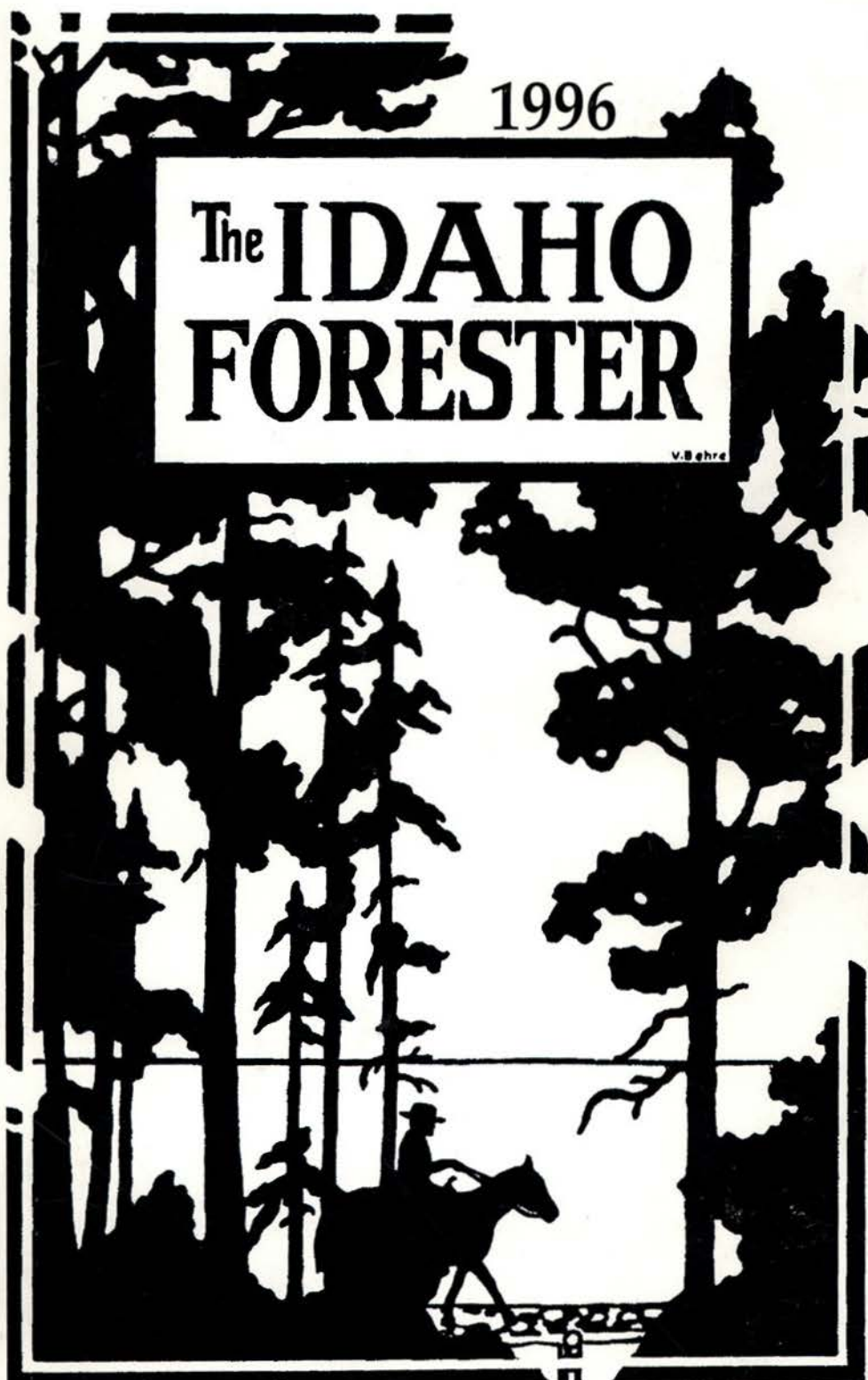


1996

The IDAHO FORESTER

V. Behre



SD
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"We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect."

Aldo Leopold



Photo credits
top: Nancy Hightower
middle: Charles G. Lowman
bottom: Jen Jacobson

*IT'S 10 PM, THERE'S NO MOON,
AND THE WATER IS 49°.
Another day at work for Greg Watson.*

Greg is Plum Creek's fish ecologist.

He's directing a three-state survey of bull trout—gathering population and habitat data for known bull trout streams, and for critical fish-bearing streams on Plum Creek lands.

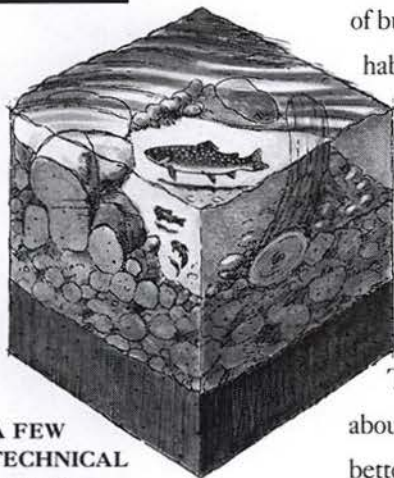
At night, when the trout are more active, Greg and his crew count them individually, using snorkeling gear and flashlights.

The point is, the more we know about this kind of natural process, the better we can protect the streamside zones that fish depend on for clean water, shade and habitat.

What's more, we're sharing what we learn with state and federal agencies, so the benefits of the survey won't stop at Plum Creek's boundaries. And we now have study areas and

survey techniques that will help in future research.

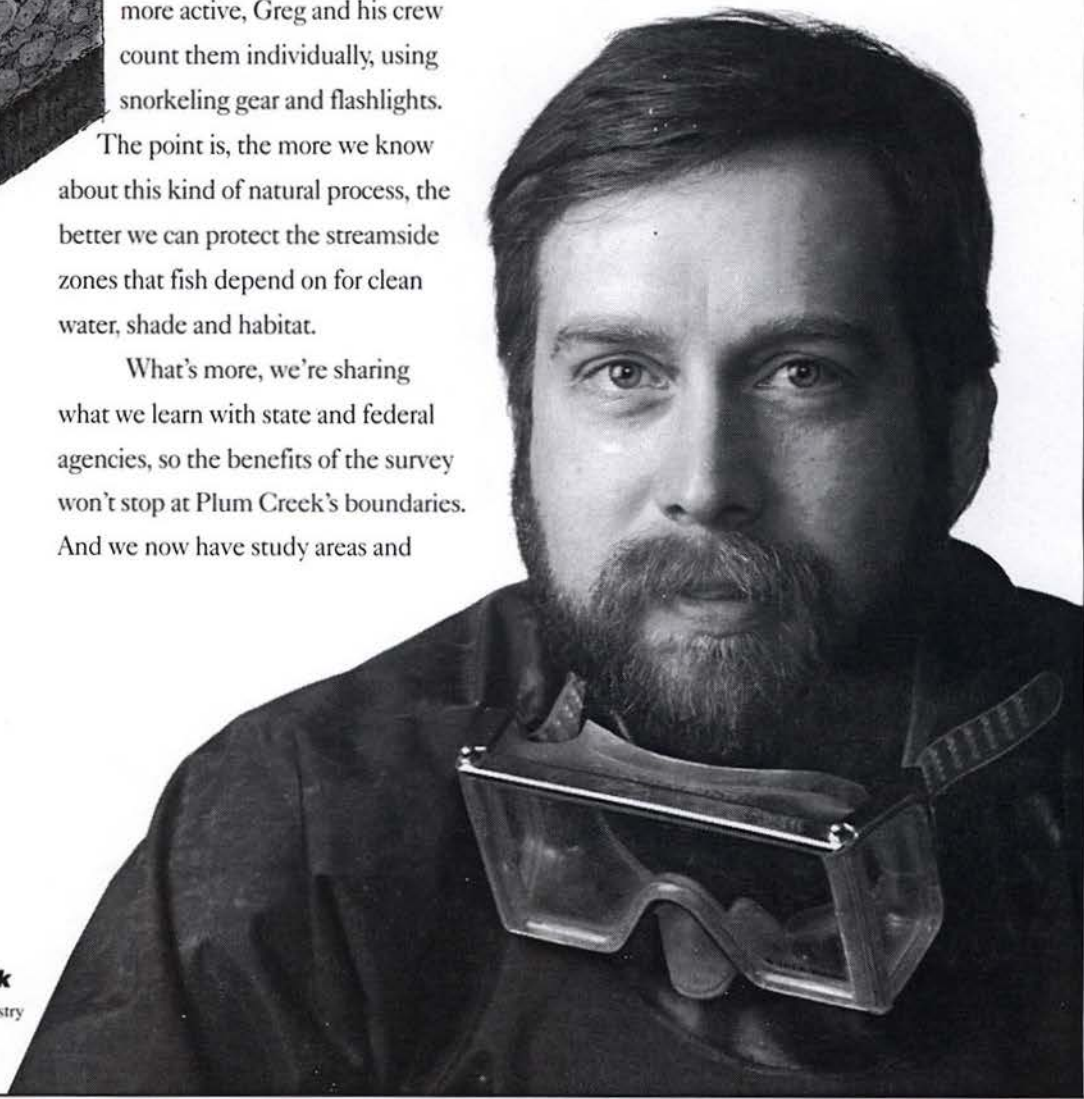
After all, good stewardship requires good science. That's why our staff includes not only a fish ecologist, but hydrologists and wildlife biologists. They're helping us make sure our lands aren't just a source of timber, but a source of life.



**A FEW
TECHNICAL
POINTS.**

One of the objectives of the survey was to identify exactly what affects the presence of bull trout. We examined factors such as water temperature, riparian cover, woody debris complex, stream channel structure, and the presence of exotic species like Eastern Brook Trout.

To do this, we compared streams that contained bull trout with streams that didn't. To count the bull trout accurately, we worked with independent fisheries consultants to develop a statistically rigorous sampling method that can detect as few as 2.5 fish per kilometer.



PE PlumCreek

Leaders in Environmental Forestry

THE IDAHO FORESTER

1996

An annual publication by the students of the College of Forestry,
Wildlife and Range Sciences at the University of Idaho.



This publication is dedicated to all past and present students, faculty and staff:
It is not an individual that takes this college to greatness, but the combination of
creative minds, energy, commitment and unique talents.

SD
12
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1996

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The Cover Story

This is a copy of the Idaho Forester cover design used from 1922 to 1937. It was designed by Mrs. Bernice Behre, a forestry professor's wife. It was replaced in 1937 when the editor at that time, Ken Hungerford (BS - Forest Management '38 and faculty member 1946-78) decided that the Idaho Forester cover design was long overdue for a change. He then proceeded to accidentally drop the cover plate which completed an already existing split in the metal, making the plate relatively worthless at that time. The Idaho Forester staff then got together and raised enough money to create a new plate which lasted until 1947. We have utilized the plate with the cracks in it.

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not just textbooks anymore!

Our Graduates Are Highly Trained in Renewable Natural Resources

Fishery Resources

The fisheries biologist is knowledgeable about aquatic environments and aquatic organisms and can apply this knowledge to managing ponds, lakes, reservoirs and streams. Areas of expertise include aquatic pollution, fisheries management, population dynamics, limnology, and the behavior, culture, diseases, ecology and physiology of fish.

Forest Products

The forest products graduate is well grounded in all phases of forest business operations, including timber harvesting, logging-engineering, transport of goods to market, processing, computerized sawmill operations, wood construction and design, manufacturing, marketing, and research and development for a variety of forest-related industries.

Forest Resources

The modern forester is well versed in economic theory, skilled in computer technology and proficient in public communication, besides being knowledgeable in forest biology, natural history, forest protection (entomology, pathology, fire), reforestation, forest ecology and silviculture.

Range Resources

The range conservation graduate has a strong base in ecology and can assess land capabilities, develop land-use plans, rehabilitate mine spoils, perform soil surveys, administer grazing leases, appraise land values, study nutritive requirements of animals and participate in research on use of natural resources.

Resource Recreation and Tourism

The resource recreation and tourism graduate is skilled in parks and recreation resources management, natural sciences, geography, land economics, conservation of natural resources, human behavior, public administration, communication and tourism. Specialization is available in resource communication, outdoor leadership, resource-based tourism and wilderness management.

Wildlife Resources

The modern wildlife graduate is interested in all species of wild animals and their roles as components of natural systems and can gather data, conduct censuses, assess productivity, protect and improve habitat, study food habits, establish limits and seasons, control animal damage, protect endangered species and enforce laws.

If you know of job openings, or plan to hire someone in these fields, please contact Carol Spain, College Placement Office, College of Forestry, Wildlife and Range Sciences, University of Idaho, Moscow, Idaho 83843, phone (208)885-6441.

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A Message from Dean Charles R. Hatch

Our Changing Environment: Educational Challenges

Changes seem to be the rule rather than the exception in today's natural resource environment. One's perspective on change differs with the time frame of the individual. Articles in the *Idaho Forester* provide insights on change from both the perspective of our alumni as well as today's students. This however, is only one aspect of change and its effect on our college.

We are constantly reading about the rapid rate of change in today's technology. Nowhere is the challenge to capitalize on that changing environment greater than it is at the University of Idaho. Educating resource managers to understand change and to prepare them for a continually changing work environment is a tremendous challenge. To meet that challenge we are asking the college and its faculty to explore new ways of educating resource managers. This includes providing education not only at the beginning of their careers but throughout their careers. It is challenging us to emphasize asynchronous learning systems (systems that allow learning to take place at the learner's convenience rather than the institution's conve-

nience), explore the use of interactive instruction delivered through the Internet, and to use cooperative learning methods that more closely parallel on-job learning systems our graduates will encounter during their careers.

In nearly all cases, these new learning systems are coupled with the use of electronically delivered, visible processes that require a shift from a print culture to a digital culture. Our understanding and ability to capitalize on the strengths of these two cultures will govern our success in this endeavor.

Our desire to present an array of dynamic learning strategies is driven not only by a mission to provide our students more effective understanding of today's technology, but to instill in our graduates a desire and the ability to continue to assimilate new knowledge throughout their careers.

We will meet this challenge. Your careers and our future depend on it. Our faculty are rapidly adopting interactive and cooperative learning strategies into their courses. Asynchronous learning systems are being developed for



clientele both on and off our campus. E-mail is being effectively used by students and professors to share ideas and deliver assignments. Most importantly, we will strive to meet this challenge while maintaining the quality programs you expect from our college and the university.

It's an exciting time and a dynamic process - one whose outcome is to better serve your needs. Our success will insure improved management of natural resources today and into the future. ▲

Charles R. Hatch

Dr. Ernie Ables Retires

by L. Jones

Yet another unique CFWR personality has passed through the CFWR doors into a retirement career. Dr. Ernest D. Ables taught his last semester of classes in the fall of 1995 much to the disappointment of many a student. He came to the College of Forestry, Wildlife and Range Sciences (CFWR) in 1973 when the college had no departments, only program areas with elected chairs. It was a time when the college employed half the faculty as we have now, supporting half the student enrollment. The budget was administered from the dean's office, and the college operated as one large department. At that time the college was one big happy family practicing an integrated approach to resource management. Lee Sharp was instrumental in gathering the majority of the faculty in the coffee room at 9:30 AM most every day. After he retired, this staff cohesiveness slowly disappeared over time.

The professional societies dictated specific course requirements for certification standards, this being the driving force behind the eventual changes within the college. The number of faculty doubled as the student population increased resulting in the college taking the final steps towards departmentalization. With this came barriers between the departments as they no longer communicated as they had previously.

Through time, Dr. Ables has witnessed many changes in student philosophies and societal values. In the 1960/1970's it was an environmental era in which students were

very idealistic. He recalled one semester when nature and God were thought of as one. It put forth the idea that students had no intentions of misusing the land. It was a "save the earth" phase which was followed by an opposite extreme in the 1980's when materialism became an issue. Idealism was replaced with materialism. The students had to make a living, but also had to maintain an emotional tie to the resource. A value system or balance between the two extremes was required.

Throughout his teaching career, Dr. Ables never changed his teaching style. He truly believed and taught valid principles and facts relevant to natural resources and wildlife. He believed that a student would utilize a resource depending on the value system they believed in. In the past couple of years student attitudes reflect societal values. There is an anti-environmentalism backlash against endangered species and other governmental regulations concerning privatization and federal land management within a state.

Dr. Ables has seen changes in student ideas and values, changes within the college and changes in land management regulations both federally and locally. He believes that science is not the answer to everything and one has to dissect and analyze the difference between science and a value system. The values of each person involved in an issue must be sorted and understood in order for progress to be made. There has to be a way to integrate science and values.



As society progresses, we must learn to understand people and their values. We must realize the cost of a fight and understand every issue involved with the battle. Our ethics and values are an accumulation of what we have been taught scholastically as well as practically. Dr. Ables' wisdom and his willingness to share his concepts and ideas are some of the aspects that have made his teaching career a success. The college is losing a person who is true to his profession, was sincerely concerned about his students and what they were taught and flexible enough to accept change. He is highly thought of and respected by his colleges and students. Dr. Ables now plans to finish up his last two graduate students and move on to pursue a career in International Consulting, treasure hunting and camping with his family. ▲

Faculty Retire Nelson in Stitches

by Denise Ortiz

Once in a Guatemalan restaurant he yelled obscenities in Spanish when he thought he was ordering coffee. Lew Nelson, Jr., extension professor of wildlife resources, retired the end of November 1995 and moved to Utah to play and relax. But not until the college roasted him November 15, awarding him the "Quick Reflex Certificate" and the "Suave Latino Travel Agent Award." Amid stories of humorous elk and deer hunting expeditions with Lew, FWR faculty, staff, and students also expressed their gratitude and well wishes to Wilma, Lew's wife, oft-times co-teacher, and fellow Spanish communicator.

A skilled teacher and author in both English and Spanish, Nelson has given almost 100 workshops for teachers and resource professionals in his career, and established an environmental education program in Latin America. He served as the Idaho Coordinator of Project Learning Tree and a steering committee member in both Idaho and nationally for Project WILD. In addition, he was a representative of the Northwest Section of The Wildlife Society.

Nelson has a B.S. in Wildlife Management from Colorado State University (1965), an M.S. from Utah State University (1970) in the same discipline, and a Ph.D. (with a minor in Sociology) from Utah State in 1973. Just after graduation, he worked as an extension wildlife specialist for the Cooperative Extension Service at the University

of California-Davis.

A faculty member in wildlife resources since 1978, Professor Nelson served as head of the Department of Fish and Wildlife Resources in 1982 and as acting head 1984-1985. His specialties included environmental education, continuing education, and natural resource communications and public relations.

Nelson can be remembered for teaching the "Wildlife Seminar" and "The Wildlife Profession" for undergraduates, and "Public Relations Problems in Wildlife Management" for both undergraduates and graduate students. In 1991 he published the *Environmental Education Guide for Guatemala, Grades K-3*.

"The environmental education community in Idaho really appreciates what Lew contributed over the years," praised the UI Education faculty. Wildlife Professor Jim Peek read letters from Nelson's out-of-town colleagues remembering him as scientist, teacher, director, and volunteer. Peek described the non-thesis Master's Degree program Nelson developed which is still a model for wildlife students. "His interest in education has been really something else," said Peek. "His successes in these areas are recognized across the state." Nelson is also known for his communication abilities and his sense of humor. The roast highlighted Lew's humor, something that is sorely missed by CFWR students, staff, and faculty. "We'll probably miss the humor most," continued Peek.



On that note, Stu Nelson of the Idaho Department of Fish and Game presented Nelson with a plaque sporting a yellow perch Lew had caught. Fisheries Professor Mike Falter (Ph.D. Fish. Sci., 1969) recognized Lew "for representing the 90 percent of fishermen who don't catch anything...leaving the fish for us experts." Professor Dave Bennett saluted Lew as an athlete who was an avid noontime jogger, presenting him with a softball plaque for his position on the Moscow Realty Softball Team. So long to a popular and respected FWR prof. ▲

Editorial

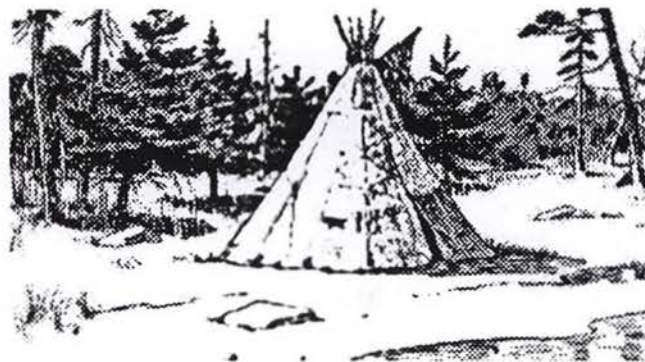
by Lucy Jones

When I first said that I would take on the task as the editor of the *Idaho Forester*, I did not realize all that it would entail. So after many hours spent in the computer lab, improvements on my ability to delegate responsibility and a 3:00 am editorial, I hope that this great black cloud that has been looming over my head these past few months will now dissipate as I send this pile of paper off to Vanessa for her patience and creativity to complete this project. The *Idaho Forester* staff this year was small, but fortunately enthusiastic. I sincerely thank them all for the efforts and encouragement they offered towards the success of this publication.

The University of Idaho, College of Forestry, Wildlife and Range Science (CFWR) has a great, long history. The theme of this *Forester* was to be "then and now" in order to show some of the changes that have occurred over time within our college, however, I am not sure that this idea was as successful as was anticipated. The walls of our college are covered with the past and present photo-

graphs, awards, displays and stories. Many that I cannot begin to tell without writing a book (in fact there was one printed in 1984; if any one is interested it can be obtained from the CFWR publication center).

As we turn the last few pages of this semester we look forward to a ray of sunshine leading us on the



path to a successful future. A future that can only be achieved by our individual efforts put forth. In our time at this college, we have witnessed many changes as society moves forth into the highly technical computer age. E-mail has often been a saving grace as many of us continue to have an inexpensive method of communicating with our friends, colleagues, and family that are far from us. The information super highway is within our grasp with the click of a button and our

curiosity egging us on. These are but small items of things yet to come. The university environment has encouraged us to keep on top of this progress, now it is up to us to carry on as we move into a working environment.

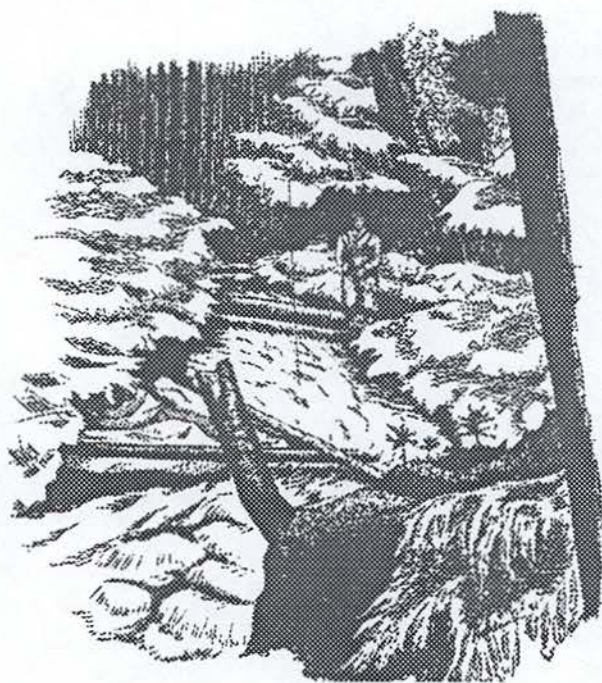
Change is an inevitable fact of the past, present and future. Change is what keeps us motivated, it is what stimulates our curiosity, it is the driving force behind our education. Change creates history where one process flows to another leaving old thoughts and ideas in its wake while building on new creative ideas. As students moving out into the work force, it is up to us to encourage change and continue the learning process. We can look forward to dealing with change in the future and must be educated and flexible enough to question it and eventually accept it. Change is progress, change is knowledge, change is opportunity and an open mind. Focus on the future while considering the past and make the change work for the betterment of our earth. Change is a valuable resource so open your mind to go and to grow with it. ▲

Creek

Maybe silent, flowing,
smoothing red stones
asleep
in bed
caressing sweetly,
dark forest roots,
spilling out sky's—
rippled reflection;
sneak around comers,
to slither again,
by spit up islands
and fallen corpse branches

then whip up speed,
rush to fall
to endless humming,
to gushing whispers,
forever sighing
of slapped white rocks,
and sudden drops,
spinning swirls
tickling splashes

be licked
and sipped
and bucketed away,
be giver of life,
and taker—they say
of the breath of a baby
who fell in
while playing,
sucked clean those nostrils,
kissed blue those lips;



all the life,
that abides within,
and all the death,
soaked hair and moth wings,
coughed up on the
sides.
Steady breathing,
this trickle,
this rush,
this plunge.

—Denise Ortiz

The Golden Labyrinth

All day crawling
what do they do?
up and down
golden layers
in and out of
one round maze—
perhaps they think
the leaves are angels.
At evening they still
like tiny freckles
that busy again
at my breath—
the wind of life
for a yellow world
that lives and dies



in a galaxy of marigold stems.

—Denise Ortiz

Stars and Moon in a Summer Night's Storm

Oh Grandpa's goin' fishin' again
Grandpa's fishing again

He's taken Grandma's bread crumbs
and thrown them on the lake

of night

but Grandma in her rocking chair
is rocking on the lake—so blue

and each creak thunders through

the deep

and stirs the fish up
among the crests
waves as silver as the tails of fish

oh swim away, my little ones
from that reel of light

swim away from Grandpa's silver hook!

—Denise Ortiz



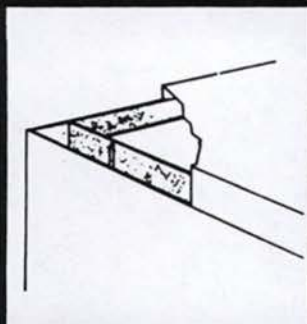
Line drawing by Sherri Sorby

You can lose
your valuable
biological and
geological
collections
through
improper storage!

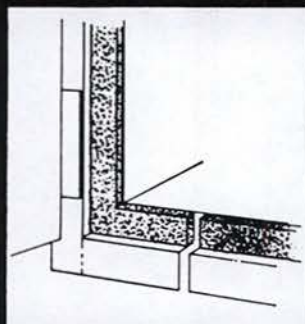
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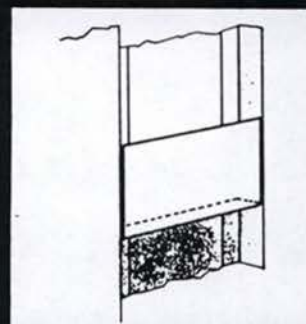
Lane
SCIENCE CABINETS



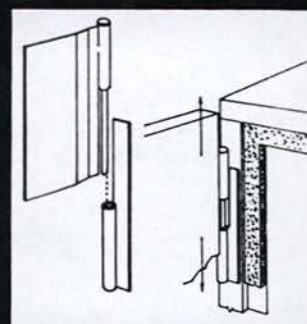
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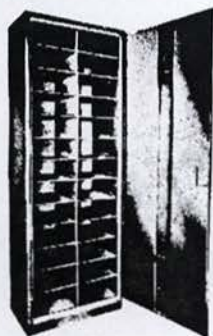
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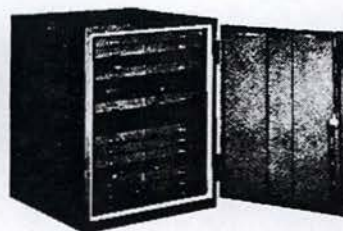
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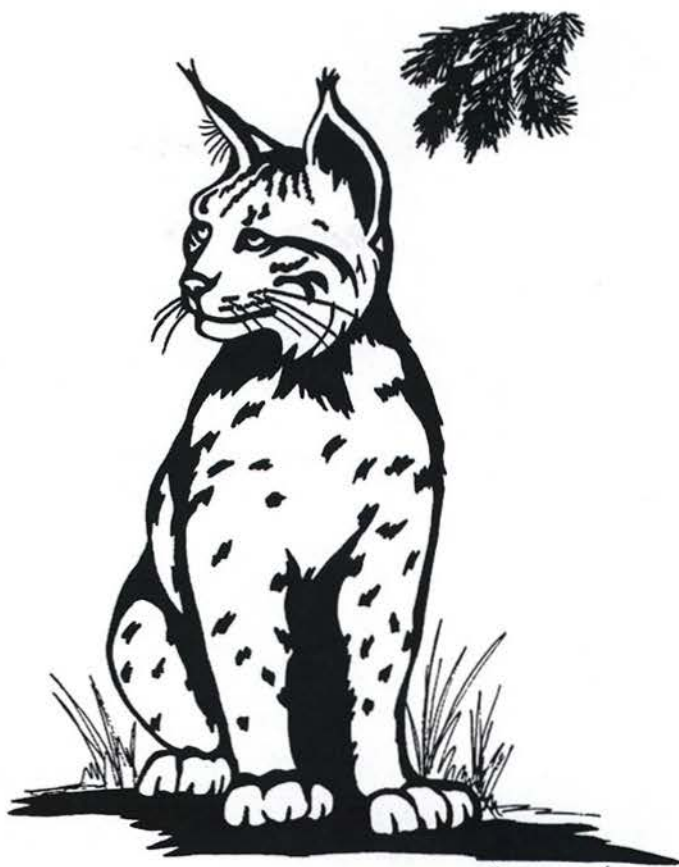
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City _____ Zone _____ State _____

COLLEGE Focus



Line drawing by Nancy Hightower

Alumni News and Comments

It is on the shoulders of the past on which we build the future... These Alumni were requested to comment on "how it used to be" concerning past jobs, general college life, and the following are the responses we received. The Idaho Forester Staff would like to thank all the alumni who respond with comments and subscriptions. Your efforts are a valuable contribution to the content and success of our magazine.

