cultural needs of visitors, as well as add other modern conveniences such as electricity, wi-fi, and cell service.

Internal Agency Challenges

Given these pressing societal challenges, one anticipates the Forest Service would be mobilizing capital and human resources to meet these outdoor recreation needs of the future. However, internal budget figures suggest otherwise: a decline of about 15 percent in the budget of the Recreation, Heritage, and Wilderness Program from 2001 to 2015 (US Forest Service 2015b). According to one recent Forest Service report, this program’s budget declined by nearly \$95 million between FY 2011 and FY2016, an 18 percent decrease (US Forest Service 2017a). In addition, the number of full-time employees in the Forest Service’s managed recreation program has declined by nearly 30 percent since 2002. While many causes can be attributed to this recreation budget decline, the elephant in the room is the vast financial investment the Forest Service is making in fighting wildfires. Figure 2 illustrates how much of the overall Forest Service budget is getting consumed by fighting wildfires (US Forest Service 2015b). Anecdotally, Forest Service recreation staff has described how they brace

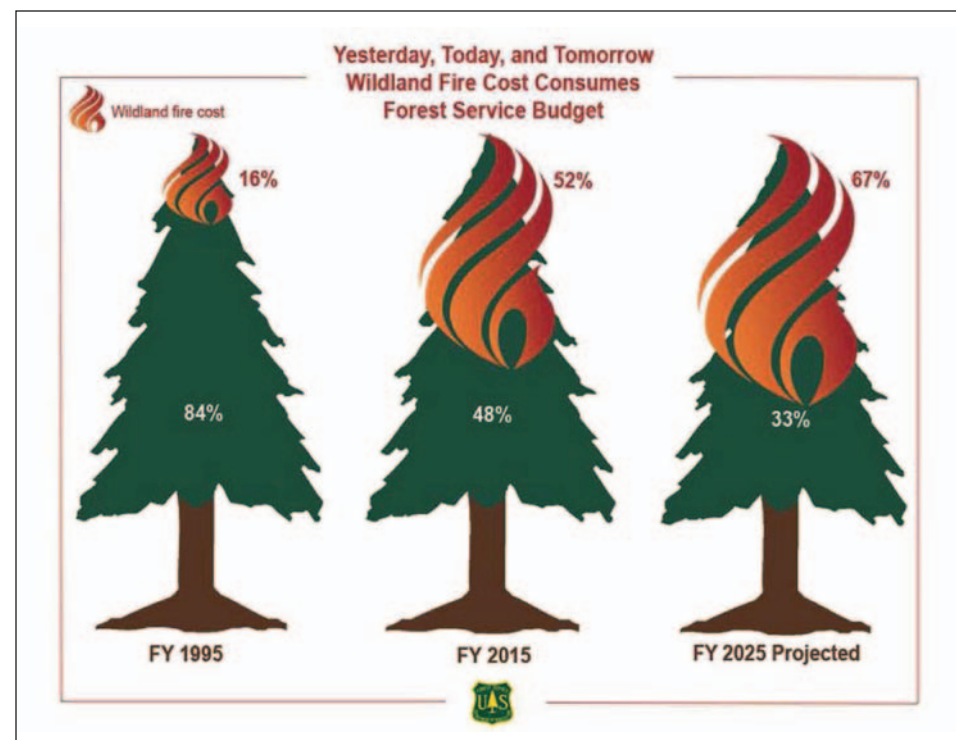


Figure 2. The Cost of Wildland Fire as a Percentage of the Forest Service’s Annual Budget (US Forest Service 2015b)

for the annual day of the year when their recreation project budgets get stripped and the funds transferred to the wildfire budget.

In addition to a declining number of full-time employees, an overall flat agency budget in recent years, and wildfire-related budget disruptions, deferred maintenance costs for developed recreation sites and trails have ballooned: In 2016, these costs stood at \$672 million (US Forest Service 2017a). Put into perspective, only a quarter of Forest Service trails are being managed up to standard. What does this all mean for the Forest Service’s managed recreation program? It means that the agency has a diminished capacity to respond to society’s growing demand for high-quality recreation opportunities on the National Forest System. It means that many of these public demands go unmet, resulting in dissatisfied visitors, unmanaged recreation sites, deteriorating infrastructure, and ecological damage. Clearly, the agency’s recreation program is at a crossroads and in dire need of a strategic, focused investment. Faced with these significant challenges, the Forest Service has adapted and implemented several new recreation programs designed to address these challenges.

A Framework for Sustainable Recreation

The Forest Service’s Framework for Sustainable Recreation (FSR) was released by the Washington Office in 2010 as an eight-page document communicating the broad challenges and opportunities facing the Forest Service’s managed recreation program (Selin 2017; US Forest Service 2010). The Framework is couched in the context of a history of innovation and growth, as well as the significant challenges to providing quality recreation in an era of population growth, urbanization, public health concerns, an out-of-touch-with-nature American public, and declining public revenues to maintain and enhance recreation facilities and opportunities. It articulated a vision and guiding principles that emphasize re-connecting people with their national forests and inspiring responsibility to care for them. The vision strives to bring health and vitality to in-

dividuals and communities by providing quality recreation through partnerships with local recreation service providers. Interestingly, the Framework does not attempt to operationally define “sustainable recreation,” leaving flexibility in how the Forest Service regions and individual national forests interpret and implement the Framework. Instead, it identifies 10 focus areas in which to achieve the agency’s sustainable recreation goals. These focus areas include standard sustainability programs, such as restoring and adapting recreation settings, implementing “green” operations, forging strategic partnerships, promoting citizen stewardship, developing a stable financial foundation, and developing a recreation workforce.

In his video introduction to the Framework, former chief Tom Tidwell placed the goal of sustainable recreation within the context of strained federal budgets, backlogged maintenance, and unmanaged recreation (US Forest Service 2012). “We need to go beyond current funding sources,” he said. The chief issued a call to action to Forest Service partners to help implement the Framework and added that additional Web resources, tools, and cases would be available soon.

Now-resigned Forest Service chief Tony Tooke picked up this mantle from Chief Tidwell, publishing five agency priorities that included: “Enhancing recreation opportunities, improving access, and sustaining recreation infrastructure.” (US Forest Service 2017b). Thus, enhancing recreation opportunities continues to be a strategic priority for the Forest Service.

Over the past five years, the agency’s national office has developed an FSR Implementation Guide that provides guidance, tools, and lessons learned to Forest Service regions and individual national forests to use. Over the past three years, a number of Forest Service regions have developed their own sustainable recreation strategies, tiered to the national FSR, and individual forests are now striving to implement their own as well. According to Tinelle Bustam, national assistant director of recreation, tourism, and public services, efforts to “modernize, streamline, and ad-



Whitewater rafting through the Ocoee River in the Cherokee National Forest, Tennessee. (US Department of Agriculture Photo by Lance Cheung)

vance Forest Service Recreation” are being implemented at the national office as well as across regional and local units (T. Bustam, personal communication, May 11, 2018).

How successful FSR has been in elevating the capacity of the Forest Service’s managed recreation program to meet the public demand for outstanding recreation opportunities is open to question. Several agency reports have concluded that FSR has not been fully implemented due to the lack of a focused financial investment (US Forest Service 2015b, 2017a). Clearly, as Chief Tidwell indicated, the agency is hoping to leverage federal investments with partner contributions—both financial and in-kind—to fully implement the Framework. Indeed, entrepreneurial national forests are supplementing their federal allocations with a diverse mix of leveraged funds, including volunteer donations, fee income, concessionaire contributions, and grants and agreements. The degree of leveraged funds varies significantly from forest to forest.

What will it take to fully implement sustainable recreation across the National Forest System? What internal and external reforms could help the Forest Service realize the vision articulated in FSR? How can the agency best engage citizens to achieve its objectives? Forest Service managers have many creative ideas to contribute.

Managers’ Testimony

Agency recreation managers, not surprisingly, had many ideas for how to improve recreation management across the National Forest System. When asked for strategies to increase the capacity and relevance of the Forest Service recreation program, recreation managers frequently mentioned the challenges faced by a diminished recreation workforce struggling to manage an increasing load of public use, resource damage, and internal agency reporting and monitoring requirements. The issue of target shooting on national forests located near urbanizing areas was offered as an example. Increased target shooting is causing resource damage, interfering with the recreation experience of others, and becoming a personal safety risk. Proposals to mitigate target shooting impact include giving the shooters a designated place to shoot, thus concentrating and restricting

their impact. However, few national forests have the resources to provide such taxpayer-funded shooting ranges, so the challenges multiply.

One interesting theme mentioned by recreation managers was the need for a more strategic approach to managing for increased visitation, one that reflects a decision-making framework that better takes increased use and limited recreation carrying capacity into account. Rather than adopting a passive or reactive stance toward increased use, a strategic approach might mean limiting the scope of what recreation activities are allowed on national forest lands—target shooting, for example. However, managers acknowledged that wide open spaces and freedom are part of America’s identity, which could result in public opposition to these policies. However, these issues will proliferate, because as long as one person’s rights end where the next person’s rights begin, staff are going to need to address this.

Most recreation managers were supportive of FSR’s emphasis on enhancing recreation opportunities through innovative community partnerships. When asked to describe an innovative recreation program, many mentioned such partnership programs as urban youth engagement projects or visitor centers managed jointly with community partners. Respondents were passionate about the power of these programs to catalyze citizen stewardship and strengthen the capacity of the Forest Service’s managed recreation program. On the flip side, several recreation managers sounded a note of caution about community partnerships and volunteer programs. A general sentiment expressed was that securing community partners and volunteers did not relieve the Forest Service of the professional responsibility of properly training, supervising, and rewarding these individuals. In essence, it takes a certain degree of program capacity to professionally manage these community engagement programs. Other cautions raised included concerns that partnership programs, facilities, and communications be managed to the same professional standards as those of other federal natural-resource programs.

Several recreation managers wanted to communicate that the Forest Service “recreation” program was not a one-di-

mensional unit, but rather a complex amalgam of programs that included management of developed sites, dispersed recreation, trails (both motorized and non-motorized), wilderness areas, recreation special uses, education and interpretation programs, and compliance with federal laws, such as the Federal Lands Recreation Enhancement Act (FLREA). Several felt like Forest Service personnel were placed into these staff roles with limited recreation professional experience and inadequate field training to perform at a high level. Further, they felt that this lack of professional capacity was contributing to a troubling situation in which recreation facilities and resources were not being managed to a professional or federal standard.

Synthesis

Weaving these disparate threads of evidence together, it becomes increasingly clear that the Forest Service’s managed recreation program is indeed at a crossroads or tipping point in its ability to provide the American public high-quality recreation opportunities on our National Forest System. For the program to deliver on the FSR promise of reconnecting Americans with their national forests and inspiring responsibility to care for them, the following administrative and legislative changes are needed:

1. Act now. Leadership is listening. Former Forest Service chief, Tony Tooke, recently set five national priorities for the Forest Service (US Forest Service 2017b). One of these is “enhancing recreation opportunities, improving access, and sustaining infrastructure.” According to the former chief, these priorities give urgency and focus to critical agency needs, foster an ideal work environment, and set expectations for how the agency wants to engage community partners.

2. Provide a strategic, focused, financial investment in the Forest Service Managed Recreation Program. One need look no further than the Collaborative Forest Landscape Restoration Program (Schultz, Coelho, and Beam 2015) to find evidence of how a strategic financial investment can leverage desired program outcomes. The Forest Service has yet to demonstrate the same strategic financial investment in its managed recreation program. Whereas FSR provided needed direction for the Forest Service’s managed recreation program, a strategic financial investment did not accompany the national implementation of this program. It is high time the agency did so now.

3. Professionalize the recreation program. A majority of entry-level recreation staff positions within the Forest Service are recruited using the Forestry Technician (GS-0462) job series. This series requires a practical knowledge of the methods and techniques of forestry and other “biologically-based” resource-management fields. Using this job series, many recreation staff positions are filled with applicants lacking professional training in outdoor recreation planning and management. The outdoor recreation management field has its own accredited baccalaureate and graduate programs, professional societies, and credentialing

procedures. The GS-0023 Outdoor Recreation Planner Series should be used more commonly within the Forest Service. No one would consider hiring a professional recreation manager to fill a forest soils position. The opposite is just as true.

4. Expand performance-based program criteria. The Forest Service is still very widget-oriented in how it rewards program performance. For example, in the recreation area, a national forest unit with more campgrounds receives more allocated funding, regardless of the use, relevancy, or value of these recreation facilities to adjacent communities or to visitors. What is needed are performance allocation models linked to desired sustainable recreation outcomes, such as percentage of satisfied visitors to a unit or percentage of developed sites or trails managed to professional standards or the value of volunteer and partner time and resources contributed to a unit. In short, a performance allocation model that rewards integrated and sustainable program outcomes rather than dated output criteria.

5. Restore scientific and technical capacity. Forest Service research and development capacity in the recreation area has diminished over the past two decades. As recreation managers grapple with increasing public demand for services, as well as with a backlog of infrastructure maintenance needs, a resurgence is needed in data-driven and evidence-based management and planning strategies. Presently, a national-level, collaborative initiative entitled “Re-framing Recreation—A Strategic Initiative to Strengthen Capacity for Recreation Research and Management” is at work to implement a research agenda designed to build recreation program capacity at all scales. New conceptual frameworks and planning tools are planned to support recreation managers struggling to balance competing demands and interests.

