

The Forestry Source

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

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IN THIS ISSUE

Michigan SAF tour brings first-term representative into the field

On June 8, the Michigan SAF held a field tour with Rep. Dan Benishek (R), a first-term member of Congress from Michigan's 1st congressional district, to discuss several issues of concern to the state's forestry community, including the effect of the recent US Court of Appeals for the Ninth Circuit ruling regarding the impact of logging roads on water quality and the benefits of federal cost-share programs to private landowners. **Page 8.**

West Virginia division's summer meeting focuses on urban forestry

At the end of August, the West Virginia Division of the Allegheny SAF met for its summer meeting in Bluefield, where attendees visited the area's scenic and open-space assets to learn about the urban forestry successes and challenges that the greater Bluefield area has faced in recent years. **Page 10.**

Scientists work to develop adelgid-resistant hemlocks

The Alliance for Saving Threatened Forests, a working coalition of universities and agencies, aims to develop trees resistant to the hemlock woolly adelgid and offers a future for hemlocks in natural settings and in the nursery/landscape industry. **Page 12.**

Juniper Systems's Mesa notepad opens touchscreen territory

Juniper Systems's Mesa is a shock-proof, waterproof, handheld computer with the Windows Mobile 6.5 Professional operating system and 4 gigabytes of internal storage, a GPS receiver with 2- to 5-meter accuracy, the ability to access wireless networks and the Internet, connectivity to other devices via Bluetooth, and USB ports for linking with other computers and peripherals. **Page 14.**

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Does Federal Forestry Have a Future in Spotted Owl Country? Professors Jerry Franklin and K. Norman Johnson Say "Yes"

By Steve Wilent

Depending on who you talk to, Jerry Franklin and K. Norman Johnson are either heroes or villains for their work in developing the 1994 Northwest Forest Plan, an effort to preserve habitat for the northern spotted owl, which was listed in 1990 under the Endangered Species Act as a threatened species in Washington, Oregon, and California. The plan was designed to allow an estimated 1.1 billion board feet per year to be harvested from 24.5 million acres of federal land in the three states, far less than the allowable sale quantities of as much as 4.5 billion board feet annually in the region before the advent of the plan, and actual harvests since then have been a fraction of the 1.1 billion board feet target. This and other aspects of the plan remain highly contentious to this day. (For an overview of the plan, see www.reo.gov/general/aboutnwfp.htm.)

In 1991, Franklin and Johnson, along with Jack Ward Thomas and John Gordon, were appointed by the House Agriculture Committee to a Scientific Panel on Late-Successional Forest Ecosystems, which was charged with examining options for managing forests in the spotted owl region. This so-called Gang of Four was later enlarged to include Jim Sedell and Gordon Reeves. Ultimately, the committee produced no legislation, but its report



In their proposal for managing dry-forest types on federal lands in the Pacific Northwest, Jerry Franklin (left) and Norm Johnson explain that large, older trees will be left, while overall stand density is decreased.

remained influential in shaping the 1994 plan.

Fast forward to the present: most of the timber cut on US Forest Service and Bureau of Land Management (BLM) land in the northern spotted owl region comes from thinning. Franklin, a professor at the University of Washington's School of Forest Resources, and Johnson, a professor at

Oregon State University's College of Forest Resources, say that thinning can be good, but the openings in the forest canopy created by regeneration harvesting are increasingly scarce. There is a deficit of early-successional habitat, they say, a deficit that can be eliminated only by al-

(See "Federal" page 3)

A High School "Environmental Science" Class Heads to the Woods

Text and photos by Steve Wilent

The state of university-level forestry and natural resources education is a perennial topic of interest among SAF members. See, for example, "How Do Natural Resources Management and Forestry Programs Compare?" by Marissa

Kay Vereen, Tom Straka, and Terry Sharik in the October edition. But what about forestry and natural resources education in high schools? What types of courses are offered? How well do they prepare future

(See "High School" page 4)



When students ask Wolfree project leader Dale Baer (in orange vest) about a salmon carcass in the water near the shore of the Salmon River, Baer asks them a series of questions in return that are intended to stimulate critical thinking.