Anna Marie Barszcz, Krakow, Poland.

Eldon C. Beus, 1947, Boise, Idaho.

John W. Bohning, 1948, Prescott, Arizona.

"When I graduated from the University of Idaho, I received an appointment with the US Forest Service to work on range analysis on the Umatilla National Forest. Our job was in the boondocks, mapping vegetative types on black and white aerial photos. We lived in tents and moved camp often. I was in charge of a crew of six college students. During the winter, I transferred the photo information to maps and tables without the aid of computers or high-tech drafting equipment. It was a tedious job and I was glad to see the field season start, I was on the Umatilla NF until the entire Forest was mapped; then transferred to southern Arizona.

"I was married when I attended the University of Idaho and our first daughter (of five) was born in Gritman Memorial Hospital, one of the baby boomers. We moved

numerous times after leaving the Pacific Northwest, typical of a Forest Service Career of that era.

"My experience with the professional societies was primarily with the Society for Range Management with which I am still involved. It provided associations and friendships with many people from very diverse backgrounds - a real rewarding experience for me."

Glenn S. Bradley, Jr., 1958, Shosone, Idaho.

"My starting salary as a GS-5 Forester was 2500/yr. The Forest Supervisor (GS 13) earned a whopping 10,000/yr. As a ranger in Nevada in 1960 I planned my work to include half day per week in the office and 4 1/2 days in the field from March through November. Winter was planning, reporting, training, and meeting time. We longed for spring!

"We encouraged to be on the ground horseback where we could really keep track of what was going on. I average over 100 horse days per season and love it. We had controversies with forest users and had difficult decisions to make, but we knew each other very well and even if we disagreed we could trust each other's word.

"On a good year I saw the boss about three times and he'd see me once or twice. We got a lot done and felt good about our work. No one bombed our offices!

Tay Briggs, 1985, Clearwater, BC.

"I worked as a forestry supervisor and finally as a silviculture

forester for Weyerhaeuser Canada in Vanenby from 1986 to 1992. Since leaving Weyerhaeuser I divide my time between forestry contracting and running an outdoor adventure guiding company. Wells Gray Backcountry Chalets specializes in skiing, hiking, and canoeing trips in the wilderness of the Wells Gray Provincial Park in British Columbia Canada."

Donal Brislain, 1948, Vancouver, Washington.

"The *Then* means the summer of "42".

"The *Place* means McCall, Idaho or more specifically Forestry summer camp. The *People* young adventurous kids yearning for excitement and hardly being able to tell a pine tree from a palm tree.

"The *Action* - plenty! After six weeks of instruction followed by exposure to the dirtiest and most dangerous task existing - that of fighting fire. Such "fun" things as running for our lives while avoiding minor pitfalls including unfriendly rattlesnakes (I've never met a friendly one.)

"The *Result* - Boys changed in to men which made the transition into the war a piece of cake.

"The *Epilogue* - A return to McCall fifty years later, but instead of a fire to be fought, a golf game to be played and the stakes much lower.

"In recollecting I find myself lucky to remember the Hungerford brothers, Dean Jeffers, Jack Ogsbury, Dick Stillinger, Professors

Wohletz, Ellis and Buchanan, Gordon Zorb, Jim Towaley, The Moose Club, Professor Gale, Professor Cady (a remarkable teacher). That's all - that's enough - except it's good to be a Vandal."

John E. Crawford, Eagle, Idaho.

Joan (Graves) Dickerson, 1981, Libby, Montana.

She was the co-chairwomen for the SAF National Convention held in Spokane, Washington in 1980. She now works for the Forest Service.

Ted Dingman, 1959, Mesa Arizona.

"I am now retired, I would like to hear from my old classmates from the College of Forestry and Upham Hall."

Bill Foster, 1965, Troy, Kansas.

"Following graduation at the U of I with a BS (For.) Range management. I entered graduate school at the University of Chicago where I received a MS Biological Sciences in Botany. In the fall of 1967 I began teaching in secondary education at Troy High School and in the fall 1988 I left T.H.S. and began teaching at Highland Community College. I am still teaching chemistry, at HCC and am developing a small cattle operation and black walnut plantation. I plan to retire from education next year and become involved full time with ranching and farming in my home area."

Joseph O. Fove, 1936, McMinnville, Oregon.

"Starting of school year in 1935 the class of 1936 took a field trip in Northern Idaho, Washington and Oregon. We drove up the Wilson River to take a look at the Lillamoals Burn. Little did I realize that I would spend 27 years working Fish & Game in that area. The Lillamoals Burn at a series of four fires at six years intervals 1933, 1939, 1941, 1945. 300,000 acres. The logging camp, railroad ties all old cars are gone. The timber has

been salvaged. The area planted to Douglas Fir. This practice was started in the late 1930 this after the first burn. They are now logging in some areas. Wildlife doing well. This is an example of a good Forestry Practice.

"I retired from this work in 1972. Sold some timber as Real Estate Broker until 1982."

Bryan Fraser, 1976, Queen Charlotte City BC.

"The new year finds me in Queens Charlotte Islands of British Columbia. Where I am a division manager for Coast Forest Management of Victoria. Several major forest products companies have tenures on the Charlottes. Our major client is Husby Forest Products. The total population on the islands is 5,000 and we have about 900 contented souls in Queen Charlotte City where my office is located.

"Forestry in the Charlottes is in many ways a throwback to an era that is all but disappeared in the States. All of our harvesting is in old growth and the entire logging operation is run out of logging camp accessed by float plane or helicopter. Many loggers come in for two or three-month shifts at a time.

"Logging practices are very much in the public eye in BC as they are everywhere today. the British Columbia Forest Practices Code Act, passed in 1994, is one of the most comprehensive pieces of resources management legislation in the world. Every one of our harvesting plans must include analyses by geo-scientists, wildlife biologists, fisheries biologists, visual impact specialists, silviculturalists, First Nations archaeological technicians and a host of other experts.

"We do quite a bit of helicopter yarding, but not as much as we would like. Under the BC appraisal system, all harvesting costs count

against stumpage and reduce revenue to the province. Since aerial yarding is more expensive than conventional systems, the forest service is constrained by law to force us to build more roads even where we would rather lay out aerial units. (I'm sure Leonard Johnson will be impressed that I finally got this figured out!)

"For students graduating this spring, I would recommend that they include BC in their job search. It's a boom time here right now and there is a shortage of graduate foresters. I would love to hear from any students and alumni who are interested in life on the north coast."

Marlin C. Galbraith, 1937, Salt Lake City, Utah.

"Retired as Deputy A Regional Forester of the Intermountain Region in 1975; Married for 56 years; four sons all doing well on their own. My wife and I now split our time living six months in the Island Park section of Idaho and 6 months in a condo in SLC.

"Yes, things have changed considerably from the period of the 40's through the 60's. Trees still grow and benefit us in many ways. Their current destiny, unfortunately, too often depend more on what takes place at the planner's desk and court rooms than on prescriptions recommended by professionally trained land managers. My limited experience in public forestry in many forest regions of the US leaves me with a great respect for what forest lands can give us in life's amenities. Let's not give them away, nor lock all of them up to provide dreams and fantasies. Let's use them wisely and we and succeeding generations will reap the benefits.

"I witnessed a dramatic demonstrations of the "then" and "now" philosophies of one facet of forest management when I spent 24 days

on the Yellowstone fires in 1988 — 54 years after spending 28 days on the Selway Fire in 1934. The contrasts were startling. I can understand why the title "Fire Boss" has now been changed to "Incident Commander." He had at his command more human, mechanical, and financial resources than I could imagine. I concluded that I was born 40 years too soon!"

William Gleaves, 1953, Philomath, Oregon.

"I think that 1953 was about the last all male class. Charles Vars' wife enrolled the next year, but I am not sure if she graduated. At the old Forestry Building in "those days", the Secretarial studies class were on the first floor. The favorite "between classes" break was to stand (or smoke) outside the front entrance walkway, and "appreciate" the young ladies as they came and went from classes. Dean Jeffer's office was also on the first floor, so we could not get to boisterous or make noise."

Cynthia Fleming-Goodson, 1981, Ferndale, California.

"When attending U of I was employed by Prof. Fred Johnson to tend all the house plants in the Forestry building as well as Fred's tropical plant greenhouse.

"I enjoyed this work-study assignment during my senior year, 80-81. I was fondly named "Earth Mother". My favorite winter lunch spot was under the huge split-leaf Philodendron (*Monstera deliciosa*) near the dean's office.

"Happily married and residing in Northern California, I am now a member of the Board of Directors of the Humboldt Redwoods Interpretive Association at Humboldt Redwoods State Park. This non-profit organization works closely with park staff and manages the Visitor Center and Bookstore. As Chairperson of the Redwood Park Trails Committee I worked with

State Park staff in the north coast Redwoods District providing for the development, construction maintenance and interpretation of the multi-use trails of Humboldt Redwoods State Park.

"As an active member of the Interpretive Association I volunteer at the Visitor Center and as a trained docent lead nature hikes and organized volunteer work days for the Park. Also I volunteer my time on the greenhouse where we grow coast, giant and dawn redwood seedlings to sell in the Visitor Center.

"I advocate that all Natural Resources students (and graduates) find a local park or conservation project and participate. encourage others to volunteer - city or county parks, state or regional parks or even National Forests need volunteers like you and me. A few volunteers can make a great difference."

Keith Guenther, 1971, Clyde, California.

Edward D. Hansen, 1964, Everett, Washington.

"Still working in Everett, Washington, but as of December 13, 1995 it is for Kimberly-Clark as Scott Paper Merged with K-C. My position is the Supt. of the Water Asset. there are four distinct areas of water asset. 1) Sec. treatment; 2) primary treatment; 3) de-watering (sludges from sec. & prim. are thickened to ~ 40% for burning in a wood waste boiler) and 4) filter plant (fresh water is cleaned before the pulp & paper manufacturing process.)"

Richard "Dick" Hauff, 1958, Salmon, Idaho.

Donald Horning, 1963, New South Wales, Australia.

"I first knew of the College of Forestry in April 1955. I was in my last year of high school and was interviewed by the Dean Earnest

Wohletz. Despite my horrible high school academic record (I graduated 396 out of 406 students), Dean Wohletz must have recognized something in me that I did not because I was accepted to start a forestry degree in September 1955. It was staggering to learn that I had to take so many courses that were not directly related to forestry. I never worked in forestry or my major, fisheries management, but my broad background of courses stood in good stead for my career. On our graduation day in June 1963, Dean Wohletz had all of us graduates in a room in the old Forestry Building and gave us a "pep talk". He wanted all of us together because it would be the very last time that he would see us as a group. That memory will be with me for the rest of my life. Later, I earned a MS at the University of Idaho and received a Ph.D. in invertebrate zoology from the University of California in 1969. I was a senior lecturer at the university of Canterbury, Christchurch, New Zealand. My research interests were the marine and terrestrial invertebrates of Antarctica and the sub-Antarctic islands, being leader of ten expeditions and participant in another three. My final position was director of the Macleay Museum, University of Sydney, Australia, before taking an early retirement.

"Thanks to Dean Wohletz and the support given to me while in the College of Forestry from 1955-1963 (I was drafted into the Us Army in 1960) my career had an excellent foundation."

Barry Janzen, 1993, Castlegar, BC Canada.

"I graduated from a small community college, Selkirk College, in southeastern British Columbia in 1977 with a diploma in Forestry Technology. In the following years I worked for the Silviculture Branch of the BC Forest Service. This was

an exciting era in silviculture as the government was initiating major reforestation and intensive silviculture programs. Prior to this time no operational juvenile spacing was being done. Jobs were abundant.

"During my summer between semesters at Selkirk I worked as a fishboy in a fishing camp in central BC. Most of the clientele were from the states and I earned lots of tips in green backs. Unfortunately at that time the US dollar was only worth 90 cents Canadian. Currently its worth 1.40 Canadian. This is a major issue for many Canadian students wishing to attend the University of Idaho. I am one of a number of former Selkirk College graduates who have gone on to attend the U of I. The University of Idaho is quite close to the Kootenay region of BC. A five hour drive from my home near Caslegar. Northern Idaho has similar ecosystem to this area. Also the U of I grants acceptable credit for Selkirk graduates and the Association of Professional Foresters in BC view the courses offered at the U of I favorably.

"In BC 95% of our forested lands are in public ownership. In the 70s there was some public concern with the management of these lands, but clearly this has grown dramatically and the interaction between the public and resource management has become a main focus in our professions. Once again there has been an upswell of employment for professionals and technologists involved in natural resource disciplines. This activity is due primarily to public insistence that more attention be paid to the management of their natural resources.

"Since graduating from the University of Idaho in 1993, I have returned to Selkirk College. This time as an instructor in Forest ecology and Integrated Resource Management. Northern Idaho and staff at the University of Idaho will

always have a special place in both my career and my heart.

Charles J. Kiljanczyk, 1939, Lewiston, Idaho.

Robert R. Kindschy, 1958, Vale, Oregon.

"Although a native of the Olympia, WA area, When I came of college age my folks thought the U of I to be an excellent choice so my uncle, Dr. Dwight Kindschy of the College of Agriculture, could keep an eye on me! Thus, for a year I was an "Aggie." During that year I discovered the College of Forestry to which I transferred my sophomore year.

"Dr. Ken Hungerford, my major professor in wildlife, encouraged his students to take entrance exams for various state and federal agencies. It was good experience and I joined the Bureau of Land Management (BLM) through the Student Trainee Program in 1955, when I worked in Burns Oregon district cruising timber neat Izee. The following summer I worked for Bill Leavell on a range survey of the Diamond and Frenchglen Units of Burns. Evidently, I did okay at this for the next year District Manger Howard Delano arranged for me to head up a survey of Alaska's Umnak Island of the Aleutian Islands!

"On June 15, 1958, I accepted my first permanent position with the BLM at Vale. No one had any idea how permanent it was to be ... I retired from Vale BLM in April 1994! Our objective then was "to manage the vacant, inappropriate public domain pending its ultimate disposal." Effort was directed toward trespass control, range survey, dependent property survey, adjudication of grazing privileges ... and subsequent litigation. We spent a lot of time before hearings examiners. BLM folks weren't very popular. In fact, when I married a rancher's daughter in 1961, ranch-

ers sat on one side of the church and BLMers on the other ... which was closer than they had ever been before!

"Other efforts of that time included watershed plans which were mostly directed toward enhancing livestock forage and distribution. Establishing individual allotments seemed to be a way to solve a lot of management problems concerning trespass and competition to get the forage before someone else. Today some of the best condition rangelands are within individual allotments where the "pride of ownership" is enjoyed by farsighted ranchers."

James E. King, 1947, Centralia, Washington.

Henry W. Kipp, 1960, Olympia, Washington.

"I was selected secretary of the Southwest Washington Chapter of the Society of American Foresters, January, 1996. Our chapter's emphasis is on education, using a video The Washington State SAF, made for the sixth grade and junior high audience. The title is "Reforestation and the Cycle of Forest Renewal," and it is for sale at \$17.50 each. Roger Scott, our chair, lives 10 minutes from me in S.E. Olympia. I am enjoying retirement. I will participate in the Seventh American Forester Congress in Washington, DC.

William P. Knispek, 1964, Grass Valley, California.

Cliff Lathen, 1940, Moscow, Idaho.

William P. Lehrer, Jr., Hayden Lake, Idaho.

Some Idaho FWR graduates have not been career associated with agencies or industries related to their specialized education or training. This is especially true in the career of William P. Lehrer, Jr. whose professional life is briefly presented below. Many of the following excerpts are from previ-

ously published information concerning the contributions and accomplishments he has made to society.

He has "received national and inter-national recognition for his contributions to the fields of animal nutrition and animal science and leadership in agricultural education." Recognition has been for his "scientific achievements in increasing world-wide standards of living during his 36 year career that began as a University of Idaho animal science professor and ended with 21 years as Director of Nutrition for Carnation Company, Milling Division." Holder of seven earned academic degrees that include: BS (1941) from The Pennsylvania State University; two MS degrees (agriculture, 1946 and range management, 1955) from The University of Idaho; Ph.D. (1951) in animal science (nutrition and biochemistry) from Washington State University; LL.B. (1972), JD (1974) from Blackstone School of Law (affiliated with University of Chicago); and MBA (1975) from Pepperdine University. Note the Idaho MS in range management was obtained after receiving the Ph.D. and while on the faculty of the University of Idaho College of Agriculture. why spend the time and effort to obtain knowledge? Merely to do a better job in teaching animal science students the many aspects of animals agriculture.

Some may also ask, why study business administration and law. Those in academia lead a sheltered life. Where as, those in the real world, in addition to expertise in their field, also must appreciate and have a relationship with other endeavors. In industry, business administration and law are important aspects of a successful contribution.

All advanced degrees were obtained while fully employed and without benefit of a leave of

absence.

He never hoarded his accumulation of knowledge. He shared it as a teacher and advisor at The University of Idaho (1945-60), in the five thesis he wrote and more than 115 scientific papers he wrote for journals, professional paper and research bulletins." His twenty-one years with Carnation Company (1960-81) took him to far off places with speaking engagements in palatial show rings and barns, primitive livestock shelters and pens, in feed lots and under Palm trees, as well as conventional auditoriums and lecture halls. He has lectures or spoken at over 40 colleges and universities in the United States or abroad. He has had the privilege of speaking to heads of state, finance ministers, ministers of agriculture, college faculties and students, as well as farmers and ranchers.

Travel has been by dug-out-canoe, horse back, 4-wheel drive vehicle, helicopter, small plane, as well as conventional methods.

Through it all he has advanced to improve the standard of living of citizens, including farmers and ranchers, through increased production of high-protein animal products and by-products at a price consumers could afford.

He has traveled extensively in the United States (49 States) and has visited more than 60 countries — "serving in many as an advisor and/or consultant to help improve each areas agriculture so the citizens could enjoy a better diet and higher standard of living." It has also been said: "It is a better place for his having been there," and, "After every visit their lives and industry enriched for his being there."

He has held dozens of major professional committee posts and has been recognized for both his achievements and contributions to science. He is listed in: American

Men and Women of Science; Who's Who in the West; Who's Who in Science and Engineering and Who's Who in America. He is a Fellow of both the American Association for the Advancement of Science and the American Society of Animal Science. He is a member of the Society of the Sigma Xi, The Fraternity of Alpha Zeta, Gamma Sigma Delta, and Xi Sigma Pi, as well as numerous other scientific and honorary societies. He has received the Gamma Sigma Delta "Alumni Award of Merit" from the Pennsylvania State University Chapter.

He has served on committees for the National Academy of Science - National Research Council.

Recognition has included: DISTINGUISHED ALUMNUS AWARD (1983), The Pennsylvania State University (equivalent to an honorary doctorate which it does not offer); designated a KEY ALUMNUS (1985), The Pennsylvania State University; ALUMNI HALL OF FAME (1985), The University of Idaho and also from Idaho's College of Agriculture (1985); and ALUMNI ACHIEVEMENT AWARD (1993), Washington State University.

He has been commissioned a KENTUCKY COLONEL by then Governor Wendel H. Ford, for his contributions to the fields of equine nutrition and health (1973).

His travels began early when, between his junior and senior years in high school in 1934, he took six months leave of absence and worked his way around the world on a freighter, going through the Panama and Suez Canals. He was an ordinary seaman and stood 4 to 8 watch morning and evening, serving as helmsman.

He purchased a used bicycle for \$5.00 in Honolulu and worked extra hours at sea, chipping and painting the vessel to earn extra

time to visit points of interest in ports the ship visited, including visiting places as: the Great Wall of China, the Pyramids in Egypt and the Sultan of Johore's Palace in the Strait Settlements. The bike is now at the bottom of the New York harbor. At the end of the trip, the bike was worn out and received a sea burial.

On the trip from Singapore to Boston, he volunteered for extra duty to feed exotic animals, including an elephant tied to the deck, consigned for shipment by Bring "em Back Alive" Frank Buck. The first elephant to fly, on a trip to Washington, DC

During World War II he served in the US Army Air Corps.

One Penn State citation reads, "To William P. Lehrer, Jr., animal nutritionist, for the humanitarianism that led him to succeed in efforts to improve worldwide standards of living; for a life-long commitment to learning and research; and for using his accumulated knowledge to teach the world how to feed itself by feeding its animals.

Robert E. Lieurance, 1952, Goldendale, Washington.

He received his Masters Degree in Forestry, 1955.

"My forestry career spanned a period of 43 years. It began in 1946 on a seasonal basis with the US Forest Service in Idaho. After graduation from the University of Idaho in 1955, I began permanent service with the US Department of Interior, Bureau of Land Management, working in various field offices in the Northwestern USA. In forestry and natural resource management. I retired from permanent status in 1989. I am currently self-employed as a consultant to small woodland tract owners."

Then: 1946-1970

" Attendance at U of I was

about 2,5000 students. The College of FWR was called the "School of Forestry" and it offered majors also in Range and Wildlife. E. Wohletz / "Doc" Jeffers were the Deans. "Doc" Tisdale headed the Range Dept., "Doc" Deters was over Forestry, and Dr. _____ headed Wildlife.

"Resources management was cost-effective in planning ,preparation and execution; and the end results of program/projects implementation were nearly always successful in terms of natural resources protection over the long term. Other than policy, management decisions ere made at state/ district/field levels by professionals."

Now: 1971-Present

"The U of I and the FWR have grown immensely, as you well know, in numbers (students-faculty), curriculum resources management emphasis, research direction and relationships, and of course, structure facilities. Curriculum cost?? The underlying emphasis on the natural resources management is no longer clear. Decisions are being made at various disconnected levels by state and national legislative (political) bodies and by court judges (at various levels), and for reasons "almost always" disconnected from reasoned scientific basis and the motives of "forces" at work that seem to control the any resources are to be treated (managed or preserved) are genially suspect, and not necessarily in the best interest of the resource(s) in question.

"Resources management is no longer cost-effective and the success or failure of actions base on disconnected decisions is an unknown."

Lee McConnel, 1963, Bellingham, Washington.

Earned a master's degree in 1967.

Donald J. Moniak, 1987, Happy Jack, Arizona.

"Presently working for the USFS as an inventory crew foreman and timber master. I am also an active opponent of the alarmist Forest Health movement in the southwest and elsewhere.

"I am disappointed that the University of Idaho, with notable exception of Dr. Partridge, is involved with this charade which resulted in destructive and divisive salvage legislation."

Dennis G. Nelson, 1966, Stone Mountain, Georgia.

N. Chrystine (Chrys) Olson, 1983, Elko, Nevada.

"Then and Now - In the early 80's, when I struggled to find a permanent work as a Range Conservationist, I spent my summers hiking steep mountain ridges in the Challis National Forest and Sawtooth National Recreation area as a part of a three person range improvement crew, building fences and water developments. The 1983 earthquake centered in the town of Challis in September of 1983 pretty much shook down or split out our four months of work. The earth didn't want these changes to its surface I guess.

"Now - in 1995 I still spend my summers hiking steep ridges - this time in the Jarbidge, Independence and Ruby Mountains of the Humboldt National Forest... only this rather than packing fence posts and post pounders I'm strapped down with Global Positioning System equipment, acting as a walking receiver to accurately locate sensitive plant populations and long term vegetation monitoring stations. I return to the office and make the appropriate computer moves to generate high tech Geographical Informational Systems (GIS) maps. One aspect is the same - my body aches in a fulfilling way. So far another aspect is different -

no earthquakes (yet) to split out my work.

Greg Outcalt, 1977, Westerville, Ohio.

Rich Patterson, 1971, Cedar Rapids, Iowa

"Back in the late 1960's, when I was an undergraduate, much emphasis was on fire and how to put it out. Later on, in my career as manger of an Iowa forest, I had to learn how to start a woods fire, cheer it on as it winds through the woods, and watch in amazement as oak savanna plants reappear, as if by magic, in the weeks following the burn.

"Also, back a couple of decades ago the Forest Service was pretty much a commodity producing agency. Recreation was a tiny sidelight. Although I'm not sure the agency completely realizes it, the USFS is following a common pattern in America. It's shifting to a service oriented organization as Americans demand recreation, clean water, wildlife, and scenery more than wood.

"Since graduation in 1971 I worked for the Alaska Department of Fish and Game, the US Fish and Wildlife Service and the US Forest Service. Following a year in graduate school at the University of N. Colorado, I became a nature center director, a job I've had for 21 years now.

"In addition to environmental education I manage a 210 acre natural area and am heavily involved in the ecological restoration of prairie, wetland and savanna plant."

R.C. Perez, 1956, Montclair, New Jersey.

"This is my 40th year with Weyerhaeuser, 38 years in sales early on composite panels and the last 20 primarily involved with soil and sediments control with wood fibers through hydroseeders - our

latest challenge is soil ground - a spray on erosion control blanket - See Fred Burnow and Chris Sutplain occasionally - Tom Lindstrom is still growing Christmas trees in Towards. A 40th Reunion? Hope so."

Charles E. Poulton, 1935, Gresham, Oregon.

"My deepest concern about my profession is the impact of environmental extremism, its fostering by the political and legal system and compounding by what seems to me to be knuckling under by the professional agencies of Government, the professional societies and possibly by the universities that educate natural resources mangers.

"The exercise of rational forest management and of forestry as a renewable resource is not possible on Federal forest lands, e.g., how ridiculous to seek permission from environmental extremism to harvest dead and dying trees on "managed" forest lands! I fear the day is fast approaching when domestic grazing on public lands will be a thing of the past. The environmental movement has already made inroads against private property rights in our country by complicating and restricting the freedom of informed management decisions on private land. Their goal is to establish the same level of control and restriction on private lands that they have achieved on public land. Our National Forests can no longer be used in conformity with their sustained yield and ecological potential as a renewable natural resource. They are mere protectorates for misguided environmentalism." Who is working to develop a counter strategy for return to a reasonable midground?

"Yes, I've heard about and participated in public hearings. I was active in interdisciplinary, coordinated or integrated resource planning long before it became as popular as it is in some circles

today. But these have not been effective in getting information where it needs to be — reeducating the radical extremists and getting natural resource management decisions out of courts.

"Even if I live to be 125, I will not see this question settle out; but I'd like to feel that the problem is being left in thoroughly educated, well trained, morally and ethically strong generations to carry the torch of rational, scientifically informed natural resources development and management through the next millennium.

Chuck Roady, 1975, Bonners' Ferry, Idaho.

Harold Robertson, 1961, Raudio Palos Verdes, California.

"I remember U of I as a small, but high quality university. I thoroughly enjoyed my years there. Currently, I coordinated science teacher training programs for the LAUSD and LA County of Education. My U of I training, plus experience with Idaho Fish and Game and US Bureau of Land Management enrich the teacher training with field biology/ecology field study techniques and resource management methods."

David Scott, 1953, Portland, Oregon.

"I have been privilege to receive the fall, 1995 issues of the *The Snag*. I have enjoyed reading them very much and have been impressed with the variety and content of the articles. I have a distinct feeling that the students and the authors of today tackle far more difficult social and political topics than we would have approached in my day. While I disagree heartily with some authors, I am excited to see the thought and effort that go in to the articles.

"I have one personal thought to pass on. Don't get too conservative in your views at this age. Now is the age for free swinging, wild and

radical ideas. Conservation will come almost naturally an age creeps on.

Congratulations and keep up the good work on a great publication."

Lawrence (Larry) Smith, 1954, Sandpoint, Idaho.

James R. Soeth, 1969, Young, Arizona.

Sherman D. Town, 1942, Vale, Oregon.

"I am the president of the Vale Senior Citizens going on 5 years and member of Vale Lions Club. I have three great grandsons, eleven grandchildren. I still love botany, enjoy hunting and fishing."

Reider Otto Ullevalseter, Olso, Norway.

A. Jack Weddle, 1946, Petaluma, CA.

"I first came to the U of Idaho in the spring semester of 1942 after working previous summer and fall on the Angeles National Forest. This Southern California lad was quite surprised. First time I had really lived with snow. I had seen milk delivered to door steps in glass bottles, in California, however I was surprised to see them when they froze. the milk expanded and pushed the cream right of the neck.

"I moved into the Idaho Club, a cooperative dormitory on campus. Everyone took turns doing KP and waiting on the tables. Not as luxurious as the regular, full service, brick dormitories but the price was right. Roy Hoelke took me under his wing and introduced me all around. I found everybody very friendly.

"I attended summer camp at the Payette Lakes in the summer of '42. With the manpower shortage due to the war, the Idaho National Forest had to resort to using the Forestry students as fire crews. In fact we had to close camp down early because of so many fire calls. I ended up being a smoke chaser (backwoods firefighter) 40 miles from the nearest road.

"After another semester I was called in by the Air Force and ended up being a pilot on the B-29 Superfortress bomber doing Urban Renewal work (demolition phase) on Japan. After the war I was returned to Idaho and graduated in 1946. I then started a 40 year career with the US Forest Service in California. A good portion of that time I was a District Manager. My first district's north half was accessible only by horse trails. The other half had few roads. In the early fifties the helicopter started being

utilized in forest fire fighting. In 1955 the first air tanker drop was made on the Mendenhall Fire on my district by two agricultural spray planes.

