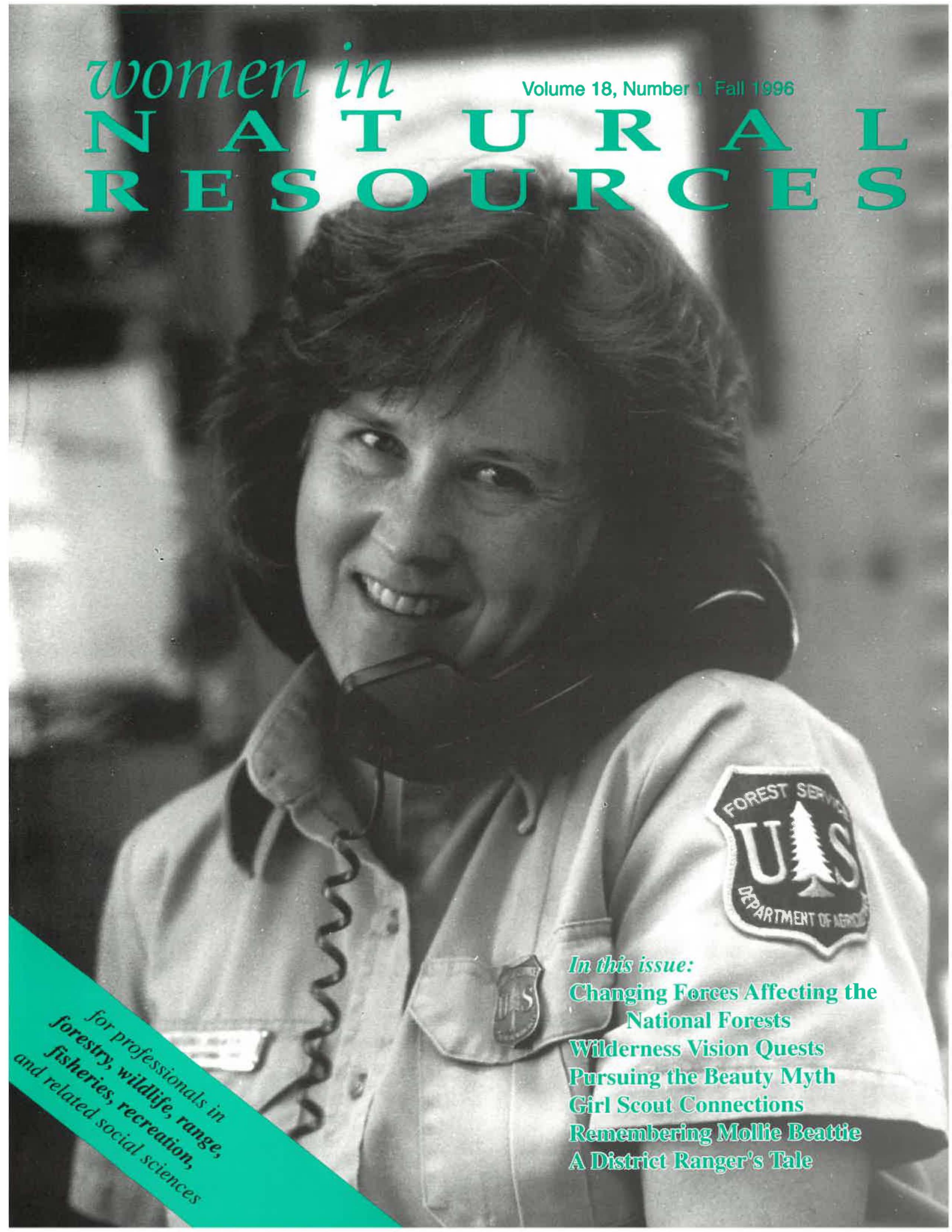


women in

Volume 18, Number 1 Fall 1996

NATURAL RESOURCES



In this issue:

**Changing Forces Affecting the
National Forests**

Wilderness Vision Quests

Pursuing the Beauty Myth

Girl Scout Connections

Remembering Mollie Beattie

A District Ranger's Tale

*for professionals in
forestry, wildlife, range,
fisheries, recreation,
and related social sciences*