Consulting Foresters Enduring Hard Times

As the forest products industry struggles to weather a continuing economic downturn, many consulting foresters, too, have been hard hit, especially by the lack of a recovery in the housing market. While some are holding their own, others are just trying to hold on.

When the housing market was up, Frank Borden and his partner, Jim Chapin, employed a handful of foresters and forestry technicians at Shasta Land Management Consultants in Redding, California. Today, Borden and Chapin are the only ones left.

"Nobody's building houses, therefore the value of timber is down. We had branched off into doing tree-management plans and oak-woodland conservation plans and things like that, but those are all dependent on development, and there's no development, so business is slow," said Borden. "But we haven't gone to Walmart and gotten jobs as greeters, yet."

Mary Clapp, CF, president of Stevens Forestry Service Inc., in El Dorado, Arkansas, said her company is working hard to survive.

"Timber sales are really down," she said. "Thank goodness we've been able to pull in quite a few timber cruises and appraisals—that's helping us stay afloat."

(See "Consultants" page 5)

High School

(continued from page 1)

college students for studying and understanding the sciences in general, and natural resources sciences in particular? Are foresters, forest management, and the forest products industry portrayed in an unbiased manner? These questions deserve attention from researchers who can assess high school curricula nationwide.

I recently had an opportunity to examine a single class. After my son, Stewart, a high school junior, signed up for an Advanced Placement (AP) Environmental Science class this year at Sandy High School, in Sandy, Oregon, I asked the instructor, Jeremy Magee, if I might visit a few class sessions and tag along on a series of field trips, so that I could later write about the course and my observations for *The Forestry Source*. He agreed without reservation. In this article, I'll summarize the course goals and briefly describe the role of a key cooperater, WolfTree Inc., a Portland-based nonprofit organization. I'm planning to write another article or two on the students' research activities and outcomes as the two-semester course progresses through June 2012.

Magee and I know each other slightly. He has served as an adviser to the forestry and natural resources department at Mt. Hood Community College, where I am a part-time instructor. Last year my son took a biology course taught by Magee and spoke highly of him, as have other students, and I've met with him during several parent-teacher conferences. Magee has a bachelor's degree in environmental science with a minor in zoology from Oregon State University and a master's of ed-

ucation with a science emphasis from Pacific University.

More than 12,700 US public schools offer AP courses, according to the College Board, a nonprofit organization; about 28.3 percent of the class of 2010—more than 850,000 students nationwide—took one or more AP classes. The College Board develops AP courses and exams in 30 subject areas. Students who pass three or more AP courses are named AP Scholars and can gain college credit for their AP coursework from some universities.

The AP Environmental Science course covers seven topics:

- ▶ Earth Systems and Resources
- ▶ The Living World
- ▶ Population
- ▶ Land and Water Use
- ▶ Energy Resources and Consumption
- ▶ Pollution
- ▶ Global Change

Forestry is a Land and Water Use subtopic. As part of his instruction in this area, Magee offered a lab exercise in which students measured several trees with a clinometer and tape and calculated the volume of each tree in board feet, using the Scribner log rule. Students then determined how many board feet of lumber went into their homes or apartments and how many trees of the size they measured would be needed to make that much lumber.

The Environmental Science course is designed to be "a course in environmental science rather than environmental studies," and as such "must include a strong laboratory and field investigation component." (The course description is available on *The Source* Extras page, www.safnet.org/members/archive/source_extras.cfm.) Such courses must:

- ▶ Allow students to have direct experi-

ence with an organism or system in the environment, and

▶ Involve observation of phenomena or systems, the collection and analysis of data and/or other information, and the communication of observations and/or results.

To meet these requirements, Magee's class is conducting a study of the beaver population at the Wildwood Recreation Site, a 550-acre forested park about 15 miles east of Sandy. The site is managed by the Bureau of Land Management and contains picnic areas, interpretive trails, a trailhead into the US Forest Service's Salmon-Huckleberry Wilderness, and a beaver pond and marsh with an interpretive boardwalk trail. Wildwood and much of the surrounding area is covered by a second-growth forest of Douglas fir, western red cedar, big-leaf maple, black cottonwood, and other trees. The area was heavily logged between 1920 and 1950.