"My last 9 years in the Forest Service I was Director of youth programs for the California, now called the Pacific Southwest Region. These programs were very similar to the old Civilian conservation Corps (CCC) during the prewar days. I was appointed Designated Field Representative of the Secretary of Agriculture to approve and administer grants to the states of California and Hawaii and the Trust Territories of the Pacific Islands. This involved a lot of travel.

"I retired in 1983 when Congress started de-funding the programs. I now reside in Petaluma, California. As I look back I realize how much I enjoyed my Forest Service jobs and have no regrets."

Thomas I. Wilson, 1937, Sandpoint, Idaho.

"No change to relate. We've been retired here at Sunnyside on our hill above the lake for twenty one years, Gardens still produce, trees are still growing but fishing has slowed. Still catch a few.

We've been planning on our sixtieth reunion at the U of I in 1997 - hopefully."

1995-1996 COLLEGE ENROLLMENT

Department	Undergraduate	Graduate	Total
Fish & Wildlife	240	67	307
Forest Products	34	7	41
Forest Resources	28	21	49
Range Resources	107	54	161
Res. Rec. & Tourism	124	29	153
Total	533	178	711

CFWR Advisory Council

by Lynn Mineur

VISION

To help create and sustain political support, provide marketplace experience, and identify and propose reactions to changing policies in ways that insure the College will sustain its national recognition, maintain and expand its resource base, and enhance its client-focused programs.

MISSION

To work with the Dean to advance, through collaboration with public and private sector organizations and individuals, College and Department programs.

GOALS

1. Identify current and future visions of the college and its environment, and propose instructional, service and research program strategies to address them.
2. Increase public support for the College's instructional, service, and research programs.
3. Increase private support for academic program development, collaborative research, and scholarship.
4. Enhance marketing of the College and its programs.

STRATEGY

The Advisory Council will provide guidance and counsel to the Dean on proposed strategies and policy actions that effect the college's programs and their

implementation. Annually, program initiatives to further the goals of the College will be identified and evaluated by the Council. Leadership required to implement selected initiatives will be provided by Council members, working together and with others in collaboration with the Dean.

MEMBERSHIP

Individual members may have disciplinary ties related to departments but, as Advisory Council members, will function as college representatives. An important criteria for selection will be the individual's perceived ability to help stimulate support for the college and its programs.

By Selection - Three year term

10-12 individuals who collectively are knowledgeable of issues, and educational and research needs associated with aquaculture, environmental conservation, fisheries, forest products utilization, forestry, natural resources management and information systems, natural resource-based recreation,



natural resource-based tourism, rangelands, and wildlife.

By Position - Non-expiring

Stan Hamilton - Director, Idaho Dept. of Lands

Jerry Conley - Director, Idaho Dept. of Fish & Game

Yvonne Ferrel - Director, Idaho Dept. of Parks & Recr.

Del Jaquish - President, Alumni Board of Trustees

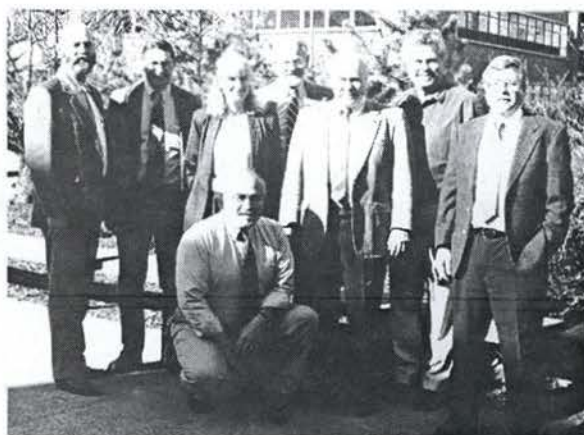
MEETINGS

Twice per year - Spring and Fall ▲

CFWR Executive Council

by L. Jones

The executive council is comprised of the dean, associate dean, the director of administration, CFWR department heads, a faculty representative, and a student representative. This group works together as a team in order to advise the dean and make recommendations dealing with issues affecting the workings within the college. They are responsible for coordinating the teaching, research and service missions for the college. The group exchanges ideas in order to promote college wide cooperation and participation which aids the dean in making the ultimate decision. ♣



The Alumni Association

by L. Jones

The CFWR Alumni Association was created in the fall of 1983 and held their first meeting during Natural Resources Week in April of 1984. The association was created to address alumni interests and concerns. "The purpose of this association is to act as a charitable, social and educational organization in furtherance of common goals and objectives of its members and to provide support to the College of Forestry, Wildlife and Range Sciences". The group meets annually during Natural Resources Week allowing an opportunity for students to meet with past graduates from CFWR who are professionals in the natural resource field.



Their present goals are as follows:

1. Expand information/communications network among CFWR alumni
2. Expand information/communications network linking the alumni board with CFWR students and faculty
3. Expand information/communications network linking alumni with CFWR Guidance Council
4. Assist the college in recruiting students and producing marketable graduates
5. Play an active role in the development of the CFWR strategic plan
6. Support and strengthen the Alumni Association Student Fund (AASF)

The present CFWR Alumni Board of Trustees consists of: Hal N. Anderson, Art Andraitis, Roger Bay, Michael Boeck, Ruth Carapella, Dan Dallas, David Dankel, Murray Feldman, Dennis Froeming, Judy Hallissey, Delmar Jaquish, Leanne Marten, Dennis Mengel, Lynn Mineur, Lew Pence, Dan Pence, John Roberts, Ed Schultz, David Scott and Terry Solberg. ♣

The State of the College, Awards Banquet, 1995

by Leonard R. Johnson, Interim Dean (1994/1995)

The Dean's "State of the College" summarizes the past year's accomplishments as called for in the college's bylaws.

Transition periods naturally include a great deal of uncertainty and the accompanying anxiety, but with the positive attitudes of a supportive and productive faculty and staff of the College of FWR, this past year has also proved to be one of progress.

In May 1995 we celebrated the commencement of 98 undergraduates and 57 graduate students, one of our largest graduating classes in many years. Our employment surveys show that a high percentage of these graduates are working their way into good, permanent jobs. We were able to bring the college at least to the on-ramp of the information superhighway by networking the computers in the building and connecting them to the Internet. Some additional capital funding allowed us to acquire the hardware for state-of-the-art remote sensing/GIS equipment. We secured a new position in fish and wildlife in the area of fish health and welcomed Dr. George LaBar as the new department head. We developed a solid beginning to a new strategic plan for the college and provided the base for discussion of the specific actions and strategies needed to address the critical issues identified in that plan.

As Interim Dean, I appreciated the opportunity to work in a broader leadership role in the college and university and, in that

role, to meet and work with many more of you as alumni and friends of the college. It was a challenging, yet rewarding, year. I'm especially appreciative of the hard work, cooperation, and genuine support of the faculty, staff, and students of the college—with special thanks to the executive staff of the dean's office, the associate deans, and the department heads—for their guidance and support.

I look forward to continued progress in the college under the very capable leadership of Dean Charles R. Hatch, and personally look forward to the opportunity to continue to work with him.

Enrollment

Graduate student enrollment for 1994-1995 was 210. Undergraduate enrollment was 560. Our total enrollment of 770 students included 54 international students from 24 countries. The college's enrollment has grown by six percent since last year for a total 5,236 credit hours. The college also has the largest Native American student population in Idaho with 20 students, one of the largest in any natural resource school.

Student Awards and Achievements

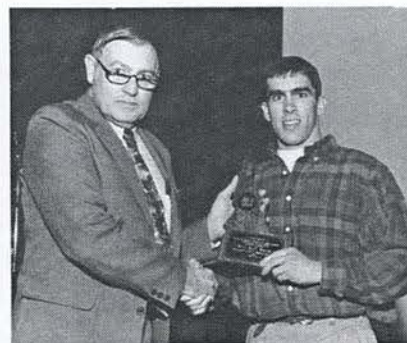
Our top students' achievements this year speak for themselves, winning some of them multiple awards from both the college and the university. This year's "Outstanding FWR Senior," Lucy Jones, was also "Outstanding Senior in Range Resources," and the university's first-ever recipient of the



Kendall Johnson and Lucy Jones



Joe Ulliman and Wade Alonzo



Ernie Ables and David S. Duncan

"Richard Gibb Award for Non-Traditional Students." This mother of one has been active in a staggering array of activities. Even while carrying a heavy class load with an

excellent GPA, she worked as editor of the college's bi-monthly student newsletter *The SNAC*, editor of the student Range Club newsletter, was a planner for the UI's 1995 International Week, member of the FWR Student Affairs Council (SAC), member of the UI Logger Sports Club, and a member of the Student Management Unit Committee, among others. In addition, Lucy was selected by her peers to join Wade Alonzo, Outstanding Senior in Forest Resources, to speak at the college's commencement May 20. They presented the comic duo "College Life." Alonzo has conducted research at the FWR Pitkin Research Nursery, was recognized by the Associated Students of the University of Idaho for outstanding productions work, and recently earned a certificate of recognition for work with the Forest Service. The Resource Recreation and Tourism Department chose four Outstanding Seniors this year who provided needed leadership for their department's student organizations, offering various research and writing workshops for their fellow students, and greatly boosting membership in the Resource Recreation and Tourism Association. Most award winners this year were extracurricular leaders and/or UI student government officials. The achievements of these very active students were representative of FWR excellence.

Outstanding Seniors in the Department of Fish and Wildlife Resources were Scott R. Everett for fisheries and David S. Duncan for wildlife. Everett continues the tradition of some FWR alumni by coupling service in natural resources with military service: he is a Marine Corps reservist. Duncan has served as chair of the Student Management Unit and conducted research at FWR's Taylor Ranch Wilderness Field Station. Outstanding Senior in the Department of Forest Products was Richard H.

Wilfong who served as president of the Forest Products Club 1994-1995 as well as in almost every other extracurricular activity offered by the department. The Department of Resource Recreation and Tourism



Breck, Jeff, Tiffany and John Hunt

chose four Outstanding Seniors this year: Tiffany J. Cripe Khan, Jeffrey L. Johnson, Colleen A. Stephens, and Breck D. Young. These students provided needed leadership for their department's student organizations, offering various research and writing workshops for their fellow students, and greatly boosting membership in the Resource Recreation and Tourism Association.

The Department of Fish and Wildlife Resources awarded three



Ernie Ables and Thomas R. Stephenson

"Outstanding Graduate Students" this year: Jim W. Garrett, Thomas R. Stephenson, and Chrystal L. Roder. A dentist for 15 years, Garrett is completing his Ph.D. in Fishery Resources and already interviewing



Fran Wagner and Richard Wilfong



Joe Ulliman and Jeff Fields



Kendall Johnson and Mirza Baig



Alton Campbell, Dorothea Shuman and Sam Ham

for a university faculty job. The *North American Journal of Fisheries Management* will soon publish his master's thesis. Stephenson has helped advance the use of ultrasound technology on wildlife, using it to measure the body fat of moose. Roder's book *The Fascinating Wildlife of Idaho* will soon be published by the UI and Idaho Department of Fish and Game. Her essay "Playing for Their Lives" addresses the role of play in animals' (and humans') lives and placed second in the 1994-1995 George H. Savage Award for Writing Excellence Contest.

Department of Forest Products Outstanding Graduate Student was Craig Hamanishi, last year's Forest Resources Outstanding Senior. Jeffrey W. Fields was the Outstanding Graduate Student for the Department of Forest Resources. Formerly a member of the Peace Corps and the UI's Graduate and Professional Student Association, Fields has won the Class of 1942 Philip Habib Scholarship for the past two years, and a Ford Foundation grant for forestry research in Nepal.

In the Department of Range Resources Mirza Baig of Pakistan was the Outstanding Graduate Student. For the Department of Resource Recreation and Tourism it was Outstanding Graduate Student Claudia V. Charpentier.

The Outstanding Graduate Student for the entire college for 1995 was Ph.D. graduate Dorothea E. Kunz Shuman, mother of two, recipient of several grants, and author of five publications on a model already becoming a "classic" in environmental education.

Four of this year's student award winners were international students: one outstanding senior and one outstanding graduate student from Canada, and outstanding graduate students from Pakistan

and Costa Rica.

The three winners of the 1995 George H. Savage Excellence in Writing Award were Kindra Beitelspacher (range), Chrystal Roder (wildlife), and Dean Roczen (forest resources). Beitelspacher's first place essay is titled "Mom, Will You Take Me Fishing?" Roder's essay "Playing for Their Lives" placed second, and Roczen's "Conservation Easements: Land Protection and Private Property" took third.

Faculty and Staff Awards

Selected by the students of the college, Ernest D. Ables won the 1994-1995 Outstanding Teaching Award; he was professor and department head in fish and wildlife resources.

Nick Sanyal, assistant research professor, and William J. McLaughlin, professor, both in the Department of Resource Recreation and Tourism, won the Outstanding Research Award for their work on the human dimension of fish and wildlife issues.

The Outstanding Continuing Education and Service Award went to Harold Osborne, associate extension professor in forest resources and manager of the UI Experimental Forest.

Jeffrey C. Mosley, associate professor of range resources, won the Outstanding Advisor Award and was the students' way of saying "thank you" for his willingness "to drop whatever he's doing to help a student," according to the students who presented the award.

For their "genuine concern about the students" as "advisor[s], mentor[s], and listener[s]," CFWR students gave the Outstanding Staff Award to Kathy Mallory, office coordinator in Range Resources, and Riva Morgan, FWR employment coordinator.

Every year the Department of Forest Resources bestows its own faculty award. Professor and experiment station economist Charley McKetta won the 1994-1995 Award for Excellence in Teaching.

One FWR faculty member captured a university-wide honor as well: Alton Campbell, associate dean for academics, won the UI Outstanding Faculty Award given annually by the Associated Students of the University of Idaho for "outstanding teaching, community activity, and exceptional student support." Campbell also received a "Special Appreciation Award" from CFWR students to "thank him for all the extra time and effort he's spent making the college a better place for the students." ▲



Jeremy Vlean, Kathy Mallory and Riva Morgan



Kathy Rose and Jeff Mosley



Leonard Johnson and Alton Campbell



Student Management Unit



Xi Sigma Pi



Forest Products Club



Wildlife Society



Logger Sports Club



Society of American Foresters



Range Club

Summer Camp 1996

by Rachel Schulz

For many of us in the College of Forestry, Wildlife, and Range Sciences, this is the time of the year when our thoughts turn to summer employment; sending out resumes and setting up job interviews. Some lucky ones will graduate and still others will have the experience of attending Wildland Field Ecology 1996.

The course this year will be taught in the same two week period as last summer with just a few changes to help improve the curriculum. The destinations will remain the same, with each student spending four days in three locations; Moiese, Montana at the National Bison Range, Clark Fork Field Campus, and Fort Spokane. The differences in the summer session as compared to the last several years are that Dr. Ernest Ables will take over the wildlife section in Montana for Dr. Kirk Lohman, while Dr. Michael Falter, Dr. Ed Krumpke, and Dr. Penny Morgan will still teach their respective sections of the course. Additionally, according to Dr. Falter,

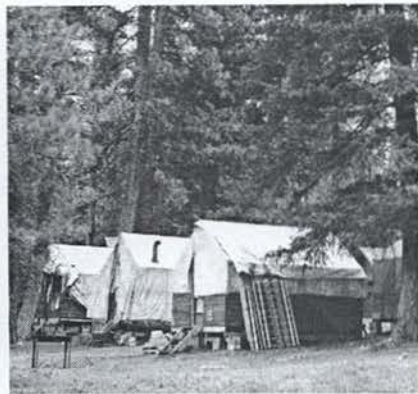


there will be a greater emphasis on wildlife and resource recreation, while the role of aquatics and stream surveys will be decreased. If two weeks sounds like more than a person could handle, it wasn't long ago that Summer Camp was four weeks long.

From 1940 to 1992 Summer Camp was held at the McCall Field Campus. In the early years, it started out as a 10 week course and students were lodged in wooden frame tents and bathed in the chilly Payette Lake. Back then the Forest Service taught the students a short course in fire fighting, and often the

undergraduates were commandeered to go on fires for days at a time. The students were hauled around to various sites in flatbed tracks used for the common barnyard animal. The first women forestry students participated in the course in 1965. Over the years, the number of weeks for Summer Camp in McCall were whittled back more and more until the course that was last taught there in 1992 was four weeks long. There had been increasing complaints from students who couldn't earn enough money because the summer camp was taking so much time. In 1993 the faculty decided that four weeks was too long for the course and changed it to two weeks in three different locations.

There are many valuable things to be learned from Field Ecology 302. The professors have worked hard at making it as integrated as possible and there is something in it for everyone. The course provides the student with educational experiences, adventure, and friendships to last a lifetime. ▲



1950's camp



Senior Forestry Field Trip

by Nathan Goodrich

Each Spring semester Forestry 478 - Western Forestry Practices provides students with the opportunity to receive an up close look at logging and other forestry practices that take place in the coastal areas of the Pacific Northwest. The class is comprised of a seven day field trip throughout the coastal and inland transition forests. The students meet with a wide array of natural resource specialists from both the Private and Government sectors. This exposure enables the students to compare different land management strategies and practices.

The class is set up on a daily basis, with each day dedicated to one topic or specific landowner. At each site the escort for the tour gives a presentation and then opens the floor for comments and questions. This allows the student an opportunity to essentially "pick the brain" of that person. The answers come from real people with real world experience rather than from a textbook or lecture.

The 1995 trip, led by Dr. Lee Medema, included a stop at the



State of Washington Capital Forest just south of Olympia. The state foresters here must deal with trying to manage the forest under great scrutiny by state officials and local environmentalists.

The next stop was with Weyerhaeuser Corporation, a company that is concerned with the production of timber while managing around policies set by the government and themselves. Weyerhaeuser also has land in the blast zone of Mt. St. Helens. The company has had to alter their timber management in this area.

The next stop on the trip was at the Department of Forestry in Astoria, Oregon. Here, Lee's brother, Stan, who is the district Forester, went over an innovative data collection process that his district is currently using. The rest of the day was spent with an official at James River Corporation, a paper company on the Columbia River. The company grows hybrid poplar trees as a crop, with a 7-15 year rotation.

The next day was spent with Simpson Timber which is a small privately owned corporation that has its own land and mill. The final day was with the manager of the City of Seattle watershed. He talked about logging in the watershed while preserving water quality, wildlife areas and soil integrity.

Overall, the trip is very informative and thought provoking. It gives the students a chance to observe different forest practices while meeting with some of the



region's leaders in natural resource management.

Now that I have' talked about the daily routine, I will continue with the fun part. The group stayed at Camp Thunderbird Boy Scout camp in cabins with access to a kitchen/meeting hall. The extra-curricular activities included trips to the coast for fresh seafood, swimming, and shell collecting. Another adventure included a trip to Portland, Oregon. Nightly sessions at camp included oyster eating, sitting by Summit Lake and of course discussion of the day's events. The trip itself is an adventure. Driving from Idaho to the Washington coast is great fun, with rain, potty stops, rain, convenience stores, rain, Mt. Rainier, rain, the Pacific Ocean and many more interesting places and stops.

So if you are looking for fun during the spring of your senior year, making new friends or building on established friendships, while learning about forestry, the Western Forestry Practices trip is for you. ▲

Clint Gross Memorial Scholarship

by L. Jones

Clinton Bradley Gross was born on August 6, 1973 in Boise, Idaho to John and Cathy Gross of Meridian, Idaho. He was shortly thereafter diagnosed with Cystic Fibrosis. He attended elementary and secondary schools in Meridian, graduating in 1992. He was a member of the National Honor Society and was active in student government and high school baseball. In the fall of 1992, Clint enrolled at the University of Idaho in Range Resources and became a member of the Farmhouse Fraternity. Due to poor health he returned home after three semesters at UI. Clint passed away on March 25, 1995. This scholarship was established in the hope that others could benefit from his memory, dedication and strong beliefs.

During his time at UI, Clint managed to maintain an exceptional grade point average as well as participating in extra curricular

activities. Clint was a very active member of the Range Club (as well as one of the best dressed), being vice president for the 1993 term. He attended the National Society for Range Management conferences with the club and was an instrumental part of the plant identification team and undergraduate range management exam team. He believed with his heart and was always prepared to defend his views. Clint had a love for the outdoors, a desire to learn and enthusiasm that he passed on to all.

The Range Club donated a computer fund to the establishment of the Clinton Bradley Gross Scholarship Endowment fund and has made it an annual project to contribute to the cause, in the hopes of creating an award of a substantial amount. Already the fund has begun to grow with a significant donation from the Gross Family and Meridian, Idaho residents. The 1996 recipient was Marni Dickard from Kimberly, Idaho who has a similar desire for learning and a love of the outdoors.

"As you ride over the endless range on the wings of the lost horse, darting behind the clouds, surfacing often to remind us of your truths, strengths and beliefs. Your memory will forever linger in our hearts." ▲



El Salvadorans Study Enviro-Planning at UI

by L. Jones

A group of 18 Salvadoran students arrived last fall to study Environmental Planning at the University of Idaho. Their nine month study period will include training in English, how to start a biological inventory, utilize satellite photos, and mid management skills such as how to lead forest tours, give presentations, foster eco-tourism and get local people involved in forest planning. Dr. Sam Ham from the Resource Recreation and Tourism Department will be leading the training. He has spent a great deal of his research concentrating on issues of this nature and is fluent in Spanish.

The biggest forestry concern in El Salvador is poverty. Peasant farmers need land to survive and

farm so they cut down small patches of the forest to plant food crops. The soils are very poor so in three to five years they move onto another piece of land. The growing population has placed quite a strain on the El Salvadoran woodlands. It is the hope that this team of four women and 14 men will take their learned knowledge back to their country to encourage the "migratory subsistence level" farmers to understand the land and manage it in a sustainable and profitable manner.

The students are rapidly being immersed in the American culture as the project also encourages the students to interact with the American people. ▲



A Falling Star

Our gasps can ruffle night's
feathered flight
when crooked beak
curves down to peck
star

or planet

that shining arc
night's silver guillotine.

—Denise Ortiz



Mom, Will You Take Me Fishing?

by Kindra Beitelspacher

As I paged through the calendar the other day counting the days until summer, the date May 23 jumped out at me. The date echoed through my head, 13 years fell away, and I was a 10-year-old standing in my dirty jeans and ragged sweatshirt on the sandy shore of the Missouri River, fishing pole in hand, grinning at my father.

That's not the first time I've been reminded. Every time I cross a river a smile comes to my lips. OR when I see someone skipping rocks on water, I instinctively want to join them and show off the skills I learned on that day so long ago. May 23, 1982 was the first time I ever went fishing.

I've had lots of fishing adventures since then, but that one, my first one, remains perennially planted in my mind. Last spring I took my friend Dustin on his first-ever fishing trip. Although he's 24, it was his first time baiting a hook, casting, and telling stories about "the one that got away." His parents are divorced, and no one ever took the time to introduce Dustin to the great outdoors when he was a kid.

Unfortunately, more and more kids grow up like Dustin. Many children of single-parent families never get the chance to experience and enjoy the outdoors. There's no time, no money, no patience.



From 1970 to 1988, the number of single-parent homes in the United States more than doubled. U.S. Census Bureau figures for 1993 revealed that 27 percent, or 9.4 million, of all families are single-parent households.

Statistics like that scare me because I know they mean fewer and fewer children are getting to experience the great outdoors with a parent. The increase in single-parent households, urbanization and many alternative leisure activities has stolen the outdoors from far too many people and families. But people need to realize, whatever the pastime, enjoying the outdoors is not limited to traditional two-parent households.

Many kids might (and probably will) discover hunting, fishing, hiking, or camping on their own as they get older and are eager to escape the hustle and bustle of life, if only for a weekend. But there is something almost spiritual about learning those outdoor skills from a parent.

If you dig around in the familial soil of almost anyone who feels close to the natural world, you're likely to find a parent or grandparent who

made it their responsibility to introduce the children in their lives to life out-of-doors. The indelible power of these natural mentors deserve serious consideration. It's safe to say, for my part anyway, that I most certainly wouldn't be writing this had it not been for the early influence of my father; wouldn't perhaps had ever done anything with a conservationist's passion had he not personally initiated me into the great masterworks of nature.

How would I see the world today had I never witnessed the brilliant reflection of the sunrise on the mighty Missouri? Would I be able to pitch my own tent if we hadn't camped every summer since I was 10? Would a stuffed pheasant land in my bedroom had my father not taught me how to hunt before I left junior high? Would I love the taste of deer meat had it not been for my father? Would I love nature the way I do? And believe wholly that I belong to it and insist on protecting it always?

There are no guarantees that children will pick up the scent and follow the trail, but if we want half a chance at turning out environmentally responsible people, for goodness sake, get them out of the house.

Children who learn about the ecosystem and how to protect it often become committed environmental activist. Conservation, pollution control, recycling, and protection of endangered species all take on new meaning for children when they have experienced the

great outdoors firsthand.

With the girls being born first in our family, and the boys coming along a few years later, it was our good luck that father didn't differentiate between his sons and his daughters. He just went ahead and taught us to do the things he'd learned to love as a boy in South Dakota — fishing, hiking, camping and exploring the world around us, as his father taught him to do.

Dad never said "You will love nature." He just took us along. And it worked.

For many single-parents (moms, especially) the most intimidating barrier to outdoor involvement is a lack of confidence in their own outdoor skills or their ability to teach them.

It reminds me of a line of poetry that haunts me, though I can't remember the name of the poet or poem. "The woods would be such a quiet place if only the best birds would sing." The world has become quieter, emptier, since people have silenced the parts of themselves that weren't perfect.

My father taught me early on that it's not the technique or skill that matters. It is the learning process, the awareness of the world around you, and the time shared together with family. We never took exotic trips to fish, hunt or camp. We just took advantage of what was in our own backyard, so to speak, and I learned life's lessons anyway.

While statistics today are leaving more kids asking "Mom, will you take me fishing?", that doesn't mean single-parents — moms or dads — aren't up to the task. All parents need to recognize the importance of introducing their children to the natural world around them and the lasting impression it can leave.

Luckily, many organizations

stand ready to help parents give it their best shot. Scout troops, 4-H clubs, and many City Parks and Recreation Departments offer summer fishing programs or fall hunting and safety courses. Programs like this offer simple, easy ways that reintroduce the outdoors to families and kids.

Although it has been thirteen years since my dad took me fishing, if I close my eyes and concentrate I can feel the sun on my face and the cold water soaking my tennis shoes. I can see my dad's ragged blue fishing hat and my sister's pudgy smiling face. If I open my eyes and concentrate I realize my dad introduced me to a lot more than fishing on that day so long ago.

How do you thank the person who gave you a vantage from which to see the world? I think the only thing you can do is pass that view on to others. ▲

Kindra Beitelspacher is a graduate student in Range Resources.

"The forests must be, and will be, not only preserved but used, and the experience of all civilized countries that have faced and solved the question, shows that the forests, like perennial fountains, may be made to yield a sure harvest of timber, while at the same time all their far-reaching beneficial uses may be maintained unimpaired."

*- John Muir
Founder, Sierra Club*

It takes 80 years for nature to grow trees like these. That's why, even though trees are the most renewable resource in nature, it's not enough to simply replace what we take away. We must fully utilize every part of every tree that comes to our mill.

Technology is helping us improve conservation efforts in our processing and manufacturing. Computer-guided saws make it possible to use 98 percent of every tree we harvest. Chips are used to make paper and even the bark is used as fuel to run the mill.

We are taking responsibility for our livelihood by protecting and renewing the health of the forest. Helping seedlings and towering giants grow side-by-side, so society and the forest can live together — always.



RILEY CREEK
LUMBER COMPANY

LACLEDE, IDAHO

Balancing the gifts of nature
with the needs of society

Playing For Their Lives

by Chrystal Roder

A river otter slides down a wet river bank and splashes into a river again and again. A raven flies into wind currents rising up alongside a cliff and is blown back end over end. It turns around and flies back for more. A polar bear slides down an icy bank into Arctic waters, climbs out and tries it again. A badger discovers somersaults and practices them repeatedly.

Why do animals spend so much time and energy deliberately doing things that seem to have no purpose? For something so seemingly simple, play behavior is a baffling subject for scientists around the world.

Play behavior is vague and has yet to acquire a definition agreeable within the scientific community. But a definition may not be necessary to recognize this fascinating form of behavior. Most people have played at one point in their lives and can identify when play is occurring in animals.

Animals that play show amazing similarities to how children play. Undeniable parallels between animal play and human play give young animals honorary membership in human society. Our concepts of animal worlds and our growing commitments and concerns about the welfare of wildlife are enhanced by the study of animal play.

Play behavior has many characteristics that appeal to our common sense and are generally agreed upon by animal scientists.



Probably the most conspicuous feature of play is its lack of any obvious goal or purpose. Konrad Z. Lorenz describes in his book *The Foundations of Ethology* (1981) how a fully grown, captive lynx often plays with the children of its owner. It would exhibit the most alarming prey-catching and fighting play but yet only use "velvet paws," without biting. The children never sustained so much as a scratch. Children also chase and wrestle each other, but again, not in any serious context.