Editorial Dixie Ehrenreich

FAST FORWARD

Three of the natural resource agencies are currently in a transition period with acting or interim heads: USDA Forest Service, USDI Fish & Wildlife Service, and the USDI Bureau of Land Management. As I write this, the election campaign is still in full swing—but I am not hearing the presidential candidates (or our region's congressional candidates) discussing or being asked their views on what qualifications these managers should have. And that is odd, because there are important public land and natural resource conflicts that should be addressed at the highest level in rational debate. A few are: downsized federal agencies cutting services; power-boaters versus river-floaters versus anglers fighting over access; endangered species; ecosystem planning—or not; resource-killing fires that cost too much of the budget to fight; commercial and sport fishing stocks threatened by disease, over-fishing, dams, pollution; reintroduction of wolves, grizzlies, panthers, alligators and other non-neighborly critters. How many more wilderness designations or parks or wildlife refuges are needed?; how much hunting or grazing or logging or firewood/alternative forest products collection should be encouraged?

And there are management issues. The willingness of Congress to micro-manage the agencies is a very big problem. The agencies are buffeted by public constituents on all sides of the above issues, then cussed by Members of Congress publicly and deprived of funding quietly in committee. Some of the Members of Congress want to hand over chunks of the public lands to their home states to intensively manage; these Members relish starving the agencies and seeing them falter in order to accuse them of mismanagement. Some other Members want absolutely no management, no people on the land and no people's livestock or houses or roads. They also relish starving the agencies. Some Members really hate one agency and enjoy pitting that one against the others, piling on with the help of a special interest public. Most Members of Congress don't fall in those groups, but at the same time, they are not forming an identifiable constituency which goes to bat for natural resources. And every two years there is a large, fresh

batch of Members of Congress for the agencies to educate and reason with.

Most of these current conflicts in natural resources started in the 1960s. Up until then, natural resource departments kept pretty much to themselves as they had prior to World War II and just after. But the ability to harvest timber rapidly with new technologies, distribute pesticides, herbicides, and fertilizer widely and cheaply, control fires, bring in refrigerator ships to efficiently service off-shore fishing fleets, was coupled with a growing population who had enough money to buy hiking, hunting, and fishing equipment and they had transportation to get them to the "wild" or scenic places. This population had tolerated—even encouraged—the over-use of resources when the war effort required overstocking the range with beef cattle, damming the rivers to create electricity and water to feed irrigators and the military factories, and quarrying whole mountains for ore and building materials. The natural resource agencies' managers were required to manage to facilitate the government's war-time and post-war rebuilding priorities. Their managers were, for the most part, able and trained to do just that.

Until fairly recently, the managers were still coming from that same mold—and this is understandable. They were educated and came up through the ranks in the "national interest" days. But as they were assuming leadership in the 60's, the public's priorities—and natural resource realities—had already changed. Congress' priorities changed, too, and all began splitting messily into the conflict-spawning positions outlined earlier. No one knew how to craft the right kind of laws, but we needed laws, and Congress made them. Had the agencies been led by foresighted leaders, finding solutions instead of protecting old and unwanted positions, I believe we would not be in the continual brawl we are now in. Neither Congress nor the public intended for the laws to have had the hand-tying effect they have had.

This brings me to the opportunity to offer advice to the Departments of Interior and Agriculture. Don't look for a nineties kind of leader. We don't need three someones qualified to make regulations on riparian zones, solve the red cockaded wood-

pecker issue or the northwest logging issue, or to boost anadromous fish runs. Those, and most other problems we are currently wringing our hands over, are history; they will be efficiently dealt with—for better or worse—by others in each agency or in the courts. We desperately need instead, three futurists as leaders who understand the mighty power of a country who has the class and quality of natural resources that we do and what this requires of us. These leaders will understand and articulate possibilities for the year 2020 or 2080 and not try to turn us back to 1957. They need to become Billy Graham, a Golda Meir, a Yasser Arafat, a Teddy Roosevelt, using their "bully pulpits"—but only for the big message, the promised land visions.

These leaders should be young, they should have international work in their backgrounds, some cross-training and cross-employment, and a broad ecology education. And since three of them are to be hired almost simultaneously, being compatible with one another ought to be a requisite as should genuine management talent. Finally, the current din of interests in opposition will continue. Don't ignore the din, but let others deal with the problems as point persons and the new dilemmas that inevitably replace them.

I fervently hope that we hire three leaders who are really, really smart, very tough, who aren't cowed by the agency "culture." Then let them restructure a bit to give themselves the breathing room to begin preparing us for the future.