Mt. Hood National Forest wildlife/botany program manager Alan Dyck and biologist Wesley Wong are advising the class on its beaver population-monitoring project.

"We hope to learn from what the students what they find out about the beaver population at Wildwood, and along the way we'll work with WolfTree to help them learn how to do this kind of 'citizen science' type of project," said Dyck.

WolfTree staff members, along with Magee and other volunteers, will lead a series of field trips at Wildwood this year, the first of which, on October 6, I attended. After a brief orientation, WolfTree education specialist Dale Baer told the students that they had two main goals for the day: first and foremost, to explore, to get to know the park and its key features; and second, to begin the process of collecting data relevant to the beaver project. The students were given field vests and compasses, magnifying glasses, notebooks, and other tools that they used throughout the day, and were divided into five groups: two devoted to studying the park's plants, two to aquatic life and water quality, and one to wildlife and habitat. Although most of the day was spent exploring, each group collected information for use in planning subsequent trips. One group, for example, used a GPS-enabled digital camera to take a photo of a portion of a beaver trail between the pond and several partially chewed black cottonwoods. The students agreed that this would be an ideal location for placing an automated wildlife camera.

Emphasis on Science

WolfTree was established in 1994 by Dale Waddell, who now serves as the group's executive director. Waddell, formerly a US Forest Service research forester, has a bachelor's degree in forest science and master's degrees in biometrics and soil science.

WolfTree's main goals are to:

▶ Enhance young people's awareness and appreciation of Pacific Northwest forest and aquatic ecosystems, while cultivating fundamental skills in science and geography, and

▶ Increase the number of ethnic minorities and female youth who seek academic and professional careers in science, geography, and natural resources.

The organization's name comes from the wolf tree, "a generally predominant or



Sandy High School science teacher Jeremy Magee (right) and some of his students discuss plant and animal life in and around a beaver pond.

dominant tree with a broad, spreading crown that occupies more growing space than its more desirable neighbors," according to the SAF's *Dictionary of Forestry*. "We hope to instill wolfTree characteristics in our program participants—enable them to stand out amongst their peers, weather many storms, reach out in all directions, realize their maximum potential... be 'free to grow,'" says the group's literature. To date, WolfTree has served more than 150,000 students in the Pacific Northwest.

Waddell and his staff focus on providing project-based learning experiences with an emphasis on science.

"From the top down, from the board members to the staff, it's all about science," said Waddell. "It's about creating catalysts to get students involved in serious science and all of the associated things that we have benchmarks for. So I am very careful not to use the word 'environmental' science, because that's truly not what we're doing. We're really using natural resources as a format for helping students tackle basic science: how you develop a testable question, how you take that testable question to a hypothesis, how you determine what your null hypothesis is, how you collect data so that you can get an answer. This is the way we work with everyone from third-graders all the way up to college-level students."

For Magee, too, the emphasis is on science rather than "environmentalist" studies.

"Overall for this course, I want students to learn the fundamentals of environmental science, to learn how the planet works, about the relationship between human beings and the systems and processes that operate on the planet," he said. "We want to look for examples of these processes in the local area, so the students get a better sense of what's around them—where their water comes from, what the soils are like, what plants and animals live in our area, and so on."

Magee strives to be objective. Clearcuts might be unattractive and can lead to erosion, he told a class, but the practice is usually more efficient than other harvest systems and, depending on the forest type—Douglas-fir, for example—may be the most appropriate system.

"I try to help them see that every deci-

("High School" continues on page 7)

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INDUSTRY NEWS

Pellets from Texas to Europe

The US arm of a German company, German Pellets GmbH, announced in October that it would build its first plant in the United States, in Tyler County in East Texas. The plant, to be built by German Pellets Texas, LLC, on the 198-acre site of a former wood-chip mill, will produce 500,000 metric tons of wood pellets per year and ship them to Europe beginning in the third quarter of 2012. German Pellets GmbH bills itself as the largest wood-pellet manufacturer in Europe.

"One advantage of building on this site is the possibility of using the existing supply structures and infrastructures, especially with respect to raw material supply," said Chief Executive Officer Peter Leibold.