6. Provide real-time monitoring and assessment data to support forest-level recreation decisions. Recreation managers need reliable and valid real-time data on local visitor behavior patterns and management preferences to support informed decision-making. Presently, this level of data support is largely missing. Several forest-based pilot projects are exploring the possibility of partnering with visitors to provide recreation managers with smart phone-based data on visitation patterns. State natural resources agencies are already doing this with hunter and creel surveys. The Forest Service needs to jump on board.

7. Adopt new service delivery models that support innovation and capacity building. New service delivery models are needed to unleash the creativity and innovation needed for national forest-based recreation opportunities to be packaged as the world-class attraction they should be. According to Tinelle Bustam, national assistant director of recreation, tourism, and public services, “We have crafted a model of shared stewardship where we recognize that as an agency, we can no longer care for the land alone, we are not the only ones who care, nor are we the only

Wilderness Recreation: Misnomer or Intention?

By Cindy and David Chojnacky

Wilderness always generates strong opinions, such as those expressed when the administrator of *The Smokey Wire: National Forest News and Views*, a blog on natural-resources topics, suggested the creation of “wilderness lite” areas, where mountain bikes would be allowed (Friedman 2019). Many responded.

A well-respected conservationist commented that “wilderness is not about recreation” (Wuethner 2019). Our comment noted that “mountain bikes are a nice way to more quickly access wilderness and provide more wilderness experience for these users, but wilderness is not for users; it only allows visitors. Therefore, to use wilderness for the benefit of mountain bikers violates a basic premise of wilderness” (Chojnacky and Chojnacky 2019).

The preamble to the Wilderness Act of 1964 indicates that we all were a bit off base.

The Act states that Congress’s policy is:

“[T]o secure for the American people of present and future generations the benefits of an enduring resource of wilderness. For this purpose there is hereby established a National Wilderness Preservation System to be composed of federally owned areas designated by Congress as ‘wilderness areas’, and these shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness.” (italics ours)

Congress established public wilderness areas “for the use and enjoyment of the American people.” According to Webster, “use” is the act or practice of employing something, as well as power to use something, the legal enjoyment of property, and so on. Recreation is “activity done for enjoyment when one is not working.” So, use and recreation are primary purposes of public wilderness areas. In fact, a major reason they are to be kept “unimpaired” is for future use and enjoyment as wilderness.

The four federal agencies charged with wilderness administration tout wilderness recreation. The Forest Service (FS) administers public wilderness areas as part of its Recreation Heritage and Volunteer Resources. The National Park Service (NPS), Bureau of Land Management (BLM), and US Fish and Wildlife Service (FWS) all offer information on opportunities for wilderness recreation, and an interagency website offers an article on its benefits. (www.wilderness.net/NWPS/valuesRecreational).

However, on-the-ground wilderness management seems to aim at protecting wilderness from visitors—at least based on our experience in visiting more than 60 wilderness areas since 2012. This focus results in removing signs, trail markers (cairns), campsites, and other visitor aids to meet some notion of a primitive experience. Wilderness visitor guidelines often spell out prohibited activities, but agencies devote little effort to redirecting or mitigating environmental impacts through better dispersal of visitors. Two recent examples:

- On a weekday in Virginia’s Shenandoah National Park (SHEN), a 200-car parking lot on the park’s east side overflowed into a private lot at the trailhead to “Old Rag,” a popular hike within the wilderness (60 percent of SHEN). A few miles south, confused backpackers wandered up Whiteoak–Cedar Run Canyon, where NPS had closed all creekside campsites—the only desirable terrain for camping. We found that wilderness trails north of these areas and accessible from Old Rag trailhead were lightly used. NPS issues day-hike maps from Skyline Drive visitor centers, but provides little information to crowds accessing the park/wilderness from population centers to the east.
- The popular Sawtooth Wilderness in Idaho, managed by FS, is heavily backpacked in the summer season; most visitors camp at the same dozen lakes (of more than 100) in a few areas and hike less than 25 percent of 350 trail miles. Kiosks at popular trailheads spell out prohibitions, and much of the agency’s fieldwork seems to be removing fire circle rocks, without creating any new campsites, so that visitors are channeled to the few flat, dusty lakeside sites.

Perhaps some of the emphasis on protection of public wilderness areas from visitors stems from wilderness managers’ focus on “wilderness character.” This concept, first created by an interagency group of wilderness managers and researchers in the 1990s and updated twice since, is loosely based on Wilderness Act language and includes five attributes: Wilderness is *untrammeled*, *natural*, and *undeveloped*; provides opportunities for *solitude* (primitive or unconfined recreation); and has *other features of value* (Landres et al. 2015).

For each attribute, the group includes examples of management that sustains or improves it. For example, for *untrammeled* conditions, managers would not manipulate ecological systems (e.g., stock lakes with fish, control predators, or suppress wildfires).



A wilderness area entry point. Photo courtesy of Cindy and David Chojnacky.

Natural conditions would be improved by removing invasives and restoring ecological processes. If agencies refrain from allowing nonconforming uses, this enhances the *undeveloped* aspect of wilderness. (Forest Service field managers, for example, must seek exemptions to permit use of helicopters for inventory or wildlife monitoring; or chainsaws for creating fire-line or temporary clearing of post-fire or post-insect downfall in wilderness.) *Solitude* is thought to be improved by reducing visitor encounters, signs of modern civilization inside wilderness, recreational facilities, or management restrictions on visitor behavior.

Congress itself has muddled the wilderness-use waters. The Wilderness Act of 1964 expressly prohibits specific uses that would impair wilderness character or leave a human imprint, such as constructing temporary roads, installing structures, using motor vehicles or motorboats, landing aircraft, and using any form of mechanical transportation, including bicycles. The Act then proceeds to allow exemptions for uses already established, including motorboats, aircraft, water developments, grazing, and mineral exploration, plus mechanized and motorized uses to support these operations. Many enabling acts for public wilderness areas have included these exemptions. Hence, we have the Frank Church River of No Return Wilderness in Idaho with airstrips, fly-in lodges, and motorboats on some river stretches. In other wilderness areas, we find commercial outfitter camps, permittees using bulldozers to improve stock tanks, ranch roads to access wilderness, and of course, livestock grazing, which sometimes results in creeks, springs, and campsites littered with manure piles.

Congress is so committed to wilderness grazing that it further clarified the original Act’s language in the Colorado National Forest Wilderness Act of 1980. A committee report on the bill stated that “the legislative history of this language is very clear in its intent that livestock grazing, and activities and the necessary

facilities to support a livestock grazing program, will be permitted to continue in National Forest wilderness areas, when such grazing was established prior to classification of an area as wilderness” (House Report 96-17). It also specifies that wilderness designations cannot be used to reduce or phase out grazing.

So, we have an interesting conundrum. Congress said in 1964 that the purpose for wilderness areas is for the use and enjoyment of people, and a key reason to maintain wilderness unimpaired is for future use and enjoyment. Yet Congress left the door open to exempt a number of existing uses expressly prohibited by the Act; some may enhance visitor experience, but many undermine wilderness character and dampen the visitor experience.

Nevertheless, the Wilderness Act outlines a balance for wilderness stewardship. Since wilderness areas should be managed for the benefit of wilderness visitors now and forever (to “ensure a continuing resource of wilderness”), wilderness should be protected unimpaired—as managers have focused on—but also managed for what visitors want and need.

What Visitors Want

Wilderness field managers naturally want to know more about visitors: In a 2014 survey concerning research needs to aid wilderness management, some 126 respondents (out of a total 368, about one-third) supported an inventory of “visitor use, preferences, and impacts” (Watson and Armatas 2017). Wilderness researchers have seen the need to understand human benefits and use of wilderness (Landres et al. 1994; Watson 1995), have studied wilderness experience (Watson 1995, 2007), and have created guides on how to inventory wilderness visitor use and preferences (Watson et al. 2000). Early work focused on recreational impacts of visitors, and most visitor use/preference work has been based on a few heavily used areas (Watson and Armatas 2017).

However, after 50 years of wilderness management and research, visitor wants and needs are apparently not yet well understood, and funding for research into these issues (as well as for managing wildernesses and their users) is well below what we see as adequate. What could be done in the meantime to balance wilderness preservation with public “use and enjoyment”? To some extent, we can watch how visitors are voting with their feet (or perhaps hooves in traditionally used areas). Well-known areas with good trails, such as the better-known portions of the Sawtooth (Idaho), Eagle Cap (Oregon), or Superstition (Arizona) wilderness areas, are overused. Wilderness-management agencies seem to understand this, since scarce resources have been deployed to these areas. Perhaps this indicates visitors want decent access (trails) and information.

Some temporary nonconforming uses of wilderness areas might be justified in order to test whether providing these would disperse visitors to less-used areas. For instance, hundreds of miles of legacy trails are being lost due to climate change–related fires, erosion, and pest infestations, and there is precious little funding for trail restoration. Short-term limited use of chainsaws could be allowed in wilderness where recently downed trees from climatic events (fire, pests, microbursts) have blocked visitor access to hundreds of miles of trails. The alternative is what we witnessed on the George Washington and Jefferson National Forests in Virginia, where downed trees and resulting brush closed trails in the Ramsey’s Draft, St. Mary’s, and Stone Mountain wildernesses; lacking a certified sawyer, the districts just left trails closed or took them off the system map.

We realize that our thinking may fly in the face of the “wilderness-character” approach of management agencies—and also those of nongovernment entities issuing legal challenges to government actions in wilderness areas apparently based on similar notions of maintaining *untrammled* and *undeveloped* wilderness character. But as hard-core wilderness visitors, we are not convinced that removing all aspects of civilization or stopping all nonconforming administrative activities is in the best interest of visitor use and enjoyment of wilderness areas. Congress, author of the unique US National Wilderness Preservation System, has built into the original legislation the option for uses that can negatively impact wilderness character but benefit a special interest. Perhaps administrative uses and features that benefit visitors should also be considered.

We would like to see more support for a balanced-use approach that allows wilderness-management measures that enhance visitor experience while certainly attempting to protect future experience—realizing that some permitted uses are detrimental and some big-picture natural impacts (like fires, insects, and invasives) may initially impact visitor experience but may be beyond the

scope of management knowledge and funding to address. Why not put energy into better information and minimally designed access routes to disperse wilderness visitors to less-visited wilderness areas?

Future experience—that is, the “enduring resource of wilderness”—can be the measure for considering proposed new wilderness recreational uses. Our essay was prompted by a question of mountain-bike use in wilderness areas. Mountain bikes directly violate Wilderness Act prohibitions against mechanized use, were not an exempted use in the original act (since they didn’t exist at the time), and would probably create more trail-maintenance problems. In our experience, few wilderness trails are at the standard to accommodate mountain bikes without damage, and too many trails already are rapidly declining. Trails get enough of a beating from traditional permitted uses such as stock. A better solution for mountain-bike users is an intermediate category of protected areas that include either jeep routes or trails closed to motorized use but open for mountain bikes.

Perhaps a fresh look at the Wilderness Act of 1964 in all of its contradictions is in order. And since overused wilderness seems to be the focus of management concern, perhaps it would help to make simple changes to the wording on traditional wilderness registers usually present at heavily used areas that currently ask information on group size, use, and number of days, to gauge wilderness user experience. Instead, they could ask the question (for yes/no check), “Do the following wilderness features improve or hamper your wilderness visit?” followed by a list of recreational features (trails, signs, trail marker cairns or blazes, campsites, pit toilets, shelters); nonconforming but allowed uses (cattle grazing, outfitter stock use, airstrips); solitude concerns (seeing other people); and historical features (fire lookouts, old cabins, corrals). Since public enjoyment and use are key purposes of public wilderness areas, this is at least a small place to start. **ES**

Cindy and David Chojnacky are the founders of the Wilderness Need Association (wildernessneed.org).

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More than 100 years old, Webb Lake Ranger Station is still used today as a Forest Service administrative site in the Scapegoat Wilderness, on the Lolo National Forest in Montana. US Forest Service photo by Brandon W. Schulze.

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What do you want from your forest?

Training the Next Generation of Recreation Leaders

By Andrea Watts



The University of Maine's Parks, Recreation, and Tourism program includes a field-practice course during which students learn about search and rescue and trail maintenance at Acadia National Park. Photographs courtesy of John Daigle.

As was mentioned in the introduction on page 1, the recreation industry is expected to increase in the next decade, both in terms of the number of people recreating and the jobs needed to meet demand. To learn how universities are training the next generation of recreation professionals, I chatted with Steve Selin, a professor at West Virginia University (WVU), and John Daigle, a professor at the University of Maine (UM); both of these universities offer SAF-accredited recreation programs. ("Implementing Sustainable Recreation on the National Forest System: Aligning the Reality and Promise," an essay by Selin from SAF's new book, *193 Million Acres: Toward a Healthier and More Resilient US Forest Service*, appears on page 1.)

Our conversations have been edited for clarity and length.

West Virginia University

WVU offers a bachelor of science degree in recreation, parks, and tourism resources.

When did your program start?

