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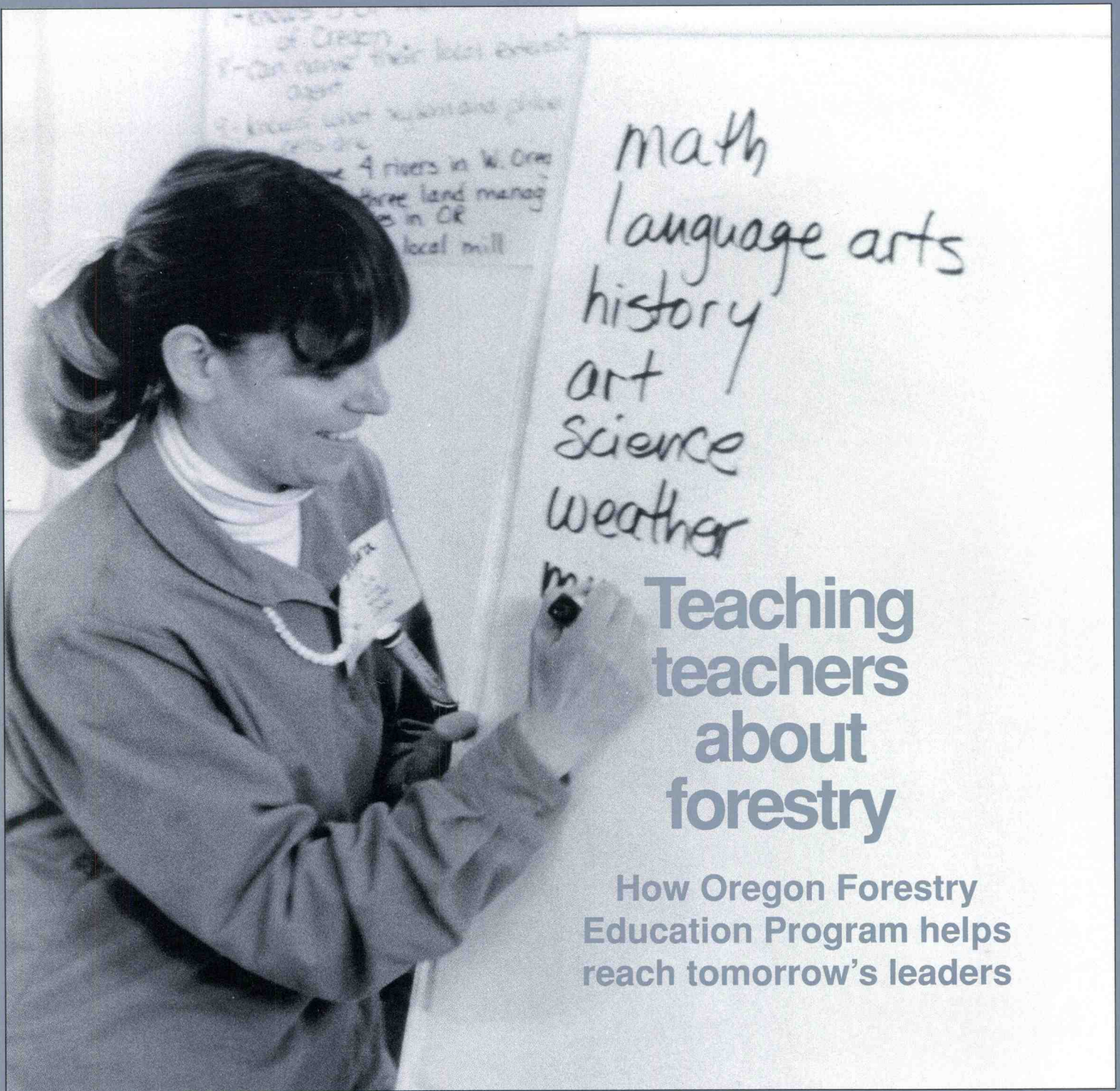
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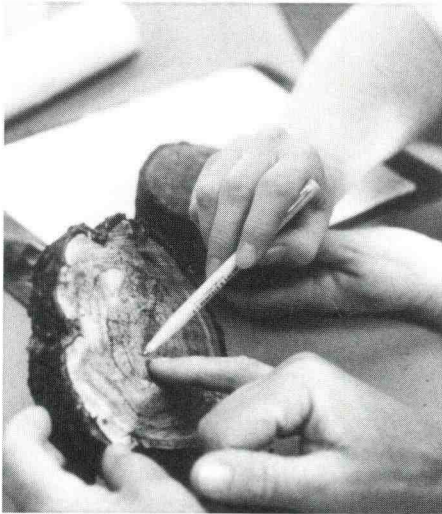
Winter 1992



math  
language arts  
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science  
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music

## Teaching teachers about forestry

How Oregon Forestry  
Education Program helps  
reach tomorrow's leaders



*Learning by doing. Teachers at OFEP workshops practice the same hands-on activities that their students will do.*