The company noted that roughly 250 jobs will be created, both directly and indirectly, through the construction of the plant, and that it intends to expand its US production capacities in the future. "Within the scope of this strategy, German Pellets would respond to continued market growth by developing additional capacities in the United States once production is successfully underway in Texas. An increased production capacity of up to two million metric tons per year is feasible in the medium term," said the company in a press release.

Rayonier Buys 250K Acres

Rayonier recently announced that it has acquired about 250,000 acres of timberland from Joshua Timberlands LLC and Oklahoma Timber LLC, for \$330 million. The timberlands are located in Alabama, Louisiana, Mississippi, and Oklahoma. Upon completion of the deal, Rayonier will own, lease, or manage about 2.7 million acres in 10 states and New Zealand.

"The quality and location of these timberlands make them an excellent strategic fit for Rayonier," said Lee M. Thomas, Rayonier chief executive officer. "This transac-



German Pellets GmbH has plans to build a wood pellet plant in Texas and export 500,000 metric tons of pellets per year to Europe.

tion is a major step forward in our strategy to grow and diversify Rayonier's timberland ownership while allowing for further expansion of our rural land sales program."

AbitibiBowater Is Resolute

The Canadian forest-products company AbitibiBowater announced in October that it would change its name to Resolute Forest Products as of November 7. The new name was selected from suggestions submitted by 1,400 company employees. AbitibiBowater produces newsprint, commercial printing papers, market pulp, and wood products. It owns or operates 18 pulp and paper mills and 24 wood products facilities located in the United States, Canada, and South Korea.

US South Sawtimber: Down, then Up

A recent forecast by Forisk Consulting (forisk.com) shows sawtimber prices in the US South weakening by 2.7 percent in 2012 and then strengthening by 2.9 percent in 2013. Key factors include weak expectations for housing starts and low utilization rates at sawmills. For 2012, Georgia, Louisiana, Mississippi, and Texas are the only states in the region with sawtimber stumpage prices expected to exceed \$27 per ton. Forisk predicts that delivered prices in Oregon and Washington in 2012 for Douglas-fir and hemlock will increase by 6 percent and 4.9 percent, respectively, in large part due to continued exports from the Pacific Northwest to China.

teams, communicate effectively—real-world skills that they can practice. And when this economy gets better—and it will get better—we hope that these skills will build bridges for students to colleges and to jobs."

Final Observations

An editorial note: I set out to learn something about a single high school science class, and what I found is encouraging: Sandy High's AP Environmental Science students are engaged in a course that will serve them well should they choose to pursue a college degree and eventually a career in forestry, natural resources, or any of the sciences. More important, other groups around the country have aims similar to Wolftree's, according to Waddell. I can't help but think that courses like these offer an excellent opportunity for SAF members to represent the forestry profession by aiding primary school science instructors in the classroom and on field exercises, serving as mentors to students, and working with and supporting organizations like Wolftree. Given our concerns about the future of SAF, this is one concrete action that will strengthen the roots of our Society and our profession.

("Notebook" continued from page 2)

four years ago, my company employed 1,200. With a reliable timber supply, we could begin to rehire and add jobs. Without it, more will be lost."

I've heard similar comments from mill operators in California, Montana, and elsewhere.

As we debate spending nearly a half-trillion dollars to create jobs and continuing to send "welfare checks" to counties that include federal forestlands, it is important to consider the changing import/export dynamics Sherman mentions. The United States imports lumber from Canada and other countries—lumber that could be produced domestically, in communities where jobs are desperately needed. In fiscal year 2010, about 2.1 billion board feet of timber was harvested from all US Forest Service lands. In contrast, we imported more than four times that amount of softwood lumber from Canada alone in 2010—nearly 9 billion board feet. By reducing harvesting in our federal forests, ostensibly in the name of environmental protection, we have exported that harvesting, as well as the jobs of foresters, loggers, truck drivers, mill workers, and others.