Play is more frequent in young animals than in adults. In his book, *The Play of Animals*, Karl Groos, a philosopher from the turn of the century, provides an interesting insight. "The very existence of youth is due in part to the necessity of play; the animal doesn't play because he is young, he has a period of youth because he must play." It isn't often that we see adult animals playing a game of tag but, then again, adult humans also decrease the amount of time they play as more important responsibilities in life take precedence.

Also, play occurs when there is nothing else to do. If it currently

isn't more important to eat, sleep, avoid predators, or mate, then playing is an option. This generally holds true for people.

Play usually imitates other behaviors seen in adult life. A young animal may play-fight, play-chase, play at being a predator, try play-mothering, and more. Similarly, children may play-hunt with a bow and arrow, play tag, play "house," and play with dolls.

Play is more likely to occur when animals are healthy and relaxed. Animals that are fearful or hungry and in constant search of food cannot afford the luxury of play. The same holds true when they are ill. Children rarely play when feeling "under-the-weather" or are concerned about when they will next eat.

Play can be dangerous and costly. Much time and energy is put into play that could be allocated to other activities. Young mountain goats will run along rocky cliffs and take daring jumps which sometime result in falls and injuries. Children also take risks running, jumping, and climbing. A Consumer Product Safety Commission study in 1979 showed approximately two-thirds of almost 100,000 injuries per year on playgrounds are the result of falls from equipment such as swings, slides, merry-go-rounds, and climbing bars.

Play seems to be pleasurable. This may seem anthropomorphic, but animals may feel pleasure as humans do. Research has indicated that there are pleasure centers in the

brains of humans *and* our animal relatives.

Consider the example of marine mammals inventing surfing. Dolphins jump onto the pressure waves in front of moving ships. They are driven along, surfing, at a clip they could not obtain under normal conditions on their own. This appears to give them enormous pleasure. Young primates even seem to thoroughly enjoy being tickled.

Play can also involve surprise and thrill-seeking. Children get caught up in the excitement of a game of peekaboo or daring stunts. The excitement of the unknown and suspense of something to come often results in a sense of exhilaration. Animals may also experience this feeling. A familiar example is seen in kittens playing a game of pounce, crouched in anticipation, awaiting some unsuspecting object or person to happen by.

Play can be exploratory. During youth, most mammals can be said to be "creatures of curiosity," seeking out the unknown and seeing what things can do. Primates are notorious for inspecting new devices.

In his book, K. Z. Lorenz also shares an example of a chimpanzee belonging to Wolfgang Kohler named Sultan. The chimp was presented with a task of acquiring a banana beyond his reach with two sticks. In order to have a tool long enough to reach, one stick had to be inserted into the end of the other. While the chimp was fixed on the banana, he always tried to reach the fruit with the longer of the two sticks. After he had given up on his banana and turned his back, he began playing—exploring—with his sticks. The moment he succeeded in connecting the two sticks, he realized the potential of his creation and quickly got his banana.

Play is repetitive. A dog may retrieve a stick many times or play chase with another dog until exhausted. Children may climb the same tree over and over or slide down water slides repeatedly until something else claims their attention.

Dominance relationships may break down for the sake of play. Bigger animals may self-handicap themselves to avoid overpowering a smaller or younger playmate and, hence, bring an end to the playing. Animals may alternate being the chaser or the chased. Children have ritualized this play in a popular game called "tag."

To confuse the issue, it is known that not all species of birds and mammals play. Play may vary within a species as well. Voles born late in the year do not play whereas those born in the spring will. It is believed that fish and reptiles don't play at all. So why, after all the years of evolution, do only some animals play? Scientists don't have an answer.

If the costs of playing were higher than the benefits gained, then play should have disappeared long ago. So what are the benefits of playing? Scientists have struggled with this question for years. It may take many more years, if ever, to find an answer, but several theories have been suggested.

Perhaps animals that are stimulated to experience pleasure will explore new objects or places. The stimulation of these neural pathways could then become permanent in the brain.

Play is often strenuous and involves many muscle groups. This activity may help stimulate physiological development. If an animal doesn't exercise enough while young, it may not fully develop as an adult.

If an activity is fun, it is more likely to be repeated by an animal. This may lead to discoveries that help individuals to survive. Others may observe and adopt this new discovery and increase their survival as well. Over time, the activity may be passed on evolutionarily.

Juvenile female vervet monkeys will participate in play-mothering with the infants of the troop. These females become more adept at handling infants of their own than those females who did not have that play experience.

Another theory suggests that young animals which are well-fed and have high metabolisms will play to rid themselves of excess energy.

There is little evidence to prove any of these theories of play. This doesn't mean they should be discounted. Ultimately, play may incorporate all of the proposed theories to explain why we still have this phenomenon in the animal kingdom.

The origins of play may be rooted in the fact that some very important instincts begin appearing at a time when a young animal or child does not seriously need them. This brings us back to an idea that perhaps animals are given youth to prepare for serious adult life.

Scientists just aren't sure. But according to a statement from the First National Conference on the Vital Role of Play in Learning, Development, and Survival: "Play is vital to the healthy development of all so-called higher animals. Play is a biological imperative. Play heals, naturally and as a tool in psychotherapy with children. Play for your life: the stakes are survival." ▲

Chrystal Roder is a graduate student in wildlife.

Conservation Easements: Land Protection and Private Property

by Dean Roczen

The desire of society to protect natural resources and still enjoy all of the benefits from natural areas has driven conservation efforts for over a century. Many of the policies and land management activities take place on public lands (such as our National Forests) where the issues and activities take on grand proportions. Parallel desires to protect natural areas in private ownership are confounded by a strong support for private ownership and property rights, where the level of land stewardship varies from one ownership to the next. The use of conservation easements is a practical way to ensure natural resources protection on privately held lands.

A conservation easement is simply an agreement where a landowner waives certain development rights of his own land. By transferring the development rights to a conservation organization, such as a state agency or a land trust (the Nature Conservancy is one), the land is protected from drastic changes in land use even if the agreeing landowner sells the land or otherwise transfers it. Land is perpetually protected from developments, such as subdivisions, mining, clearcutting, or any other use that might contradict land protection objectives. The landowner often retains the right to continue activities that are considered appropriate in natural areas. This might include forestry, agriculture, hunting rights, and maybe even an option to designate a few homesites for descendants. In



addition to the satisfaction of land protection, there are many financial incentives associated with easements that will compensate the landowner for the forfeiting of development rights.

Conservation easements are becoming very useful in areas of the US where large natural lands are privately owned. A real life illustration of some of the advantages of conservation easements is a recent agreement in New York State, where a regional timber management company recently transferred development rights on over 17,000 acres of land. This large land parcel in the Adirondack Mountains is composed of productive hardwood forest, pristine lakes and ponds, and is surrounded by State-owned *forever wild* Forest Preserve. With the conservation easement in place, the State of New York is authorized to manage the area for recreational use while the landowner will continue to remove timber from the land.

There are many aspects of easements that might make them preferable options for both public managers and private landowners. The most important advantage of

conservation easements is their flexibility. The blend of land uses and restrictions can be tailored to fit the needs of the landowner, the public, and the characteristics of the land. In the New York example, trail development and camping opportunities are now provided along pristine lake locations within the property and also leading to adjoining State lands. Other locations of the property will be managed for timber removal. These *spatial* decisions were guided by the landowner's desires to harvest timber without the interference of public recreation, the public's desire to gain access to lakeshore locations and other State-owned lands, and also the location of both productive hardwood stands and fragile wetland areas. Other land protection tools such as acquisition or landuse regulations would not have afforded such flexibility.

Another useful advantage of conservation easements is the financial incentives they can provide property owners. Often the conservation easements are donations, especially with small land parcels. In some arrangements, the easement is purchased outright by a conservation organization. In this case the land owner is directly compensated for the decreased value of the land. Usually the payment is the difference between the appraised value of the land before and after the easement restrictions are in place. Even when the easement is a donation there are many tax related incentives. The decrease in the appraised land

value typically results in a drastically reduced property tax. This is important to many landowners for at least two reasons: reduced annual tax liability, and reduced tax liability during estate planning and *gifting* to heirs and descendants of property owners. These incentives alone are unrelated to most land protection objectives, however they provide a great incentive to place land into protected agreements.

While there are many landowners that use good land stewardship on their property, there are seldom any guarantees what will happen after the land is sold or the landowner dies. With conservation easements, it is the "development rights" that are transferred to a conservation agency or organization. Any future landowners are limited to how they can use (and possibly abuse) the land because they will not have the development rights to the land; those rights are safely held by somebody else. Conservation easements provide the legal support to ensure that the land remains in a nature condition *in perpetuity*.

Probably the most advantageous benefit of conservation easements is that many land use values are incorporated into land

management, not just those of the landowner. With conservation easements, both the private landowner and the public agencies involved identify the most important uses of the land. Agreements always highlight and are designed to get the most benefits from the land, whether it be public access, income from timber removal, or the satisfaction of perpetual protection. The New York example demonstrates that conservation easements can provide many opportunities that might not have been met with other land protection techniques. Acquisition into the New York Forest Preserve would have been a very expensive venture and might have been perceived as a burdensome use of taxpayer's money by many. If the land becomes state-owned, there would not be any timber removal from the land, and timber is indeed one product of the land that has a value. Conversely, the public could have tried to achieve land protection goals by regulating and restricting the timber company that owns the land. These measures would be costly to the landowner and are very politically unfavorable in that region. The conservation easement allows for income to be generated from timber in appropri-


ate areas (with stated appropriate methods), public access is provided, protection is ensured forever. The costs for each involved (public and private) are minimized when a conservation easement is used. The landowner will not be permitted to harvest in some of the areas managed for recreation. For it's access and protection, the public gives up some of the taxes the land would have generated. But these costs are very small for each considering the multiple monetary and non-monetary benefits provided by the easements.

There is an increasing pressure for the protection of natural areas in private hands. There is also an increasing demonstration by private individuals to protect the natural areas they own not just now, but forever! Conservation easements and governmental programs that encourage this land use decision are likely to become more important in the future. In areas of the US where private ownership dominates natural landscapes, easements will become essential to protecting public values while still retaining traditional property rights. ▲

Dean Roczen is a B.S. student in forest resources.

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Sounds of the Forest

The brightening sky above the mountains
 Gave promise of a day of exploration
 Far from the noise of our usual world,
 The incessant, low-pitched rumble of vehicles,
 The demanding clangor of the phone,
 The screaming mating-cry of the faxes.

Instead, we were greeted by
 A freight-train of wind sounds;
 Wind so strong that trees bent double,
 Branches hurtled to the ground
 And leaves sped first one way,
 Then another, forming small leaf-tornados.

Trees snapped and fell, but their death-sounds
 Were heard only mutely above the roaring wind.
 All day long the wind howled,
 Moving the entire forest floor first one way
 Then the other, clearing the hummock-tops
 Of leaves and moving them into the small valleys.

However, the next day brought renewed tranquility,
 As though the freight-train had cleared the junction
 And was gone. In its place, there on the side of
 The mountain was a quiet so loud your ears hurt
 From listening to it. Only the crys of the ravens
 And jays, the chattering of the red squirrels

And the distant hum of chain saw and skidder
 Pierced the intense silence of the day.
 The wind had changed the forest, with newly
 Toppled trees and broken branches.
 And there on the forest floor,
 On those newly cleared hummock tops

Was the wind's gift: beech nuts laying about like
 Dreamed-of golden nuggets waiting to be picked up
 By one and all: squirrels, bear, deer, turkeys,
 Mice, and of course, the noisy interloper
 Whose footsteps in the leaves belied his presence,
 Their noise reminding him that he was an intruder.

—George W. LaBar



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FEATURE ARTICLES



Line drawing by Nancy Hightower

Global Forestry Connections: UI Research of Community Forestry in Nepal

by Jeff Fields

What is community forestry, and why is women's participation in it important?"

Women's Role in Forest Management in Nepal

Throughout Nepal, women are heavily involved in the work of maintaining the nation's subsistence farming economy, a system heavily dependent on its forest lands. Ninety-one percent of women (compared to 75 percent of men) are involved in agriculture, contributing from 50 to 80 percent of the total agricultural labor. In many cases, women have the primary responsibility for animal fodder and fuelwood collection, two activities which can have a tremendous impact on forest conditions due to the large amount of these products that needs to be collected to maintain the household farm.

Involving Women in Community Forestry

Despite the significant role women play in the day to day management and use of forests, it has proven difficult to ensure

women's participation in Nepal's government-initiated community forestry program. In most of Nepal cultural norms have historically excluded women from activities which require public discussions including community forestry.

The government of Nepal and the major donor agencies which support community forestry acknowledge the central role that women play in forest use. Over the years, a variety of strategies for increasing women's involvement in community forestry have been tried. One idea which has been promoted since at least 1981 is the establishment of a quota mandating that a certain percentage of the user group executive committee members be women. According to Department of Forestry district-level staff the current policy is for the Department to promote the concept of women committee members, and, ideally to have women comprise at least one-third of the executive committee.

The primary objective of my research was to explore the relationship between the level of women's formal participation (i.e., as executive committee members) and the overall level

of participation by user group women using a multiple case study research design. In this design, women's and men's participation experiences with community forestry and their attitudes towards women committee members were collected (via interviews and observation) from the members of two distinct community forestry user groups located in the middle hills region of western Nepal.

Implications of the Research

Taken as a whole, the results of my research suggest that women are participating at a higher level in one of the two villages I studied, than the other.

Culturally Accepted Roles

In the more successful village, women were encouraged by men to be on the executive committee, and most men interviewed stated that it is important to have women on the committee, but the interview data from village women showed they feel they are not really accepted in such roles. Only one woman in thirteen clearly stated that it was



acceptable to the local society to have women on the committee. Furthermore, only one of thirteen women interviewed would be willing to be on the committee.

The Operation of the Committee

In community forestry, at least as practiced in the villages I studied, the members of the executive committee do not share equal responsibility or authority. In these two user group areas most of the authority (and responsibility) to make decisions and raise issues is held by the committee chairman, and his agenda is not necessarily made after consultation with the committee members. Thus, simply having women committee members does not create a context in which women of the user group have greater access to forestry decision makers or more interaction with women who are knowledgeable about forestry activities and plans. As long as committee responsibilities and authority remains primarily in the hands of the chairman and information is transmitted primarily through the town crier the impact of women occupying "regular member" positions on the committee will be minimized.

Village Priorities

For most women (and men) community forestry takes a back seat to the priorities of producing food crops, raising and educating children, and tending to the social relations and obligations integral to their subsistence existence. The products available from their community forests fulfill a relatively small proportion of the people's needs; most needs are met from private land or other areas of national forest. This too makes participating in community forestry less of a priority.

For women in particular, there are many other activities with higher priorities than community

forestry. Even if they have the interest, very few women have time to spend at a meeting discussing forestry issues. Although many men, of both user groups, stated that it is important to have women on the committee, few men interviewed would agree to have their own wives on the committee, in large part because they felt their wives didn't have time to do forestry work and take care of domestic responsibilities. Women's participation will remain low until women are given some relief from work loads so they have time to participate, and also until they are assured of tangible benefits from the time they do invest in forestry assemblies and committee meetings.

Implications for Community Forestry

Having women on the executive committee has made a difference in the successful village. Most of the people interviewed stated that forest protection has been improved since women have been put on the committee.

The decision of whether to have women on forestry committees is, in the final analysis, highly dependent on the local context. The two villages involved in this study are only about eight kilometers distance from one another by trail, yet there are significant differences in their resource and economic bases, and the life experiences of user group members. (Many of these differences can be attributed to the Indian Army connection found in one village, but not in the other.) The existence of a Forest Department regulation which specifies a target for the number of



women on the executive committee may increase awareness of gender issues for Forest Department rangers and other forestry extension staff, but in the end the decision of whether to select women as committee members, and then to socially support them in that role, will be a local one, based on local values, attitudes and beliefs.

At first glance, the University of Idaho's College of Forestry, Wildlife and Range Sciences may seem an unlikely setting for initiating research into forestry in Nepal, a small country in South Asia only two thirds the size of Idaho. However, the social sciences are strongly represented in the College's Department of Forest Resources, and a number of its faculty have interests and experience in forestry as practiced in other lands.

I lived and worked in Nepal between 1990 and 1992 as a Peace Corps volunteer, but it was these departmental strengths, rather than any concrete notions of doing forestry research in Nepal, which brought me to Idaho to study for a Master of Science degree. For my thesis project I proposed to study women's participation in Nepal's community forestry program, a project which was ultimately carried out with support from the Ford Foundation. ▲

Jeff Fields is a masters student in forest resources.

Does Money Have to be Everything?

by Jeff Johnson

My story begins as the springtime sun is transforming the snow-covered mountain meadows from a brilliant white to a rainbow of a million wildflowers. The high jagged peaks of the Sawtooths were wrapped in a white blanket for the entire summer, thanks to the record snows of the previous winter. With their telltale muddy waters, the creeks were cresting as they headed for the Salmon River, also colored by the earth which it carried. In the nights prior to the Forest Service's wilderness field season, I laid awake in my bunkhouse bed, listening to Forth of July Creek just outside my window, bubbling and gurgling like a happy baby. In addition to the creek, the spring skies also added to the wonder and awe-inspiring views created in that magical valley.

On one special night in early July, just as I was grilling some hamburgers on the bar-b-que, as the sun fell behind the peaks, blazing beams of red, orange, and yellow shot across the horizon, contrasting with the deep sapphire-like evening sky, making me feel as if I were not only watching a rainbow, but in the middle of it. My colleagues told me that in the Wilderness, by yourself, you often see things that will be just as magnificent as that sunset. Could anything ever come close to the magnitude and beauty of this sunset? I couldn't wait to find out.

The field season began after the trails became more or less snow-free. During the first couple of trips, my tent was set within a couple feet of snow. I guess it kept the mosqui-

toes away. Much of my time as a Wilderness Ranger was spent collecting trash, burying soiled toilet paper, and sorting through campfire ash for foil left behind by unknowing, or uncaring, visitors to the area. Other times were spent answering visitors' questions about where the fish are biting and explaining to them what it takes to be an ethical camper and a good steward to this pristine area. However, what I remember the most is the views I experienced.

There are some that I am sure I will never forget. At one point, I was standing on a cliff, overlooking a large valley. The clouds blew over the top of me from behind, engulfing the tree tops. They dropped down into the valley in front of me, curled under, and shot up the cliff's face like an immense wave ramming into a rocky shore, covering me in the cool mist. The sun shone from behind me, creating my shadow several hundred yards below. This sight is as strong in my mind now as the day I saw it. Another time I was standing on a rocky ridge. No trail led to the top, leading me to think that very few people had ever been there, making the experience even more powerful. Instead of seeing a little bit at a time what lay over the ridge, I closed my eyes before I could see what lay on the other side. When I reached the top, I opened my eyes to the breathtaking view of mountains, valleys, and trees as far as I could see. A small lake and stream lay in the first valley; I could only imagine what lay beyond in the next.

I stayed on that ridgetop for nearly an hour with the fresh mountain breeze in my face, wondering what I would give up to be able to experience this feeling of exhilaration. I wondered if anyone who climbed this ridge would feel the way I did. If they didn't, what would make them feel this way? I thought about my childhood, growing up and exploring the woods behind my house, never thinking that I would someday have the feeling of being on top of the world. I thought about my upcoming August marriage. ...a lot. I thought about some of the debates I had in college over the use of public lands. I wondered why anyone would want to destroy this feeling that can come from only a solitary experience. Had they ever experienced this feeling themselves? Did they ever have the chance? I wondered how anyone could ever put a price on a feeling. How much is it worth to be able to experience the wind, the sunsets, the rainbows, and the sunlight? Does money have to be everything? ▲

Jeff Johnson is a masters student in Resource Recreation & Tourism.

U.S. Forests and Forest Products: Fact vs. Perception

Excerpted by Fran Wagner
from an article by Jim
Bowyer, *Forest Products
Journal*, November/
December, 1995

Standing timber volume in U.S. forests is increasing as net growth exceeds harvest year after year. Forests occupy an area over two-thirds the size of the area covered by forests in the early 1600s, and recent years have seen an increase in area coverage. Recovery of paper for recycling is increasing rapidly, with annual recovery now in excess of 40 percent of U. S. paper production. These are all well documented facts, and they attest to the great success of forestry and forest products technology development efforts since the 1920s. But who is aware of these and other truths about domestic forests and the products derived from them?

Recent surveys of college students across the United States have indicated an appalling level of misinformation about forests. Respondents consistently indicated that the environmental situation related to forests was worse than it really is (i.e., they underestimated paper recycling activity, the growth/harvest ratio in domestic forests, wildlife population trends, and so on).

Teaching in a university setting provides an avenue by which it is possible to gain insight into the knowledge, thought processes, and perceptions of people representing a cross section of society. College students today are quite frank, and classroom dynamics are such that little is accepted as fact without questioning, comment, and discussion. And so it was in the winter of 1991 when, at the University of Minnesota, I began a discussion of

forests, forestry, and forest harvesting with a group of environmentally oriented but non-forestry students enrolled in a class entitled "Natural Resources As Raw Materials". What happened, in short, was that questions from a large segment of the class quickly became not only extraordinarily challenging, but in some cases outright hostile - a situation that I had not encountered in over 20 years of teaching.

Where were these students coming from? Why did the topic of forestry and forest harvesting trigger such strong emotions? Determined to find out, I devised a brief test designed to assess knowledge about domestic forests and other environmentally related matters. What I found was a pervasive pessimism, revealed by the fact that the students consistently indicated the environmental situation to be worse than it really is, and a shocking level of misinformation regarding domestic forests. Because of the unsettling results obtained from the test, the matter was pursued further. A series of questions relating to U.S. and global forests, population growth, and raw materials consumption was administered to over 2000 students at 11 major universities (including the University of Idaho). Guidelines to cooperating faculty specified that those completing questionnaires should not have been previously exposed to college-level courses dealing with either forestry or environmental issues. Consider the following:

— 65 percent indicated that forest harvest exceeds net growth in

U.S. forests. [The opposite has been true for all but several years over a time span of six decades, and for over 40 years consecutively.]

—73 percent indicated agreement with the statement: "At current rates of deforestation, 40 percent of current forests in the United States will be lost by the middle of the next century".

[The most recent forest survey shows that the area covered by U.S. forests increased over the past decade by approximately 4.6 million acres. Looking over a longer time frame, only 3.3 percent of U.S. forestland has been converted to other uses over the past 30 years, with almost all conversion related to urban expansion and infrastructure development].

—76 percent underestimated the percentage of area currently covered by U.S. forests compared to forest coverage in 1600. [U.S. forests today cover an area equal to about 70% of that covered by pre-settlement forests].

—72 percent indicated as True the statement that populations of elk, pronghorn antelope, and wild turkey have declined significantly in the U.S. over the past 50 years. [Populations of these species in the U. S have increased approximately 1,100, 1,050, and 1,900 percent, respectively over the past 50 years].

—94 percent underestimated the percent of annual U.S. paper production that is recycled paper. [Recovery of wastepaper for domestic recycling and export

totaled more than 38.6 million tons in 1994, amounting to 40.3 percent of domestic production].

—50 percent indicated a belief that the U.S. is a net exporter of most raw materials used by industry today. [The U.S. is a net importer of every category of industrial raw material - metals, cements, petroleum, and wood].

—64 percent chose building materials other than wood when asked what building materials can

be produced with the least impact on the environment. [Environmental life-cycle analyses to date have indicated that wood can be produced with significantly lower impacts on the environment than any other currently available material. Thus far studies have focused on energy consumption and associated manufacturing discharges linked to extraction, conversion, and use of various materials].

These results clearly show why many of the students in my class were outwardly hostile to anyone talking about harvesting forests. A large segment of them believe the forest products industry is in the process of deforesting the United States. If you believed that to be true, would you favor the harvesting of forests? Probably not! ♣

Fran Wagner is a professor in Forest Products.

Range Horses Running
Homesteading in Wyoming - 1912
by Ruth Bacon Heady

Quiet in moonlight,
a homesteader's shack
on the prairie.

Pulsing of hoofs,
beating and drumming
on virgin sod;
range horses running.
Squealing, biting, kicking,
they sweep 'round the shack.
Again they sweep 'round—
and again!
A lamp chimney rattles.
A window pane shatters.
Range horses running
on virgin sod,
beating and drumming,
pulsing of hooves.

A homesteader's shack
on the prairie,
quiet in moonlight.

The Wild Horses of the American West

By Kyle Hansen

In the early part of the 16th century the Spaniards began to explore the American continent. To aid them in covering more ground more quickly, they brought horses with them. Unwittingly they began to reverse an extinction process. Horses were native to this continent until approximately 7000 years ago when they disappeared. Why the horse disappeared is not understood but there are those that think that early Native Americans played a major role in this disappearance.

The Spaniards used loose herding techniques that allowed the horses to roam as they desired to forage, rounding them up only when they needed a mount. This allowed some horses to slip off and create feral populations. Another practice employed by the Spanish which led to the formation of these feral populations was the use of Native Americans as slave labor in tending their herds. After the Native Americans discovered that the horse was not some large monster, ridden by the Spaniards, they learned how to ride the animal



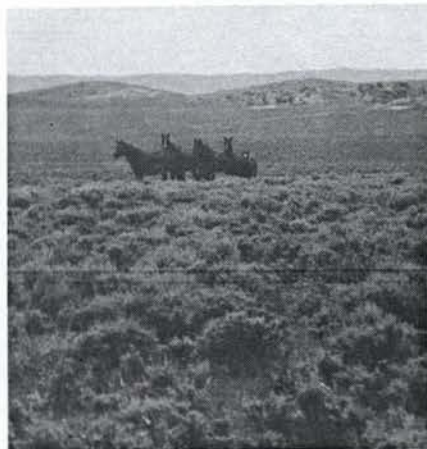
and to steal them from the Spanish.

As the horse herds began to propagate, (naturally and through the aid of the Native American's appropriation of Spanish stock) they began to spread to the North where they encountered the Great Plains. This vast grass-filled region gave them plenty of good quality food. This allowed the populations to grow until, at the time of European settlement, there were an estimated million horses, and possibly more.

The large population of horses forever changed the lives of the Plains Indian tribes. Prior to the arrival of the horse these nomadic people were limited in the distance they could travel. Loads were carried using pack dogs and what could be carried on their own backs.

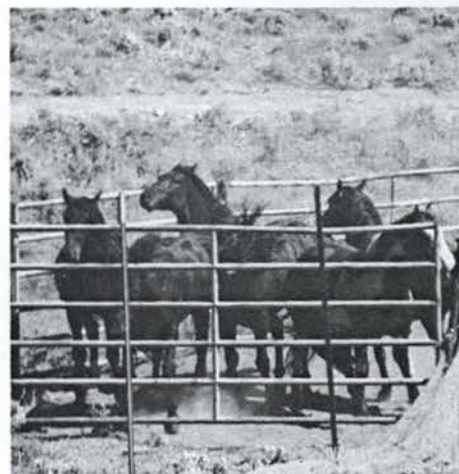
With the arrival of the horse the tribes began to expand their ranges. The horse could carry larger loads than dogs at a faster rate and over longer distances. In addition, the horse enabled them to change their hunting methods. Previously, to capture large animals such as the bison they were forced to use stealth tactics and the number of animals they could harvest was limited.

The arrival of the horse removed this limitation. They could now ride alongside Bison and harvest as many as skill would allow. The horse also brought the different tribes into contact with each



other more frequently. The increased contact was not always friendly and so warfare tactics involving the horse were also developed. When the European settlers began to arrive in the Great Plains they found a cavalry force that could rival those of the Mongols. From horseback Native Americans could fire their short bows as rapidly as a man could fire a rifle and with surprising accuracy.

The early European settlers also found the large feral horse popula-



tion to be beneficial. From these large herds early settlers were able to draw saddle stock and though catch and release practices were able to maintain a ready supply of animals for their needs. This enabled the cattle barons to expand their domains quickly as they did not have to worry about saddle stock for their hired help. Typically horses were rounded up in the early spring, and young animals kept for use in livestock management. These animals were kept until they were no longer useful, then turned back out onto the range. This practice led to the gradual decline of the quality of wild horses left out on the range until at last they began to be referred to with derision and distaste and disdain.

With the arrival of the automobile and barbed wire, the usefulness of the wild horse began to decline and they were again allowed to roam. In time they became a nuisance to the ranchers and farmers. Primarily this was due to studs driving off domestic stock to add to his band. As a result, common ranching policy promoted the shooting of studs. The only other use for these animals was as rodeo stock. This continued into the early part of the 20th century.

In the early part of the 20th century, these animals became more valuable as a source of

protein in the manufacturing of commercial pet foods. People began to see that they could make a decent living by killing these animals and selling the carcasses to processing plants. This practice disturbed some people who began to complain about the practices employed in the capture and killing of these animals, most noticeably, that many of these animals would be hurt during their capture and then allowed to suffer while being driven to the processing plants.

In the late 1960's legislation began to be enacted to protect the wild horses, however most of the legislation was ineffectual and enforcement became difficult when the horses crossed jurisdictional boundaries. In 1971 Federal legislation was enacted in the form of the Wild and Free-Roaming Horse and Burro act which placed the remaining animals under the protection and management of the U. S. Forest Service and the Bureau of Land Management. These two agencies were charged with managing the populations of wild horses and burros in an ecologically sound manner.