Selin: Our Recreation, Parks, and Tourism Resources program goes back to 1947, but it wasn't in the Division of Forestry and Natural Resources, as it currently is. It started in the Physical Education Department, and it was more focused on recreation within physical education in schools, like K-12. It wasn't until 1969, when the college was going through a major reorganization, that the entire department transferred to the Division of Forestry and Natural Resources. We've always been accredited by the National Recreation and Parks Association (NRPA), and since 2008, also have been accredited by the Society of American Foresters.

How has the program evolved over the years?

Before 2008, the program wasn't well integrated with the other natural resources-management majors (wildlife and fisheries resources; forest resources management;

wood science and technology; and energy land management) in our division; the coursework and goals were separate. In 2005, we started getting serious about being integrated. The five faculty who teach in our program, we all have at least one degree in forestry and natural resources.

What courses does your curriculum include?

Our core required courses have been consistent over the years. Students take some courses with the forestry and wildlife students, such as dendrology, forest ecology, and silviculture. But then our students get a big dose of human dimensions and outdoor planning, GIS systems, and natural resources-communication skills. Within the program itself, they take an Introduction to Recreation, Parks, and Tourism class, which gives them the idea of all the different career tracks. Students also learn how to work with partners. It used to be Forest Service recreation staff would do everything themselves, but these days, you have to work with others. Students learn how to build collaborative relationships, manage volunteer programs, and work through other people, as well as doing the job themselves.

An important aspect of our curriculum beyond the core classes is the three areas of concentration that students can pursue. One is the traditional parks and outdoor recreation concentration; a second one is sustainable tourism development; and the third one is the adventure education or experimental education, like Outward Bound or Adventure STEM. We've got a couple of faculty who are interested in sustainable-tourism development in the United States and globally, and that's a growing area and students are interested in it.

Somewhat unique to our program, we have a 400-hour internship capstone our students complete after their junior year. Most of them do it in the summer, when they work for a parks, recreation, or conservation organization. We've had so many students who have translated that

internship experience into a full-time job over the years.

Your program has an international element—one class is Sustainable Tourism in Patagonia. Why include an international element, and does that enhance the students' academic experience?

Everything has become more global and connected these days, so we're trying to prepare our students to work in that connected globalized environment. Of our five full-time professors, more than half of them have strong international interests. I did a Fulbright year in Finland and taught in a forestry school. Robert Burns [director of the Forestry and Natural Resources Division] has worked on visitor-monitoring programs around the world and is helping Brazil's Forest and Park Agency develop visitor-monitoring and professional park-management programs. We bring knowledge and tools and share these with international audiences, and then we bring back international best practices and share them in the United States.

How has enrollment fluctuated over the years?

Back in the 1970s and 1980s, we were really big, with 250 students, and when we were just accredited by NRPA, we were much broader. Students would go into natural resources, the Forest Service, or work for public land-management agencies, but we also had a therapeutic recreation program. We're actually smaller now, because we chose to focus on natural resources-based recreation and tourism; plus, there's a lot more competition for majors. We've been steady—right around 90 students—for the last four to five years.

When students graduate from WVU, what careers can they choose among?

We are definitely training professionals and leaders to work in the outdoor-recreation and public land-management fields. Our students have gone on to be national parks superintendents, directors of county park systems, recreation staff officers for national forests, and extension leaders. A lot of our students end up working in public affairs, where there's a lot of interaction with people. We've placed a number of students in programs like the Park Service's Rivers Trails and Conservation Assistance Program.

I tell incoming students and parents that all our students and faculty and alumni are passionate about connecting people to nature. Public engagement has become a more-important part of a natural-resources professional's job description. That's something we all share across our program.

What is the career outlook for the recreation industry?

I think it's very robust and more diversified than it used to be. When recreation was better funded within the Forest Service and other public land-management agencies, a lot of our students could be guaranteed to get a job within the federal

system. These days, everything is a little more fragmented. Some are still getting jobs out of the chute with federal and state parks and land-management agencies, but students are finding jobs in the commercial or nonprofit sector and working in experiential-education programs.

This is a tangent question, but what was your reaction to the television show *Parks and Recreation*?

It's always good to get exposure, and then you usually get a bump in enrollment as a result of that. Recreation is a very applied field and is often a "discovery major," so the exposure helps.

University of Maine

UM offers a bachelor of science degree in parks, recreation, and tourism.

How did the Parks, Recreation, and Tourism program develop?

Daigle: The program itself began in 1972 and started, like a lot of initial outdoor-recreation degree programs, within forestry and natural resources-management programs. Ours started within the School of Forest Resources, because there was a growing demand for outdoor-recreation management, both at the state and federal level. Recreation is a relatively young professional field that really emerged in the 1960s, when federal agencies specifically managed their lands for outdoor recreation.

What is important to our program is that it has a very strong component of natural resources-management, because we are in the School of Forest Resources. Students come out having a good foundation in resource management. To me, it's a good foundation to have in outdoor recreation-management, in terms of understanding the environment in which that's taking place.

We have a bachelor of science in parks, recreation, and tourism, but students can go in three different directions. One is the parks and recreation management, which has always been a core piece of the program. We created two concentrations: conservation law for those who are more interested in law and policy aspects, and nature-based tourism.

What prompted the creation of these two other concentrations?

We found, for students who are interested in conservation law, that they needed more background in sociology and criminal law. For the nature-based tourism concentration, we had students who were very interested in business development. We worked with the Maine Business School, so students receive a minor in business administration as part of their bachelor's degree. The other neat thing about that concentration is that they can go back to school and get their MBA in one year. That's a real attractive feature for some students.

Because we're an accredited program

Integrated Fire and Recreation Internship Program

By Ginelle Heller and Kelly Balcarczyk

Due to ever-changing and more-complex conservation and social issues, interdisciplinary, partner-driven approaches are increasingly important to the way the US Forest Service (USFS) accomplishes its mission and strategic plan. Under the USFS strategic plan, the agency and its partners are coming up with innovative programs to leverage resources to ensure that landscape-level conservation efforts are a success. A great example is the USFS Southern Region and Student Conservation Association (SCA) Integrated Fire and Recreation Internship (IFRI) program, which was developed in response to the 2016 National Forest System Trails Stewardship Act.

The act calls on USFS “to improve trail maintenance by addressing opportunities to use fire crews in trail maintenance activities that do not jeopardize firefighting capabilities, public safety, or resource protection.” The goal of this call to action is to help USFS tackle a \$314-million backlog in trail maintenance and increase the number of trails meeting agency standards (currently 25 percent, according to *Forest Service Trails: Long- and Short-Term Improvements Could Reduce Maintenance Backlog and Enhance System Sustainability*, US Government Accountability Office, 2013).

The intent of the IFRI program is to complete mission-critical work in fire and recreation while providing young adults with a high-quality internship experience, giving them the training and skill building needed to effectively compete for permanent positions throughout the agency. The USFS Southern Region and SCA launched a 2018 pilot project that involved hosting a diverse group of 15 young adults, 18–30 years of age, in integrated fire and trails internships throughout the region. The opportunity was offered to individuals who have completed a bachelor’s or associate’s degree and have a background in natural-resources management. Upon completion of 640 hours of service in the IFRI program, interns are eligible for the Public Land Corps hiring authority, which enables them to apply to federal land-management jobs with merit status, thus providing the interns a better pathway toward securing permanent employment.

With the success of the pilot project, the program is currently in its second year, with interns hosted across the Southeast from the Ozarks in Arkansas to the Piedmont of the Carolinas. The interns engage in resource-management projects, such as trails management, developed recreation, habitat restoration, prescribed burning, and the construction of fire-control lines and firebreaks. When fire danger is high and a wildfire breaks out, interns serve on hand crews or with engines in the Southeast.

The IFRI program also provides interns with experience on western wild-



Integrated Fire and Recreation Internship program participant Anna Sharier worked on a handcrew supporting suppression efforts on the 2018 Cabin Lake Fire in the White River National Forest. Photo courtesy of Anna Sharier.



Integrated Fire and Recreation Internship program participants experienced a live-fire field exercise during their training on the Pisgah National Forest. Photo: US Forest Service Southern Region.

fires. During the pilot project, interns served on fire crews and engines on large wildfires in California, Colorado, and Montana. Interns were immersed in a fast-paced learning and work environment with firefighters from all over the country and abroad. After her wildfire experience, Anna Sharier, a former IFRI intern, said, “I loved it! It was hard work and really intense sometimes, but every day was an adventure, and I was always learning!”

While this program supports the accomplishment of the USFS’s mission-critical work and incident response, it also has the deep impact of developing our future leaders for generations to come.

Throughout their internship experience, interns see firsthand what a career with USFS could offer them. When asked about his IFRI experience, Rod Murray III said, “IFRI taught me a lot about who I wanted to be and helped me put together a more-concrete plan of how I wanted to shape my career.”

In addition to helping interns, the IFRI program gives USFS the opportunity

to train the next generation of conservation stewards while assessing the fit and potential of individual interns. If intern and USFS interests align, then the Public Land Corps Hiring Authority can be used to help interns gain permanent employment with USFS.

Whether it be digging a drainage ditch to improve a trail or building a control line for a prescribed burn or wildfire, IFRI interns are advancing the USFS mission, one swing of the Pulaski at a time, and leaders with the program hope to grow and expand it to other regions within the agency. **FS**

Ginelle Heller is a fire and aviation workforce development manager. Kelly L Balcarczyk is a volunteer and service program manager with the US Forest Service’s Southern Region.

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STEWARDSHIP

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this represents a different work culture, and is leading the Forest Service to think more broadly about the skills needed to be a natural-resources professional. For Forest Service employees accustomed to agency-centric decisionmaking, sharing leadership with a range of stewards might be a challenging transition. How can the Forest Service recruit and cultivate leaders who are collaborative team workers and team builders and who share leadership, power, and decisionmaking space? How can the agency incentivize and reward personnel for growing and advancing partnerships? And how can partnerships be sustained over time, given staff turnover and a workforce whose capacity is already stretched? A commitment to shared stewardship causes us to reflect on the need to enhance our capacity to ensure strong partner relations.

Shared Stewardship Networks

Shared stewardship for recreation takes many forms. Networks of partners operate on different temporal and spatial scales, and vary based on management needs. These are examples of the types of recreation networks:

- **State offices of outdoor recreation:** Since 2013, about a dozen states have developed offices of outdoor recreation, recognizing the benefits of a nature-based tourism economy and the need to facilitate sustainable recreation and tourism development. State agencies link statewide initiatives in outdoor recreation, tourism, rural economies, and resource conservation, focusing on cross-boundary coordination of investments and marketing.
- **State, regional, and local tourism planning entities:** Tourism planning by local and regional entities, such as chambers of commerce, destination marketing groups, rural-development agencies, and trade associations are increasingly working to integrate and coordinate recreation-promotion efforts with land-management agencies.
- **Recreation collaboratives:** Collaborative groups consisting of conservation organizations, activity-based groups, state and local agencies, and community-based organizations form to plan and manage outdoor recreation across boundaries to work toward common goals for recreation infrastructure, planning, employment, restoration, communication, and public engagement.
- **Trail partnerships:** Many nationally designated trails and trail networks cross multiple jurisdictions and are supported by conservancy groups that formally facilitate partnerships among land-management agencies, private landowners, and tribal groups.
- **Public-private partnerships:** Partnerships with government, nongovernmental organizations, private-industry

Boardwalk Built with Help from Mule Teams, Stewardship Agreement

Federal land-management agencies rely heavily on volunteers and partners to accomplish recreational projects on public lands. In October 2018, nearly 400 feet of boardwalk were installed along the popular White Deer Lake Trail in the McCormick Wilderness Area on the Ottawa National Forest in Michigan's Upper Peninsula. This is the first project completed as part of a dynamic stewardship agreement with The Nature Conservancy (TNC), which allows both parties to collaborate on a variety of restoration projects across the Ottawa National Forest. Stewardship agreements allow funds generated from timber sales to be used on natural resource-related projects on a national forest. The timber program on the Ottawa is very active, allowing new funding opportunities to enhance recreational resources through the use of stewardship agreements.

Beaver activity within the wilderness has caused severe flooding of the White Deer Lake Trail over the last decade. Flooding, along with the topography in the area, has caused visitors to create several social trails to avoid the flooding and navigate through the steep terrain. The increased presence of social trails was threatening a Regional Forester Sensitive Species Plant in the wetland and causing severe erosion in the area. Due to the topography and surrounding habitat, there were no safe or

sustainable options to reroute this trail to another location. After an interdisciplinary environmental analysis, the Forest Service decided on the installation of the step-and-run boardwalk to address resource needs, protect wilderness character, and improve the recreational experience for visitors.

Federal regulations do not allow motorized- or mechanized-equipment use within wilderness, so the entire project had to be completed using traditional tools and nonmotorized transportation. The project area was located more than 3.5 miles from the trailhead, so the Forest staff looked at several options for transporting the materials to the site. They considered hauling in materials with sled-dog teams, a mule pack string, and volunteers. For the best site access and fewest trips into the wilderness, the Forest and TNC started looking for a pack string to work on the project. Working with stock in the eastern US is not very common; the Hoosier National Forest in Indiana has the only mule pack string east of the Mississippi River, and the string was not available for the project.