I do not imagine a return to the peak timber production levels of decades past—the 1980s, for example, during which an average of nearly 10.4 billion board feet was harvested annually. But surely a doubling of current harvest levels of slightly more than 2 bbf per year to 4 bbf per year is doable, reasonable,

("Letters" continued from page 2)

The Cost of Saving Species

Steve Wilent's Editor's Note about priorities for expenditures to save endangered species is timely ("Recovering Endangered Species: At What Cost?" October). The case of the two owls is special. I like owls and know the barred owl, which as an apparent replacement [of the northern spotted owl] is morphologically very similar. The decision to invest in recovery should depend on more than just the probability of success or cost. The following all belong in the decision:

1. The importance of the species in the welfare of its ecosystem
2. Prospects for recovery at any cost
3. The probable recovery cost, but relative to those of other equally or more secure species that would have to be sacrificed
4. The relative popularity of the species (parrot versus snake)

Frank Wadsworth
San Juan, Puerto Rico

Exports and US Jobs

In the Industry News section of the September edition, one item portrayed the export market in a positive way—wood exports help our trade balance. Meanwhile, the plea "jobs, jobs, jobs" is heard throughout the country, and politicians make promises to create jobs for the unemployed. I am a re-

("Consultants" continued from page 5)

"That's going to open up some more markets, and that's a good thing," said Steigerwald. "But I don't think we're really going to see dollars returning to timberland until we get housing back. And I think everybody is concerned that this is going to be a three- to five-year process."

and (to use a much abused term), sustainable.

I recently came across this passage from the Bureau of Land Management's National Landscape Conservation System 15-Year Strategy, 2010–2025:

"Multiple use does not necessarily translate to management that provides the greatest economic return. Rather, the focus of multiple-use is managing resources in the combination that best meets the current and future needs of the public."

Employment is a fairly important current and future public need. We can, and ought to, bring some of those exported jobs home by increasing harvests from federal lands.

For What It's Worth

The saga of the southern pine beetle in New Jersey continues. You may recall reading "Beetle Outbreak in New Jersey: Yet Another Example of Why Forests Need Management," by Ronald F. Billings and Bob Williams (*The Forestry Source*, August). On August 25, Williams, an SAF member, appeared before the New Jersey Senate's Environment and Energy Committee to discuss the damage caused by the beetle and the need to cut through a tangle of red tape that is holding up treatments aimed at stemming the insects' march through the state's Pinelands National Reserve. The transcript of the hearing makes for interesting reading. You'll find it on *The Source* Extras page, www.safnet.org/members/archive/source_extras.cfm.

tired forester and, yes, a former politician. I was a part-time consulting forester until liability insurance became a burden.

Exporting unprocessed wood to foreign countries must be an ongoing discussion. American trees should be processed on American soil. Processing trees in rural areas into finished products makes sense. It's the "value added" thing. Meanwhile, here in rural western Maine, we have lost our turnery industry (tinker toys, spools, toothpicks, and so on). The Chinese scooped up much of the machinery. Federal and state regulations, insurance costs, workers' compensation, taxes, unemployment compensation, and foreign competition have killed the industry. It hurts woodland owners and loggers, too.

It's sad to observe the deterioration of the wood-using industries in rural America. As a forester in western Montana and a service forester in western Maine, I watched these things happen.

Jobs, jobs, jobs will require a major overhaul in the minds of the individuals wanting positions of influence. The "same old, same old" is not an option if we are to be serious about creating jobs and a vibrant American economy. In the meantime, pick up a catalog and check out all the imported items. In many of them, 100 percent of the items are imported.

Walter R. Gooley
Farmington, Maine

Have Something to Say to the Source?

The Forestry Source welcomes letters from readers. Letters should refer to subjects that have appeared in *The Source* within the past three months and should be no longer than 400 words. The editors reserve the right to edit for clarity, grammar, style, and length.

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sion that people make has benefits and costs, that even an activity that causes environmental problems has benefits, that there are justifications for having some kind of impact," Magee said. "I want students to understand that there are reasons that things are done the way they are and that, while things might be done differently, that may bring about another set of consequences—environmental, economic, or social consequences."

At the end of this school year, the students from Sandy and other schools will present their findings at an annual Student Summit. Representatives from businesses; universities; cooperating public agencies, such as the US Forest Service and Bureau of Land Management; and citizens from local communities will attend, as will this reporter.

"What we're trying to do is to provide tools for students so that they can understand how things work," Waddell said. "You can't do that with two hours in the classroom or a half-day in the field. You really have to go out many times and make it so authentic that it feels like a job to the students. They have to plan, organize, work in small