EDITOR

Dixie Ehrenreich

ASSOCIATE EDITOR

Karen Lyman

SECTION EDITORS

Elaine Zieroth

Diane Calabrese

Daina Dravnieks Apple

Jessie Micales

Linda Hardesty

Ruth Parnall

Jonne Hower

Barb Springer Beck

J. Anne Shaffer

ART/CARTOONS

Deann Zwright

GRAPHICS/DESIGN/PRODUCTION

PERMISSION TO REPRINT SHOULD BE OBTAINED
FROM THE EDITOR.

WOMEN IN NATURAL RESOURCES IS A QUARTERLY.
RATES: \$23 FOR PERSONAL, \$17 FOR STUDENT, AND
\$39 FOR BUSINESS, GOVERNMENT AGENCY, LIBRARY OR
UNIVERSITY. FOR NON-US SUBSCRIPTIONS, ADD \$10.
WRITE WINR, BOWERS LAB, UNIVERSITY OF IDAHO,
MOSCOW ID 83844-1114 (208-885-6754 E-MAIL
DIXIE@UIDAHO.EDU).WE ACCEPT CREDIT CARDS.

WOMEN IN NATURAL RESOURCES

Fall 1996

Volume 18, Number 1



FEATURES

4

Changing Social and Legal Forces
Affecting the Management
of National Forests

Daina Dravnieks Apple

The diversity, complexity, and breadth of Forest Service responsibilities for managing the National Forests are greater than the scope of responsibilities assigned to any other federal land management agency.

11

Wilderness Vision Quests

Marilyn Riley

Vision Quests tap the spiritual values of Wilderness.

14

Pursuing the Myth

Molly Stock

The Beauty Myth, a book by Naomi Wolf, explains how our communal pursuit of an idealized and unrealistic face and body diverts our energy and acts as a counterforce to the advances we have struggled so hard for. *Why do we do it?*



DEPARTMENTS

2

Letters & Opinions

17

Research in Progress

Focus on Wildlife

Jessie A. Micales

25

Books

Reviewed by

Jonne Hower

30

A Management Column

Boost Your Emotional

Competence

Barb Beck

37

News & Notes

41

Kiosk

Inside front cover

Editorial

Dixie L. Ehrenreich

Page 41, Information for subscribers, advertisers, and contributors

The cover photo
is of

Becki Heath

District Ranger

USDA Forest Service

Leavenworth Ranger

District, Wenatchee

National Forest

FEATURES

19

Girl Scout Connections

Anne S. Fege

Partnerships with Girl Scouts greatly complement the missions of natural resource agency programs.

26

Remembering Mollie Beattie

Maron Larson

Beattie's tenure as Director was marked by intense debates over reauthorization of the Endangered Species Act, concerted effort to open the Arctic National Wildlife Refuge, and other issues. Under her guidance, the Fish and Wildlife Service was able to weather these storms and reach many milestones.

32

A District Ranger's Tale

Marti Ames

Wildfire was a yearly visitor to the Leavenworth Ranger District in the state of Washington. District Ranger Becki Heath Talks about one particularly bad fire year in 1994 and what the Wenatchee National Forest is doing to reduce the dangers.

Congratulations on your outstanding Dallas 10th anniversary issue! From time to time, some of us aging warriors (speakers at that conference) get discouraged when we realize that it is 1996 and maybe we haven't accomplished everything in our agencies or in society that we thought that we would have by now. But it is times like this, when we read of the struggles, sacrifices and the stories of ultimate survival and success that our faith is renewed. I have lost track of the number of times women in all parts of the country, in all types of successful positions have called or written or come up to me and said "You wouldn't remember me, but I heard you speak in Dallas and..." That is what has made it all worthwhile and keeps me in the business of natural and human resources management. I wish you continued success and look forward to your 20th anniversary issue.

Denise Meridith, Phoenix, Arizona

What a great service Marilyn French is doing for the Yellowstone grizzlies. I envy her life, but as she describes it, she works very hard at it. Too bad you don't publish on glossy paper in four color. Those were good photos of the bears which deserved better than black and white.