**Winter 1992  
Volume 5, No. 1**

**College of Forestry  
Oregon State  
University**

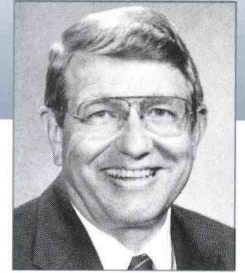
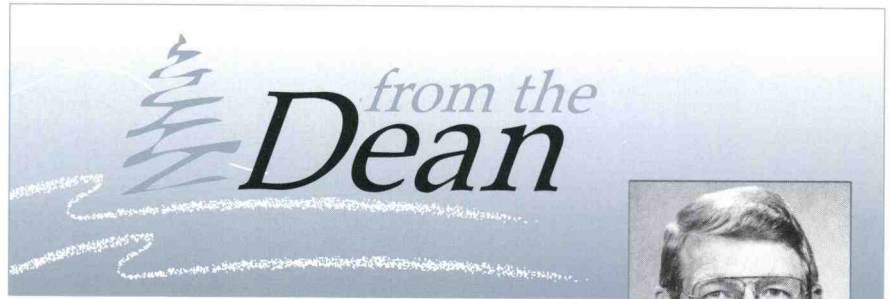
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**Winter 1992**

**T**he College of Forestry has always been in the midst of the many debates that have swirled around the management of Oregon's public and private forest land. We have provided technical input to policymakers on everything from timber supply and the Oregon economy to forest practices and environmental protection to taxation to reforestation specifications. Until the State Board of Forestry was reorganized, our Deans were members and often served as chairmen. In fact, Dean Emeritus Carl Stoltenberg's tenure as chairman was longer than that of any other person yet appointed.

Our involvement continues today. Our faculty serve as objective analysts and technical consultants to governors, legislators, members of Congress, and federal and state agencies. In this issue of *Focus on Forestry*, we've featured several examples of such faculty assistance.

It is important to understand that our role is fundamentally that of educator. We don't make policy; in our form of government we elect people to do that. As educators, our role is to help people understand what we know and don't know about how forests work and how forests and people interact—and to explain, as best we can, the likely consequences of alternative policy options. I've been very proud of our faculty as they've struggled to adhere to this educator role in the heat and pressure of controversial issues.

We've also extended our involvement as educators in the policy arena in some interesting ways. Dave Cleaves and several colleagues are developing an exciting new policy education program designed to help Oregonians come to grips with emerging forest policy issues before they reach crisis proportions. Watch for news of this in future issues of *Focus*. And Barbara Middleton has provided leadership for a creative new program of teacher education (page 3).

Finally, we take great pride in educating students who become makers of policy in their own right. Our Alumni Feature (page 12) highlights Ron Stewart's leadership as Regional Forester for the Forest Service in California. Without question, it is our alumni who constitute the most effective mechanism we have in becoming involved in resolving the issues facing forestry today. For it is our alumni who eventually make policy work—and that job couldn't be in better hands.

*George Brown*

**George Brown  
Dean, College of Forestry  
Oregon State University**

# Bringing forestry to kids— and grownups

OFEP gives teachers the tools they need to introduce young minds to forestry.

The kindergarteners in Nancy Harris's class probably know more about forestry than most children their age. Harris, a teacher at Jefferson Elementary School in Corvallis, incorporates forestry concepts into her lessons all year long, using teaching materials developed at the OSU College of Forestry.

Harris uses activities, fact sheets, games, puzzles, and other forestry-oriented materials designed especially for

Middleton and a staff of statewide facilitators present some 30 OFEP training workshops a year to public school teachers all over Oregon. The workshops, covering such topics as forest ecology, the role of fire in forests, and the various products of a forest, show teachers how to present these concepts to students of all ages, from kindergarten through senior high.

Project Learning Tree, a national environmental education effort co-sponsored by the American Forest Council and Foundation; Middleton is also the statewide coordinator for that program.

A perennially popular OFEP activity is the Tree Cookie Kit. Children learn how to examine a cross section of a tree trunk—a "tree cookie"—to learn about the a tree's

growth and its relationship to its environment. The kit's twelve different sections touch on topics ranging from the parts of a tree to conflicts over the benefits derived from trees. Teachers may borrow tree cookie kits from their county OSU Extension office.

Another favorite is the Environmental Exchange Box program. Teachers and

students compile a collection of objects, magazine clippings, specimens of flora and fauna, art work, maps, and what-have-you, representing the natural and cultural history of their part of Oregon. Then they trade boxes with classes in other areas, so that each class learns about the other's home—and everyone becomes more aware of how forests touch their lives every day.

OFEP helps teachers relate forestry



*Tree cookies and Magic Boxes. Program leader Middleton helps teachers at an OFEP workshop.*

teachers by the Oregon Forestry Education Program (OFEP), to introduce young minds to forestry concepts.

The 14-year-old OFEP is one way the College of Forestry extends forestry education into the community—particularly, but not exclusively, to school children. Program leader Barbara Middleton, an educator herself, specializes in finding ways to make forestry concepts accessible and easy to grasp.

In one workshop, teachers learn what an old-growth forest is, why people have different perspectives on its importance, and options available for old-growth management in the future. In another, they learn about the importance of paper in their lives.

Much of the curriculum material is developed by Oregon teachers, foresters, and other specialists, and parents through special projects within OFEP. Some of it comes from

concepts to the everyday world. Nancy Harris packs a Magic Bag to take along on walks in the woods with her kindergarteners. The Magic Bag is an idea she picked up at an OFEP workshop. "It's for carrying things, visual aids, to help the children understand that trees are different from one another," Harris explains. "For example, you put in a feather to represent the shape of a leaf or the shape of a tree. You put in a miniature stop sign for color, to show that trees are different colors. You put in a glove to remind them that some trees have leaves shaped like a hand." Harris also draws on OFEP ideas to design art projects around the cones, needles, and leaves

to start this kind of education early," she says, "and this program is a good way to do it. The materials are great, and Barb's a wonderful teacher."