Through networking with Forest Service recreational staff around the country, the Shoshone National Forest in Wyoming and its pack string were called upon to assist with the project. A team of four Shoshone National Forest staff, 10 mules, and four horses arrived on the Ottawa National

Forest and were tasked with transporting all materials into the project site so TNC staff and volunteers could construct the boardwalk.

Over the course of four days, all materials were transported to the project site and nearly all of the boardwalk was constructed by TNC. Some minor construction to complete this project remains, as weather conditions deteriorated and prevented installation of the final, short segment. The team worked in snow and rain, but were able to enjoy beautiful fall colors.

This was a truly unique project on the Ottawa National Forest and required a multitude of logistical planning and collaboration. TNC also coordinated the use of locally sourced cedar that was milled locally and prepared for the site. The work accomplished through TNC stewardship agreement has provided multiple benefits to the Ottawa's natural resources, as well as improved access for visitors who use this area and enjoy the wilderness experience that McCormick Wilderness provides. This is a great example of what collaborating with partners and other national forests can accomplish to protect natural resources and provide quality and sustainable recre-

ational experiences on public land.

The Nature Conservancy obtained a special-use permit to have a film crew on site to document the project. See tinyurl.com/y57vamka.

—Submitted by Melissa Simpson, Agriculture Conservation Experienced Services program national coordinator, US Forest Service.



This mule is loaded and ready for the trail. Photo by Creative Fauna.



Loading mules with timbers for building a boardwalk, Ottawa National Forest in Michigan's Upper Peninsula. Photo by Creative Fauna.



Nature Conservancy staff and volunteers build the boardwalk. Photo by Creative Fauna.

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No Walk in the Woods

By Nancy Myers

In June of 1991, I started out on the Lassen National Forest as a biological aid, calling northern California spotted owls so that areas could be set aside for the owls within timber-sale boundaries. The next season, I became a forestry technician and performed timber-sale improvement work, such as planting trees in clearcut areas and inspecting thinning projects.

But I really wanted to work on trail systems. That's why I sought out a position with the Forest Service in the first place.

I spent almost 10 years working in the stock-options markets in Chicago and San Francisco and decided I wanted to do something "nicer" as my career. I had hiked on vacations on national-forest trail systems, and my desire was to help keep trails open and maintained, because I enjoyed them so much. However, with no experience, I could not obtain a job in trails even at an entry level, but entry-level positions in Wildlife and Timber were available. On the Lassen National Forest, I would volunteer on days off to assist the trails technician with wilderness patrol and trail work within the Caribou Wilderness and other trails on the Almanor Ranger District. I tracked and broke down wilderness campsites, did leave-no-trace education and light trail maintenance (cleaning waterbars, helping clear blowdown with a crosscut saw), installed trail signs, picked up trash, talked to visitors, and checked on future maintenance needs. I absolutely loved it and looked forward to my volunteer days in recreation.

After leaving the Lassen, I obtained a position as a cooperative education student with the Forest Service's Northeastern State and Private Forestry division in Morgantown, West Virginia, where I obtained a master's degree in forest recreation management. Between semesters, I worked with the state and private forestry field office. My desire to work on trails was still very strong, so I volunteered on the Monongahela National Forest in the Seneca Creek backcountry area, doing trail maintenance, installing trail signs, picking up litter, breaking down campsites, doing trail inventory, and providing visitor information. My cooperative-education position ended in 1995, but a government shutdown blocked my hoped-for appointment to a permanent position. However, this turned out to be for the good, as I obtained my first seasonal trails position on the Potomac Ranger District in the Dolly Sods Wilderness area and Seneca backcountry. This was probably my favorite position in the Forest Service. I worked primarily by myself, with the exception of two Penn State interns for part of the season. I did trail maintenance, trail inventory, and



A trail on the Lincoln National Forest in New Mexico. Photo: US Forest Service Southern Region.

visitor information. Each day, I would decide which trail I would hike and maintain based on needs. I felt so good about what I was able to accomplish, either by myself or leading the interns. With trail work, you see immediate results.

Eventually, I got into more-developed recreation on the Tonto National Forest on the Cave Creek Ranger District, where I was responsible for four large recreation areas: two on reservoirs, one on the Verde River, and a Civilian Conservation Corps recreation area. I was not very involved in trails, except to help schedule and keep track of maintenance trips into the Matzazal Wilderness and Cave Creek trail systems, order trail signs, etc. I was a volunteer coordinator, and I set up volunteer projects on trails and recreation areas and kept track of volunteer records and annual reports.

A Whole Different Ball Game

I must say developed recreation was a whole different ball game. Since the Cave Creek Ranger District is adjacent to the Phoenix metro area, most of my time was spent picking up after visitors and cleaning recreation areas, including many toilets. My first supervisor dubbed recreation work as "toilets and garbage"—and he was right! This was the beginning of the Fee Demo program, the precursor to the Federal Lands Recreation Enhancement Act, and I had the opportunity to furnish campgrounds with amenities from the program income. I did enjoy that part of the job, but the litter pick-up and toilet cleaning got old. It's not glamorous work by any means. It never ended, and accomplishments were short-lived—until the next group of visitors came. I admit, I started to develop a very negative view of the human race.

In 2001, I finally achieved a per-

manent appointment in recreation, on the Hoosier National Forest in Indiana. Whew, that only took 10 years! I manage the developed and dispersed recreation, as well as trails on the Tell City Ranger District. At just over 200,000 acres, the Hoosier is relatively small, compared to other national forests. At first, it took some getting used to, as I was accustomed to much-larger forests and more visitors, but this forest has grown on me. We don't have the pressure as on the Tonto National Forest. Most of our visitors are within a day's driving distance—weekend warriors—or people passing through on the I-64. I work with two forestry technicians, who maintain trails and recreation areas. We also have a cadre of seasonal and Youth Conservation Corps workers to help during the busier summer season.

On the Hoosier, some of the recreation areas are much more developed than I was accustomed to. We have three large recreation areas with electric and water campsites, shower buildings, a swimming beach, and other features, including a historic house at one of the lakes that serves as a meeting place and visitor center for educational programs. Of course, the more-developed areas require greater maintenance and more funding to operate. Since we are a smaller forest, our budget is tight. I have to prioritize what is going to be fixed or maintained or enhanced or built. This can be very frustrating, as I would like to see it all in great shape, but that is not reality. We have spent a lot of money on replacing old wooden vault-toilet buildings with either precast concrete buildings or constructed stone buildings. We have many other aging facilities and nowhere near the funding to replace them.

Over the years, the recreational

vehicles have increased in size, some enormously, and our campgrounds were built in the 1970s, when small pop-up campers were popular. Campground loop roads are narrow, and the campsite spurs are not always long enough to accommodate these new vehicles. One of our solutions was to designate a particular campsite loop with 10 pull-through sites for longer RVs with electric and water hookups. These sites get a lot of use. Eventually, we would like to re-do the roads and spurs in the main camp loops, but of course, this costs a lot of money.

In addition to my current position, I completed two temporary promotion details as a recreation program manager on the Monongahela and Lincoln National Forests. In these positions, I was responsible for the forests' recreation programs. These experiences allowed me to see the recreation resource from the big-picture standpoint, and I worked with the budgets more than I was used to—it was eye-opening.

I didn't get into recreation to work on budgets, but of course, the higher up you go, the less you work on the ground. I don't do trail maintenance anymore—I coordinate it and supervise it and contract it. The older I get, the less I am able to do the intensely physical work, but I still oversee and enjoy the accomplishments we make as a team.

I recommend the Forest Service as a great agency to work for. We have our ups and downs, but on the whole, it's been a great experience working with dedicated people who have a passion for natural resources. You just have to learn to be patient and persevere. **FS**

Nancy Myers is a natural resources specialist on the Hoosier National Forest in Indiana.

MARTIN

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ally still in the planning stage, so I don't have a list of accomplishments yet, but I will say that we are working with our partners in all of the 15 areas to figure out what our priorities are. And we're looking at alternative sources of funding, such as the National Forest System Trail Stewardship Partnership Funding Program, which lets us leverage Forest Service money by about seven to one—for every dollar of taxpayer money, our partners are able to bring in seven extra dollars to apply toward trails.

By the way, the US Forest Service manages about 138,000 miles of trails, and that's the largest trail network in the nation.

What changes in recreation do you see coming down the trail over the next 10 or 20 years?

What I hope won't change is that recreation will continue to be the number one way that people connect with their land in general, and specifically, with their public lands. I hope that that connection will continue to lead to a deep sense of caring for and stewardship of our lands in general.

As technology changes, we will have to continue to monitor trends and adapt, so that we can make sure that the way people connect with their lands remains relevant for them. For example, one of the issues that we're dealing with today is the use of "e-bikes" [electric-motor-assisted

bicycles]. The public is telling us that they are interested in using e-bikes in different ways, so we have to determine what that means for our policies for public engagement with national-forest lands.

As technology continues to evolve, we will need to stay true to our mission of ensuring that the public will always have access to national-forest lands in ways that are relevant to them. **FS**

CHOJNACKY

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Link to SAF Journals

Digital editions and archives of the *Journal of Forestry* are available at academic.oup.com/jof and *Forest Science* at academic.oup.com/forestscience.

NOTEBOOK

■ From Page 2

sites and facilities for outdoor recreation in the US than any other single organization. The agency manages more than 158,000 miles of trails for walking, hiking, horseback riding, biking, and using off-highway-vehicles, and more than 27,000 campgrounds, picnic areas, interpretive site, and other facilities.

Of course, many other agencies provide recreational opportunities: The National Park Service reported nearly 331 million visits in 2017, more than double the 149 million annual visits to National Forest System lands. The Bureau of Land Management reported nearly 67.5 million visits in 2017.

State and local governments also provide a vast array of recreational opportunities. A June 5, 2019, article in the *New York Times*, "Wherever You Are, There's a State Park Nearby," notes that there are 8,565 state parks across the country. Cities and counties, too, are key recreation-site providers. My county, Clackamas County, Oregon, operates 13 parks, including three campgrounds and four boat ramps.

Add private landowners large and small to the list. American Forest Management, Rayonier, and PotlatchDeltic are a few of the larger ones that open their lands for recreation. See Andrea Watts' article on page 6 for a look at how Weyerhaeuser, Port Blakely, and Hancock Natural Resource Group are managing recreation on their lands.

Recreation in forests and on rangelands still calls to me. I don't keep camping gear in my SUV, a 20-year-old Ford Explorer, but I head for a campground or a backcountry trail as often as work and family obligations allow. Two or three days amongst the trees never seem like enough. **FS**

LETTER

■ From Page 2

that is, if you're open to seeing them. Still, my overarching impression of ungulate browsing in New England is that, in most locations, it is of relatively low impact (just as McWilliams' data show). Given how polarizing the topic of deer management is, it is unhelpful to give the impression that intensive browsing is a dominant process across most of the region when you are in possession of a remarkable data set that says just the opposite.

Edward K. Faison

Senior Ecologist Highstead Foundation
Redding, Connecticut; highstead.net

McWilliams responds: *It comes as no surprise that Faison disagrees with conclusions in the article because we have different objectives. The central restoration management objective described in "A Regeneration Indicator for Forest Inventory and Analysis: History, Sampling, Estimation, Analytics, and Potential Use in the Midwest and Northeast United States" (Gen. Tech. Rep. NRS-148) was to create sorely needed young-forest habitat that would evolve into healthy closed-canopy forest. Faison is interested in main-*

taining shrub-dominated habitat over the longer term. (Note that Faison's letter erroneously refers to deer browse as an "ecological process." In fact, it is an ecological driver, which is quite different from a process.)

The center of the debate appears to be whether or not moderate-browse impacts are a concern in the oak/hickory and maple/beech/birch forests of the Midwest and Northeast. The browse-impact definitions are foundational within silvicultural research for the Midwest and Northeast. Moderate impacts are not considered conducive to regeneration establishment and development. For example, the definition of moderate impact includes a lack of stump sprouts. Our tenet is that managers should work to balance deer food with tree-seedling regeneration to provide both wildlife habitat and secure regeneration. Including moderate impacts is a signal that forest managers should consider local impacts before making prescriptions.

The open-source data set we used is collected consistently across state boundaries and is applicable for Faison's objectives because NRS-FIA [Northern Research Station–Forest Inventory and Analysis Program] has a vegetation profile collocated with the tree-seedling and browse protocols. Anyone interested in this topic can generate their own map, assumptions, and conclusions for a range of forest understory–health issues.

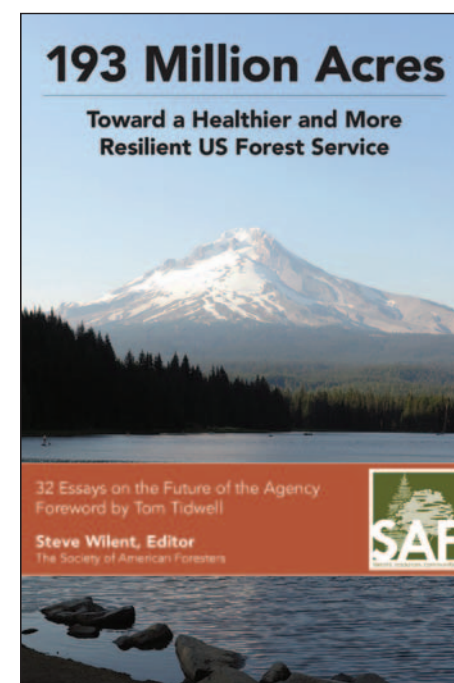
Although the science problem, goal, and objectives are clearly stated in the report, they were not clear enough in the article. I hope that my attempt to edify this shortcoming has satisfied Faison. I owe him thanks for his patience and am honored he took the time to review the article.