Renee Cataldo, Austin, Texas

I've subscribed for years, and I am always thinking I would like to know the women who write the articles (or who are written about) in the journal. You featured a whole bunch of them who could have been my good-ol-buddies in the summer issue of '96. I could have camped with Marilyn, chatted with Anne and her Forest Service friends about old times, hired Ann to divulge her recipe for staying power, had Denise, Sandra and Dixie talk to my junior high school daughter, taken Christine out for a beer to get career advice, and implored Karen to teach me more secrets of working at home while not losing your cool. Barb could give my last employer some sound advice on handling employees, Jessie could help get my former supervisor a better take on how a science base would pay off for the resource, and Jonne could make me smile and nod and want to buy the books she likes. Thanks friends.

Janet Lenore Wyatt, Richmond, Virginia

Women in Natural Resources seeks manuscripts for a focus issue on Range.

If you have a project to write about, contact the editor at 208-885-6754 or email dixie@uidaho.edu.

Deadlines for manuscripts will be December 1, 1996.

NATIONAL PARKS AND THE WOMAN'S VOICE

A History

Polly Welts Kaufman

"A book that has been needed for a long time, *National Parks and the Woman's Voice* is a very human look at women moving upward."—*Dixie L. Ehrenreich, Ph.D., Editor, Women in Natural Resources*