OFEP also presents specialized courses like the annual Longbow Institute, an intensive, week-long residential program for teachers and public resource communicators on the issues facing people and communities in Oregon. Participants spend a week in Sweet Home, a small, resource-dependent community, to learn firsthand about the environmental, economic, and social consequences of today's natural resource management (please see accompanying story).

Middleton also gives forestry-

interpretation. "Forestry isn't a foreign thing—it's something we touch every day."

OFEP is funded by donations, both supporting and sustaining. Supporting donors underwrite particular programs, such as OFEP's newest teacher workshop, The Paper Chase, jointly sponsored by Pope and Talbot, Inc., and James River Corp. Other major supporting donors include the Oregon Society of American Foresters, Boise Cascade Corp., Menasha Corp., Willamette Industries, Inc., and Starker Forests, Inc.

Sustaining donors are those who pledge annual contributions for day-to-day operations and ongoing expenses. Weyerhaeuser Co. has been OFEP's longest-term sustaining donor.

More donors are needed, says Middleton; especially urgent is funding for such basics as publicity. "The most common remark we hear in workshops is, 'Gee, I didn't even know you folks were there.' That shouldn't happen in a state like Oregon, where forestry is such a big influence on everyone's life."



*Reaching the next generation. Middleton stresses a point (left); below, the reason for OFEP's existence.*

her students pick up on their forest walks.

Teachers taking OFEP workshops learn who the forestry specialists in their area are—Extension agents, wildlife biologists, agency foresters, and tree farmers, to name a few—and how to tap their expertise. They also find out about local sawmills, nature trails, research areas, and other field-trip sites.

Nancy Harris takes advantage of the education resources at McDonald Research Forest. Her students finish out the school year with a visit to the Forest in May. There they attend one of the many children's programs presented by the College's forestry education staff at Peavy Arboretum.

Harris is sold on OFEP. "We need

related workshops to National Wildlife Federation gatherings nationwide; the organization contracts with OFEP for forestry education at their Conservation Summit programs.

As with all good education, OFEP's courses broaden the outlook of those who take part—whether they're first-graders learning how to identify trees or high school teachers who gain a better understanding of the conflicts and changes in the forests of the Northwest.

"We try to make forestry come alive, to make it hands-on and real for people," says Middleton, who has a bachelor's degree in elementary education and cultural geography and a master's in natural-resource



# Telling it like it is in Sweet Home

A five-day OFEP workshop called the Longbow Natural Resources Institute helps teachers appreciate firsthand some of the most serious environmental, social, and economic concerns facing the Pacific Northwest.

Twelve participants spent a week in Sweet Home last summer learning about the dramatic changes taking place in Oregon's forests. Talks and field labs from resource specialists were interspersed with more active and personal learning experiences—including interviews with local residents about the effects these wrenching changes have had on their lives.

The Longbow Institute was coordinated by Mandy Cole-Schmidt of the Willamette National Forest Sweet Home Ranger District, which cooperates with OFEP in sponsoring the Institute. Participants' lodging is courtesy of Willamette Industries; they stay in Midway House, owned by the company and located on its former mill site. "Looking out the window and seeing the closed mill," says Barbara Middleton, OFEP program leader, "was a constant reminder of the challenges faced by the people of this community."

The participants found Longbow enjoyable and challenging. "It was a great experience," says Jane Newfeldt, a third-grade teacher at a Sweet Home elementary school. "More than anything else, I was impressed by people's willingness to change. There are concerns, but there are also some upbeat, positive attitudes."

OFEP plans to offer the Longbow Institute again next year, says Middleton. "The first year taught us that it's an excellent way to extend the College's OFEP program to teachers concerned with communities and forestry." ■



*A southwestern Oregon forest*

## Of owls and timber

Maybe it's not either/or

A long-term study based at Oregon State University offers hope of finding timber harvesting strategies that are compatible with the needs of the northern spotted owl.

In the nine-year, \$4.6 million study, three OSU scientists will analyze the complex and diverse forests of southwestern Oregon, such as that pictured above, to determine what sorts of forest structures and vegetation the owls need to survive, breed, and maintain viable population levels.

Then they will try to develop silvicultural systems that will leave those desirable features in place. Ultimately the goal is to be able to maintain habitat for the owl in forests that are managed for timber.

The study team is looking at forests on more than 861,000 acres—the entire Medford District of the BLM plus adjacent federal and private land. Several hundred pairs of owls do indeed live and breed in the area, but it's not known whether they're thriving there.

The spotted owl has been the subject of contention in forest management since the mid-1970s, when it was first suggested that clear-cutting of timber was destroying its habitat. Last year the U.S. Fish and Wildlife

Service listed the bird, which inhabits coniferous forests in western Oregon and Washington and northwestern California, as threatened under the Endangered Species Act. As a result, some 8.2 million acres of potentially harvestable public timber lands are now unavailable for harvest, at least temporarily, while guidelines for protection of the owl are being worked out.

"These developments have not only been traumatic for the timber industry and for people who depend on it for their livelihood," says wildlife biologist E. Charles Meslow, the principal investigator in the new study. "They have also raised the question of whether we can continue to meet the demand for wood products without doing damage to the environment. Our goal is to find scientifically credible ways to protect the owl without precluding at least some level of harvest."