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193 Million Acres

Toward a Healthier and More Resilient US Forest Service

32 Essays on the Future of the Agency
Foreword by Tom Tidwell

Steve Wilent, Editor
The Society of American Foresters

SAF

A collection of essays that examine the challenges the US Forest Service faces and propose solutions that would address them. Contributors include numerous retired agency leaders, including two former chiefs, as well as longtime outside observers. The purpose of the book is not to criticize the agency, but to offer concrete proposals for how, ultimately, the agency's operations might be made more efficient and effective and its land-management activities maintained, expanded, and improved. In short, the objective of 193 Million Acres is to find paths toward a healthier and more resilient US Forest Service.

www.eforester.org/store

SAF Names Presidential Field Forester Award Recipients

The Society of American Foresters will honor one member from each of the 11 SAF voting districts with the Presidential Field Forester Award at the 2019 SAF National Convention (www.safconvention.org), to be held October 30–November 3 in Louisville, Kentucky. The award recognizes foresters who have dedicated their professional careers to the application of forestry on the ground using sound, scientific methods and adaptive management strategies.

SAF's Board of Directors selects outstanding field foresters from the voting districts they represent; each Board member is given the option of soliciting nominations from state society chairs and, from these nominations, selecting a nominee for recognition, or using any other processes that would identify a worthy candidate based on the selection criteria. What follows is drawn from information provided by the districts.

District 1

Robert A. Obedzinski, CF

Bob retired from the US Forest Service in 2009 as a silviculture forester. He currently owns and operates Silviculture Solutions LLC, a consultancy based in Olympia, Washington. Bob is a dedicated, energetic, and self-motivated professional forester with 45 years of experience in forest management and arboriculture, specializing in the development of management plans, silvicultural prescriptions, and sale preparation to meet objectives ranging from habitat and riparian restoration to maximizing growth and yield on forests of the western and eastern Cascades and the Rocky Mountains. He is experienced in the ecological systems of both xeric and mesic forests in Oregon, Washington, Idaho, and northwest Montana. He has strong working knowledge of silviculture systems, insect and disease concerns, and the tools necessary to effectively manage these forestlands, with extensive experience in silviculture prescription preparation, watershed analysis, budget coordination, forest inventory design and analysis, timber sale preparation, logging systems, and planning.

Bob has worked tirelessly for the American Tree Farm System. He trains foresters who are responsible for inspecting individual Tree Farms so that they can maintain their certification. He encourages foresters to work with landowners to achieve compliance with the standards of the system. As the certification standards are revised and updated, Bob makes sure that the certifying foresters are up-to-date in their understanding of the different standards and able to communicate them to the landowners.

Bob brings a high level of professionalism, as well as a sincere love of the forest. He embodies the Society of American Foresters' mission through his commitment to helping others achieve their land-management goals.

District 2

Stephen J. Pilkerton, CF

Steve is a forest engineer for Oregon State University's (OSU) research forests, where

he has worked for seven years. He implements forest operations on about 15,000 acres of forestland in western Oregon. The largest block of land is the McDonald Dunn Forest, the major teaching forest for the College of Forestry. The forest is visited by more than 150,000 recreational visitors each year, so Steve's work is often in the public eye.

Steve previously worked for OSU's College of Forestry as a faculty research assistant for a number of forest engineering professors. He was responsible for the field component of dozens of research projects throughout Oregon. Steve shines in field sessions and tours, where he communicates to students and the public what is being done and why.

Steve embodies the intent of this award: to recognize outstanding forestry contributions in the field. Besides running on-the-ground operations, Steve tirelessly works to mentor OSU students and teach the community about OSU's use of forest science, adaptive management, and forest sustainability.

Steve received the 2016 Oregon State Forester of the Year award, served as the OSAF State Chair in 2016, and represented SAF regionally as the Northwest Office Chair for 2017 and 2018. He is a tireless advocate of the Society of American Foresters, sustainable forestry practices, and adaptive management through engineering enhancements. Besides being actively engaged in SAF, Steve is also heavily involved in the Council for Forest Engineering and a variety of community groups, including youth education and a local Lions Club.

District 3

James B. Friday

J. B. Friday has been practicing forestry since he graduated from the Yale University's School of Forestry and Environmental Studies in 1985. His first forestry job was with the US Peace Corps, where he worked as a village-level extension forester for three years in the Philippines, demonstrating agroforestry techniques and tree planting. After he finished his service, he joined the Peace Corps staff and spent a year teaching agroforestry extension to incoming volunteers.

Upon returning to the US, J. B. enrolled at the University of Hawaii to study agroforestry, conducted several agroforestry field studies on the island of Kauai, and received his doctorate in 1998. He then joined the faculty of the University as a first extension forester. In addition to his ongoing work in the Philippines, J. B. has carried out agroforestry and reforestation projects in East Timor and Micronesia.

J. B. received the State of Hawaii's Greatest Hits award for his work to study and combat a new and severe threat to Hawaii's most common native tree, *Metrosideros polymorpha*, or ohia, in the form of a vascular wilt caused by the fungus *Cer-*



atocystis. He received the UH Cooperative Extension Service Outstanding Extension Faculty of the Year Award in 2018. He has been an officer in the Hawaii Chapter of the Society of American Foresters, the Hawaii Forest Institute, and the Friends of Hakalau Forest National Wildlife Refuge.

As part of his extension job, Dr. Friday conducts applied research and has published numerous scientific and extension articles on Pacific Island dendrology, agroforestry, forest health, silviculture, forest soils, and forest restoration.

District 4

Crystal G. Tischler

Crystal is the New Mexico forest health aerial survey coordinator for the Southwestern Region of the US Forest Service. She has completed the continuing-education requirements for becoming a certified silviculturist, which requires completing a demanding regimen of graduate-level coursework and defending a detailed silvicultural prescription. Crystal is currently working to complete her certification by gaining practical field experience and is developing her detailed silvicultural prescription. She is pursuing this while concurrently helping with reforestation needs assessments and developing silvicultural project prescriptions throughout several national forests in Arizona and New Mexico.

In her nearly 10 years as forest health aerial survey coordinator, she has been responsible for aerial surveys and ground-truthing to compile the annual reports for forest insect and disease activities. She has been dedicated to making a difference by consulting with other field foresters to review and visit the survey sites to better improve the survey methodology, and to transfer this information to local managers.

Crystal earned a bachelor's degree in forestry from Stephen F. Austin State University in 2001. From 2002 to 2008, she worked as a forester for Colorado State Forest Service, where she focused primarily on the pilot Good Neighbor Agreement program. Her future career goals are to stay with the US Forest Service and work on a ranger district as a silviculturist or continue aerial survey work in a different region or at the national level.

Crystal served as secretary/treasurer for the New Mexico Chapter of SAF in 2016 and 2017.

District 5

Jeffrey Joseph

Before his promotion to the harvesting and silviculture supervisor for Weyerhaeuser's L'Anse, Michigan, unit, he spent more than 30 years in the field managing the company's timberlands. Throughout his tenure, Jeff has been known as a forester's forester. He used his experience and education to implement practical, profitable, creative, and ethical management



throughout his management area.

Jeff is creative in working to provide wildlife diversity in clear-cuts scheduled to be planted, such as by leaving scattered snags lower than the helicopter spray height, leaving some individual white pine, or having the logger leave scattered trees harvested at 10- to 15-foot heights.

Jeff has always been a hard worker, but as far as a co-worker is concerned, he is the best. His unselfish work ethic rubs off on all employees. For Jeff, there is no thought of doing something at work for personal gain, but always for the whole team and in the interest of long-term, sustainable timber management.

Jeff's disarming and humble personality allows him to work across organization lines to accomplish the greater good. Although he admittedly misses fieldwork, he genuinely enjoys mentoring and coaching the younger foresters coming up the ranks. If even a fraction of Jeff's legacy carries on with the younger generations, it will be a success for the industry.

District 6

Leonard J. Cronin, CF

Leonard Cronin has nearly 30 years of "boots on the ground" experience in the Adirondacks and upstate New York. His leadership at Finch Paper, currently as chief forester, has directly contributed to the excellent forest condition of the previously owned company lands, most of which are now owned by the state.

Len's dedication to the profession goes beyond his responsibilities at Finch. He always takes time to mentor young foresters just starting their career and is active in his promotion of the profession throughout the community. He is actively involved in SAF, participates in educational events at the Wanakena Ranger School, and has made numerous presentations on forest management to university, high school, and elementary students.

As chair of the Adirondack SAF chapter, Len has organized numerous events to advance the profession and provide those much-needed continuing-education opportunities to the membership. He also has worked tirelessly as a member of the Executive Committee. In addition, Len works on numerous aspects of the NYSAF annual meeting, including recruiting vendors and sponsors.

Len was recognized by NYSAF as New York Forester of the Year in 2017, which is intended "to recognize outstanding contributions to the practice and profession of forestry, the conservation and stewardship of forest resources in New York, and the objectives of the Society of American Foresters." Len was recognized again in 2018 with the NYSAF Society Commendation Award for his "extraordinary efforts and significant contributions in support of the Society and/or the forestry profession."

District 7

Dennis M. Galway, CF

Dennis Galway began his forestry career in 1979 for the City of Newark as an assistant forester in the Newark Watershed. Following two years there, he became a section fire warden for the New Jersey

Forest Fire Service as he completed his bachelor's of science degree in natural resource management from Cook College at Rutgers University in 1981. In that year, he started Galway Forestry Services, where he continues to practice. Dennis conducts forest inventories, writes management plans, marks (and often cuts) forest stand improvement, conducts competing understory vegetation control and pruning, and participates in other wildlife habitat-management activities.



Dennis has a reputation for serving private landowners well and having a fiercely loyal client base. His devotion to quality field forestry is best illustrated by his leadership in the American Tree Farm System, where he currently serves as chair of the New Jersey Tree Farm Program Inc. Under his leadership, the program has focused on quality on-the-ground educational programs for private landowners, and is where best practices can be shared for each others' benefit. Many of Dennis's clients have hosted Tree Farm Day events, and Dennis's quality silvicultural prescriptions have served as well-regarded field tours.

Although Dennis has held a wide variety of positions within Allegheny SAF and its New Jersey Division, he is clearly his most passionate when engaging in program work (specifically educational programs for field foresters) and policy work (where he is able to provide a voice for field foresters).

District 8

Jeffery L. Pardue, CF

From a nomination letter written by W. Andrew Casey, ACE, CF: I first met Jeff in 1984, when I was a forestry student at North Carolina State University. We were introduced by a mutual friend, and I soon found myself working on holidays hugging trees while Jeff tallied. That work turned into a summer job and then, following my graduation from NCSU, a full-time position as a forester. While my employment for Jeff only lasted a year or so, our friendship has continued.



We have been competitors for more than 20 years, with our own consulting forestry practices, and for most of that time, our offices have only been a few blocks apart. Even as a competitor, Jeff has always taken time to discuss a silvicultural concern or answer a question about the practical side of running a consulting business.

Jeff has been an active SAF member, both on the chapter and state level. He is a North Carolina Registered Forester, an SAF Certified Forester, and a member of the Association of Consulting Foresters.

Most important, Jeff has been working with private landowners to plan and implement forest-management practices for almost 40 years. There is no more effective way to apply good forest-management practices than one landowner at a time and one job at a time. For Jeff, that adds up to a whole lot of worn out boots,

many thousands of acres of applied forestry, and many private landowners who have not only have well-managed forests, but also a much better understanding of their forests and the practical application of forestry.

District 9

Janet A. Egar

Janet Egar began working for the Indiana Division of Forestry in 1978 as a YACC program crew leader, then moved up to timber technician and later worked as a resource specialist for four separate state-forest properties before moving to the Cooperative Forest Management section in 1993. For more than 25 years, she has provided professional field-forestry assistance to landowners in southern Indiana as a district forester. She has influenced thousands of landowners and helped manage hundreds of thousands of forested acres. Her legacy will improve and enhance the forest of southern Indiana for centuries.



Janet has earned recognition and awards from her peers and others over the years. One of her most treasured awards was her recognition as a Fellow with the Society of American Foresters in 2006. Some of the other honors she has received include the Division of Forestry Employee of the Year Award in 2004, District Forester of the Year in 1996 and 2000, and the Indiana Forestry & Woodland Owners Association Professional Foresters Award in 2003.

Janet has mentored several young foresters over the years. Some of these foresters have become valued employees of the Division of Forestry and others have moved on to other employment.

Janet Egar joined SAF in 1978 and since then has served as Indiana SAF secretary, treasurer, vice-chair, and chair, as well as on the Nominating and Teller's Committees. Janet became a SAF Fellow in 2006, and she served from 2007 to 2011 as a member of the District Fellow's Committee.