Several methods of management have been looked at for viability and effectiveness in controlling these populations including different methods of

contraception, however the current method of controlling the population of these horses is through the removal of animals deemed to be in excess and their subsequent placement in the Adopt-A-Horse program.

The Adopt-A-Horse program allows qualifying citizens of the United States to adopt a horse or burro for a fee of \$125 and care for it for one year. At the end of one year the care of the animal is evaluated by a veterinarian and, if proper care has been given to the animal, the adopter is given title to the animal. However if proper care has not been administered to the horse or burro, it is then removed from the care of the adopter and either returned to public lands or, preferably, given to another adopter for a probationary period.

The wild horse is a remnant of the Old West; just the mention of the term wild horse seems to conjure up visions of cowboys, cattle drives and the occasional Indian battle. Little boys (and girls) dream of becoming "cowboys" and chasing horses and cows across the range. It has always been so, and I hope it continues on forever. ♣

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The Future of the Wildlife Profession

by Jeremy L. Scheffel

I grew up on a ranch in the West raising cattle and occasionally other animals for the county fair. As you will hear from any country boy, I learned at an early age the work ethic that still exists in me today. I learned down to earth values of hard work, strong beliefs, love, and family while attending a small rural school. Everyone who lives the agricultural way of life believes in their work and the values set by preceding generations. In looking for a professional field to study in college, I settled on the natural resource field of wildlife. This choice was mostly based on my life-long experiences with animals and a love for hunting.

However, I have found something else about the wildlife profession in which I greatly admire. I have found strong values and beliefs by those in the professional realm that coincide with

many of the agricultural values and beliefs I grew up with. As with agriculture, those involved are not seeking to be rich, as wages are often low, but rather love their work as a way of life. In all respects, I love the land on which our country was founded, and will work to sustain the land for future use. I am pleased to see the wildlife field as it is today.

With competent management of our highly valued natural resources, we will always have them to use as needed by our people. Without this management, our natural resource base could never support our increasing population. In my future with the wildlife profession, I plan to play a part in sustaining our natural resource based biosphere while managing it for optimal yields for humans. To me, it is all a part of being the dominant species on earth to not

destroy what has been created for us, but to sufficiently manage it to fit society's demand.

I hope to fulfill my plans by doing my part in sustaining our natural environments while providing for society's needs as a natural resource manager. I also would like to leave everyone with the impression of Aldo Leopold's "Land Ethic." In relation to conservation for the future, while providing for today's needs I would like to dis-empower the false impression that all natural resource managers are radical environmental extremists. I know I will do my part to enhance our natural environments for maximum yield and sustainability as a natural resource professional. In closing, I believe the natural resource field to be highly respectable and extremely viable to our country's heritage. ▲

Displaced by Ruth Bacon Heady (*Ina Coolbrith Anthology*)

Great Blue Herons search
for ancient nesting trees; find
man-nests of stucco.

The Table is Set
The sanderlings flow
with the curve of the ocean
waves bringing their food.

Homesteader
Redwing blackbird swings
on cattail perch singing: "No
trespassing allowed."



Line drawing by Sherri Sorby

Idaho Women and the Land

Sense and Sensibilities in the Forest

by Lauren Fins

After more than 100 years of statehood, we are still debating the use of Idaho's forest lands. Foresters, loggers and activist groups all vie in a fierce and acrimonious struggle to control the forests. But even the most well-meaning players may not understand the basic biological and ecological principles that have shaped the forests they so adamantly defend. While textbooks present theory and facts, the popular press presents vivid images, capturing imaginations and emotions. Unfortunately, our message gets lost along the way. It is not surprising then, that we have begun to explore alternative ways to share our knowledge of forests and forest ecology.

Theater, like the press and other media, can be a powerful tool for educating and informing a broad array of publics. As a story unfolds, an issue can be examined in many dimensions, allowing facts and ideas to emerge and emotions to surge while providing the audience a "safe distance" from the story characters. This use of theater as a tool for education has a long social history. In the heyday of Greek civilization (5th-4th century B.C.), theater was used to explore political, religious, moral and social issues. The Roman Catholic Church used morality and miracle plays from the 5th to the 12th century to teach moral and religious lessons. While we do not usually think of theater as a vehicle for examining ecological themes, there is certainly precedence for its use in

this way. For example, the great 18th century German poet and playwright, Goethe, embedded ecological issues in his epic play 'Faust'. And even recently, a modernized production of a 1930's play entitled 'Timber', has enjoyed wide success around the country.

In 1994, I made a commitment to reach out beyond the university to help turn the tide on some of the misunderstandings surrounding forest biology and forest ecology. When I expressed these thoughts to Kim Bouchard, an accomplished actor and director with a strong interest in natural resource issues, we decided to develop a theatrical performance piece that would use the forests and the land as a backdrop for human drama. And so "Idaho Women and the Land" was born. In it we explore our own "sense of place" through the eyes of north Idaho women, past and present.

This perspective has been largely ignored in our history books and yet has rich and powerful messages for our modern society. Some of our excerpts come from letters and diaries written nearly 100 years ago. Others present a more contemporary view. But regardless of the era, the passages clearly communicate not only an emotional connection to our forests and the land, but also a knowledge and an understanding of the natural biological forces and human elements that have shaped both over time.

In the presentation we address three themes: the details of daily life, our understanding of and relationship to the land and forests, and finally, our emotional connectedness to the land and forests.

One of the clearest statements of a sense of place on the land comes from Janet Campbell Hale, a contemporary Native American writer who spent part of her growing-up years on the Coeur d'Alene reservation near Plummer. She says:

"There is one place I can never break my connection to...I am tied to my ancestral land, the first place I remember forever...Our place was out on the reservation still nearly wilderness in parts. Our community was the tribal community. I grew up knowing we had existed as a tribal people on this same land for countless generations - long before Europeans knew there was a North America....I will always be an Indian, a Coeur d'Alene Tribal member, and will always see the



world as a native of Idaho. Sometimes I think of going back. In a very real sense I have never left." (Hale 1994).

North Idaho is a land of precious metals, dense forests, rich fishing grounds, luxuriant grasses and fertile soils. Lewis and Clark passed through in 1805. Before them, the lives of Native Americans who lived here were clearly defined by the land, hunting, fishing and gathering in season - moving in defined patterns on the land. They took enough to thrive, and allowed the land to renew itself. The land's bounty was enough to sustain their livelihood for many generations. Women played an integral role in that lifestyle and were central to the Native American's spiritual connection to the land.

But when the early whites came to Idaho, they cared little for the land. Most had no intention of staying; they wanted only the resources. The fur trappers came soon after Lewis and Clark and decimated the once-abundant populations of beaver, martin, fox and otter to supply pelts for the fashion-hungry (and growing) middle-class in the industrial world. The miners came in the mid-1800's and scoured the streams and rivers, looking for gold. The land is still raw from their ethos of extraction. Loggers came later to supply wood to a growing population. They believed there was always another forest over the next mountain.

Where were the women in all of this? In 1860, when Idaho was still a territory that included Montana and most of Wyoming, nearly 31,000 non-native Americans lived in Idaho. Only 1,000 of them were women (and most of them were in the Mormon communities of

southern Idaho). But in the 1880's with the completion of the northern rail system, women began to come west in greater numbers. They came to settle and create homes. Theirs was a difficult transition, leaving family and friends behind, embarking on a new life in an untamed land.

Perhaps because everyone faced tremendous odds in survival, or perhaps because of the social mores of the time (or both), it is difficult to find accounts of these women's emotional lives. How-



ever, the details of their daily existence can be found, leaving each reader to determine the emotional state of the writer.

Women spent their summers and falls harvesting and gathering and filling jars with wholesome food as a buttress against the onslaught of winter. It was not unusual for these women to put up 800 to 1,000 jars of fruits, vegetables and meat. But these ever-busy cycles entrapped as well as sustained them. Jane Gay chronicled her observations of life on and around the Nez Perce reservation from 1889-1992. In this passage from "With the Nez Percés"

(Gay 1981), she comments on the price women paid for white civilization and contrasts it with the freedom of the Nez Perce woman, both of whom were trying to eke out their existence on the land.

"While we were detained at Squirrel's camp, we made the acquaintance of the settlers in the neighborhood. They were kind and courteous and offered to assist us in any way within their power, and we visited several of their farms. We were told that the land was poor, that two crops out of five seasons was all that could be expected and that several of the largest farmers were trying to sell their places and go west. Discouragement was visible everywhere and an expression of hopelessness upon the faces of the women, at which when we came to think of their condition, we did not wonder. Briggs said, "This country is good enough for cattle and men, but it is death on women and horses." As in these days of machine plows and cultivators, it is the horses and women that do the hard work of a farm, Briggs may not be far wrong in his

rough estimate, but when we talked with the women, they did not complain of the work, but only of the lonesome life they led.

"The men can jump upon their ponies and ride off to see a man whenever the social instinct prompts...a man can ride on to the neighborhood store and perch himself upon a box or barrel, light his pipe, and talk for half a day with Tom, Dick and Harry...But diversions are not for the frontier woman unless she is an Indian woman. She can jump upon her pony and ride away whenever she chooses. The children are no hindrance. She can hang them up in a tree, to wait for

her return, or she will tie the cradleboard to her saddle and gallop off as free as her husband; freer, indeed, for she owns her children, her horses, her home and all its belongings...You see...that civilization has been built up largely upon the altruism of the woman, at the cost of her independence; and is still an expensive luxury to her."

Many of the recorded oral histories from the early 1900's tell stories of encounters between the white settlers and Native Americans, where homesteads and plowed ground clearly disrupted the well-worn trails used by Native Americans in their seasonal movements across the landscape to find food. The forests were also a backdrop for regional and national tensions where industrial giants, federal agencies and small private landowners all vied for control of the same lands.

Beginning before the turn of the century, north Idaho's forests were logged in a wave that moved from Bonners Ferry to Coeur d'Alene to Lewiston in decade-long intervals. In an attempt to slow the rapid cutting, a 1906 Act of Congress created the Forest Reserves system. But this act allowed land within the Forest Reserves to be homesteaded if the homesteader could show the land to be better suited for farming than for forestry. In some cases, the homesteaders were backed by lumber companies eager to have access to the valuable timber.

Carol Ryrie Brink, who grew up in Moscow, Idaho around the turn of the century, spent two summers on her Aunt Elsie's homestead near Clarkia. Her 1959 novel, "Strangers in the Forest", is set in 1908 in the Floodwood Valley and Freezeout Ridge near Clarkia. Tensions between the homesteaders, the timber companies and the US Forest Service were extremely high. Here is a sample of dialogue dealing with different views of the

timber resource.

"...land is gettin' scarcer. It used to be they was honing to give it out and get rid of it. Now they're beginning to wonder."

"They ought to begin to wonder," said the stage driver,... "Driving around, I sure seen enough cutover land. Them loggers run through fine timber and leave the land as waste and dead as if a forest fire had gone by. It's a God-damned shame."...

"But the land has to be cleared doesn't it?...What would happen if nobody cut any timber or cleared any land? We'd be right back in the wilderness...wouldn't we?"

"We need the lumber to build,...We're building a great nation, we have to have wood. There'd be no progress without lumber and wood."

"[But] pretty soon the wood's all gone,...What then?"

"We ought to take a little and leave a little, and we ought to replant. It took a long time for them trees to grow. Folks got to be a little slower about sawin' them up."

While many of the homesteaders thought only to garner some wealth, others came to appreciate and love the land and the forest. Nonetheless, the government tried to ensure the long-term protection and conservation of the forests for the benefit of the nation over the desires of the few, and many of the homesteads were returned to the Forest Reserves.

The controversy over Idaho's forests continued to surface. Nell Shipman, a star of silent films, became disenchanted with Hollywood and, in the early 1920's, moved to Priest Lake in North Idaho to make her own films. Although Ms. Shipman's films were produced about 15 years after the events in Brink's novel, some of them depict

the continuing struggle over forests and their use. Shipman created Dreena, a nature-girl-turned-journalist, who tries to protect the beautiful forest. In one scene, Dreena embraces a huge tree and pleads with the lumberjack to put away his ax, but she fails to convince him. He argues that the nation needs the wood to build houses and ships. The scene ends with Dreena and the logger waving gently to each other as she rows away across the lake. Thus, Shipman doesn't resolve the question in the film any more than we have resolved it for ourselves today.

The management of forest fires presents another continuing source of tension over the land...unpredictable, a tremendous threat to lives and economies, and yet a natural driving force of forest renewal. The great fire of 1910 was one of the worst forest fires in the recorded history of North America. In only two days, it destroyed three million acres of forest from northern Idaho to western Montana, burning a swath of land 160 miles long and 60 miles wide. That fire served as a strong impetus to fortify the Forest Service and instill a national consciousness that has shaped our relationship to forests and forest fires ever since.

Today we understand that fire is a natural part of forest ecosystems, that ecosystems are dynamic and ever-changing, repeating the cycles of birth, death and renewal in which fire plays a key role. Brink captures the essence of this process in "Strangers in the Forest" (1959), but reminds us that we have to stop and look in order to understand and appreciate the living world around us.

"Bundy began to tell her about the cycles of forest growth, how nothing is lost in nature, and how death and decay feed the new life...He described the cycle of the

forest trees, how open places are first populated by red alders and the sun-loving Douglas fir, and gradually by the white pine and western red cedar, and last of all by the Western hemlock which is a rapid grower and does not mind deep shade...

"All this looks unchanging" [he said], "It's slow, but actually it's always changing, moving, living, going on its way...I look at one of these big trees and I get a feeling of - well, it's respect, maybe a kind of awe."

"Meggie was moved by his gravity, his eagerness, his contentment with nature...At home there had been a flower garden, but no one had ever told her how to look at growing things before."

How often do we use the forest, the land, our own sense of place to quiet our own souls? The following passages express a very tangible relationship between the writers and their environment. These are special passages as time was valuable and even short stretches of time to reflect were cherished. Nelle Portrey Davis captures this sense in "Stump Ranch Pioneer" (1942).

"We lay on the grass beside mountain streams and listened to the rippling, singing water. The warm sun brought out the scent of the evergreens. The light breezes whispered in the needled branches overhead. Or we sat on the fern-covered banks and dabbled bare feet in the cool mountain water, and watched the children clambering like sure-footed young animals on the rocky hillsides. We learned to live. We had found something we had missed all our lives, without knowing we were missing it."

And Janet Campbell Hale, in "Bloodlines" (1993), reveals the importance of the moment, her connectedness to her ancestors, to her descendants and to the land. She says:

"The day is an extraordinarily beautiful one...The air is crisp and clean, and the colors are intensely vivid - yellow wheat, blue sky, many shades of green grass, shrubs and trees - even the plain, near-black plowed earth seems intense, deep and rich. One New Yorker who vacationed in the West told me, "The colors out there seem artificial. How could anything natural be that clear and bright - like a Van Gogh painting or something." The air is so fresh-smelling, too, easy to breathe, a pleasure to breathe.

"Almost anywhere in the West would seem like this to me, I suppose. But I'm not just anywhere - not at all - I'm home...I should have my daughter with me, I thought...I should take her home with me. Show her where I used to live. Tell her what I know of what used to be. Pass down what I know to her. Maybe even something of the feeling for the land. She'll remember now."

These women tell of their connection to the land and the forest, their sense of the importance of the moment, and how their sense of place has shaped their lives. Finding and reading their work has been an extraordinary journey for me, allowing me to explore my own sense of place and recognizing the importance of the moment. And I wonder what our message will be to future generations. For as foresters, we have a special connection to the land and to the forest. We too find our sense of place in a wooded landscape that changes with the seasons. But we also understand that forests are complex and multifaceted, that they are dynamic, resilient, evolving systems that can sustain a balance between the harvest of products and our need for solace. Perhaps that is our message...that we can offer such a balance through knowledge and responsibility. Perhaps that is our unique contribution to society. ▲

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- Lauren Fins is a professor in Forest Resources.*



Homesteader's Fence

Dig the hole straight;
dig the hole deep
through the sod and the sandstone.

Set the post in;
tamp the ground down
with hole-digger and bootheel.

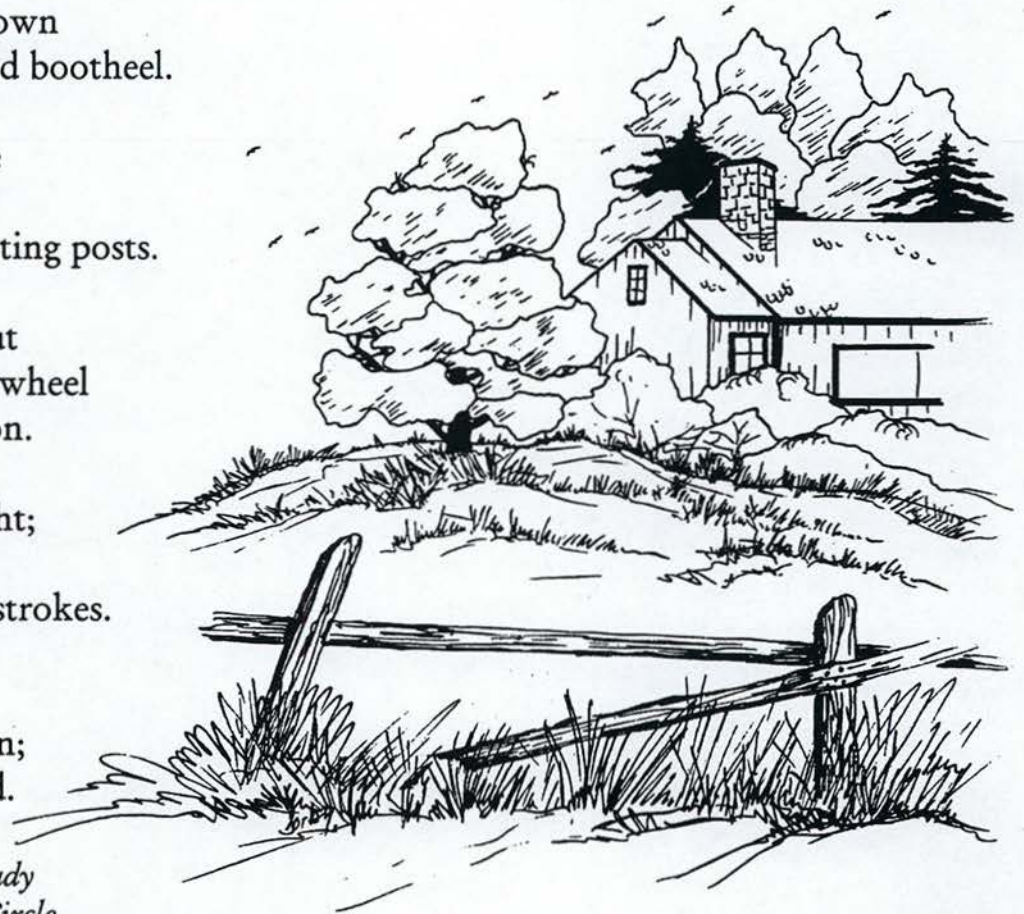
String the barbwire
true and unsnarled
by the straight, waiting posts.

Stretch the wire taut
on the propped-up wheel
of the lumber wagon.

Drive staples straight;
drive staples deep
with hard, ringing strokes.

The last post is set,
the last staple driven;
this fence will stand.

*Ruth Bacon Heady
Ina Coolbrith Circle,
Golden Circle Brochure*



The New Frontier: Computer-Aided Education in Natural Resources

by Ronald Robberecht

Recent advances in personal computers have presented teachers, students, and natural resource professionals with new and powerful tools for research and management of natural resources and the extension of science to the public. The modern multimedia computer system allows full use of three major new software technologies: interactive multimedia presentation programs, adhering systems for the development of self-study lessons and electronic books, and the internet. While computer-aided education in the field of natural resources is still relatively new, the new technology is opening up revolutionary possibilities for education.

The modern multimedia computer system typically has a sound card, software for playing digitized video, speakers, and a CD-ROM drive. When combined with the speed of new-generation processors, e.g., the Pentium and PowerPC processors, the multimedia computer can play digitized sound and video clips, complex animation and virtual reality sequences, and interactive electronic "textbooks" on CD-ROM. What makes the new technology different from previous "new technologies" such as video-taped courses is the level of interaction it makes possible between the student and the information. Moreover, once converted to digital form, all forms of media become interchangeable. That is, motion video, photographs, text, animation, and sound can be edited and manipulated as freely and easily as a

modern word processor can manipulate text in a document. This capability, the essence of computer-aided education, makes it fundamentally different and vastly more powerful and useful than all previous tools in education.

One tool in computer-aided education that is becoming common is software for developing multimedia presentations. The simpler versions of such programs allow the user to quickly construct linear slide shows on the computer. Typically, these presentations consist of photographs, graphs, and text arranged in a similar way as conventional slide shows. Rather than being shown on a slide projector, multimedia slide shows are presented directly from the computer via a video projection device. Although the computer-based slide show appears similar to conventional slide presentations, there are some distinct differences and advantages. For example, photographs in digital form on the computer can be easily resized, color-enhanced, sharpened, and cropped according to purposes of the presenter. Scientific and conceptual graphs can be added and similarly edited to fit the presentation. Also, text and graphics such as lines and arrows can be added to the photograph. The cost and time for producing the slide presentation is typically much less than conventional methods. The more powerful multimedia presentation programs allow the user to design complex branching within the slide presentation so that the presentation be-

comes nonlinear. The addition of digitized sound and motion video completes the interactive multimedia presentation.

Adhering systems extend the possibilities of computer-aided education into the realm of computer-based training (CBT), self-study lessons, and interactive multimedia electronic books. Educators can develop such computer-based modules for use by one person in an interactive manner. The student is actively learning rather than passively viewing a sequence on the screen. Modules designed with an adhering system can include the same multimedia capabilities as presentation software. While few CBT, study-study guides, and interactive electronic books are available in natural resources, these innovations will become more common in the future.

The third area of computer-aided education that is fast becoming an integral part of education is the internet. In many ways, the interactive multimedia capabilities of the current internet are not as fully developed in comparison with those of the modern multimedia computer and computer-based multimedia software. However, these differences will diminish in the near future. The internet allows users to interact with each other, and with the software, at a global level — anytime and from anywhere. This capability presents numerous new avenues and approaches for education and the dissemination of information.

Rather than centralized education, i.e., where classes held at a specific location and time, the internet can offer education at a distance and in a time frame customized for each individual. While distance learning provides more flexibility, it also requires students to work diligently and independently.

Each of these three new technologies provide unique educational approaches and directions in the field of natural resources. Educators can use these tools for innovative teaching of the

sciences in the classroom and for customized distance learning. Students will have new opportunities to access information in natural resources and related fields, as well as new options for learning in a more flexible and individualized manner. And, natural resources professionals will have enhanced opportunities for continuing education and extension. The latter two areas of education are particularly well-suited to the new technology, particularly in regard to communicating science to the

public. These three new technologies are converging toward a common goal in computer-aided education — a more individualized and interactive way of learning and processing vast amounts of information in an efficient and coherent manner — and present educators, students, and professionals in natural resources with many opportunities today and in the future. ▲

Ron Robberecht is an associate professor in Range Resources.

...And All Other Duties Deemed Necessary

by E. Howard Jennings

Driving slowly out across the rangeland, dodging rocks, intensely watching the bison, I nervously maneuvered through the herd of bison cows with their orange-colored buffalo-robed calves. The closer I got the more critical it was, to keep the bison from becoming excited and stampeding off. So far, though, it looked as though I was the only one getting nervous. Finally, I was there. And there they were. Dad and his daughters, one in arm and the other in hand, who had hiked a hundred yards off the road and were now surrounded by a couple hundred head of bison. Timing the right moments, I wandered in, around, and amongst the bison, holding my breath, heart pounding with scenarios of what might happen stampeding through my mind in a cloud of prairie dust.

My next challenge was to convince dad to let me give them a

ride back to their vehicle. He thanked me but felt that they would be alright and able to make it back on their own. Buffalo are quick and fast, I told him. Dad's eyes shifted from side to side. They can out-run and out maneuver a horse and rider. His eyes opened wider and grew brighter. Buffalo can jump an eight-foot fence and what they don't feel like jumping they just walk through. Dad's eyes danced from side to side and he glanced over his shoulder towards the road. Buffalo have been known to charge people and I'd be more afraid of a cow with a calf than I would a bull right now. Daughter in hand was now daughter with arm wrapped around Dad's leg. One more glance back towards the road and dad decided to accept a ride.

In the eleven years I worked as a public servant for Custer State Park in the Black Hills of South Dakota, as a Forest Technician, my

primary objective was to manage the state's natural resources of forest, rangeland, water and wildlife for multiple use purposes within the park, and all other duties deemed necessary. The park's 73,000-acre size with its diverse topography, landscape, and wildlife present unique challenges to the management of the park's natural resources. Each year approximately 1.1 million visitors pass through, become part of, and have an effect on the park's ecosystem. Not only did I have the opportunity to work with the natural resources of the park but also the visitors who came to the park. Interacting with the visitors to the park in an interpretive way provided some of the most interesting "other duties deemed necessary."

The majority of the vacationers had a rather short attention span and did not want to hear drawn-out technical answers to their questions,

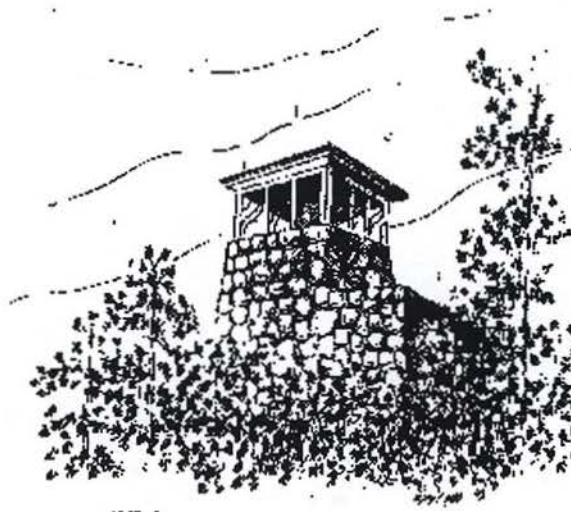
nor any long-winded stories. After all, they were on vacation! Once their curiosity was satisfied they were off on another subject. With this in mind, my KISS (keep it short and simple) philosophy was effective in interacting with them. I was soon able to read a visitors' body language as to how far in detail I should go and what information would interest them.

One duty I looked forward to was the opportunity to staff the parks' fire lookout on Mount Coolidge. The fire lookout is strategically located on a 6,023-foot high mountain that is halfway between the north/south boundary and along the west boundary. Not only is it strategically located for spotting "smokes," its observation deck gives visitors a spectacular eagle eye view of the park and surrounding Black Hills.

Whenever possible while on fire duty, I would come down to the observation deck and point out certain features and relate facts the visitors might find interesting. Pointing the coin-operated binoculars in the direction of what I was talking about gave a reference point to sight over. To the south is Wind Cave National Park and the fire lookout on Rankin Ridge. To the east one can barely make out the Badlands of South Dakota, sixty miles away. Off to the northeast are the large airplane hangers at Ellsworth Air Force Base. Farther towards the north, one can see the profile of George Washington's head on Mount Rushmore. The Cathedral Spires are where one will find the Needles Eye formation and tunnels as one drives along the Needles Highway. Just to the left is Harney Peak, 7,242 feet high, the highest peak in the Black Hills. There is an unmanned fire tower on Harney Peak, accessible only by a

three-mile hike. To the northwest is the Crazy Horse carving on Thunderhead Mountain. Looking to the far left end of Stockade Lake one can just see part of a structure. The Gordon party built that Stockade, the first permanent white settlement in the Black Hills, back in December of 1874.

The Mount Coolidge fire tower is a ten foot by ten foot room with a low seven-foot ceiling. The bottom four feet is wood frame constructed walls and the top three feet is



glassed in. Cupboards, counter top and desk with the radio console occupy the east side, with a stairwell on the south side, leaving little standing room along the other sides. Occasionally I would invite a family into the tower and entertain questions they might have.

This is the place where we watch for fires that may break out in the park or other areas of the Black Hills. It also serves as a dispatch center for park employees and an information center for visitors to the park. In the middle of the floor is an instrument called the Osbourne fire finder.

This enables the look-out to pinpoint and plot the location of a fire on the maps. The first thing one does is to radio the initial attack team leader so the crew can be

getting prepared. Aiming the fire finder, one looks through a peep hole to sight on the smoke lining up the cross hairs like you do a gun sight. The numbers along the base tell the direction the fire is from the tower. Then slide the peep sight to the point where the ground location of the fire is suspected to be. Using these numbers one plots the location on the map by running a straight line with a magnet and string, whatever the degrees are from the tower. Now we know that the fire is somewhere along this string line. We call another tower, like Rankin Ridge and ask them to give us a reading on the smoke. With this information we pull out the magnet and string from their tower location on the map and where the two strings cross is where you will find the fire. This method of fire finding is called triangulation because it forms a triangle between the two towers and the fire. From here we look on the map and identify such things as elevation and specific landmarks to help pinpoint the exact location and determine the best access to the fire.