Meslow, David W. Hann, and John C. Tappeiner are the three principal members of the study team. Hann, a forest biometrician (a specialist in forest measurements and statistics) and Tappeiner, a silviculturist, are both on the faculty of the College of Forestry's Forest Resources department; Meslow is with the U.S. Fish and Wildlife Service and also holds

an OSU faculty appointment in the Department of Fisheries and Wildlife of the College of Agriculture.

The study, combined from two smaller-scale efforts, is the first to be funded and administered under a new OSU-Bureau of Land Management research unit headquartered at OSU (please see accompanying story).

The link between the northern spotted owl and the Northwest's older forests is virtually conclusive, says Meslow. However, it's not the age of the forest *per se* that is critical—it's the structure and composition of it. "What best describes spotted-owl habitat," he says, "is the set of characteristics typically found in old-growth forests: a multi-layered, mostly closed canopy; a plant composition that includes many species—hardwoods are significant—but that is dominated by conifers; a lot of large snags and fallen trees; and dying or deformed standing trees." These attributes are found in forests throughout southwestern Oregon, not in a seamless web but rather as part of "a diverse mosaic of forest conditions," as Meslow describes it.

These forests, indeed, are ecologically very complex. Much of the area has been logged over the years, typically by selection methods rather than clear-cutting. Fires, windstorms, insect infestations, and disease have also taken out large and small chunks of forest across the landscape. In many places, new trees, both planted and naturally seeded, are filling in the gaps. The result of all these influences is a patchwork quilt of highly diverse forests with a wide variety of ages, structures, and vegetation communities.

The complexity of the area, say the researchers, makes it a natural experiment. "People have modified the forest through years of different forestry practices," says Hann, "and it still seems to be used by owls. Since we've managed to achieve this accidentally, it's theoretically possible to achieve it on purpose."

It may be, however, that the area is only what biologists call a "sink"—for example, birds may be moving from more northerly forests as they're cut, settling by default in a less than satisfactory environment. On the other hand, the area, or some portion

of it, may be a "source" (the opposite of a sink) for owls—which would imply that some proportion of the population is more than replacing itself over several generations.

This is possible, says Meslow. "It may be that some of the sample owls are doing well and others are not. We just don't know." Thus the first goal of the wildlife part of the study is to look more closely at the owls to find out which pairs, if any, are contributing to a stable population.

Then, for any such owl pairs identified, the team will measure and analyze the structure, composition, and spatial relationships of those forest stands where they are thriving. The idea is to try to come up with a set of target characteristics defining



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*Can it thrive where timber is harvested? A northern spotted owl.*

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the future, working backward to identify timber-management practices that will create—or maintain—the desired forest stands in the future.

suitable forest conditions for spotted owls.

The researchers will use a computer model to project what a given forest stand will look like in



*Bart Thielges*

## Research center begun

The owl-silviculture study is being funded and administered through a new OSU-Bureau of Land Management cooperative research unit headquartered at OSU. This new unit (which has the formidable name of Pacific Forest and Basin Rangeland Systems Cooperative Research and Technology Unit; it's abbreviated SCRTU) was established in July of 1991 as part of the BLM's mission to promote and fund research into the health of western forest and range ecosystems. The unit's purpose is to increase knowledge on a wide variety of subjects, including sensitive wildlife species, aspects of biological diversity, and improved management technology and information systems.

Wildlife biologist Michael Collopy, formerly chairman of the University of Florida Department of Wildlife and Range Science, will direct the unit. Three other scientists will be recruited: a range ecologist, a forest ecologist, and a specialist in GIS (geographic information systems).

The unit's presence greatly expands the scope of OSU's research, says Bart A. Thielges, associate dean for research at the College of Forestry. "It's a wonderful opportunity for the University and the BLM to interact very closely on interdisciplinary research of a pressing nature."

# Imported bugs?

The risk is high, says IFP leader

If the United States begins importing Soviet logs, Soviet bugs will probably come in with them, says Greg Filip, forest pathologist and co-leader of the Integrated Forest Protection program at the College of Forestry.

"I'm pessimistic," says Filip, who took a fact-finding trip to the Soviet Far East last summer. "There is tremendous incentive over there to sell the logs and to skimp on quality control. We need to be wary."

Although the issue of log exports has dominated Northwest headlines recently, the possibility of importing logs to feed Northwest mills may be a reality as early as next year, Filip predicts. Most would probably enter this country through West Coast ports.

No foreign logs are currently being imported. An agency of the U.S. Department of Agriculture has temporarily banned them until it decides whether and under what conditions imports should be allowed.

The economics of importing logs make sense right now, Filip points out. As the Northwest's remaining old-growth timber becomes less accessible, forests in other countries, notably Chile, New Zealand, and the Soviet Union are ready to be cut.

The Soviet Far East alone has as much standing timber as the entire United States, and the cash crisis in the Soviet economy makes for a powerful incentive to sell it quickly, Filip says. Some Northwest mills, seeing imported logs as an answer to timber supply problems, would likely be willing buyers.

Filip is a member of a Forest Service task force charged with assessing the pest risk associated with imports of foreign logs. His August trip to the Far East Forestry Research Institute in Khabarovsk, in the southeastern Soviet Union near the Chinese border, was intended both to gather information for the task force and to get to know his

Soviet colleagues and their work.