District 10

John R. Britt

John Britt earned a BS in forest management from Clemson in 1987, followed by an MS in forestry from Auburn in 1989. He has been an innovative and effective forester throughout his career. John began his career with Mead Corporation upon graduation from Auburn and remained with them for 17 years in roles of increasing responsibility. He focused primarily on regeneration activities from 1992 to 2004, during which time Mead's performance in this area became one of the best-recognized models in the South. His management responsibilities included regeneration and young stand silviculture across 540,000 acres, including a 20-acre seed orchard. In 2004, John stepped up to the position of lead forester, which added timber harvest and budget duties.

With the merger of Mead and Westvaco in 2007, John departed and founded his own forestry consulting company, John Britt & Associates LLC, in Harris

County, Georgia. He now provides consulting services to individual and institutional landowners in Alabama, Arkansas, Georgia, and Tennessee.

John is a member of the Association of Consulting Foresters and was twice appointed by Georgia governors to serve on the Georgia State Board of Registration for Foresters. He has served as chair of the Environmental Committees of both the Georgia and Alabama Forestry Associations and as executive committee chair of the Auburn University Silvicultural Herbicide Cooperative, and served three terms on the Harris County Planning Commission.

Since his days a forestry student, John's ethical standards and natural leadership skills earned the respect of his peers across the South.

District 11

Michael A. Blazier

As a faculty member with Louisiana State University, Michael Blazier is a specialist in extension forestry who focuses on herbicides, density management, and agroforestry. His career began in 1997, and since then he has managed university forests at the Hill Farm Station and the Calhoun Research Station, together comprising several hundred acres of forests that are used for research and extension purposes. Blazier is a frequently requested speaker for at extension meetings or technical talks for field foresters from all employment sectors.



Michael's work focuses on intensive management, with respect to silvicultural treatments for both hardwoods and softwoods, typical of Louisiana. His work has been applied by small landowners all the way up to corporate landowners. In short, his management strategies are being or have been applied to thousands of acres of forests in the state and surrounding states.

For his contributions to the forestry profession, Michael has been honored through awards from Louisiana SAF, Oklahoma SAF, and Arkansas SAF. He has also been a Louisiana SAF meeting chair and has served as president and vice-president of the North Louisiana Chapter. He was an associate editor of the *Southern Journal of Applied Forestry* and is currently an associate editor of silviculture for *Forest Science*. He has published 37 peer-reviewed research articles. **FS**

Future Directions

As the Forest Service charts its path toward truly sharing stewardship for recreation, it faces many philosophical and pragmatic questions. How does the agency truly share power in its stewardship, as it moves away from "we do it all" to "we are all part of it"? Cultural change occurs slowly, and growing pains are to be expected as the agency shifts the way it does business and re-envision its place among partners. How can the agency better address entrenched institutional memory and plan for succession in partnerships? What institutional frameworks are needed to sustain partnerships that aspire to be inclusive, so that public lands can be truly democratic and egalitarian places? How can it address environmental injustices related to the amount of social, cultural, and financial capital that community partners bring to many shared tables across the country? Do agency language practices alienate some partners by calling upon specific cultural models of human-nature relationships (such as the dominion implicit in the term "stewardship")? How can the Forest Service share decision-space with groups that have been historically marginalized and have not seen public lands as theirs to share in the first place?

The Forest Service is grappling with these questions as it navigates how to share in stewardship networks that harness local communities' expertise and interests. Recreation is a primary connection people forge with public lands; it offers powerful inroads for engaging more people in sharing in their stewardship. As people get to know and deeply value special places on public lands through their outdoor experiences, these connections can be a precursor for stewardship. When communities and people who care about their public lands become part of a network of stewards, we gain capacity to complete shared objectives, but more important, we build relationships and cultivate a shared passion for our forests and grasslands that endure well beyond specific projects and initiatives. **FS**

Monika Derrien and Lee Cervený are research social scientists at the Forest Service's Pacific Northwest Research Station. Michiko Martin is the agency's director of recreation, heritage, and volunteer resources. Matt Arnn is a landscape architect based at the agency's national headquarters in Washington, DC.

SAF News

The Forestry Source welcomes articles and ideas for the SAF News section, which is devoted to articles about the activities and accomplishments by SAF members, chapters, or groups that highlight good forestry, enhance public understanding of forests and forest management, and provide service to the Society and society. Contact Steve Wilent, Editor, 503-622-3033, wilents@safnet.org.

STEWARDSHIP

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groups, foundations, and investors help envision, restore, protect, and enhance public recreation resources through new models for financing infrastructure projects.

- **Public-public partnerships:** Intergovernmental partnerships serve locally identified needs, supporting seasonal tourism and recreational visitor volumes, investing in trail systems, and enhancing information services for visitors

parks, because oftentimes there wasn't someone who spoke Spanish there. In all honesty, growing up, I disliked being outdoors, because it was hot and humid. I didn't have an appreciation for nature, because I had never experienced it enough to develop a connection.

It wasn't until my senior year of high school that I developed this connection to nature. I was in an AP Environmental Science class, for which we got extra credit if we joined the Envirothon club. Envirothon has four main sections: aquatic ecology, soil/land use, wildlife, and forestry. Ironically, I was the person who specialized in forestry. Because of this club, I was able to learn about these four topics through hands-on experiences outside of a classroom setting. This was the first time I ever touched a fish or held a frog. Our teacher taught us how to classify soil by touching it, but also tasting it if needed, and I learned how to identify trees and their uses. This is what helped me figure out that I wanted to major in forestry.

What she's learned through the forestry program

While at SFA, I have had many opportunities to learn about things I had never even thought of before from professors who have spent years in the field and acquired real-world knowledge on their subject. One of the most important classes I've taken was Environmental Attitudes and Issues. This class sticks out to me because we learned that to change someone's behavior, you first have to change their attitude about the topic. It was in this class that I first realized what I wanted to do in my life—I would love to educate people on the outdoors and, hopefully, get them to acknowledge its greatness.

In the summer of 2018, I worked at The Pines Catholic Camp as a camp counselor. In this job, I learned how to communicate with all different types of people, as well as with different age groups. I led recreational activities, such as zip lining, kayaking, rock climbing, logrolling, and other fun summer-camp activities. I saw the importance of human dimensions, as well as the importance of educating younger generations about natural resources. During the school year, the camp puts on environmental retreats during which kids learn about forestry, archaeology, limnology, meteorology, entomology, and orienteering. After my graduation in August of 2019, I will work full-time at The Pines. I hope that through this job I will be able to educate the next generation of natural-resources specialists and gain the experience I need to achieve my goals.

What my parents think about my studying natural resources

When I first started at SFA, my parents were extremely confused because I chose to go into the natural-resources field. When growing up, I was never one to show interest in the outdoors. They questioned my decision for a few years, and kept asking me if this was what I actually wanted to do with my life. My answer was always yes. Since I've been studying

forestry, I've become the connection for my parents to the outdoors. I have not been able to get them to a national park yet, but I have taken them to many of the state parks in Texas. I haven't just affected my parents, but also my entire family. We go on regular fishing trips, nature walks, and occasionally, camping. We went from being a family that stayed indoors to a family that frequents outdoor recreational opportunities.

How I would make state or national parks friendlier for my parents

I think that minorities are so poorly represented in state and national parks because often there are few programs or signage for them. I would love to see these parks have someone on staff who is a native Spanish speaker, because no matter how hard you try, Google Translate will not always make sense. In state-park bathrooms, I have seen signage in Spanish that makes no sense at all and the only way I could figure out what it was trying to say was by referring to the English signs.

The Spanish programs do not have to be the equivalent of the English programs. Starting small is totally fine—just put in the proper resources and time to get it done to the best of your abilities. If a new program is made for the Hispanic population, please advertise it somewhere they will be able to see it. These places could include Facebook, the local library, or even a grocery store. Use the connections you have to help you; for instance, if you know a native Spanish speaker, maybe ask them to look over a document you wrote in Spanish if you are unsure about it.

Her career goals and what she hopes to achieve

I think that recreation is one of the best ways to get people outdoors into nature. They get to do something fun while at the same time taking in the beauty around them. I want to be a part of getting the Hispanic community outdoors. I would love to be that friendly face in parks for Hispanic families to feel welcomed and to know that they have someone who can understand them. This is why I want to go into environmental education or park interpretation; in these jobs, I can put on programs in both Spanish and English to reach a wide range of people.

If I were to go back to school for my master's degree, I would want to focus more on outdoor recreation and the human dimensions behind it, but focused more on the minorities in recreational areas.

Why diversity is important in recreation and forestry

Taking care of the environment is something we should all do, and it's also something we need to educate the general public about. Outdoor recreation offers us a unique opportunity, in that it can get people outdoors without having to commit too much. The Society of American Foresters has given me the resources I need to move forward in what I want to do with my life. I was a Diversity Scholar in 2018, and at convention, I had the opportunity to meet a very diverse group of people. I loved being able to hear ev-



An undergraduate at Stephen F. Austin State University, Rebeca Rodriguez is studying forestry with a concentration in forest recreation management. An AP Environmental Science class in high school inspired her to study forestry, and an Environmental Attitudes and Issues class in college inspired her to connect people with the outdoors. Photograph courtesy of Rebeca Rodriguez.

everyone's opinions on certain topics and seeing how everyone brought something different to the table. That is what I think diversity in natural resources should be, a group of people from all sorts of backgrounds, coming together to accomplish the same goal. **ES**

To connect with Rebeca Rodriguez, she can be reached at rebecarod17@gmail.com.

EDUCATION ■ From Page 12



Students in West Virginia University's Recreation, Parks, and Tourism Resources program have a number of opportunities to learn the ropes of leading groups in recreation activities. One of these is at Summit Bechtel Reserve, a new national high-adventure Scouting center located near Beckley, West Virginia. The students shown here are leading a group of 6th graders on a canopy tour as part of an Adventure STEM camp. Photograph courtesy of Adventure WV.

with SAF, we restructured the Parks, Recreation, Tourism curriculum so it aligns better with the forestry program. After students receive their degree, they can come back for an additional year and earn their master's of forestry degree in one year, because they've already had quite a few forestry classes.

What opportunities are available for students to receive real-world training?

I hesitate to say it's unlimited, but there are lots of opportunities here in Maine. There's a high demand for students from this degree program for summer employment at Acadia National Park and the state natural resource-management agencies, and there's a whole assortment of private industry focused on tourism. Students have opportunities to work in the summer, and that's an important piece for student development while going to school to get those summer work experiences.

Over the past few years, an intensive one-week field-practice course has been developed for students to meet and interact with a variety of professionals in the field. We stay in Acadia National Park, and students learn different aspects of park management, such as trails management and transportation management. We also have capstone courses that are required. Again, it's an opportunity for students to explore in more detail the aspect of recreation they want to do, whether working with a non-profit, a state park, or in one case, we had a student who wanted to develop a recreation program for a retirement community. The capstone projects over the past few years have just been outstanding.

In addition to the two recent concentrations, has there been any coursework that's evolved over the years?

One exciting area that we've been focusing on is communication skills and building capacity for students to work effectively with growing diverse human populations. Cultural diversity has been an area where I've been reexamining our curriculum, specifically here in Maine in terms of being more inclusive of under-represented populations. We have several Native American populations here in Maine who are closely tied to the land, and I've worked with several of the tribes, both with the research I do with planning and management around the emerald ash borer, but also thinking through some of the coursework that I teach, such as incorporating traditional ecological knowledge. That's opened up doors for students, both in terms of working with diverse communities and communications and understanding. It's gotten really favorable feedback from students within the program, and I'd like to continue this aspect within our program. I think it's a nice direction to go in, particularly knowing the changing human dynamics we're going to be seeing in the next few decades.

What are the employment trends in the outdoor-tourism sector?

Nature-based tourism is one of our biggest industries in our state: the forestry industry and the tourism industry are the top employers in Maine. I really feel that tourism, particularly in the outdoor industry, has grown and is expected to grow. Unfortunately, the government spending hasn't increased, but the demand is certainly there, at least here in our state. Acadia National Park had a record number of visitors last year, and when you look at people who want to participate in outdoor recreation, we see those increases happening in our state. **ES**

Beginning the Diversity & Inclusion Discussion in Your Chapter

By Andrea Watts

Several SAF initiatives over the past two years have endeavored to increase the diversity and inclusion of our membership and the forestry and natural-resources profession. These include the creation of the Diversity & Inclusion (D&I) Working Group; D&I workshops held at SAF National Conventions; the adoption of a statement on Diversity and Inclusion; and, most recently, the adoption of an anti-harassment policy (*The Forestry Source*, June 2019, page 2). In addition to these national efforts, how can state societies and local chapters incorporate D&I into their meetings? Two state societies are taking the lead. Last year, Allegheny SAF brought in Jamie Dahl and Susan Stout to talk about D&I at its annual meeting. And, building on a D&I session included at its 2018 annual meeting, this year, Ohio SAF presented an R.I.P. Uniformity (Respect, Identity, Privilege) workshop at its winter annual meeting.

In their own words, members of Ohio SAF share why it's important not to shy away from D&I, and how this topic can be discussed to empower members.

Why D&I?

Jim Stafford, CF, Ohio SAF Chair: Why I wanted to include a session on D&I at the

winter annual meeting.