40 halftones
Cloth: \$42.50



UNIVERSITY OF NEW MEXICO PRESS

At bookstores, or call 1-800-249-7737 FAX 1-800-622-8667

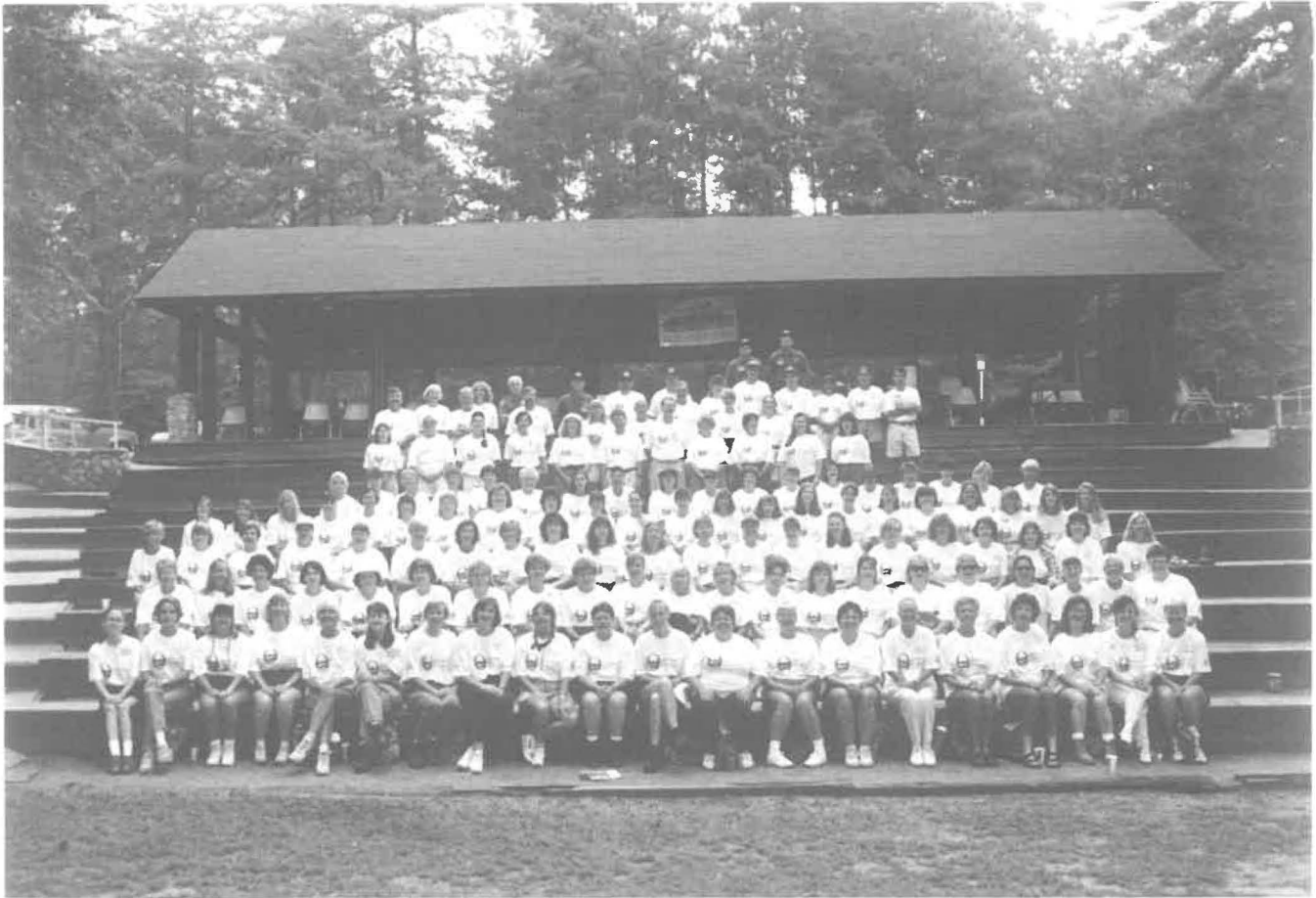
MISSISSIPPI STATE UNIVERSITY WILDLIFE ECOLOGY/ MANAGEMENT

Mississippi State University and the Forest and Wildlife Research Center are seeking to fill a wildlife ecology/management position at the Assistant/ Associate Professor level within the Department of Wildlife and Fisheries.

The successful candidate must hold a Ph.D. degree in wildlife ecology/management, conservation biology, or closely allied field, with expertise in white-tailed deer (or other cervid) ecology and management and nutritional/physiological ecology of vertebrates. The successful candidate also must be willing to conduct applied research and communicate results to agency and private clientele. The appointment will be 70 percent research and 30 percent teaching. The candidate will be expected to continue and further develop a successful research program addressing ecology and management of white-tailed deer and other potentially interacting terrestrial vertebrates at community, landscape, and ecosystem levels; direct research of a captive herd of white-tailed deer; teach wildlife nutrition and physiology, limited segments of several team-taught courses; and cooperate with other university faculty in teaching, research, extension, and continuing education.

Submit a letter of application including a resume, academic transcripts, statement of interests and philosophies regarding teaching, research and service, and three letters of reference to: **Dr. Richard M. Kaminski, Chair, Search and Screening Committee, Department of Wildlife and Fisheries, Box 9690, Mississippi State MS 39762 (phone/email 601-325-2623/ rkaminski@cfr.msstate.edu. Closing date: January 10, 1997, or until position is filled. EO/AEE**

South Carolina's Becoming an Outdoors-Woman workshop attendees and instructors



Wildlife Ecology and Conservation

Department Chair, University of Florida

Applications and nominations are invited for the position of Professor and Chair of Wildlife Ecology and Conservation at the University of Florida. The Department offers the B.S., M.S., and Ph.D. degrees in Wildlife Ecology with programs in conservation biology, landscape ecology and restoration, wildlife management, tropical conservation, urban wildlife relations, and conservation education.

Must have earned doctorate, with one or more degrees in ecological science or natural resource management. Should demonstrate exceptional record of scholastic and leadership abilities to foster the department's regional, national, and international programs. Candidates must have vision and ability to enhance relationships with the greater scientific and resource management community, and develop and strengthen interdisciplinary ties within the university.

Applications should include letter of intent, vita, university transcripts, and names, addresses and telephone numbers of five references to be sent to: Dr. Susan K. Jacobson, Chair, Search & Screen Committee, Dept of Wildlife Ecology & Conservation, PO Box 110430, Institute of Food & Agricultural Sciences, University of Florida, Gainesville FL 32611-0430 (phone 352-392-4851; fax 352-392-6984; e-mail skj@gnv.ifas.ufl.edu).

Applications close January 3, 1997.

EO/AEE

Women & minorities are encouraged to apply.

AGROFORESTRY PROCEEDINGS

From the Fourth North American Agroforestry Conference held in Boise, Idaho in July 1995

Building a Sustainable Future

Editors: John H. Ehrenreich, Dixie L. Ehrenreich, Harry Lee

The Proceedings reflect the many disciplines of the conference's presenters from around the world—both developed and less developed countries.

Within the 200 pages there are sections on:

- Agroforestry Potential
- Biology of Temperate Agroforestry Systems
- Economics of Agroforestry of North America
- Evolving Systems for Varying Temperate Conditions
- Extension
- Riparian Buffer Strips
- Silvopastoral Systems in Temperate Zones
- Temperate Zone Alleycropping and Intercropping
- Windbreaks and Shelterbelts
- Posters

To order, send US\$ 35 (plus \$5 for US or \$10 for non-US shipping and handling) to Conference Proceedings, Attn. John H. Ehrenreich, Editor, College of Forestry, Wildlife, and Range Sciences, University of Idaho, Moscow ID 83844-1135 (phone 208-885-7600; fax 208-885-5878; e-mail johne@uidaho.edu).