His visit was jarred by a dose of real-world politics: the abortive Aug. 19 coup that temporarily eclipsed Soviet leader Mikhail Gorbachev.

Three days later—the day after the coup collapsed—Filip took the next-to-last flight out of Khabarovsk before Alaska Airlines closed down service for the year.

Filip and others on the task force believe imported pests pose a significant risk to the health of U.S. forests. "What really concerns us," he says, "is the possibility that organisms that are unknown or benign in foreign countries could cause severe epidemics here, where there's no natural resistance to them." Such was the case, he says, with Dutch elm disease,

*He's pessimistic. Greg Filip on the job, wearing a spray mask.*



## IFP stresses prevention

The Integrated Forest Protection program is one of the College of Forestry's newest. It was drawn together three years ago from teaching and research efforts already underway in the Colleges of Forestry and Science.

The IFP approach, says entomologist Darrell Ross, emphasizes thoroughly understanding the roles the various insects, fungi, vertebrates, and plants play in the forest ecosystem, and then finding ways to manipulate that system through silviculture to keep pest damage

white pine blister rust, *Phytophthora* root rot, and the gypsy moth.

He and his colleagues recommended that no logs be imported without treatment for pests—although there's no guarantee a bug or a fungus won't slip through anyway, he says.

Beyond that, he recommends immediate and intensive study of Soviet forest pests, including more scientific exchange visits and more collecting of specimens.

A conference on log imports and introduced pests, organized by the Integrated Forest Protection program, is scheduled for April of 1992 in Corvallis.

down to acceptable levels while meeting land-management objectives.

In other words, he says, IFP focuses on managing pests, not eradicating them. "The goal is prevention. You find out what's regulating the populations of these pests, and you work with those influences."

Ross, assistant professor of forest science, and Filip, associate professor of forest science, are co-leaders of the program, which carries out teaching, research, continuing education, and extension functions, and it offers master's and doctoral degrees in various aspects of integrated pest management in forests.

# Science has its say

## College of Forestry faculty advise the nation's decision makers

As the controversy over the management of Northwest forests moves into a larger arena, the nation's leaders are looking more and more to science to help them make sense of the tangle of contentious issues.

One of the first places they look is to OSU's College of Forestry.

serve on the Interior Department's spotted-owl recovery team.

Science, says Johnson, can help place the debate on a firmer foundation by balancing opinions and emotions with facts and informed judgments. "Our study," he says, "offered a comprehensive benefit-cost analysis of species protection on the



such species as the spotted owl, the marbled murrelet (a seabird thought to be threatened by loss of old-growth habitat), and various species and stocks of fish.

Not surprisingly, the options with the highest harvest levels offer the lowest chances of wildlife survival, and vice versa. "Our study showed the tradeoffs were sharper than previously thought," says Johnson. "It eliminated the hope that we can have high timber harvest and a high level of species protection at the same time on federal lands."

Brian Greber is helping the government—and the public—understand the benefits and costs of those tradeoffs. Greber is one of four members of a special Interior Department panel appointed to review the economic analysis conducted by the U.S. Fish and Wildlife Service as part of its designation of spotted-owl habitat.

The Fish and Wildlife Service listed the owl as threatened under the Endangered Species Act in July of 1990. The agency assessed the economic implications of listing, as it is

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### *Balancing emotions with facts.*

*Left, Norm Johnson of the Gang of Four; below, John Tappeiner of the spotted owl recovery team.*

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Four College faculty members have been tapped to advise Congress and Bush Administration officials on how to manage the region's older forests and how to protect the northern spotted owl.

Economist K. Norman Johnson, associate professor of forest resources, is one of the so-called "Gang of Four" that recently presented members of Congress with the most comprehensive set of options to date on managing the region's older forests.

Economist Brian Greber, associate professor of forest resources, helped assess the economics of preserving habitat for the northern spotted owl.

And silviculturist John Tappeiner, professor of forest resources, and wildlife biologist Ed Starkey, associate professor of forest resources,

one hand and timber harvest on the other. We believe we've proposed the beginnings of an ecosystem approach to management of these forests."

Johnson and his colleagues, Jerry Franklin of the University of Washington, John Gordon of Yale (both of these are former College of Forestry faculty), and Jack Ward Thomas of the Forest Service, exhaustively mapped the forests of the Pacific Northwest. Then they produced a smorgasbord of management options, 14 in all.

The choices they set forth would yield a range in timber harvest from very high (5.1 billion board feet a year, about the historic level) to very low (about 0.8 billion board feet a year).

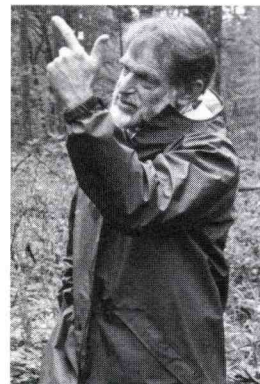
Each option carries a corresponding value for the odds of survival for

required to do under the Act, and produced a report for public review.

As might be expected, the report drew numerous comments—many of them critical. To minimize public criticism of subsequent drafts, the U.S. Department of the Interior (Fish and Wildlife's parent agency) called a

special team of both biologists and economists to review the agency's data. Greber serves on the economist side of that team.