Interpreting with a family in the tower one afternoon, a column of smoke showed itself off to the northwest. I ignored the smoke column for a few minutes and continued with my presentation. The young boy grew excited when he spotted the smoke. "Mr. Ranger. Look! Is that a fire?" He pointed towards the smoke. "Yep" I said "Looks like one." I then went back to my presentation. "Mr. Ranger aren't you going to report it?" "Na," I replied. "Its just a little one. Think I'll let it get bigger first." Letting the young boy use the Osbourne fire finder, maps, and the help of Rankin Ridge fire lookout, we were able to triangulate on the fire, and the young boy got to see

how we functioned in spotting and plotting fires, even if the smoke was from a sawmills dust burner.

Locating the fire and notifying the initial attack crew is a small part of what a dispatcher does. A dispatcher is responsible to the fire fighters for providing information about the fire. With the resources available, the dispatcher can provide current and expected weather conditions, such as temperature, humidity, wind direction, and speed. An efficiently trained fire dispatcher can tell a lot about a fire by observing it from the fire tower. The size, color, height and shape of the smoke column and the manner in which it rises, (whether it lazily filters upwards or rolls, tumbles, and boils into the air), are all indicators of the fire behavior on the ground. Other indicators of fire intensity would include sighting and locating of flames whether they were on the ground or in the tops of the trees. Information like topography, vegetation, fuel moisture, slope, aspect, all of which has an effect on the behavior of the fire, can be passed on to the initial attack crew, often before they arrive on the scene. This helps the fire fighters prepare, plan, and execute a safe aggressive attack on the fire.

The fire dispatch is also responsible for ordering additional resources that may be requested by the initial attack crew boss. These resources may include such things as food, drinking water, sleeping bags if they need to spend the night on the fire line, additional fire fighting tools, and more fire fighters if the initial attack crew is unable to "get a handle" on the fire and contain it.

One of the big attractions for the park visitors is the bison that roam the mixed grass prairie along the edges of the ponderosa pine covered hills. Some 1400 head of bison, descendants of an original 36 head from a private herd near Fort Pierre in 1914, help keep this part

of our American heritage from becoming extinct. Since the first shipment of bison, the herd has grown and prospered to a point where excess bison are sold at an annual public auction.

Two of the big events each year for the visitors are the bison round-up during the first part of October and the auction in mid-November. For me it was work, but most looked upon it as play. With cowboys on horses, park personnel in pick-ups, and national guard in helicopters, we would herd the bison into a corral complex where the November sale stock would be sorted, calves branded, and all vaccinated. The question on round-up day is how do you herd an 1800 pound bison? "Anywhere he wants to go!" is the standard reply.

Once in the corals, the bison are worked through a series of gates, pens, and alleyways, funneling them towards the chutes. As they get closer to the chutes they are cut into smaller groups. As the groups get smaller so do the pens, and soon we find ourselves in the pens cutting the bison into even smaller groups on foot. Sometimes one of them needed a little friendly persuasion from the CCRRAAACCK of the ten foot bull whip on the end of the ole buffs' nose. This occasionally brought a charge out of it, with tail in the air, kicking up dust, snorting and blowing snot on the back of your pant leg as it runs you up on the fence. More times than I remember, some cow, separated from her calf, put me up and over the seven foot coral fence. I remember the buffalo's head brushing my leg as I "flew" over the coral fence. Laying crumpled on the ground, heart pounding, catching my breath, and fortunately unhurt, I could hear the fence sitters whoopin and' hollerin! A co-worker shouted from the gate, "Great take off! But you need to work on your

landings!"

One needs a little savvy when working around and amongst the bison. Never turn your back, always leave yourself an escape route, watch their body language, and remember that bison are wild, unpredictable, dangerous animals. Bison communicate their annoyance towards you by snorting, pawing the ground, and even bouncing up and down on their front legs as a bluff or warning. But it is their tail that doesn't bluff or tell a tale. When a bison is at ease and comfortable so is its tail. As it becomes irritated or annoyed the tail becomes rigid. A tail raised to a forty-five degree angle means you are pushing your limit and maybe your luck. Tail raised straight up will be following a charging bison!

Early one June the weather got unseasonably hot with a week of one hundred degree temperatures. Working on the tree-marking phase of a timber sale, my crew had rendezvoused back at the pick-up to restock with marking paint and fresh drinking water. Out of state visitors pulled up along side and inquired as to where they might find the buffalo. "I haven't seen any but let me see if I can find out for you." Happy to perform my "all duties deemed necessary," I radioed Mount Coolidge for a bison report but came up with a negative on any sightings. The driver commented that he had been driving many of the back roads in hopes of seeing the buffalo. "With temperatures as hot as they have been for the past week," I said, "it isn't unusual for the bison to move up into the trees where it is cooler."

He thought a moment. Tilting his head towards the open car window, rolling his eyes upwards, gazing into the tops of the tall pines he answered, "Oh Yeah? And how do they get up there?"

E. Howard Jennings is a B.S. student in Forest Resources.

A Wilderness Discovery Program for Urban, Youth-at-Risk at the Atlanta Job Corps Center

by Keith Russell and John C. Hendee

Introduction

Wilderness Discovery (WD) is a seven-day wilderness experience program specifically designed to empower and strengthen the skills of youth-at-risk in the Federal Job Corps. We tested Wilderness Discovery in a pilot program during which we ran 46 trips from four different Job Corps Centers. Six Wilderness Discovery trips were run in Atlanta during the Summer of 1995, taking groups of primarily young African American women to wilderness in the Nantahala and Cherokee National Forests in Western North Carolina and Tennessee.

Wilderness Discovery is a soft skills, low stress, low risk wilderness experience program for youth-at-risk, specifically designed to improve self esteem, awareness, and to empower and strengthen the ongoing training students are already receiving in Job Corps. The focus of the wilderness experience is a 20-25 mile seven-day backpacking trip, including camping for six nights on the trail, sharing of camp and cooking chores, and completing some wilderness trail work to show appreciation for use of the wilderness by the group. The students at the Atlanta Job Corps, many with children, posed a new challenge to Wilderness Discovery, with nearly all of them being from an intense urban environment and never having exposure to a wilderness setting.

Wilderness Discovery in Atlanta

The downtown Atlanta Job

Corps Center has roughly 400 students, with approximately 90 percent African American women, aged 16-24. We brought Wilderness Discovery to Atlanta to test the effects a wilderness experience program for inner-city minority youth, most of whom had not been out of an urban environment.

The students had no prior wilderness experience, but quickly fell into the routine of living and traveling in balance with the natural world. Group circles were conducted daily, giving students a chance to speak out and for leaders to assess how they were doing individually and as a group. The opportunity to practice social skills in a neutral environment was a powerful experience for many students. Fears, hopes, dreams, and goals were shared with the group in the nonthreatening setting. A community ethic evolved, and the group became a family. Completion of the trip culminated with discussions of what they had learned, and what metaphors to apply to their daily lives back on center. After the tears and the hugs, the students returned to Atlanta to face the same challenges they had left.

We were interested in how the Wilderness Discovery program affects students after the experience is over. Following is a summary of the results from this study looking at the effects of Wilderness Discovery on the students at the Atlanta Job Corps, comparing the findings where appropriate with the results from the other three centers where

the program was tested.

What Student Journals Revealed

Students were provided with journals and asked to keep a record of their experience during the seven-day hiking trip. We gave them structured moments during rest days and after meals when they could think about pressing issues in their lives and record their thoughts. We knew from an earlier study that many students would record important thoughts, ideas and reflections, but some students would write very little and have little or no important reflections.

Consider the following quotes from the female participants in WD from Atlanta:

"This trip is important to me in that I completed something I started, even when it got rough. I learned that it doesn't help to give up, and I didn't give up. My body hurt, but no matter how much I hurt, I wouldn't stop. Everyone was encouraging me to continue no matter what. I also learned yesterday how much self confidence I have in my self. On our hike it started to snow, but no matter what the weather, we weren't going back."



Or this poem from a student reflecting on her wilderness discovery:

*Discoveries
from within, and
as the darkness falls,
when the stars come out,
and nature rests
when the beauty is only
what you feel inside, and
passion is but the flame
of the fire, and the peace of all
your
senses is overwhelming you,
only when you find yourself
become one with who you are
and what you know,
that is
Discovery*

Thus, the journals captured many stories, dreams, and reflections from student participants who had adequate reading and writing skills to truly express their feelings about what they learned and their response to wilderness and nature.

What Exit Interviews Revealed

At the conclusion of the trip, each student was asked some questions about their Wilderness Discovery experience, in a private recorded interview. The analysis of these interviews revealed stories of pride in achievement, positive feelings about themselves and the group, and 100 percent of them said they thought Wilderness Discovery was a good program for Job Corps. This quote from a young woman in Atlanta sums up many of these different positive responses:

Definitely, a lot of people come to Job Corps because they have nowhere else to go. It often takes some adjustment time, but the students soon realize that Job Corps is a really good program that gives them time to think about what they want and have time alone.

The students were asked if they had learned anything on the trip that they think would carry over when they return to the Job Corps

Center, and more than 90% of the students said yes, they had. Their responses included comments such as:

- * The fact of being responsible for myself and also for others.
- * This brought me an inner peace I didn't know I had. I was never able to get along with people. Out here it has done a lot of good.
- * It's gonna affect me in a positive way. It has given me a lot of strength and I feel I can survive when I leave this center on my own, doing things on my own. I don't have to depend on nobody. I know that I can, 'cause I have it in my heart and this was a test to prove that I can do it on my own without any help.
- * Spend some time alone when I get frustrated instead of yelling.
- * Self esteem and motivation that I learned up here.
- * Peace of mind and some confidence.

Focus Groups

At the end of the summer, a focus group process was used to develop consensus. The Job Corps staff had participated in ongoing Wilderness Discovery Steering Committees throughout the summer, and represented the major program areas of the Center, such as vocational training, education, counseling, residential living, administration, recreation, nursing, and others.

Within 24 hours of the conclusion of the trip, the Wilderness Discovery leaders met with the steering committee to debrief the previous trip. Each student and the group as a whole was discussed in detail as to their performance and any noteworthy behavior or incidents. The committee also discussed components of the WD trip to determine what was working well and not so well, and to make changes if necessary.

We then asked how these perceived benefits might affect a student's employability. Our analysis revealed that Wilderness Discovery is perceived by Job Corps staff familiar with the program to be targeting skills that will help students remain in Job Corps longer and enhance their employability.

Conclusions

Our results indicate that WD can serve as an adjunct to the Job Corps program by helping reduce early terminations of students, while focusing on social skills that specifically target required competencies and skills needed by the emerging labor force of the 90's, in order to enhance Job Corps students employability. WD develops these skills by breaking down social and cultural barriers that allow students to work together to solve problems and communicate in an open and honest way. WD also provides time for students to reflect on their lives and their future, encouraging them to set and achieve goals they previously thought were impossible.

Atlanta clearly illustrated that WD can be a positive experience for inner city, minority students from centers in the East, as well as rural students from the centers in the West. Many academics and policy makers believe it would be a wise investment in human capital to continue funding of recreation and summer programs for adolescents similar to Wilderness Discovery. Our analysis revealed that an investment in WD can yield substantial benefits to society, providing new support for the old saying that an investment in the youth of today could forego many future costs of rehabilitating youth who for one reason or another, get headed down the wrong path. ▲

Keith Russell is a Ph.D. candidate with the Wilderness Research Center, of which John C. Hendee is director.

The Potential Prospects and Problems of Agroforestry in Pakistan - I : Research and Development

by Mirza B. Baig and John H. Ehrenreich

Pakistan has a geographical area of 87.98 million hectares and consists of four provinces namely Punjab, Sind, North West Frontier Province, and Balochistan. The country is a unique combination of deserts, alluvial plains, low and high hills, and some of the highest mountains in the world. It presents a great diversity in climate and soils which is reflected in its ecological distribution of vegetation.

Background Information on Natural Resources of Pakistan

Pakistan's landscape consists of immense fragile mountains, semi-arid and desert areas and its productivity seems under serious threat. Most of the problems of the country have emerged from the misuse of the resources. The high rate of population growth (3.1 %) is one of the many causes responsible for degradation of natural resources. More than 60 % of the land in Pakistan is affected by increasing desertification. The suspended sediment load per km² of drainage basin in the country is one of the highest in the world. Moreover, overexploitation of the natural vegetation has resulted the problems of soil erosion, desertification and flooding. In addition, the misuse and over-use of land and water resources have created severe problems of water-logging and salinity. The extensive use of modern inputs of fertilizers and pesticides/ insecticides and other features of high input technology has also damaged the environment (Akbar et al, 1989b).

Terrestrial ecosystems of the country have been considerably damaged as forests are disappearing at the rate of one percent every year.

The agricultural sector is also under great stress. In general, agriculture crop yields are low. The sand storms and gusts of wind emanating from the deserts in the country play havoc with agricultural crops and orchards (Mohammad and Ehrenreich, 1993). Waterlogging and salinity have damaged much of the fertile agricultural land. The per capita cropped area between 1951 and 1981 declined from 0.46 to 0.31 hectares despite extension in agricultural lands. The increasing population rate in the country also necessitates higher food production and output from farmlands. In view of high man-land ratio and limited prospects of increasing arable land, increased production has to be achieved through increased yield per hectare. It is, therefore, evident that indiscriminate use of natural resources can lead to increasing difficulty in maintaining supply and lowering the standard of living (Akbar et al., 1989a).

In addition to the above mentioned problems, the farming community of the country is facing the problems of small and fragmented holdings. Out of the cultivatable area, the farmers have to produce grains for livelihood, fodder for animals being reared for milk, meat, wool and draught power and also trees for fruit, fuel and timber. But all these require-

ments are hardly met from the existing small farm areas due to old traditional practices and ignorance about farming systems like Agroforestry. (Akbar et al., 1989a; Akbar et al., 1989b; Baig et al., 1995).

The Rationale for Agroforestry

The only option left for this country is Agroforestry. In this article, an attempt has been made to review the potential of agroforestry to devise and design suitable production systems under the diverse climatic regions of the Pakistan.

The Status of Agroforestry in the Country

Agroforestry as a need and as a concept was recognized in the country in 1979 when the Pakistan Agricultural Research Council (PARC) initiated a research project entitled, "Study of size, placement and composition of windbreaks for optimum production of annual crops and wood". This project was executed by the Pakistan Forest Institute (PFI) Peshawar, and it was the first sound scientific approach towards agroforestry. However, the first nationwide social/agroforestry project was launched in 1985 under the name of Forestry Planning and Development Project (Dove, 1992). Many similar projects are under process with the assistance of the World Bank (Baig et al., 1995).

Constraints to Adoption To Agroforestry as an Innovation

Agroforestry as an innovation and a complete production system has not yet been introduced in the country on a scientific and commercial basis due to several constraints such as:

1. Farmers prefer crops over trees because they believe that trees compete with agricultural crops for water, nutrients, light and space and harbor birds which cause damage to the associated crops.

2. Agroforestry is a relatively new discipline, therefore, there is an acute shortage of well trained agroforestry specialists (Mohammad and Ehrenreich, 1993).

3. The country lacks trained agroforesters as well as training facilities at the national level.

4. Establishment of Agroforestry would require a lot of funds and Pakistan is not a rich country able to establish agroforestry projects extensively. For this purpose, the country will have to look for the cooperation and assistance from international research organizations to design pilot projects under different climatic regions of the country (Baig and Ehrenreich, 1995).

Lessons Learned from the Previous Research and Development Efforts

It is evident from the aforementioned discussion that there is nothing new about the concepts of combining forestry with other land uses. Grazing and the interplanting of trees with crops are both ancient practices. What is new, is the use of the term 'agroforestry', reflecting the recent upsurge of interest in various multi-cropping systems in response to increasing pressure on land for food, fuel and materials. Farmers have been raising and maintaining trees on their farmlands for centuries for a number of purposes.

Suitable combinations of trees and agricultural crops, appropriate agroforestry systems for various ecological zones can help in increasing wood and crop production in the country. Multipurpose trees and shrubs, especially fast-growing leguminous species proved promising and are suitable for planting on farmlands in Pakistan. But farmers will not buy the technology unless it is superior and more productive. It should be socially, ecologically and economically acceptable to the farmers and must have advantage over the prevailing and existing systems.

Considerable potential for agroforestry research and development in Pakistan does exist. Development of an efficient delivery of agroforestry systems and extension strategies can play a

marvelous promotional role in the country.

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- Mirza Baig is a Ph.D. candidate in Range Resources.



The Floods of 1996

by L. Jones

*"After the flood —
broken bridges, screaming
geese,
misty ashen skies."*

—Denise Ortiz

The winter of 95/96 has blessed us with a wide variety of weather and driving conditions. It seems that there were bare legs cruising the campus in early January although they were soon covered as the snows fell upon our fair city, a lot of snow! Then it froze and this nice fluffy snow became crystalline and difficult to drive on. The roads were then sanded and graveled in order to improve traction, and then the thaws started turning the snow to slush. This was soon followed by heavy rains and on Friday, February 9, 1996 the University of Idaho was forced to close as Mother Nature graced our campus with warm temperatures and torrential rains which resulted in Paradise Creek overflowing its capacity, causing

storm drains to back up all over the campus. This "trickling drainage ditch" that runs along the north end of campus began to rise at the beginning of the week. By Thursday afternoon, the ditch was full and sandbagging activities had begun to protect the various facilities located near the banks of the creek. The snow accumulation of approximately three feet and cold temperatures, followed by a 74 degree increase in temperature within a week resulted in a small flood. Some say that this flood is the worst that they have seen in the area since 1948.

The Moscow community received minor damage compared to surrounding communities such as Potlatch, Colfax and Palouse which experienced severe chaos and confusion. The communities managed to pull together and worked diligently to save their water supplies and historic structures. During the week, flood warnings were in effect for all rivers and streams in the state. Although the event was over within 24 hours, it left a great deal of damage in its wake throughout Washington, Idaho and Oregon. People were forced from their homes due to rising waters and many road closures were in effect as the roads were flooded, avalanche or mud slide covered, or destroyed.

On the university campus, both McConnel Hall and Theophilus Tower experienced flooding in their basements. The administration computer room was also closed on Wednesday evening as it experi-



Photo by Ronald Robberecht

enced minor flood damage. Some Greek houses also fell victim to the flooding as well as the physical plant office. The ground floors of the Park Village apartment and Graduate Student Residences took the brunt of the floods as students were evacuated from their homes on Thursday evening and relocated in Shoup hall. The flood brought in more than two feet of water to these apartments causing extensive damage to the building as well as personnel items. It has been estimated that the damage caused by these floods on the UI campus will reach 1.1 million dollars

The Paradise Creek Restoration Project located on Mountain View Drive was put to the test early in its establishment. It seems to have fared very well, experiencing relatively minor damages considering the amount of water and ice that ran through the site. 🌲

*—"Water stained main street
naked oak roots from the hill
Flood of 1996"*

—Denise Ortiz



Photo by Ronald Robberecht

Phantasy II

by Lorri Ondricek

While most of you have been buckling down to the proverbial grindstone to work on those term projects that are due in the next three weeks, a few of us have been taking some time to finish up a class project we started last fall in Dr. Neuenschwander's FOR 427 Prescribed Burning Lab.

We began writing a bum plan for the six acre clearcut in the West Hatter Creek unit of the UI Experimental Forest last October. The objectives of the bum were to create plantable spots over at least 60% of the area and reduce potential wildfire fuels without increasing soil erosion. In order to accomplish these objectives we needed a good stiff southeast breeze and dry fine fuels inside the unit but high fuel moisture in the plantations and heavy fuels surrounding the unit. Proper weather conditions never

occurred during the fall, no matter how patiently we waited!

The unit, known as the Phantasy II (a.k.a., the Culvert Pile), finally came into prescription last Saturday, April 6. Although the wind was coming out of the northwest, we were able to adjust our lighting pattern to accommodate this condition and our convection burn was successful. Students lit jackpots of slash halfway down the unit before pausing to admire the small firewhirl that appeared in the center of the burn right on cue. After refueling the drip torches, many students finished lighting the unit while others patrolled the heavy slash above the unit to look for spot fires. These lucky students enjoyed a spectacular view of the fire's convective strength as wind sheared the smoke toward the southeast and then convection sucked it back into the hot column rising above the fire.

There were no spot fires. After relighting a few small piles on the outer edge of the unit we patrolled our firelines and went home. The most important lesson we learned from burning in prescription on the school forest was: Wahoo! NO MOP-UP!!!

So far only a few of us have been back to survey our handiwork. When I last checked the unit two days after the burn there were a few stumps and large fuels still smoldering, almost 100% plantable spots, very few fine fuels, and lots of good, moist duff left to protect the watershed from runoff.



And now it's time for us to join the rest of you back at the books. Since we all seem to have so much else to do, I guess it's a good thing the window of opportunity in the prescribed burning business is mighty slim. It's just too bad ya missed it! 🐱



The University of Idaho Experimental Forest

by L. Jones

When the College of Forestry, Wildlife and Range Sciences was established in 1917, the forest tree nursery and arboretum, rented school section nine and 2,440 acres of national forest land served as an experimental forest to fill the need for student research and training. The first dean, Francis G. Miller (1917-1934) recognized a need for a unique setting for educating students to the best of their potential and set forth to make this dream come true. He died in 1934 before reaching his goal, however the seed was planted and it has since developed into an idea that makes the University of Idaho unique from most other forestry schools.

In 1932 the Forest Development Company now known as Potlatch Corporation Inc. presented 3630 acres of forest land to the University of Idaho (UI). This initial gift was followed by an additional acres donated in 1934 (320 acres) and 1935 (1265 acres) also by the Forest Development Company. Subsequent smaller purchases and donations (160 acre purchase in 1934—Big Meadow Creek—, a trade of 160 acres and purchase of 40 acres in 1941, a 3-acre donation in 1947 and a 40 acre donation in 1948) had accumulated enough by 1948 to bring the total acreage of the UI Experimental Forest to its current total of 7158 acres. The acreage lies in the Palouse Mountain range of the Northern Rocky Mountain Province locally known as Moscow Mountain Range. The area is dissected by intermittent

streams and draws dispersed throughout a wide variety of terrain ranging from gently rolling to steep. The elevation ranges from 2600-4000 feet representing four habitat types (grand fir/pachistima, western red cedar/pachistima, Douglas fir/ninebark, and subalpine fir/pachistima) and a mosaic of soil types. The total land area is divided in to seven separate units at distances ranging from 11-35 miles from Moscow, although there is also a piece up by Cour d'Alene. The Forest Development Company had and has no control interest in the land management and use of the donated acres.

Ernest Hubert, Pathologist, served as acting dean after Miller's death, followed by Richard E. McArdle who served for the year of 1934-1935. During this time the depression was taking place and McArdle was unsure about the number of acres the school could administer so refused to accept any more gifts of land east of the township line running through Troy, Idaho. This decision was fortunately overridden by the Board of Regents. Dean Miller dreamed of expanding the forest to a grandiose size of 64,000 unbroken acres extending from Moscow to Helmer. This idea was passed by congress in 1934, but unfortunately funding to acquire the public lands enveloped in the vast land area never developed. This agreement remains in effect to this day with the possibility of the college being able to obtain a portion of Federal Forest Service land deeded to the state of Idaho.

The Civilian Conservation Corps maintained the 160 acre Big Meadow Creek purchase as a camp for 200 men until 1938. The CCC built roads and trails in the area, constructed ponds on the creek and felled snags from the 1932 fire. A recreational area was built on the headquarters site in 1967 with funds provided by a federal grant. This site is maintained by the Resource Recreation and Tourism Department students.

There is a wide variety of wildlife to be discovered in the forest. The forest is favorable habitat for white tail deer and grouse. In 1949 an 800 acre deer enclosure was erected on the East Hatter Creek Unit in cooperation with the Idaho Fish and Game Commission. This fenced area was maintained for many years, but was scheduled for dismantling in 1977.

The Flat Creek-Hatter Creek Cattleman's Association has used parts of the forest for summer range grazing since 1943. Careful management has eliminated the problem of overgrazing that can



often occur on leased land.

The vegetation in the area has suffered disturbance by logging, fire and disease. In the beginning, only a small amount of timber was harvested for forest facility maintenance. Logging in the UI Experimental Forest began in 1972 under the initiative and guidance of Frank Pitkin who took it upon himself to develop a program to train loggers and establish a student logging crew. The students not only learned the art of logging (felling, choker setting, skid trail layout, equipment maintenance and operation) but they also learned to analyze and think like natural resource managers.

The forest accommodates a wide array of activity ranging from prescribed burn labs to recreation trail creation. It is an outdoor classroom to be appreciated by those who are willing to take the time to take a walk in the woods, or

a drive for that matter, as there is also a driving tour set up in the Flat Creek Unit. Each individual who spends time will soon come to realize that this is a unique opportunity for all of us to learn.

The forest is a self supported entity with the harvest of timber supporting the experimental forest activity and management. It is a research center for the majority of the departments in the college with many graduate students having the opportunity to pick and choose a topics of interest in order to obtain their MS degree. The forest has experienced a number of changes through the years, but the main focus for "education, research, demonstration, production and public use" has not changed. Many students have had the unique opportunity of learning "hands on skills" under the guidance of experienced personnel. This has no doubt been of great value to the students at a later time in their lives.



The Experimental Forest is a large piece of CFWR history and will continue to create more history. It is an entity that makes our college unique. 🌲

Photos Courtesy of Ross Appelgren.

The Mountains are Calling

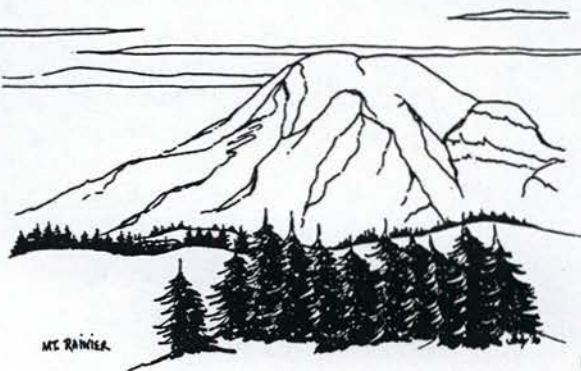
The mountains are calling,
aspen glowing
water singing
trees - green porcupine
quills on the hide of
the world

The mountains are calling,
smells - pine needles
and hot earth,
sap, moss, and
decomposing wood...
...and ants
invaded

The mountains are calling,
dark skies
and bright stars
rocks still warm
from the sun
bats dancing
The mountains are calling

I must go...

—Nancy Hightower



Line drawing by Sherri Sorby

Battered

by Justin Wilson

The sea was to my left. Majestic and teeming with life, it spoke to me. I listened very attentively to the subconscious message that flowed from its mouths?

"I am dying. The cancer is engulfing my soul. My heart weeps and is stricken with fear of the seemingly inevitable future of nothingness, of blackness, of solitude. The beauty that is me will be lost in the filth that is you. All of my friends are choking on the poison that I can no longer swallow. My stomach has overflowed. Save me, please. Do not let me die such a slow painful death." All I could offer at the moment was a pathetic useless "sorry."

I had to turn away in shame. The sky was to my right. Eternal and as vast as the mind can imagine, it spoke to me. I listened to the forgotten, sorrowful voice of yet another abused member of society.

"I am at the point of no return. My lungs are being destroyed by the thick smoke that I must inhale constantly. I have been denied the precious foods I need, and the lack of nutrition has cause me to atro-

phy. My weak body can no longer fight the enemy that is fighting to destroy you. What has become of me is disgusting. Kill me now. Do not let me continue to suffer such a despicable fate."

Again, my response was limited to the one word, the over-used word that has lost all meaning.

The wilderness was in front of me. Colorful and as gentle as the touch of a loved one, it spoke to me. With hesitation, I listened to its deep voice that is the wind blowing through its vocal chords.

"Tell me what I have done to deserve this cruel punishment. The scars left on me will remain until the end of time. My once flowing long hair has been butchered by the maniacal barber that is you. My mobility has been suppressed by the concrete and steel straight-jacket that only gets tighter as the days pass. I have always welcomed you into my house—to walk with me, to be one with me, to drink from my fountain; but now you have forsaken me."

I was speechless. I wanted to utter what would have been words

of hypocritical comfort, but my thoughts were lost in the sadness I felt.

The animals were behind me. Beautiful and teeming with diversity, they spoke to me. With tears building in my eyes at the sight of the tears in their eyes, I listened.

"We do not understand you. Throughout time, we have been your friends. We have fed you and we have clothed you; but you continue to take, and take without regard for the future. Our homes are destroyed. Our children die mercilessly in your greedy money hungry hands. Those of us who have been wrongfully jailed deserve a better life. We will admit that you are superior in unneeded technology; but to the ways of the world, you are far behind."