THE DIVERSITY, COMPLEXITY, AND BREADTH OF FOREST SERVICE RESPONSIBILITIES FOR MANAGING THE NATIONAL FORESTS ARE GREATER THAN THE SCOPE OF RESPONSIBILITIES ASSIGNED TO ANY OTHER FEDERAL LAND MANAGEMENT AGENCY.

CHANGING SOCIAL AND LEGAL FORCES AFFECTING THE MANAGEMENT OF NATIONAL FORESTS

DAINA DRAVNIKAS APPLE

The U.S.D.A. Forest Service has been cited as one of the best managed agencies in the government. The Forest Service gained national respect during the Great Depression and emerged from World War II expanding its mission from primarily custodial management to supplier of natural resource commodities such as timber. Its budget grew and so did its numbers of employees (Reich, 1962; Sabatier, Loomis, and McCarthy, 1995). It was also a professional monoculture largely made up of white male foresters, and was soon to encounter strong socio-political pressures to accommodate environmental values and more open, democratic decision making.

As the country's largest, oldest, and most powerful land management agency, the Forest Service has often been praised for its professionalism, effectiveness, and *esprit de corps* (Clarke and McCool, 1985; Culhane, 1981; Kaufman, 1960). In the 1950's and 1960's the Forest Service experienced relatively little public or Congressional criticism. Agency professionals wrote much of the legislation regulating its own behavior, such as the Multiple Use Sustained Yield Act of 1960 (Dana and Fairfax, 1980). Forest recreation users and environmentalists had not yet voiced their interests and the agency had rarely been taken to court to defend its policies. But its defense of its clearcutting and other forest management controver-

sies on National Forests, and the passage of National Environmental Policy Act in 1969 signalled a change.

The Forest Service since 1969 has been criticized for focusing too much on the management and development of the national forests' commodity values, especially timber and grazing, and for insufficient attention to noncommodity values such as wildlife, wilderness, and recreation (Anderson, 1993-94; Twight, 1983; Wilkinson, 1987). It has also been criticized for not responding to shifting societal demands concerning these values (Twight, 1983; Twight and Lyden, 1988; Twight and Lyden, 1989).

Nevertheless, a number of observers argued that the Forest Service had been changing (Brown and Harris, 1992; Kennedy, 1988; Tipple and Wellman, 1991). They point to sustained pressure on the agency over the past several decades, from growing environmental awareness in the country and increased public attention to the national forests and other public lands. Significant new legislation emerged during this period, including the Wilderness Act of 1964, the National Environmental Policy Act of 1969 (NEPA), the Endangered Species Act of 1973, the National Forest Management Act of 1976 (NFMA), and others. Some argue that these laws, as well as a number of important court decisions, have made the Forest Service pay closer

attention to the noncommodity and environmental values of the national forests. Such laws have also increased opportunities for the public to become involved in, and to hold the agency accountable for, national forest planning decisions. Very recently, several authors concluded that Forest Service planning decisions are now more strongly influenced by local "amenity coalitions" than even by hierarchical controls from Congress, or the Forest Service national office (Sabatier, Loomis, and McCarthy, 1995).

These external pressures have, in turn, led to internal pressures. Interdisciplinary planning and decision making required by NEPA and NFMA, as well as affirmative action decisions made by the courts, led the agency to hire and promote greater numbers of women, minorities, and nonforestry professionals (Brown and Harris, 1993). Some argue that the increased presence of nontraditional employees has resulted in a greater diversity of ideas and perspectives, which is likely to affect the agency's world view and eventual management and policy decisions.

Background: Evolution and Impact of Forest Service Culture

The Forest Service officially began as a land management agency in 1905. In that year, the Transfer Act gave this small

agency responsibility for 60 million acres of remote western land. In the years since 1905, the agency has seen its land base more than triple to 191 million acres, and its personnel increase in number to rival that of many large federal departments (full-time employees currently number just over 30,000). It also developed a reputation for being a "superstar" agency (Clarke and McCool, 1985).