He and four other





economists added their opinions to the second draft of the report, which was released for public comment in August of 1991. The report is scheduled to undergo another round of revision and public comment. It will probably be finished by early 1992, at about the same time that the Interior Department's spotted-owl recovery team is ready to submit its findings.

The recovery team's job is to set forth management recommendations for owl habitat. They're now being hammered out by John Tappeiner, Ed Starkey, and about 30 other scientists and political aides, mostly from the Northwest.

The recovery team was convened by the Interior Department last February to develop a plan to protect the owl and to find out what other wildlife species might be benefited by such protection.

The recovery team was also asked to look at the economic impact of protecting the owl. "There will certainly be an impact on jobs," Tappeiner says. "The question is, what can be done to soften it?" Some answers to that question might emerge, he says, as both forests and management practices change.

In the best of all worlds, says Tappeiner, "I could envision the woods workers, the local people, picking up some additional skills—for example, caring for advance regeneration, recognizing wildlife habitat—and continuing to work in the woods."

Whatever the answers are to the tough problems facing Northwest forests, says Ed Starkey, they likely won't be found without the interdisciplinary cooperation and hard dialogue practiced by the recovery team. "You can't deal with these issues one discipline at a time. The only way to solve problems like these is to work together with people from different backgrounds."

The same healthy diversity of disciplines—and the same vigorous level of debate—exists here at the College of Forestry, he says.

And the contributions made by Johnson, Greber, Starkey, and Tappeiner likely won't be the College's last. "There will be other such problems," Starkey predicts. "And this college is well set up to help solve them."

# Breaking boards for free trade

## New study helps to standardize the standards

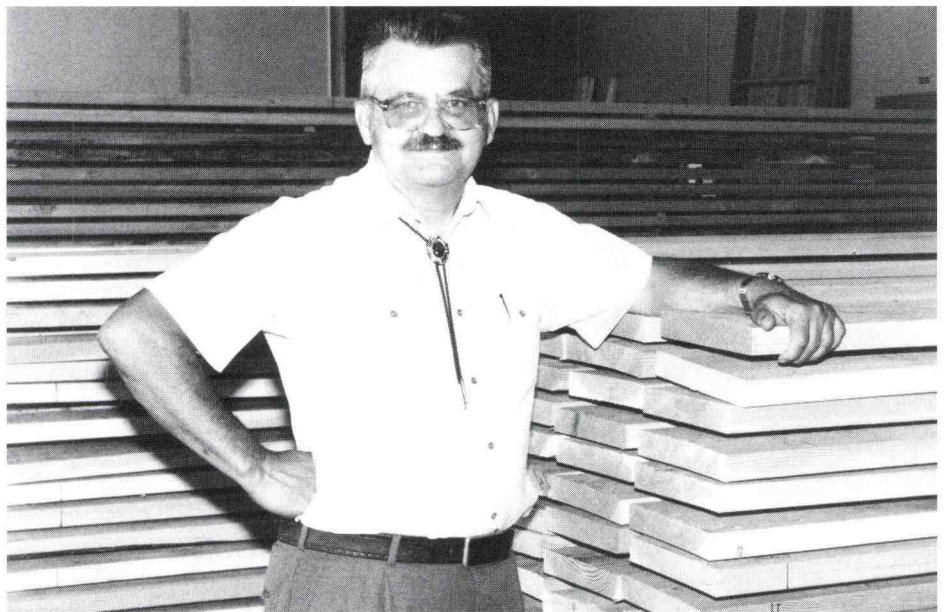
A study under way at the Department of Forest Products is finding ways to make American lumber more competitive in European markets.

Europe is literally a billion-dollar market for U.S. wood products. In 1989, the 12 countries of the European Community imported \$987

million in American wood products. More than a quarter of that value was in softwood lumber.

standard, and I wish I had them from the other standard," explains Bob Ethington, head of the Department of Forest Products, "I'll ask myself, couldn't I just do something mathematical to relate them? That's what this study is all about."

So OSU researchers are breaking a few more boards—1,800 of them, to



To help keep American lumber flowing eastward after European unification this year, the College is devising methods to help American lumber meet European standards—more precisely, the standards a united Europe is likely to adopt.

Many, many boards have already been broken—on both sides of the Atlantic—to prove that Douglas-fir 2-by-4s, for instance, are strong enough to frame up a house. But American methods of board-breaking—used to determine lumber's strength and stiffness—are different from European methods. That difference is a potential trade barrier.

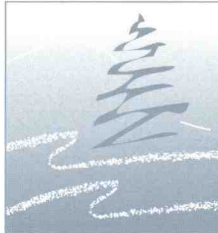
"If I have test results from one

Helping American lumber compete. Ethington with a pallet of 2-by-8s.

be exact—by both American and European methods. They'll then crunch the numbers to come up with formulas that will correlate American standards to European ones.

The project, sponsored by the Western Wood Products Association, a trade group, is part of a federal push to overcome potential trade barriers with a united Europe.

The standards issue will probably not be the only obstacle to free trade in softwood lumber, says Ethington, "but it seems like the obvious one to fix right now."



# forestry Currents

## Adams wins research award

W. Thomas Adams, professor of forest science, received the Oregon Society of American Foresters 1991 Research

Award, the only one given by the Society. He was recognized for his contributions to forest genetics research and Oregon tree improvement.

In addition to his teaching and research responsibilities, Adams serves as leader of the Pacific Northwest Tree Improvement Research Cooperative and as associate editor of the *Canadian Journal of Forest Research*.