The previous chair, Jim Chattin, CF, included a D&I session at last year's annual meeting that opened the door on this issue, and when planning this year's meeting, I thought, "We probably need to keep this on the table." At the national convention in Portland, I attended one of the several sessions on diversity and inclusion, and later learned that Jamie Dahl, who is a member of the Diversity & Inclusion Working Group, is a member of our state society. I thought, "This is awesome" to have her as a resource. I asked her in Portland if she would consider giving a talk, and she said yes.

Jamie was a natural fit, and she pulled in Ryan Vogel to present a session titled R.I.P. Uniformity (Respect, Identity, Privilege). The discussion and presentation were good. I received a lot of positive feedback, but quite honestly, I did get some negative feedback; some of the older fellows complained. I say, if you just want to go out and sit in the trees and stay there the rest of your life, that's fine. But if you want to interact with the real world, or the rest of the world, you need to be aware of these issues. These issues are in mainstream media news and on the Internet. Forestry has its head in the sand.

This is an issue we're going to keep on the table in Ohio. I've already talked to our chair-elect, because this needs to be part of our thought process. Our dealings with the rest of the world are part of the science. It's great if we understand the silviculture. I tell people I can turn an acre into timber in six different ways, depending upon what you want to do. Even if the science is great, however, if we can't sell the science to John Q Public, we're kind of spinning our wheels. And part of that John Q Public sphere is the diversity and inclusion issues.

Presenting R.I.P. Uniformity

Jamie Dahl, Forest Outreach Coordinator, Central State University Extension & McIntire-Stennis Program, and Ryan Vogel, Graduate Student, Ohio State University: Our Approach to Presenting the R.I.P. Uniformity (Respect, Identity, Privilege) Workshop

In designing the workshop, we wanted attendees to be actively engaged. Since PowerPoint presentations are the norm at these and most professional conferences, we wanted to do something different that required no PowerPoint. We brainstormed various D&I activities that we had participated in previously to decide upon four that would work within our given time

constraints. The resulting program consisted of four main activities on the following topics: Respect, Identity, Privilege, and "World Café." While we each took turns leading, all four activities required significant effort from the participants.

When presenting D&I material, it is important for facilitators and participants to create and maintain a productive and safe space where people feel comfortable to engage. We began the workshop by laying down some ground rules and providing some background on norms and D&I terminology. With these in mind, we encouraged participants to think deeply and step out of their normal comfort zones, since you must be willing to lean in to some discomfort to grow in these areas. As facilitators, we are constantly learning and growing as well, understanding that we too carry our own unique perspectives on life, whether they relate to us being white, male, or otherwise. Acknowledging our own privileges and advantages and how these shape our experience and worldview is really important. We did not go into this workshop with the intent to necessarily "teach" participants, but rather, we aimed to create an environment in which attendees can see, discover, and learn on their own.



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In the R.I.P. Uniformity (Respect, Identity, Privilege) workshop, Jamie Dahl and Ryan Vogel (standing on the table) led attendees through four interactive activities focused on the three areas. The fourth activity was a World Café-style discussion on how to engage SAF members and excite a new generation to care about forestry and natural resources. Photograph courtesy of Jamie Dahl.

Team facilitation and diverse perspectives for D&I sessions are always best. While we have both presented on D&I alone in the past, it is far better to do it with someone else. That is where partnerships for facilitation are key, so you can help each other engage a broader target audience and work together through tough discussions. It is not a good idea to leap into this kind of work without some advanced training and experience under your belt. Still, no two workshops (even those with the same lesson plan) will ever go the same, since they inherently depend on input from the audience, which is always comprised of different people at different stages in their lives with different opinions.

We ended the workshop with a World Café-style discussion, which was similar to the World Café discussions held at past national conventions. While we hope participants were able to introspect and reflect on their personal worldviews, self-awareness, and awareness of others, we also wanted to provide some more-tangible next steps forward. After any training, it is useful to direct participants to some action steps they can take to implement what they have just learned and further broaden their horizons. For example, if aging demographics of a state chapter is a concern, what might SAF members do on an individual level at their places of work or in their extracurricular activities to further engage early-career professionals in SAF? What could the state chapter do to address this at meetings/events, with its Internet presence, or elsewhere?

We too are still learning about diversity and inclusion ourselves and have much room to grow. There are certainly opportunities for improvement in the way we act, speak, and think about people and the world that we live in. Just 30 years

ago, the field of diversity and inclusion was not nearly what it is today, and it is still growing and evolving. We're excited to see what the world will be like 70 years from now, when children today growing up with diversity and inclusion principles instilled in them at such an early age mature and become the next generation of world leaders.

Take-Home Lessons

Dan Balser, Chief of Division of Forestry, Ohio Department of Natural Resources: What attendees learned from the presentation.

When I saw the agenda, I had some idea of what might be covered in the R.I.P. Uniformity presentation, because I had heard Jamie Dahl present at a previous SAF meeting. What I didn't realize was that the presentation would be very interactive. The interaction led to a greater understanding of the topics that were discussed. I think the session complemented the more-technical agenda items in that it brought different ideas into the conversation. It allowed participants to look at issues through a different lens and gave attendees who might not normally speak up an opportunity to talk about how they view these issues.

For me, I think it reinforced that as professional foresters and managers of people, we should be careful about assumptions we make regarding colleagues and other individuals with whom we interact. It takes time and effort to get to know someone and what special skills or perspectives they bring to the table. This is true in the hiring process, stakeholder meetings, and relationships with partners. This kind of session benefits members by giving them a chance to think issues through from a different point of view. I believe it also gives some members and prospective members an opportunity to

feel comfortable voicing their opinion or joining the organization. Sometimes, knowing that an organization cares about all aspects of members' lives gives them the confidence they need to grow professionally and talk about their views within the framework of a professional organization.

Katie Reidman, Ohio State University and District 9 SAF Student Representative:

When I saw the presentation title, I expected the presentation to cover important aspects of diversity and inclusion, knowing from previous presentations by Jamie and Ryan that they are excellent advocates for these areas. I was excited to see how they were going to explain the importance of respect, identity, and privilege.

Throughout the OSAF winter meeting, we covered current forest-science topics and had a few ethics discussions. The diversity and inclusion presentation complemented the more "traditional" forestry topics by emphasizing the importance of everyone's viewpoint. With different problems arising in forestry every day, such as invasive species and timber-harvesting malpractices, it's important to have a diverse group of people coming together to develop solutions to these problems.

The presentation really put me out of my comfort zone in the best way possible. It is so important to be mindful that not everyone starts with the same opportunities and chances, and I believe sometimes it's easy to forget that. We are all so different, and we all come from different backgrounds. It is invaluable to learn from each other and to help each other as much as we can, and to just be mindful of the challenges other people had to face to get to where they are today. The presentation really served as a great reminder to em-

brace people of all backgrounds!

Other SAF chapters, and the field of forestry in general, could greatly benefit from learning more about diversity and inclusion. Our field is always changing, with new problems and challenges arising all the time. We need to make sure our community is one that encourages its members to be involved, to speak up, and to take risks—no matter who they are or where they come from—so that we can all face these problems and challenges together. No one should feel that they need to hide their identity in fear of backlash and exclusion from others in their profession. That's why it is so important for us to treat everyone with a sense of respect, have a listening ear to all perspectives, and to embrace diversity in our profession. Not only is this good for the profession of forestry, but really, it's a great thing for us to be accepting and including in our everyday lives. **FS**

Does your chapter have a diversity and inclusion program that you'd like to share with other chapters, or other best practices that have reinvigorated your chapter? We want to share these ideas with other members. Please e-mail your column ideas to watts@saftnet.org, rasorl@saftnet.org, or membership@saftnet.org.

Want to learn more about the Respect, Identity, Privilege, and World Café activities, and other D&I resources? All SAF members are welcome to join the D&I Working Group, and you may also contact Jamie Dahl at jdahl@CentralState.edu and Ryan Vogel at RangerRyanVogel@gmail.com.

CONTINUING EDUCATION CALENDAR | July through September 2019

More Events at tinyurl.com/gnd78jh (www.eforester.org)

Continuing education events for **July through September 2019**. SAF Continuing Forestry Education (CFE) credits are available at all events. Visit SAF's Continuing Education Calendar at tinyurl.com/gnd78jh for more information on these events and others that may have been recently added to the list.

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WEBINARS

7/16/2019, Oak Wilt: Biology, Distribution, and Management Approaches
8/20/2019, Understanding Family Forest Landowners in the Lake States
9/19/2019, On-the-Job Experimentation: How to Learn More from Your Daily Work

CONNECTICUT

8/14/2019, Silvopasture & Agroforestry 101: Healthy Soils Workshop, Union

GEORGIA

7/9–10/2019, Wildlife Management Course, Athens
7/23–24/2019, Recreational Pond Management, Athens
7/26–28/2019, 2019 Annual Conference & Forestry Expo, Jekyll Island
8/8/2019, Trees as Green Stormwater Infrastructure, Peachtree Corners
8/20–21/2019, Forest Herbicide Workshop, Tifton
8/27/2019, Trees as Green Stormwater Infrastructure, Valdosta

IDAHO

8/16/2019, Restoring Idaho Streams, Moscow

MAINE

7/12/2019, Invasive Terrestrial Plants 101, Augusta
7/14/2019, Harvey Butler Rhododendron Sanctuary, Springvale
8/24/2019, Robert P. Tristram Coffin Wild Flower Sanctuary, Woolwich

8/28/2019, Big Reed Forest Preserve, Northern Woodlands
9/19/2019, Managing Your Woodlot for Ash with EAB on the Doorstep, Vassalboro

MASSACHUSETTS

7/10–24/2019, Introduction To Plant Families, Framingham
7/30/2019, Thinking Big: Introduction to Landscape Ecology, Whately
8/14–21/2019, Advanced Plant Inventory Techniques, Framingham
9/9–23/2019, Field Identification Techniques, Framingham
9/13/2019, Conservation through Use, Framingham
9/20–21/2019, Basic Wetland Identification and Delineation, Framingham

MICHIGAN

7/10/2019, FCWG Learning Exchange Series: Carbon Market Opportunities and Project Development Tools, East Lansing
7/31/2019, DEQ Stream Crossing Permit Training, Gwinn
8/2/2019, DEQ Stream Crossing Permit Training, Bruce Crossing

MINNESOTA

7/16/2019, Webinar: Oak Wilt: Biology, Distribution, and Management Approaches
8/20/2019, Webinar: Understanding Family Forest Landowners in the Lake States
9/19/2019, Webinar: On-the-job Experimentation: How to Learn More from Your Daily Work

MISSISSIPPI

8/29–30/2019, The Business of Forestry: Annual Meeting of the Mississippi SAF, Raymond

NEW HAMPSHIRE

7/10/2019, Soil Morphology/Describing Soils, University of New Hampshire
7/17/2019, Soil Morphology/Describing Soils, University of New Hampshire
7/21/2019, Hobbs Fern Sanctuary, Lyman
7/24/2019, Soil Morphology/Describing Soils, University of New Hampshire
8/15/2019, Identifying Ferns of Northeastern New England, Portsmouth
8/22/2019, Identifying Late Season Grasses, Portsmouth
9/5/2019, Invasive *Ailanthus altissima*: Targeting the Tree of Heaven, Concord

NEW YORK

7/10/2019, Monitoring and Managing Ash (MaMA) Training Workshop, Middletown
7/15/2019, Monitoring and Managing Ash (MaMA) Training Workshop, Poughkeepsie
7/17/2019, Monitoring and Managing Ash (MaMA) Training Workshop, Katonah
7/18–20/2019, 27th Annual Releaf Conference, Newburgh
7/25/2019, Monitoring and Managing Ash (MaMA) Training Workshop, Cornwall

NORTH CAROLINA

7/11/2019, Alternative Income Streams for Forest Landowners, Mills River

7/16/2019, Summertime Safety for Fieldwork, Old Fort

OHIO

9/13–16/2019, Deer Steward: Level II, Gallipolis

PENNSYLVANIA

9/18–19/2019, Advanced Tree Measuring Workshop, Cooksburg

SOUTH CAROLINA

8/22/2019, Project Learning Tree Workshop for Natural Resource Professionals, Columbia

UTAH

7/16/2019, Spotted Lanternfly & Other Invasive Landscape Tree Pests, Logan

VERMONT

7/10/2019, Ash and Forestry Forum: Management within the Context of EAB, Craftsbury
7/27/2019, Plants of Black Gum Swamp, Vernon

WEST VIRGINIA

7/29–30/2019, 2019 AHMI Summer Conference, White Sulphur Springs

WYOMING

7/20–29/2019, 29th Annual North American Dendroecological Fieldweek, Cody

CLASSIFIEDS

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Forestry Foreman/Heavy Equipment Operator

Employer: Markit! Forestry Management
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Job ID: 48100042
Posted: June 15, 2019
Min Education: Associates Degree

Forester

Employer: Templin Forestry Inc.
Location: Alexandria, Louisiana
Job ID 49005084
Posted: June 14, 2019

Area Forester

Employer: Stimson Lumber
Location: Newport, Washington
Job ID 49005032
Posted: June 14, 2019

Director of Acquisitions

Employer: Finite Carbon
Location: Tallahassee, Florida/Portland, Oregon

Job ID 48943048
Posted: June 11, 2019

Customer Support Rep.