I started to sob bitterly. "I want to help," I cried, "Tell me what I can do." With that, they left, and I was back on the trail looking at the brown sky, looking at the clear cut, naked patch of hillside that was once lush wilderness, and listening to a hunter's gunfire aimed at an innocent, battered soul. ▲

The Mastermind of the Beaver

by Connie Grant

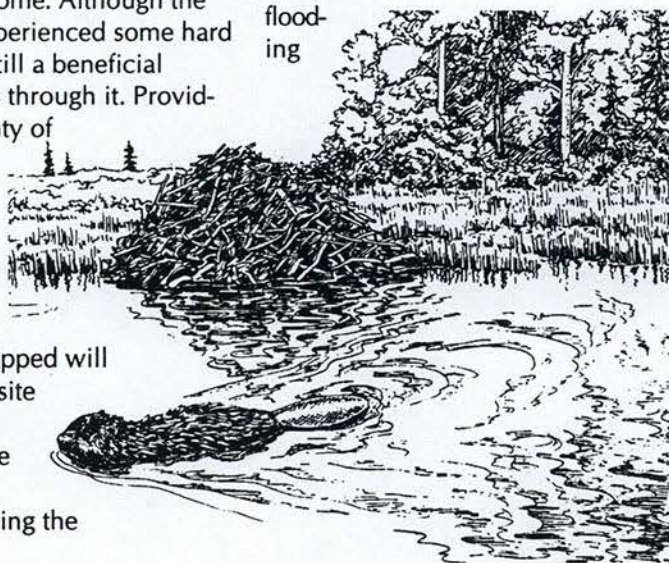
As the chocolate-brown beaver feasted on the few plant delicacies we could provide for his journey, the live steel trap jostled with each bump in the road. While one beaver gobbled away at any branch within reach, the other huddled in a corner of the wire contraption—shy and reclusive. At the end of their trip awaits a task natural to this large rodent species. Once valued and trapped for a handsome pelt, the beaver is now increasing in popularity for the engineering expertise it has at constructing, reviving, and managing riparian zones. As the Fish and Game track carted our two friends towards a new destination, I pondered the intricacy of releasing them into an unknown stream far from their original home.

We left behind us a forested riparian zone—a flourishing cosmos—not unlike many I've seen before as an agency volunteer and nature-loving drifter. Except now riparian habitats are becoming more recognized as an important part of the ecological equilibrium of life-giving streams. If you look closer at most of these areas bordering streams and rivers, you'll see an exclusive ecosystem that enriches the world around. And from a distance, healthy riparian regions appear as emerald jewels carefully beaded along the waterway. The significance of these riparian sections is aesthetic, vegetative, aquatic, productive, and diverse in its relationship to wild and domestic animals. The beaver is a mastermind builder and manager of the

important riparian zones. Its dam-building techniques are efficient in providing a wetland site for the surrounding area that is sometimes drier in soil content. Livestock and wildlife will often utilize these wetland areas for water, cover, the mild microclimate, succulent forage, and gentle terrain. Waterfowl, upland birds, and other mammals are also attracted to the quality of life within the bountiful ecosystem. Habitat for nesting, brooding, migration routes, and the feeding of birds will develop out of the lush growth of vegetation permitted to grow around the water. Furthermore, the enhanced water quality provides an abundance of aquatic life in addition to a diverse fishery.

So, why have we rustled our two friends from their "home sweet home?" One reason is due to an overabundance of beaver ponds in the old site, and another reason is due to the lack of contained water at their future home. Although the new site has experienced some hard tunes, there is still a beneficial stream that runs through it. Providing there is plenty of woody vegetation for food and dam building, our immigrant beavers that we have live-trapped will choose a likely site to construct a barrier. Then the "busy" beavers will assist in giving the

waterway a desirable facelift. The stream slope must be under ten percent—preferably less than six percent—in addition to an abundant and permanent water supply. Willow, cottonwood, aspen, and aquatic plants are their preferred food and also used in building. Once the water is impounded, a lodge and cache are built to provide shelter and food storage. At this point the stream channel is altered in such a way that a new complex ecosystem results—the riparian wetland. It is now a habitat capable of increased diversity in vegetation and animal life from which the surrounding area can profit, whether it be range, forest, or meadow. With the beaver dam decreasing stream velocity, transported sediment becomes deposited rather than eroded from the banks and beds of the channel. This provides organic material and nutrients for ecosystem stability. It also means less erosion and minimal flooding



downstream with the new stream profile. Surrounding rangeland can also benefit, as the rise in the water table improves the growth of vegetation that is necessary for livestock. Other animals are attracted to the agreeable climate surrounding the area as the temperatures are cooler in the summer months. The stream can maintain a consistent flow even during an extended dry period; and, the deeper "ponded" water offers recreational opportunities such as fishing, picnicking, wildlife viewing, or hunting.

A shady spot in the road offered access to some aspen and willow branches near a cool stream along the highway. We stopped the truck to eat a quick lunch and pick a mid-day snack for the hungry beavers that we had named "Ozzie and Harriet." We hoped our two pilgrims were a compatible pair—male and female—that would start a prosperous colony in the new site. Determining the sex of these creatures can be a trying task, as their tails may slap a person into the next county. Zsa Zsa would have been a better name for the feisty one...

As with most beaver habitat, there will arise some potential "drawdowns" in allowing this crafty and resourceful animal to colonize a stream. In relocating the beavers we have caught, our primary concern in releasing them in a new place is the matter of adequate food supply. Unless there is sufficient riparian habitat to keep them there for a while, they will move on to better sites. Although beavers do not usually overlap in their dispersal, one colony per one mile of stream is acceptable density for beaver management in good habitat. For some land managers, this may require an occasional reduction in populations when excessive flooding occurs along sections of the stream, or when

conflicts with humans are likely. While the arid rangelands gain essential moisture from the rise in the water table, *Castor canadensis* can get over-zealous in places where water isn't as needed. Drowning roads, plugging man-made waterways such as culverts and canals, in addition to burrowing are some problems to evaluate when moving beavers to a new stream. Another difficulty is the needed protection of desired trees and shrubs. One example of tree girdling and cuttings are those bordering the levee park system built by the U.S. Army Corps of Engineers along the Snake River in Lewiston, Idaho. The industrious beaver has inadvertently managed to "engineer" its own project, and proves to be a challenging adversary to the Corps own agenda of keeping the trees intact. Attempts to thwart this rodent's "designs" on the favored trees has been largely unsuccessful, as with each trapping of one, there arrives another to colonize the man-made ponds. Although some of the beavers aren't appreciated near the levee system, in other places they are, and eventually they are live trapped and relocated.

Another dilemma in keeping our beavers as riparian zone planners is dealing with the possible overgrazing of livestock. Naturally, the livestock will tend to congregate in these areas for the available water, preferred forage, and shade. As a result, landowners need to consider making adjustments in management practices if there is marked deterioration. Each specific site will require a particular grazing plan. (One such plan is the rest-rotation grazing system.) Some changes may take time and be of some cost in maintaining a healthy riparian habitat. But there is little argument that prospective landowners will harvest the beauty and monetary profits, as will the adjacent rangeland itself.

As we drew near the release site and excitement began to mount, the small valley came into view. The stream made a gentle cut through prairie range, and looked as though it had been kept free from excessive grazing and misuse. A variety of trees dotted the bank here and there—some young and some old. Willow branches wove an olive thread through the mosaic, and gave the area a velvety texture. Indeed, it looked like good habitat for our travelers. We worked quickly to set them free, as they were undoubtedly road-weary and tired of the unfamiliar human contact. They sputtered their indignation as we carried the traps to the water's edge. Along with much annoyed tail-slapping and fast submerging, the liberated beavers made a break for seclusion in their new home. While investigating the area, we noticed some weathered stumps with telltale chiseled ends. Seen nearby was an aged mound of dirt and gnawed tree limbs—no doubt an old beaver lodge. Now our project seemed complete. With the ingenuity and assistance of our two "masterminds" another riparian zone can improve and continue to flourish. ▲

The Lonely Butterfly

At first, a speck of dust in the air,
 A black spot on the horizon;
 Then it moved, and fluttered its wings.
 It seemed so out of place
 There in the middle of the big lake,
 So far from the nearest flower.
 What could have brought it here?
 Why was it traversing that vast aquatic
 desert

Where the only alternative to death
 Was to keep going?

Surely, it couldn't have
 been by design.

Something outside itself
 must have driven it

To seek brighter flowers, to brave
 the wet death below.

But is it so futile to try something new,
 Even though we know the cost may be
 high?

I don't know if that lonely black butter-
 fly

Completed its journey, I didn't wait to
 see.

But in that brief time, she reminded me
 once again

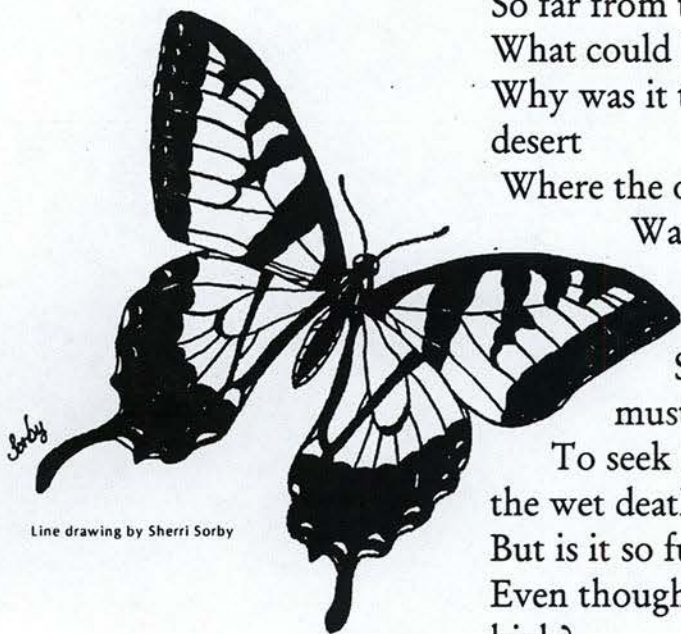
That though the risk of trying some-
 thing new

seems high,

The alternative is to die a slow, unobtru-
 sive death,

Taking no chances, never braving open
 water.

—George W. LaBar



Line drawing by Sherri Sorby

CLUB NEWS



Line drawing by Nancy Hightower

American Fisheries Society, Idaho Student Chapter

by Tim Nightengale

Community

The Palouse Unit, Idaho Chapter of the American Fisheries Society participated in several community activities during the 1995-1996 school year.

(1) We helped organize and assist a fishing derby for youngsters in the Moscow area. This event, held each May at Hordeman's pond in Moscow, enables kids to catch rainbow trout and exposes them to the joy of fishing. Seven club members participated in this event and helped kids remove hooks and clean fish.

(2) We collected and removed garbage and debris along Paradise Creek from Moscow to the WA border as part of our annual Paradise Creek Clean-up day. Approximately 10 club members participated in this event last May.

(3) In spring 1995, we con-

ducted stream surveys on Idaho State lands as part of a state-wide effort to gather information on stream habitat within state-owned lands. This information was forwarded to state agencies to be used as baseline data. Approximately 10 club members participated in this event.

(4) In fall 1995, we surveyed Greer Pond in the UI experimental forest as part of an effort to increase fishing opportunities for youngsters in the Potlatch-Princeton area. Results of this survey provided us with information concerning the type and amount of fish the pond can support. We will use this information to stock fish into the pond this spring. Twelve club members participated in this event.

(5) We distributed pamphlets outlining bull trout life history to local merchants and sport shops as a part of a state-wide effort to

increase public awareness of threats to bull trout populations in Idaho. Five members distributed pamphlets.

CFWR

(1) We participated in the annual CFWR Alumni Banquet held last summer. Steve Chipps, co-president, attended this event as a representative for the club.

(2) We participated in Natural Resources week in 1995/1996. We provided pamphlets and other information concerning the student chapter at our booth. Approximately 8 members assisted with this event.

Other Club Activities

(1) We hosted 9 speakers during 1995-1996. These speakers, announced throughout the college, talked about issues ranging from "Career Survival in the Real World"



to "Proposed Drawdown to Help Idaho's Endangered Salmon". These events were well attended (e.g. 25-55 people) by both faculty and students.

(2) We held our annual spring picnic last May in Ghormley park. Hamburgers, hotdogs and other goodies were provided by the club as well as a tough game of volleyball. Approximately 20 club members attended.

(3) We held our annual wild game feed in February 1996 at the American Legion Hall. Over 85 people attended this event participating in the raffles and door prizes. As always, the food and social experience were great. We raised approximately \$400 from this

event.

(4) We continued our traditional CFWR soup feeds during winter 1995-1996. We hosted 6 soup feeds and raised approximately \$450. Some of the chili was a little hot!!

(5) Last fall we challenged the student chapter of the Wildlife Society to a flag football game. Although close, we won by two touchdowns. We anticipate sharing future events with the Wildlife Society.

(6) In October 1995 we published an article in *Fisheries* (an international, peer-reviewed AFS publication) describing our activi-

ties and accomplishments.

(7) In February, we attended the annual Idaho Chapter, American Fisheries Society meeting in Coeur d' Alene, Idaho. Twenty five club members attended this meeting where they were exposed to a variety of research and management issues currently faced in Idaho. Our club organized and sponsored a "student-mixer" during the meeting where pizza and sodas were enjoyed by all. During the mixer, many members had the opportunity to talk with the current President of the National chapter of the American Fisheries Society. ▲

Advisor: Dave Bennett. Club Activities 1995-1996

Cyclic Fate

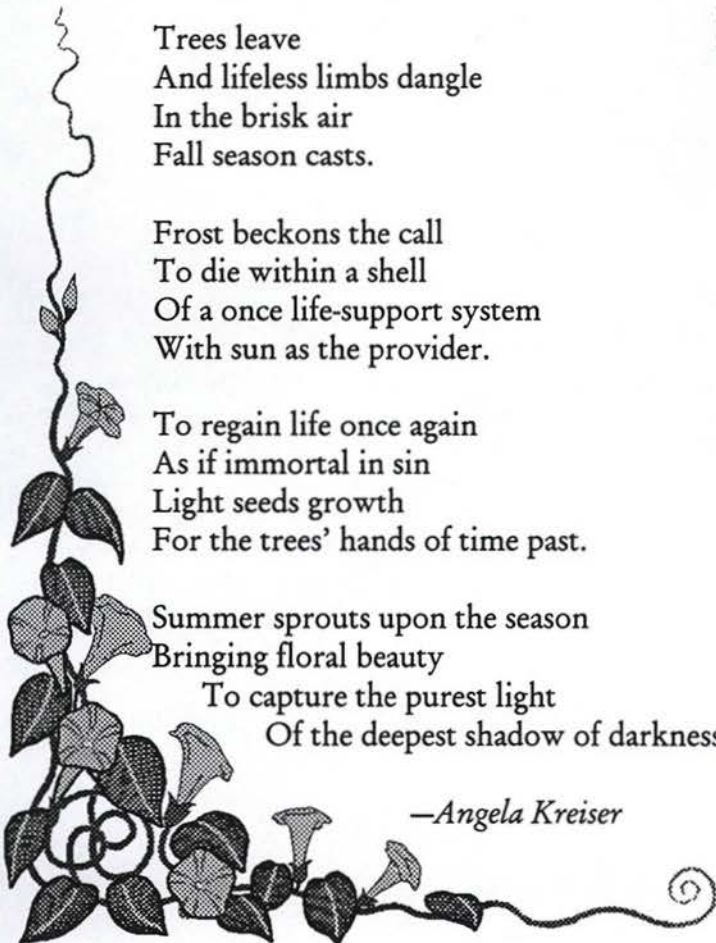
Trees leave
And lifeless limbs dangle
In the brisk air
Fall season casts.

Frost beckons the call
To die within a shell
Of a once life-support system
With sun as the provider.

To regain life once again
As if immortal in sin
Light seeds growth
For the trees' hands of time past.

Summer sprouts upon the season
Bringing floral beauty
To capture the purest light
Of the deepest shadow of darkness.

—Angela Kreiser



Line drawing by Sherry Sorby

Mystical Fear

Mangled spirits
Of hope and prayer
Linger beyond
Loveless dreams

Forming droplets
Of motivational bliss
To relinquish the past
Darkness of lost freedom.

—Angela Kreiser

Forest Products Club

by Jenny Schwab

The University of Idaho Forest Products Club is a professional organization in the College of Forestry, Wildlife and Range Sciences. Being a professional organization it has a national parent association, the Forest Products Society, which many of the students are members of.

The theme for the meetings of this years Forest Products Club was "Careers in the forest industry". At each meeting record numbers of students enjoyed pizza and soda while listening to presentation from various University of Idaho gradu-

ates. Each speaker graduated from one of the options offered in the Forest Products department and is currently working in the industry.

Club fundraising consisted of making picture frames for old time logging photographs. These pictures were sold by members at CFWR club bazaars during Christmas as well as Natural Resources Week. Through the successful sales of these pictures, interested club members were able to attend the Oregon Logging Conference in Eugene, Oregon, February 22- 24,

1996. Club members also attended the Forest Engineering Conference in Moscow, Idaho, February 27-28, 1996.

The club would like to extend a thank you to all of the speakers who took time to come and talk and also to the students who made time to attend the meetings as well as the work parties and helped to make 1995-1996 a very successful year for the University of Idaho Forest Products Club. ♣

Advisors: Harry Lee & Fran Wagner

Logger Sports Club

The Logger Sports Club is a club focused around competitions involving both old-time and contemporary logging skills. Some of these skills include the use of cross-cut saws, chain saws, and axes are used for both chopping and the old pastime of ax throwing.

Many schools hold competitions of which the Logger Sports Club participates in annually. These competitions include those at the University of Montana (Missoula, MT), Flathead Valley Community College (Kalispell, MT), Spokane Community College (Spokane, WA) and the annual Associated Western

Forestry Club Conclave. This competition is attended by schools as far west as Humbolt State University (Arcata, CA) and Oregon State University (Corvallis, OR), as far south as Cal-Poly (San Louis Obispo, CA), as far east as Colorado State University (Ft. Collins, CO), and north as far as the University of Alberta (Edmonton, Alberta, Canada). The University of Idaho also hosts an annual show that is attended by many of these schools.

Aside from competitions, the Logger Sports Club sells firewood annually to raise funds to cover some of the travel and meet ex-

penses. The club also performs other various projects for members of the community, from felling beetle-killed trees to the removal of unwanted yard trees. The Logger Sports Club is open to any student of the University of Idaho, regardless of the college. ♣

Advisor: Richard Folk.

Society of American Foresters, Student Chapter

by Kathy Rose

The Student Chapter of the Society of American Foresters (SAF) is an organization of approximately 30 members. We are part of the larger national organization that is composed of dedicated members who contribute their time, knowledge, and resources so their profession can lead the nation in forestry issues today and tomorrow. Along this line, two members, Karen Feary (treasurer) and Kathy Rose (secretary), attended the national conference held in Portland, Maine. There were over 1,200 forestry professionals in attendance

to discuss the topic of Sustaining People, Sustaining Forests. Jason Pettigrew (president) assisted marking timber for a local landowner in the Fall and was voted outstanding student of the year for the chapter. Other club activities for the year included drafting and producing a management plan for 40 acres on privately owned land at Brown's Meadow. Howard Jennings (membership chair) led a crew of dedicated members in writing the plan and, with Kathy Rose, presented the plan to the Non-industrial Private Landowners Conference

in March. Howard and Kathy also led discussions with first through fifth graders at Garfield Elementary School about why trees are important. Club members—Amy, Carl, Darcy, Eric, Howard, Jason, Julie, Kristin, Kobe, Karen, Kathy, Lucy, Marjorie, Nathan, and Rocky—also took part in a successful Christmas wreath fund raiser, planting trees, and roadside cleanup. The Student Chapter is always looking for new ways to become involved in the community and to illustrate the importance of forestry. ▲

Advisor: JoEllen Force and Charley McKetta.

Range Club

by Meribeth Lomkin

The University of Idaho Range Club has done quite a variety of activities over the past year. Our 1995-96 Officers are: Marni Dickard - President, Matt Jones - Vice President, Meribeth Lomkin - Secretary, Lori Bourne - Treasurer & SAC Representative.

We held our annual Fall Department BBQ and Volleyball Game at Robinson Park on September 24 to kick off the year. We also revised our constitution and registered the range Club with the ASUI activities board. Our fundraisers for the year have kept us busy working the Football and Jazz Festival Concession stands, rolling irrigation hose on the beef research

farm, and selling raffle tickets and T-shirts. Five members attended the Pacific Northwest SRM Section meeting in The Dalles, Oregon October 26-27, where they participated in a communication workshop, took a practice Plant Identification test, and visited with professionals in Range Management. On November 4, two range club members attended a ranch tour near Enterprise, Oregon that was organized by the Eastern Oregon State University's Range Club and also attended by Washington State's Range Club. January 31, Range club members watched "Unlocking Nature's Secrets" a video on outstanding conservation practices on farms and ranches throughout

the U.S. We are working on setting up a Scholarship Fund in memory of Clint Gross, a former Range Club Vice President who recently died of cystic fibrosis. Our most recent activity was attending the International SRM meeting in Wichita, Kansas February 10-14. Ten members attended the meeting and participated in many activities including: plant identification contest, undergraduate public speaking contest, student employment workshop, Tapping the Top program, graduate student presentations, a dance, and manning our booth. It has been a busy, fun, and educational year for the UI Range Club. ▲

Advisor: Jim Kingery.

THEN AND NOW



Reflection in stone

*Locked in stone, fern frond
crushed by foot of Mastadon,
mirros spike and blade
of Botrychium growing
at my feet, sheltered by stone.*

*—Ruth Bacon Heady
Pacific Coast fern finder.*



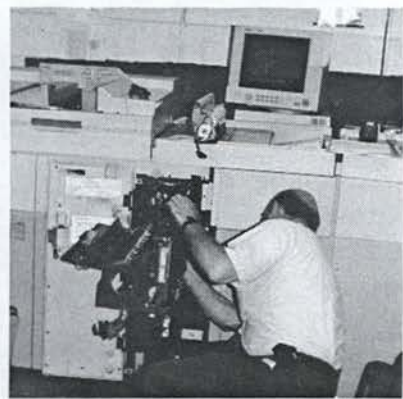
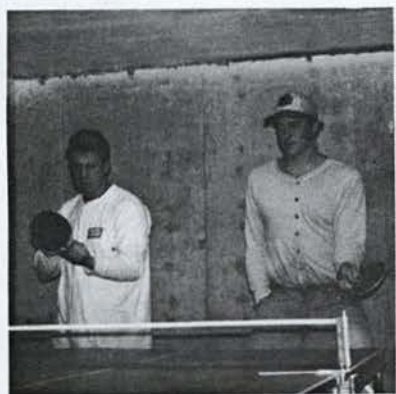
THEN AND NOW

"We must use time creatively ... and forever realize that the time is always ripe to do great things."

—Martin Luther King



CFWR in Action



CFWR in Action



Scenic Shots



W. Hundrup

"Nature without learning is a blind thing, and learning without nature is an imperfect thing."

—Plutarch

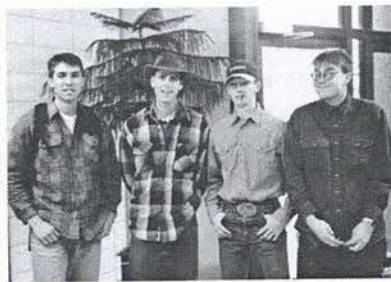
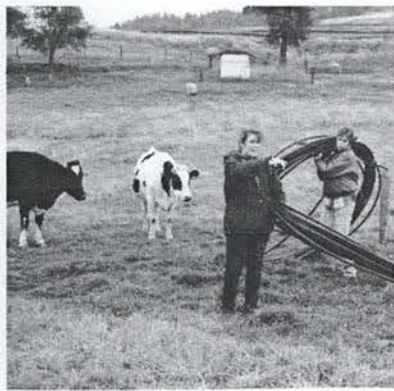
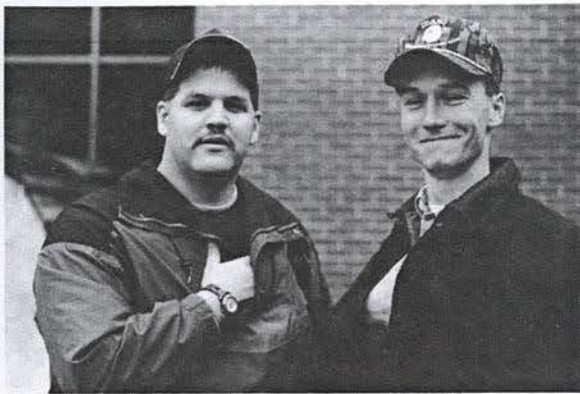


Nathan Goodrich



Jeff Johnson





"If you want to move people, it has to be toward a vision that is positive for them, that taps important values, that gets them something they desire, and it has to be presented in a compelling way that they feel inspired to follow."

—Martin Luther King

Student Affairs Council

by Meribeth Lomkin

The College of Forestry, Wildlife and Range Science (CFWR), Student Affairs Council (SAC) is a group of student representatives from the clubs in the college. SAC has been working toward goals of promoting more active students, staff and faculty participation in college activities, keeping clubs in the college informed of each other's activities, and being the link between students, clubs, and faculty.

The 1995-96 SAC officers are: Matt Jones - President, Jeremy

Scheffel - Treasurer, Meribeth Lomkin - Secretary, and Jason Pettigrew and Bobby Glennon - Executive Council Representatives.

This year SAC has planned and conducted several successful college-wide activities. The CFWR Tailgate Party, held the end of October, was an attempt to get students and faculty together in a casual setting and have fun at a football game. The Club Bazaar SAC sponsored before winter break allowed the clubs to advertise

themselves and sell their wares. The Natural Resources Career Fair sponsored by SAC brought 22 employers into the Forestry building and provided a great chance for students to look for jobs or learn about employers and their businesses. For the rest of the year SAC will be planning Natural Resource week activities, the annual SAC pancake feed, and Green Burger Day. It has been a busy year for SAC members, and we have done our best to accomplish our goals. ▲

Advisor: Alton Campbell.

Student Management Unit

by Della Wicks

The Student Management Unit was created in 1982. A written proposal was submitted to Harold Osborne, Experimental Forest Manager, in order to give the students the opportunities to apply classroom knowledge and receive hands-on experience in the management of natural resources. The SMU is responsible for the management of a unit designated as the SMU on the University of Idaho's Experimental Forest. Under the direction of the Experimental Forest Policy Plan, students have the opportunity to apply their knowledge and skills managing the 146+ acres that is theirs to experiment with and try different manage-

ment methods on.

The activities that the SMU participated in last fall semester of 1995 were building fire line, timber marking for a thinning unit, regeneration plots, and a bon-fire chili feed. The activities that are scheduled for the spring semester of 1996 are a prescribed burn, planting trees in a burn area, thinning improvements, picnic table construction for the Big Meadow Recreation Area along with identifying and removing hazardous trees, wildlife browse improvements, ruff grouse habitat surveys, install forest inventory plots, and plant identification training plots.

The SMU is now offering a pass/fail one credit course (For 299, Sec. 03), for students that would like to join and also receive a credit. Membership is open to all students in the College of Forestry, Wildlife, and Range Sciences. Current representation includes students from Forest Resources, Forest Products, Resource Recreation and Tourism, and Fish and Wildlife departments.

The 1996 officers include: Jason Pettigrew, Chairperson; Della Wicks, Secretary/Treasurer; Nathan Basford, SAC Representative. ▲

Advisor: Harold Osborne.

University of Idaho Student Chapter of the Wildlife Society

by Jeremy L. Scheffel

I entered the University of Idaho in the fall semester of 1994 as a straight-out-of high school college freshman pursuing a degree in wildlife biology. I have always been a firm believer in hands-on experience and involvement. So I immediately began to look for a club to join which would give me this opportunity in the wildlife field as well as providing professional reference contacts. Without much comparison, the student chapter of the Wildlife Society appeared to be exactly what I was looking for.

In the past year, the club has broadened its goals as it continually expands. Our club is greatly influenced by the Idaho Department of Fish and Game (IDFG). With many of our senior members as active reservists, our club is never short on projects to partici-

pate as volunteers for IDFG and other projects. Spring Valley Reservoir, located just outside of Troy, Idaho, is our club's newly adopted reservoir to manage under IDFG regulations. Another new aspect of the club is our project leader program. With too many projects for our officers to handle, this opens the opportunity for any member to take on the leadership role of a project from organization through completion.

As an active member of the UI student chapter of the wildlife Society, my personal benefits from the club include leadership opportunities, field experience, and professional contacts. Club activities have included, volunteer IDFG big game check stations and trapping as well as other volunteer work, tree and shrub planting

improvement projects at Spring Valley Reservoir, constructing and placement of bird nest boxes, professional guest speakers and demonstrations, fundraising for elementary education of wildlife, support for wildlife funding initiatives, attending the student Wildlife Society conclave as well as other national Wildlife Society conventions, recycling of aluminum cans, and always having fun.

I have greatly benefitted from being an active club member. I encourage all students to become involved in a student club in order to gain active experience in any given field of study. Just remember, in the professional world, experience counts more than grade point average for a job-seeking college graduate. ♣

Advisor: Kerry Reese.

The Snag

by L. Jones

The Snag is a bi-weekly publication that acts as an information tool for students in the College of Forestry, Wildlife and Range Sciences (CFWR). It contains articles, information and cartoons that may be of interest to the general CFWR student population. Past issues are available in the "Saloon" or in the University of Idaho library archives. It has come a long way from the days of cut and paste newspaper editing to the times of computer generation. Each editor has a unique style and adds

something to the history of CFWR. Although the Snag staff is small, the paper continues to get published. The Snag has seen a number of changes this past year in that it is now a folded publication and it will soon be available on the CFWR Web Page thanks to the efforts of Riva Morgan in order to make it accessible to a greater population. This year's staff included Lucy Jones, Editor; Jeremy L. Scheffel, Charles G. Lowman, as the ever faithful staff and contributors; Meribeth Lomkin,

SAC secretary minutes; Riva Morgan, employment information; and the occasional contributions of Betty Donat, Stacey Wales, and Erik Nemeck. Advisor: Joe Ulliman. Special Appreciation to Vanessa Dobbins for her guidance and support in making this a complete student publication and Jory Shelton and his copy center staff for their smiles and patience when asked "is the Snag ready yet" when the copy machine is still broken. ♣

Advisor: Joe Ulliman.