Tom Adams

## Walstad named to wildfire commission

Jack Walstad, chairman of the Department of Forest Resources, has been named to a federal commission on wildfires by U.S. Interior Secretary Manuel Lujan, Jr.

The National Commission on Wildfire Disasters is studying the effects of wildfires on public and private lands and on the economics and culture of affected communities. The panel will develop recommendations for community recovery.

Walstad is the lead editor of a 1990 book, *Natural and Prescribed Fire in Pacific Northwest Forests*, published by Oregon State University Press.

## FRL panel changes chairs

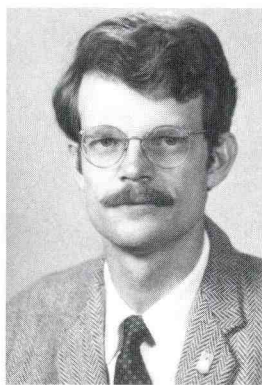
John Shelk, general manager of Ochoco Lumber Co. in Prineville, has been named chairman of the Forest Research Laboratory Advisory Committee by FRL director and College of Forestry Dean George Brown.

Shelk replaces L.L. "Stub" Stewart, who has served as both member and chairman for the past 20 years. He will continue to serve on the committee.

Stewart said he was pleased that Shelk was chosen to succeed him as chairman. "He's an ardent student of the forest and of the manufacturing process, and I expect him to be very successful. I'm going to help him in any way I can."

## Tucker is COPE coordinator

Gabriel Tucker has joined the faculty of the Department of Forest Science as coordinator of COPE (Coastal Oregon Productivity



Gabe Tucker

Enhancement), a joint OSU/Forest Service research program headquartered in Newport, Oregon. Tucker comes to the College of Forestry from Cornell University, where he was

Before that, he served in the Peace Corps as an extension forester in the West African nation of Niger and for the international relief organization CARE in Cameroon and the Republic of Mali.

Tucker was educated at the OSU College of Forestry, the University of Washington, and Cornell.

## Balancing the demands on the forest

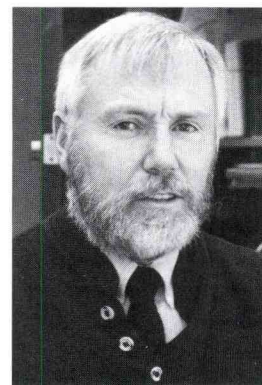
Uneven-aged forestry, a concept based on harvesting only part of the timber from a stand, could help balance the competing needs of wood-fiber production, wildlife, and recreation, says forest science associate professor William

Emmingham. "At the moment we don't have all the answers," he says. "But it's an idea that deserves more attention and research."

Emmingham, a silviculture specialist for OSU Extension Forestry, and Mike

Bondi, Extension Forestry agent in Clackamas County, were co-leaders of an OSU-sponsored, 15-day educational tour of some European forests where uneven-aged management has been practiced for centuries.

The 22 participants, who paid their own way, were forest landowners, consulting foresters, forestry scientists, and agency employees. They visited the Black Forest area of southwestern Germany and the Emmenthal region of northwestern Switzerland. The tour



Bill Emmingham

also took in some even-aged stands that are managed on long rotations.

"We wanted to give foresters and small woodland owners a first-hand look at a wide variety of forest management practices," Emmingham says.

The most obvious benefit of the uneven-aged approach to harvesting, Emmingham says, is that forests would stay both aesthetically attractive and productive all the time. They would also support more wildlife species that prefer mature-forest habitats.

It's not known whether the northern spotted owl and other mature-forest species could thrive in such a forest, says Emmingham, "but it is a testable hypothesis, and we should find out."

## Land donations boosting research, education

The growing need for forestry research and recent changes in tax laws have encouraged more and more Pacific Northwest forest landowners to make charitable donations of land to the College.

Such donations have increased nearly 50 percent in the last two or three years as people have learned about innovative new programs that help them achieve personal financial and philanthropic goals simultaneously.

Many small and large landowners have found that making charitable donations of land carries distinct advantages, according to Lisa Mattes, director of development at the College. For example, sophisticated types of "unitrust" arrangements can help provide lifetime income from the land, capital gains taxes can be reduced or bypassed entirely, and the donor may specify how the land is to be used.

These gifts have been critically important in helping the College maintain and improve its instruction and research operations during a time of limited resources, Mattes says.

More detail about these programs can be obtained by contacting Mattes at the College.

from his predecessor, Paul Barker, an ambitious new mandate for Region 5 called the Environmental Agenda. Stewart and his staff are now shaping and refining this mandate to serve as a philosophical underpinning for future management decisions.

The Environmental Agenda, says Stewart, has two guiding principles: land stewardship first; and sustainable development for people.

"The first principle means that every decision we make, regardless of political pressure, should first do what's right for the land," Stewart says. "And the second principle means we recognize that as a multiple-use agency, we are committed to providing many uses, including commodities."

In other words, the Forest Service is still in the timber business—and the grazing, mining, and recreation businesses. But what Stewart calls the "zoning" approach to multiple use—slicing up the forest and doling it out among the competing interests—doesn't work any more. "It's a zero-sum game," he says. "If somebody gets more, somebody else gets less."