Employer: PRT USA
Location: Oregon/Armstrong, BC
Job ID 48930942
Posted: June 10, 2019
Min Education Associates Degree
Min Experience 3-5 Years
Required Travel 25-50%

Tax Law Forestry Specialist

Employer: Wisconsin Department of Natural Resources
Location: Peshtigo, Wisconsin
Job ID 48855438
Posted: June 6, 2019

Forester/Potential Buyer

Employer: WoodsRun Consulting Forestry
Location: Elizabethtown, North Carolina
Job ID 48855437
Posted: June 6, 2019

Forester

Employer: Wisconsin Department of Natural Resources
Location: Multiple locations, Wisconsin
Job ID 48835742
Posted: June 5, 2019

Harvesting Operations Manager

Employer: Hancock Natural Resource Group
Location: Shreveport, Louisiana
Job ID 48817395
Posted: June 4, 2019

Procurement Forester

Employer: WestRock
Location: Florence, South Carolina
Job ID 47121289
Posted: May 30, 2019

Director of Forestry & Regulatory Affairs

Employer: Florida Forestry Association
Location: Tallahassee, Florida
Job ID 48680147
Posted: May 29, 2019

Inventory-GIS Forester, Southern and Eastern US

Employer: GreenWood Resources
Location: Lumberton, Texas/Spartanburg, South Carolina
Job ID 48679788
Posted: May 28, 2019

Forester

Employer: Hancock Forest Management, Inc.
Location: Cathlamet, Washington
Job ID 48571541
Posted: May 22, 2019

Town Forester

Employer: Town of Erie
Location: Erie, Colorado
Job ID 48571359
Posted: May 22, 2019
Job Function Arborist

Fire Ecologist

Employer: Missouri Department of Conservation
Location: West Plains, Missouri
Job ID 48542629
Posted: May 20, 2019
Min Education Master's Degree

Research Forester

Employer: Missouri Department of Conservation
Location: West Plains, Missouri
Job ID 48542624
Posted: May 20, 2019

Portfolio Manager

Employer: GreenWood Resources
Location: Portland, Oregon
Job ID 48541997
Posted: May 20, 2019

ones with the skills to do so” (T. Bustam, personal communication, May 11, 2018). For example, the Forest Service is building capacity by collaborating with entrepreneurs, nonprofits, and citizens through public-private partnerships and a range of contractual agreements. The National Strategy for a Sustainable Trail System (US Forest Service 2016) is an excellent example of how the Forest Service is adopting a “shared stewardship” approach by working with a diverse and engaged public to address the challenges of managing the largest trail system in the country to a high standard. This strategic plan has led to passing of the National Forest System Trails Stewardship Act of 2016 and new resources allocated to address the backlog of trail maintenance needs. These emerging collaborative partnerships should be continued and expanded at all levels of the organization.

8. Work toward a customer-service and host-guest relationship with visitors. Superlative customer service needs to be at the forefront of Forest Service recreation programs. Lessons can be learned from the tourism and hospitality fields, in which host-guests relationships are cultivated. The Forest Service must move beyond a merely custodial relationship with visitors, in which recreation managers are viewed narrowly as enforcers of forest rules and regulations. Needed is a public engagement model in which a visitor’s first recreation experience on national forest lands is seen as an opportunity to cultivate a lifelong relationship that culminates in a strong protector and steward of the nation’s National Forest System.

9. Incorporate 21st-century communications. The Forest Service’s recreation program can be an agency model for deploying state-of-the-art digital communications to interact with visitors before, during, and after their forest-based recreation experience. For example, the Recreation One-Stop initiative is striving to create a customer-friendly recreation portal with information needed to plan forest visits, as well as consistent and accurate information about forest-based attractions and local conditions. The Forest Service should be using the power of digital technology to support highly interactive relationships with visitors and to support other management and monitoring objectives. Again, Tinelle Bustam envisions “shared online platforms and shared contemporary mobile apps where the Forest Service and partners share content about priority recreation programs and opportunities” (T. Bustam, personal communication, May 11, 2018).

10. Build stronger “communities of practice” to catalyze learning among recreation managers. The Forest Service already has several internal methods of sharing recreation best practices. For example, RECTALK is a Forest Service recreation staff listserv, on which recreation managers share problems and solutions with colleagues across the country. Needed are broader and more integrated “communities of practice” through which recreation managers can learn from peers

across the recreation service delivery spectrum. The webinars sponsored by the Society of Outdoor Professionals come to mind, or the Conservation Connect Program of the National Forest Foundation.

11. Engage youth in pathways to stewardship and conservation careers. The Forest Service has made a significant investment in building internal capacity to expand volunteerism and community service across the National Forest System. Nowhere is this truer than in how the agency has engaged youth. By partnering with nonprofit organizations like the 21st Century Conservation Service Corp (21 CSC), the Forest Service has expanded its capacity to engage youth in developing their leadership potential while simultaneously nurturing public lands. Since the program began in 2014, more than 30,000 youth and veterans have engaged in trail improvement, watershed protection, invasive vegetation, and recreation facility projects (US Forest Service 2017d). These types of collaborative programs should be continued and strengthened.

12. Make recreation a full agency partner. Based on the evidence presented in this paper, a strong case can be made to make the recreation program a full partner in the Forest Service enterprise to care for the land and serve people. Recreation staff professionals should be included as integral members of interdisciplinary planning teams at all levels of the organization. Leadership support will be critical to realizing this objective.

Conclusions

Adopting this action agenda will help to catalyze a proud, resilient, creative, entrepreneurial, and optimistic recreation workforce in the Forest Service. It will also go a long way toward establishing the National Forest System as a world-class recreation destination. Every day, visitors make important connections to nature on national forest landscapes. Nature connections that transform their lives and communities in many concrete positive ways. Nature connections that build lifelong stewards and supporters of the nation’s National Forest System.

One hundred years later, let’s embrace Frank Waugh’s challenge to make recreation a central priority of national forest administration. One of Waugh’s contemporaries, Arthur Carhart, captured it best: “Perhaps the rebuilding of the body and spirit is the greatest service derivable from our forests, for what worth are material things if we lose the character and quality of people that are the soul of America.” **FS**

Steven Selin is a professor in the School of Natural Resources and program coordinator of the Recreation, Parks, and Tourism Resources Program at West Virginia University (WVU). He earned a bachelor’s degree in forest management from the University of Maine, a master’s in outdoor teacher education from Northern Illinois University, and a PhD in recreation resource management from the University of Oregon. Selin’s research interests include integrating human dimension knowledge into conservation decision-making, public participation in planning, collaborative governance processes, strengthening public-private

partnerships, landscape-level conservation, operationalizing sustainable recreation, and social network analysis methodologies. In particular, he is interested in evaluating agency adoption of participatory planning and management systems and processes. His work has been published across a broad range of disciplinary journals including the *Journal of Forestry*, *Environmental Management*, *Annals of Tourism*, *Journal of Extension*, and the *Journal of Sustainable Tourism*.

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all access during fire season,” Anderson said. “Now we open it up for year-round walk-in access and [the public can] drive in on certain roads.”

Of the HNRG timberlands across the country, access policies vary and do not always provide free public access. In northeast Oregon, a similar Access and Habitat grant exists to the one for the purchased tree farm. In northwest Washington and the southeast US, public access is only allowed by lease.

Through the three-year Access and Habitat grant for the coast ranges timberland, bow hunters now have access during September, when the timberlands used to be closed due to fire danger, and rifle hunters can do their scouting prior to the start of their season. To address the potential risk of keeping the timberlands open during fire season, HNRG restricts vehicle access at a Level 3 fire risk, and closes the woods completely at a Level 4 risk.

The 15-year curfew of no public vehicles allowed on the roads at night remained unchanged, and ATVs aren’t permitted except by special permit. HNRG also reserves the right to shut down roads or areas during logging operations, Anderson said, because “we don’t want a conflict between our operations and the public.”

Anderson said that the reaction to the new access has been mostly positive. “We’re monitoring closely to see if it’s working, and so far, I think it has,” he said, adding that there is work that can be done to improve the public’s experience. Better signage, for one, as to which roads are open; HNRG currently uses the green dot system used on public lands in Oregon.

And just as Weyerhaeuser and Port Blakely will work with groups for specific recreational activities, so too does HNRG. The Baber Mountain ATV club originally had an agreement with the Oregon Department of Forestry (ODF), Green Diamond Resources, and Plum Creek Timber. After ownership changes, the land is now managed by ODF, Weyerhaeuser, and HNRG, and HNRG has continued business as usual. Since the group had a good relationship with the previous owners, “we have honored their lease.” Anderson said. “I think it’s been a pretty good relationship.”

Having spent his 34-year career in Oregon’s coastal region and seeing the transition from unfettered public access to highly restricted public access, Anderson is encouraged to see the public access return, albeit in a regulated manner. “When I first started, it was wide open. People could drive everywhere, do anything they want,” he explained. “This is the first time I’ve been here that we’ve reversed that trend a bit. Yes, the grant money helps offset the cost of the program, but in lieu of that, the public gets more access.” **FS**

(Editor’s Note: This is an extended version of an article that ran in *Western Forester*, a quarterly newsletter produced by the SAF Northwest Office for the Oregon, Washington State, and Alaska societies (see tinyurl.com/yykcj4wh).

DLTs: Dowel-Laminated Timbers

A planned four-story office building in Des Moines, Iowa, will be the first commercial building in North America to use dowel-laminated timbers (DLTs). The first floor of the 65,000-square-foot structure will be devoted to retail spaces, while the other three floors will be office space.

According to project designer Neumann Monson Architects, spruce glulam beams and columns will frame the 40-foot by 6.33-foot DLT panels that serve as floors and roof. "The system facilitates quick erection time and a smaller site crew, minimizing the disturbance to the neighborhood during construction. Pre-cast concrete walls and buttresses anchor the south portion of the building and assist as the service core."

StructureCraft, a British Columbia company, will supply the DLTs.

GP Closures in the Southeast

Georgia-Pacific recently announced that it will shut down two particleboard plants in Hope, Arkansas, and Monroeville, Alabama, and will not rebuild its Thomson, Georgia, facility, which experienced a catastrophic fire in May. Approximately 100 employees at each facility will be impacted. GP also will shutter its bleached board operations at its Crossett, Arkansas, by October 2019, including bleached board machines, extrusion plant, woodyard, pulp mill, and a significant portion of the energy complex at the Crossett mill. The company also in July will shut down one of the mill's older tissue machines. About

530 jobs at the facility, along with 25 business and sales positions, will be eliminated. The company said it would continue to operate and invest in the Crossett mill to support its consumer tissue and towel business.

BC Curtailments

At this writing in mid-June, at least 20 mills in British Columbia have announced shutdowns or curtailments in the last two months, according to *Random Lengths* and other sources. For example, on June 11, *Random Lengths* reported that "Canfor Corporation announced June 10 it will be curtailing operations at all British Columbia sawmills, except WynnWood. The majority of mills will be curtailed for two weeks or the equivalent, with extended curtailments of four weeks at Houston and Plateau, and six weeks at Mackenzie. The curtailments are scheduled to run from June 17 through July 26. The curtailments are due to very poor lumber markets and the high cost of fibre, which are making the operating conditions in BC uneconomic. The curtailments will reduce Canfor's production output by approximately 200 million board feet."

"It's a situation that's been years in the making, as the ravenous mountain pine beetle population exploded thanks to warmer winters, which in combination with record fires, destroyed huge swaths of forests. Now, there are too many mills in B.C. and not enough supply to feed them all," according to a June 13 article in Canada's *Financial Post*. Another factor



A four-story office building in Des Moines, Iowa, will be the first building in the US built with dowel-laminated timber. Photo: Neumann Monson Architects.

is a new provincial law that "creates a new obligation for companies to demonstrate a 'public interest' before they can sell or transfer their licenses to harvest timber from provincial land in a specific geographic area." See tinyurl.com/y4doqopl.

Pellets, Pellets, Pellets

More than 22 million tons of wood pellets were shipped globally in 2018, up 21 percent from 2017, according to *North American Wood Fiber Review* (NAWFR, www.WoodPrices.com). The "big five" exporters—the US, Canada, Vietnam, Latvia, and Russia—accounted for 69 percent of global exports in 2018. "Pellet production in the US South continued at record pace in 2018, driven by a European move away from fossil fuels and towards renewable

energy. From the 1Q/18 to the 4Q/18, exports from the region were up almost 50%, further manifesting US's role as the world's largest producer and exporter of wood pellets."

Demand for pellets in Japan and South Korea continued a three-year growth trend when import volumes reached record highs of 339,000 tons and 993,000 tons, respectively, in the fourth quarter of 2018, reported NAWFR: "In 2018, the total annual import volume for the two countries was just over 4.5 million tons, more than doubling in just two years."

Breaking forest products industry news? Contact Forestry Source editor Steve Wilent at wilents@safnet.org.

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A collection of essays that examine the challenges the US Forest Service faces and propose solutions that would address them. Contributors include numerous retired agency leaders, including two former chiefs, as well as longtime outside observers. The purpose of the book is not to criticize the agency, but to offer concrete proposals for how, ultimately, the agency's operations might be made more efficient and effective and its land-management activities maintained, expanded, and improved. In short, the objective of 193 Million Acres is to find paths toward a healthier and more resilient US Forest Service.

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