Resource Recreation and Tourism

Mission Statement:

The Resource Recreation and Tourism Association (RRTA) endeavors to assist its members in preparing for a future in the Resource Recreation and Tourism field. The Association promotes professional development, community service/outreach, cooperative efforts with our academic department and personal growth through recreational activities and social interaction. By incorporating a blend of academic theory with practical, hands-on experience, we strive to equip our members with the tools necessary to succeed in all aspects of a Resource Recreation and Tourism career.



Faculty Advisor: Nick Sanyal **President:** Rob Buchert, Faith Robertson **Vice President:** Danae Kortmann, Mike Webb **Secretary/Treasurer:** (Fall) Sean Meissner **Secretary:** (Spring) Gaylene Webb **Treasurer:** (Spring) Jon Meier **SAC Rep.:** Jeremy Vlcan
Members: Wendy Amador, Todd Binford, Charity Buchert, Jon Campbell, Clayton Cornwell, Vicki Edwards, Ben Flemer, Matt Flood (Jeb), Steve Frost, Rebecca Goosman, Connie Grant, Tracy Grimm, Nancy Hightower, Jen Hopkins, John Hunt, Angela Johnson, Jeff Johnson, Heidi Kloos, Vern Koehler, Sara Lungren, Scott Miller, Char Monroe, Kathleen (Kat) O'Brien, Keith Olson, Tami Parkinson, Brian Perleberg, Louissa Robello, Josh Ryan, Katie Ryan, Noel Sanyal, Willie Smith, Ryan Sparks, Dan Spinoso, Mike Wood, Breck Young

Where there's barbecuing, camping, wall climbing, sledding, or any other outdoor activities, chances are you'll find an RRTA member close by.



RRTA members hit the trail digging with a trail relocation project at Spring Valley Reservoir near Troy, ID.



We looked abroad this year to experience a taste of international Recreation and Tourism. Presentations on Canadian Parks and the "El Salvador Experience" enlightened our ranks. Many thanks to our El Salvadoran guests for their contributions.

Association: Building the Trail to our Future

Why are these people smiling? Because "fun & fund-raising" go hand-in-hand when RRTA members work the concession booth at the Kibbie Dome. RRTA also held a raffle to raise funds for the Idaho Governor's Conference. Thanks Jim Hawkins for donating the airline tickets. Congratulations Phil Mohan!



IDAHO GOVERNOR'S CONFERENCE



ON RECREATION AND TOURISM

"It's not who you know, but who knows you". The annual conference offers a chance to interact with the professionals in our field and discuss current issues.



Wilderness First Aid



SMU provided RRTA members with the opportunity to "get their hands dirty" with a clean-up/restoration effort at Big Meadow Recreation Area in the U of I Experimental Forest.



Professional Development

Resume Writing Workshop (Thanks Dennis!)
 Making sense of Government Forms (Thanks Riva!)
 RRTA goes on line...E-Mail newsletter & mailing list
 Representatives to:
 Moscow Chamber of Commerce
 Sub Committee on Hospitality & Tourism, Idaho Parks and Recreation Association, NCITA



"Tourismo y Tradiciones"



Louissa Robello

The Idaho Forester

by L. Jones

The accumulated years of Idaho Forester magazines are a trip through history and present the development of this college through time as witnessed by past students. In 1969 the Idaho Forester was not published due to lack of funding (which almost became the fate of the 1996 issue). In 1918 and 1919, all of the young men were called away to WWI resulting in no publications for those years as women did not become a part of the student population until 1935. In fact in 1918, there were absolutely no CFWR grduates. The Idaho forester was fn'st entered in the Society of American Foresters Student Publication Contest in 1979 in which it placed first. It continues to place in the top three, with the

1995 issue taking second place in the contest under the editorial guidance of Kim Reeves.

The articles in the Idaho Forester range from technical articles to amusing, or general interest stories. Both staff and students contribute to the content of the magazine. Photography and poetry contests are a way of encouraging student participation. The winners of the George Savage Writing Contest are published and the Alumni are also requested to contribute. It takes a greta deal of effort, dedication and time to get this magazine published, but the labors will be appreciated by future students who get the opportunity to look back and revel in the "whims of our times". We hope that you enjoy our efforts...

Staff

Nancy Hightower (associate editor, artist & photo Layout)
 Nathan Goodrich (writer and layout)
 Rocky Gilbert (layout)
 Rachel Schulz (writer and layout)
 Stacey Wales (layout)
 Jeff Johnson (writer and layout)
 Erik Nemeck (business manager)
 BJ Keiffer (writer)
 Lucy Jones (editor)
 Advisor: Joe Ulliman,
 Vanessa Dobbins: Desktop Publishing, Guidance and Advice
 Denise Ortiz: Writer, Photographer, Poet, Ideas and Support
 Feature Artists: Sherry Sorby, who also contributed art to previous Idaho Forester publications in 1993 and 1994
 Lorraine Ashland, CFWR Publications Artist.
 Advisor: Joe Ulliman. ▲

Xi Sigma Pi

by L. Jones

Xi Sigma Pi is a forestry honor Society that was established in 1908 at The University of Washington to "promote fraternal spirit among those engaged in activities related to natural resources". In 1920, the University of Idaho Epsilon chapter became the fifth in the nation, of which there are now 42. The society recognizes the accomplishments of upper class CFWR students from all disciplines for superior academic achievement and/or outstanding participation in college activities. Activity in this group has seen some quiet times as

there are so many other activities and clubs in the college to keep students amused and occupied. This year boy scout troops were given tours of the college and a tree identification quiz so as they could be on their way to earning a forestry badge. We also participated in the SAC sponsored club Bazaar where we had a bake sale. Natural Resource presentations have been made at elementary schools on behalf of Xi Sigma Pi. We also sponsored the purchase of the "Tonga" flag that will adorn the ivalls of the International Ballroom

located in the SUB. Many new members were added to the group this year including Matt Jones, Lori Bourne, Sue Rodman, Dave Brummer, Connie MacGregor Carpenter, Erik Nemeck, Stacey Wales, Meribeth Lomkin, Jeremy Scheffel, Nancy Hightower, Jim Allen, Joe Newman, Kathy Rose, Karen Feary, Todd Caldwell, Janna Iverson, Mami Dickard, Kyle Hansen, and Mirza Baig .Our staff advisor is Lee Medema, Lucy Jones, Forester; Nancy Hightower, Associated Forester; Jeremy Scheffel, Ranger; and Erik Nemeck, Treasurer.

Advisor: Lee Medema. ▲

College of Forestry, Wildlife and Range Sciences

1995-1996 GRADUATES



Jim Allen
BS Forest Res



Mike Alpe
MS Range Res



Bob Atwood
BS Forest Res



Roberto Avila
PhD Forest Res



Mirza B. Baig
PhD Range Res



Anne Black
MS Forest Res



Sarah Brackebusch
BS Forest Products



Dave Brummer
BS For Products



Robert Buchert
BS Res Rec & T



Connie MacGregor-
Carpenter
BS Range Res



Mima Carranza
MS Res Rec & T



Hailong Cheng
MS Forest Res



Tom Cichosz
MS Fisheries



Keith Coulter
BS Forest Res



Calli Daly
BS Forest Res



Mami Dickard
BS Range Res



Allan Dickson
BS Forest Products



Mark Drain
BS Forest Res



Olaf Drost
BS Forest Res



Jim Dunnigan
MS Fisheries



Walt Edelen
MS Range Res



Mery Edwards
BS Wildlife



Vicki Edwards
BS Res Rec & T



Mike Elmer
MS Wildlife



Brandt Elwell
MS Forest Res



Marlene Eno
MS Range Res



Karen Feary
MS Forest Res



Mike Feguson
BS Forest Res



Judy Ferguson
BS Range Res



Kristin Fitzgerald
MS Forest Res

CFWR 1995-1996 Graduates (continued)



Steven Frost
MS Res Rec & T



Ara Gardner
PhD Forest Res



Don Gay
MS Wildlife



Rocky D. Gilbert
BS Res Rec & T



Greg Goldberg
BS Forest Res



Nathan Goodrich
BS Forest Res



Jean Haley
MS Forest Res



Heath Hancock
BS Range Res



Kyle Hansen
MS Range Res



Kobe Harkins
MS Forest Res



Albert James
Helgenberg
MS Forest Res



Nancy Hightower
MS Res Rec & T



Charlie Holderman
MS Fisheries



Michael Jensen
BS Wildlife



Rob Jensen
PhD Forest Res



Jeff Johnson
MS Res Rec & T



Lucy Jones
MS Range Res



Matt Jones
BS Range Res



Bill Kelley
BS Wildlife



BJ Kieffer
BS Wildlife



Heidi Kloos
MS Res Rec & T



Danae Kortmann
BS Res Rec & T



Chuck Lobdell
MS Fisheries



Cori Lyons
MS Wildlife



Sandy Mahon
BS Range Res



Theogene Mbabaliye
MS Range Res



Daryle McFadden
BS Forest Res



Kevin McGuire
MS Res Rec & T



Steve Mcrae
MS Range Res



Sean Meissner
BS Res Rec & T

CFWR 1995-1996 Graduates (continued)



Jabbes Mohamed
PhD Forest Res



Randi Movich
MS Forest Res



Tim Nightengale
MS Fisheries



Jim Olson
BS Wildlife



Heidi Osler
MS Res Rec & T



Kathleen O'Brien
BS Res Rec & T



Ann Patton
MS Forest Res



Christopher Peery
PhD Fisheries



Vinny Pero
BS Fisheries



Jason Pettigrew
BS Forest Res



Derek Ratchford
MS Forest Prod



Robert Reavis



Kim Reeves
MS Forest Res



Raini Rippey
MS Forest Res



Susanne Rodman
BS For Products



Mark Rohweder
MS Forest Res



Kathy Rose
MS Forest Res



Peter Schroder
MS Forest Prod



Norvin Sepulveda
MS Forest Prod



Dwayne Shotton
BS Forest Res



Gregg E. Smith
BS Wildlife



JJ Smith
MS Forest Res



Kristin Swoboda
BS Forest Res



Steve Todd
MS Fisheries



Chris Town
BS Forest Res



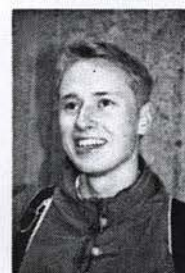
Pam Town
MS Forest Res



Greg Trebtoke
BS Forest Res



Janelle Turner
BS Res Rec & T



Pekka Turpeinen
BS Forest Products

CFWR 1995-1996 Graduates (continued)



Rich Veron
BS Forest Res



Jeremy Vican
BS Res Rec & T



Neal Wadley
BS Forest Res



Mike Webb
BS Res Rec & T



Eric Werner
BS Forest Res



Carl White
BS Forest Res



Blair Wilding
MS Forest Prod



Justin Williams
BS Wildlife



Bob Wilson
BS Wildlife



John Wishart
MS Res Rec & T



Adnan Zahoor
PhD Range Res



Greg Friese
MS Res Rec & T

1995-1996 CFWR Students

International Students

Ishfaq Ahmed, Doct, Rg Sci, Pk
Antonijs Zoran, Mstr, For, wl
& R G Sci, Yu
Arisawa Tsutomu, Mstr, Forest
Res, Jp
Avila Roberto, Doct, For, wl & R
G Sci, Ho
Baig Mirza Bargees, Doct,
For, wl & R G Sci, Pk
Baregala, Dasarathi, Mstr, Res
Rec/to Ur, Li
Arranza Mirna Lissett, Mstr, Res
Rec/to Ur, Gw
Castillo Elsa Maria, Mstr, Forest
Res, Cp
Courrau Jose, Doct, For, wl & R
G Sci, Cr
Ferguson Michael Edward, Sr.,
Fwr for Res Ec O Sys Cd
Garcia Tagliani, Laura, Mstr Res
Rec/to Ur, Ug
Hernandez Jose Dolores, Sr.
Fwr for Res Ec O Sys, Ho
Jabbes Mohamed, Doct For, wl
& R G Sci, Tu
Jin Fengbin, Mstr For, wl & R

G Sci, Pk
Kim Yongha, Doct For, wl & R
G Sci, Ko
Kiryu Yasunari, Doct For, wl &
R G Sci, Jp
Kortmann Danae Olivia, Sr
Fwr Res Rec/to Ur, Cd
Lawson Shona Louise, Jr Fwr
Wildl Res, Cd
Lopez Magda Esperanza, Mstr
Res Rec/to Ur, Gw
Macrae Steven Joseph, Mstr
Range Reso Urces, Cd
Mbaliye Theogene, Mstr
Range Reso Urces, Rw
Merle Christoph Johannes, Sr
Fwr Fp Wd Cons Dsgn, Vz
Mouelle Jean, Doct For, wl & R
G Sci, Cg
Ogasawara Manabu, Soph,
Fwr Wildl Res, Jp
Oviedo Guillen, Martha Ivonne,
Jr Wr Wildl Res, Ho
Parken Charles Kevin, Mstr
Fishery Res, Cd
Robison Barrie Dennis, Mstr
Fishery Res, Cd

Rodriguez Norberto Francisco,
Mstr Forest Res, Ai
Shroder Peter Carsten, Mstr for
Prod, Cd
Sepulveda Ruiz, Norvin Estenio,
Mstr for Prod, Ng
Shen Guanghong, Dct For, wl
& R G Sci, Cp
Teixeira Divino Eterno, Mstr
for Prod, Bz
Wang Xiaohui, Doct For, wl &
R G Sci, Cp
Webb Michael Shane H, Sr
Fwr Res Rec/to Ur, Cd
Woo Kwan-soo, Doct For, wl &
R G Sci, Ko
Yassemi Shahram, Mstr Range
Reso Urces, Ir
Zahoor Adnan, Doct For, wl &
R G Sci, Pk

Graduate School Students

Fishery Resources

Abbott Ann Marie
Anglea Steven Michael
Arnsberg Billy Dale

Bailey John Charles
Burriss Christopher Howard
Carlson John Willis
Cichosz Thomas Allen
Collins Catharine Marie
Davis Matthew Alan
Dresser Thomas James Jr
Dunnigan James Louis
Eaton Craig Alan
Everett Scott Richard
Faler Joyce Colleen
Freitag Russell James
Frost Frank Orvice Iii
Haukenes Alf Henry
Keniry Patrick John
Kruzic Lance Michael
Lobdell Charles Malcolm
Monk Patrick Allen
Nightingale Timothy Lincoln
Patterson Scott Douglas
Reardon Ronald Edward
Robertson David Wayne
Rocklage Stephen John
Smith Scott Schley
Shiflett Cynthia Kathryn
Siegel Deborah Carol
Storror Ann Tenbroeck Smith
Todd Steven Wayne

Forest Products

Caswell Bruce Alan
 Ratchford Derek Alan
 Wilding Blair H
 Grad For, wl & R
 Advincula Benny Andicoy
 Balster Nick J
 Barber Bradley Stephen
 Black Anne Elizabeth
 Bonneau Joseph Louis
 Burgess Caitlin Ann
 Carnes John Christian
 Chipps Steve Russell
 Durfey James Edward

For, wl & R

Gardner Ara Kay
 Gergely Kevin Jerome
 Giudice John Henry
 Green Joel Anson
 Hayes Stephen Gordon
 Haysmith Leslie Aline
 Lim Young Taik
 Logan Kenneth Archie
 Mattson David John
 Mazaika Kathryn Anne
 Mital James Michael
 Moore Susanne Therese
 Murray Michael Peter
 Peery Christopher Albert
 Rollins Matthew Gregory
 Roper Brett Boone
 Stannard Mark Edwin
 Tonn Jonalea Bouse
 Vales David Joseph
 Van Deventer, John Stanley
 Welker Thomas Lee
 Welton Tracie Leigh
 Wisdom Michael Joseph

Forest Resources

Appelgren Ross Stuart
 Baldwin Calib Travers
 Caldwell Lawrence Edwin Iii
 Dodd Brady Nicholson
 Elwell Brandt David
 Farris Calvin Arthur
 Feary Karen Marie
 Fitzgerald Kristin Marie
 Han Maylee
 Harkins Kobe Christopher
 Hayes Stephen Nicholas
 Helgenberg Albert James
 Hightower Nancy Lee
 Mattson Katharine Emelia
 Movich Randi Elise
 Murphy Tanya Erin Lewis
 Murphy Victor Lester
 Patten Ann Mary
 Roberts Frank Matthew
 Rose Kathy Lea
 Sanders Chad Thomas
 Shaw Terry Mac
 Smith David Christopher
 Smith Jonathan Paul
 Stewart Susan Ann
 Stumpf Christa Valerie
 Swartz Linda Marie
 Tady Troy Patrick
 Tholen Richard Dale
 Town Pamela Jean
 Walker Dottie Ann

Range Resources

Adams John Paul
 Alpe Michael Joseph
 Beitelspacher Kindra Sue
 Darby Neal Wayne
 Edelen Walter James
 Eno Marlene Kay
 Erixson Michaela Mary
 Fuchs Sam J
 Glidewell Brice Chanin
 Hansen Kyle Vaughn
 Lance Thomas Allen
 Webster Lori Anne

Resource Recreation and Tourism

Anderson Kristin N
 Bales Stefany B Mealey
 Boyd Andrew William
 Crystal Loretta Marie
 Culp Rocklynn Heidi
 Friese Gregory Thomas
 Frost Steve Richard
 Gager Daniel Frank
 Griffith Randy Scott
 Haley Jean Ann
 Jensen Jerry Sharman
 Johnson Jeffrey Louis
 Mcguire Kevin Scott
 Morten Krista Lynn
 Osler Heidi Suzanne
 Randall Kathy Ann
 Russell Keith C
 Schantz Heidi Anne
 Snyder Gerald Curlee Iii
 Thomas James Alan
 Wall Christopher James
 Wishart John Patrick
 Wright Michael Victor
 Yocum Darren Michael

Wildlife Resources

Antrim Everett Scott
 Beaver David Earl
 Carrigan Timothy C
 Copeland Jeffrey Paul
 Dixon Rita Dianne
 Elmer Michael Troy
 Gardner Scott Charles
 Gay Donald Reed
 Heekin Patricia Elaine White
 Johnston Heather Loring
 Leonard Kara Marie
 Lindbloom Andrew Jonathan
 Lyons Alicia Corinne
 Marco Jeffrey Dale
 Mcdonald Matthew William
 Monello Ryan Joseph
 Nohrenberg Gary Alan
 Rocklage Ann Marie
 Sell Scott Michael
 Small Susan Ann
 Szepanski Michele M
 Whitwill David K
 Yost Andrew Charles

Wildland Recreation Management

Matthews Laurie L

Fish Resource Management**Freshmen**

Baroni Matthew John
 Blatner Steve Joseph
 Carlson Mark Anthony
 Doering Ryan Douglas
 Duplessie Jacques Lapierre
 Glennon Robert Patrick
 Hinson Dustin Riles
 Morgan Sean Charles
 Raitanen Eric John
 Ryan Robert Glenn
 Thompson Persephone Dawn
 Trautman Trent Jay
 Wegley Christopher Todd

Juniors

Albee Cameron Montgomery
 Demarco Matthew Francis
 Derethik Mark Haines
 Dodds Rebecca Jo
 Edwards William Harvey Iii
 Hardy Ryan Scott
 Jackson Chad Stephen
 Jones Eric Edwin
 Lewis Spencer Damon
 Lobdell Robert Bruce
 Perleberg Brian Lee
 Post Jason Wesley
 Smith Jason Allen
 Wachtel Mark Lloyd
 Williams Erik Kalani

Sophomores

Bender Jonathan Paige
 Booth Darrell Lynn
 Bronson James Preston
 Crespi Kristin Danelle
 Dick Travis Leonard
 Foster Colleen Elizabeth
 Fryer Derek Stewart
 Graeb Brian David
 Henson Chad Ellis
 Kissner Krista Lynn
 Leiker David Charles
 Martens Kyle Douglas
 Neil Jodi Cathleen
 Norton Phillip M
 Peters Joseph Chetwoot
 Schultz Steven Michael
 Shea Jake Jeremiah
 Thomas Brian Victor
 Touchstone Jerald Orin
 White Charles Edward

Seniors

Alley Gwen Louise
 Anderson Corie Alice Irbay
 Bailey Dee Ann Shadel
 Branstetter John Charles
 Caldwell Matthew David
 Campbell Derek Justin
 Carpenedo Jennifer Lynn
 Corbett Stephen Carmichael
 Davis Jerad Christopher
 Eckhart Michael Ryan
 Grabenstein Kristen Lynn
 Haley Matthew Wayne
 Hildebrand Gregory Adam
 Hogen David Mark
 Horton Travis B
 Igelman Mike David

Karchesky Christopher Michael
 Kellar Dale Scott
 Larsen Chris Allen
 Larson Paul G
 Mcgee Erin Wade
 Medrow Christopher Alan
 Murray Travis Jason
 Netto John Kenneth
 Pero Vincent David
 Quist Michael Carl
 Rabe Craig Denton
 Russell Peter Christopher
 Schanz Matthew Damon
 Stone Lara M
 Symons Wade Martin
 Wren Carolyn S

Forest Products**Freshmen**

Dahlberg Eric William
 Nemeck Erik Paul

Juniors

Arrillaga Michael John Jr

Sophomores

Donahue Mark Joseph
 Dryden Derek Mathew
 Jacobsen Scott Franklin
 Ortnr Jill Larae
 Ward Robert Everett

Seniors

Dickson Allan Dale
 Hutchinson Michael Lynn
 Schonbeck Chad Erik
 Smith Kevin Wayne

Forest Products Ti**Freshmen**

Barnes Ryan Willard
 Wagner Robert Francis

Sophomores

Baker Tara Dawn
 Lefebvre Matthew Borg
 Reggear Bryan Ivan
 Schwab Jennifer Louise

Seniors

Brackebusch Sarah Marie
 Kroetch Brian Keith

Forest Resources Ad**Freshmen**

Allen Julie Leilani
 Bonner Aaron Ryan
 Edmiston Janel Marie
 Pond Andrew Mackinnon
 Reid Shawndra Dee
 Sampson Jeffrey Andrew
 Teague David Patrick
 Thompson Jeffrey Paul

Juniors

Medearis Anthony Daniel
 Wapato Philip Harvey
 Wimmer Erin Michelle

Sophomores

Boguslawski Julie Dawn
Brisbois Joanna Jane

Seniors

Cawston Ike H
Drain Mark Loy
Hultine Kevin Richard
Thomas Roger O'neal
Warr Bradley James

Forest Resources Ecology

Freshmen

Arnold Corey Noel
Austin Brian Darrell
Brennan Nathan Cody
Dempsey Sean Patrick
Eggers Gary Vance
Fabbi Daniel Joseph
Green Russell Louis
Hagemeier Andrew James

Jones Jody Lyn
Larson James Edward
Mcmullen Carrie Danielle
Puchlerz Molly Elizabeth
Way Linc William

Juniors

Allmaras Marjorie Anne
Anderson Clinton Brice
Anderson Melissa Lee
Ausborn Christopher Raymond
Baker Marle Dean
Bowmer James Andrew
Chapman April Lynn
Cochran Jamie Kay
Daudt Andrew James
Hatfield Ryan Blaine
Hawkins Bruce Hadley
Poulter Benjamin
Prisock Brian J
Turner Jenny
Wingert Edward Franklin
Wyatt Douglas Allen

Sophomores

Anderson Fredrick Dean
Bennett Amy Sunshine
Carlson Lane Brian
Dale Tracy Lynne
Day Michelle Lynn
Dodson Elizabeth Marie
Foster Eric Raymond
Frisk Robert C
Hileman Christy Lou
Jacoby Eric Lane
Jennings Earl Howard
Lemmon Sam a
Newton Lonnie J
Robinson Frank Christopher
Rost Benjamin David
Rowe Victoria Leigh

Seniors

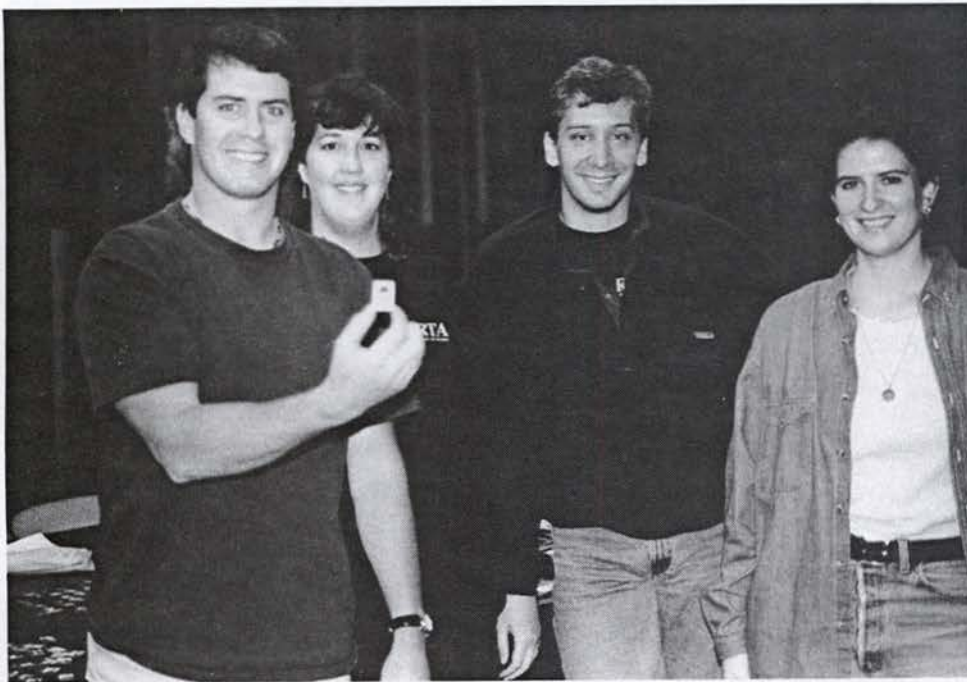
Daly Calli Marie
Gates James Calvin
Goodrich Nathan Dewayne

Johnston Phillip George
Louie Deborah Jeanne
Miles Aaron David
Newman Joseph Paul
Northrup Jerry Clyde
Parrish Peter Jonathan
Pond Leigh Ann Pinkham
Reaves Kimberly O'marr Gortz
Regan Donald James
Shotton Dwayne Allen
Town Christopher Allen
Treboske Gregory Paul
Veron Richard David
Wadley Neal Ross
Weathersby Marc Anthony
Werner Eric William
White Carl a
Wicks Della D
Williams Christopher Jason
Zokan James F.

Forest Resource Management

Sophomores

Stephens Cynthia Ann



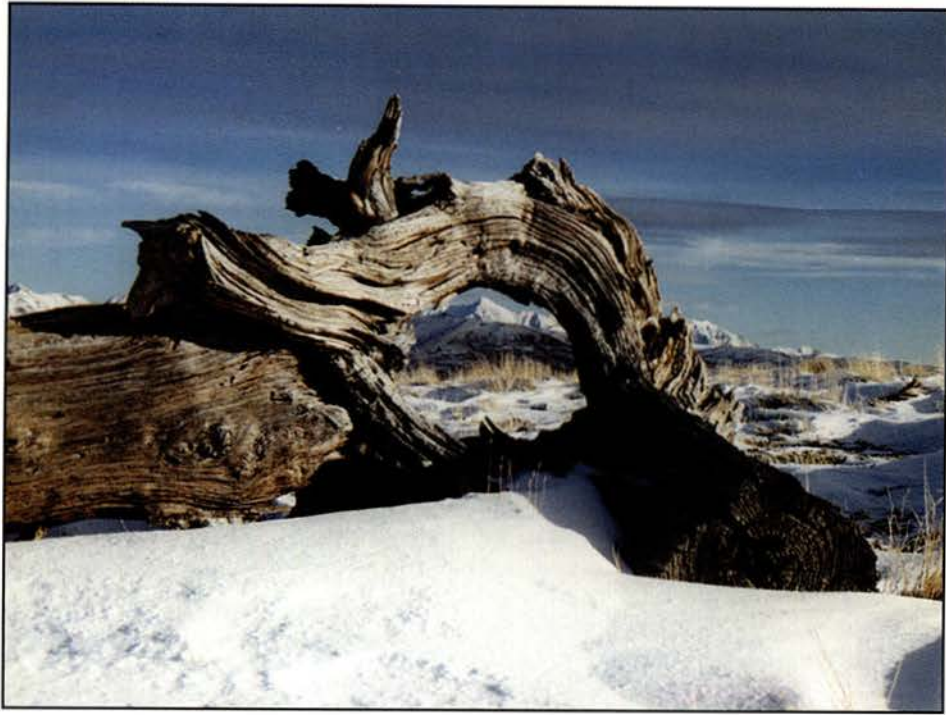
Forester Staff

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Swu'nmp twa



"The land is everything to me. The land is part of my language, part of the way I perceive the world. The water, the trees, the smell of the pine, the smell of autumn, the smell of wet leaves in the spring; it is all part of my imagination, part of my dream."

Gerald Vizenor, 1992



Photo credits
top: L. Jones
bottom: Nancy Hightower