What's the alternative? To manage all of the forest for a broader array of uses, Stewart says. This will mean alternatives to current harvest methods—which will in turn mean fewer trees to harvest. However, "if we go to a different style of forest management, we may reverse that trend eventually—not increase harvest, but perhaps stabilize it. That isn't happening now."

Environmentalists, for their part, will have to start thinking harder about themselves as consumers. One in 10 Americans lives in California, Stewart points out, yet Californians use 25 percent of the wood products made in the United States. "Where does the environmental conscience turn back and say, 'we've got to rethink that?'"

Stewart arrived at the Regional Forester's office via an uncommon path: he's a scientist with a research background, rather than a line officer in the management of national forests. Being something of an outsider, he says, he's more inclined to question traditional ways of doing things.

For example, the Forest Service's PSW Research Station, where Stewart was assistant director beginning in 1983 and then director from 1988 to 1990, has made significant strides in hiring and promoting women as mandated under a 1981 order from federal judge Samuel Conti, according to Rosanne Hunt, personnel officer for the Station.

The Region 5 leadership has not done so well and is still under considerable pressure from the court, Hunt says. Stewart's performance at the Station in this area, she says, "may be one reason why he got the (Regional Forester's) job."

Such sensitivity to others' concerns—and the political astuteness to act upon it—was evident when Stewart was a young scientist, according to College faculty members who worked with him, says Logan Norris, now head of the Department of Forest Science. Norris was a colleague of Stewart's in the early 1970s when both were scientists at the PNW Station in Corvallis.

Stewart says his scientific background and his good technical education give him credibility amid a diverse constituency. "Even now," he says, "it helps to be able to say, 'I have a Ph.D. in silviculture and ecology from Oregon State University.'"

Today, though, his moves are mostly in the messier realm of politics. As scientist/manager/politician in a changing Forest Service in volatile California, Stewart embodies much that is implied in the Forest Service's "New Perspectives" program—a stepping back, a rethinking, a resolve to try something different. "The Forest Service is re-evaluating its mission," he says, "and I think after 100 years it's time to do that."

He likes to tell the story of how Bill Lear, inventor of the Learjet, devised a radio tuner smaller than anything seen before. Not being an electrical engineer, Lear didn't know why all the experts said a radio tuner had to be big.

"So he went ahead and built a small one—and revolutionized the world of radios," Stewart says. "That story illustrates the advantage of a fresh perspective."

# A new face, a renewed mission

## Ron Stewart guides an environmental awakening in Region 5

California is a state with a growing population, a declining timber resource, a high-profile Green movement, and a voracious appetite for forest products.

It's also a state with a lot of national forest, covering about one-fifth of the land area. But even a 20-million-acre forest land

in California has been under court order for 10 years to hire and promote more women, and the court is not pleased with the progress thus far.

Clearly, managing the national forests of California—and California's Forest Service bureaucracy—is no task

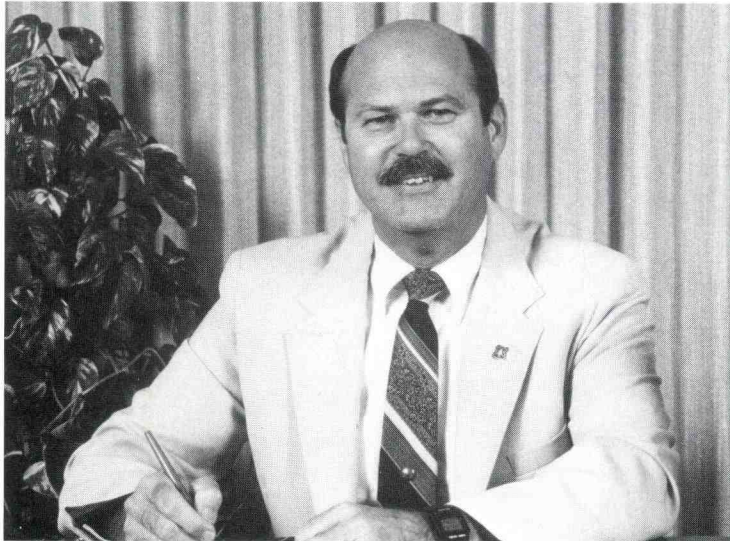
sible for all of California's 18 national forests, as well as cooperative forestry research programs in California, Hawaii, Guam, and the Trust Territories of the Pacific Islands.

Educated at the OSU College of Forestry (bachelor's in forest management '64; doctorate in forest ecology and silviculture '70), Stewart has already begun to move in decidedly non-traditional ways.

He startled environmentalists and timber people alike last year with his bold move to postpone logging in and near 38 groves of old-growth giant sequoias in the Sequoia National Forest in Tulare County until a panel of scientists determines the best management strategy to perpetuate the groves.

Feedback has been positive, Stewart says. "The mail has been favorable, including from the timber industry. So, something that might have been perceived as controversial came out to have broader public acceptance than was first thought."

Still, the action can be taken as a sign of an environmental awakening in Region 5. Indeed, Stewart inherited



*Neither timid nor tradition-bound. Stewart at work.*

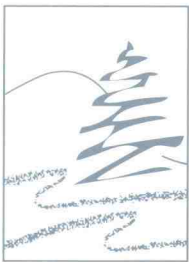
base is not enough to satisfy all the demands placed on it by a very demanding public.

On top of that, the Forest Service

for the timid or the tradition-bound. Ron Stewart is neither.

As Pacific Southwest (Region 5) Regional Forester, Stewart is respon-

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