In 1960, Kaufman sought to answer the question of how the Forest Service overcame the multitude of "centrifugal forces," including distance, variety of settings, and an ideology of decentralization, to function as a model of bureaucratic effectiveness. He thought a high degree of unity was maintained because employees performed tasks with compliance and conformity. Kaufman described the ranger as a pivotal player in national forest administration: executive planner, the woodsman whose chief responsibility was to shape elaborate, detailed directions from above to meet the needs of the local situation. In doing so, the rangers felt as though they were exercising large amounts of discretion, yet their actions were generally approved of by the organization (Tipple and Wellman, 1991).

According to Kaufman, the Forest Service successfully used administrative procedures not only for their stated administrative purposes but also to reinforce a culture of voluntary conformity. For example, he described the frequent movement of field personnel as designed to provide employees with a wide range of experience, and make rangers less subject to local pressure, in keeping with agency policy for advancement through the ranks. Yet, he noted, this had the added effect of making the Forest Service the primary factor in an individual's life, the only continuity and structure in an otherwise always changing world. To these he added standardized recruitment, selection, and staffing, reporting requirements, training, and the use of language and symbols. Yet, despite the picture of strong socialization efforts and numerous control mechanisms, Kaufman concluded that the organization remained flexible and open to new ideas.

Line and Staff

Forest Service employees traditionally have defined themselves into two broad categories: Line and Staff. Na-

tional Forest System line officers are those with policy making authority. Included in this category are the chief, associate chief, deputy chiefs, regional foresters, deputy regional foresters, forest supervisors, deputy forest supervisors, and district rangers. Staff include all employees not considered to be part of the management line. (The Forest Service research and state and private organization has an analogous structure, but is not included in this discussion.)

Line employees have usually been in the agency longer and are more likely to hold a degree in forestry. Thus, they may be more likely than staff to be socialized into the agency's traditional norms and worldview. Additionally, line officers may face greater pressures to conform by the promotion and reward system, as there are far fewer line than staff positions in the Forest Service since only one of each 35 employees holds a line position (Mohai and Jakes, 1996).

Institutionalization

In "The Role of Institutionalization in Cultural Persistence" (1977), L.G. Zucker described institutionalization as "some sort of establishment of relative permanence of a distinctly social sort," which has to do with cultural persistence, i.e., becomes adopted as part of the mind map circumscribing behavior. He found that the greater the degree of institutionalization, the greater the uniformity, maintenance, and resistance to change of cultural understandings. The Forest Service and the forestry profession both involve commitment to a social establishment intended to do permanent things, and thus to be relatively permanent themselves.

While Zucker found that institutionalization can occur in a relatively short time, forestry has had many decades to become institutionalized. The more than 90 years of forestry training and bureaucracy in this country derives from over a century and a quarter of professional and bureaucratic development in Prussia and Germany. Prussia's first forestry bureaucracy regulating government forests was established by Frederick the Great in 1740, followed about 30 years later by professional forestry schools (Brown, 1887; Fernow, 1894). The adoption of the elite organizational model used in the Prussian Forest Service was urged here in the United States, first by Baron Von

Steuben at the 1882 American Forestry Congress in Cincinnati and again in 1893 at the Chicago World's Fair with its special German forestry exhibit and building. Prussian forester Bernard Fernow helped organize both of these events along with the American Forestry Association, and he wrote the 1888 Hale Bill, which proposed an organization resembling both the Prussian Forest Service and the present-day USDA Forest Service (Steen, 1976).

Gifford Pinchot not only studied the organization of the Prussian Forest Service in Germany, but corresponded at length with his old German professor Detrich Brandis about the details for instituting a U.S. Forest Service (Pinchot, 1891). Brandis's step-by-step recommendations clearly outline the establishment of a specific pattern of organizational behavior first for a single ranger district, then gradual replication of the model into additional districts. This is similar to the deliberate institutionalization pattern demonstrated by Zucker. The subsequent training of the first U.S. professional staff using German instructors, texts, and technology was also influential in cultural development and maintenance of the organization.

Over time, then, both through institutional patterning and through repetition of personnel practices noted by Kaufman, Forest Service cultural persistence and uniformity became well established. The Forest Service developed into a well-run, effective agency, and continued relatively unchanged for most of its history. Each of its first five decades was dedicated only to refining its self-concept of tree-farming, with little pressure to rethink its direction or goals. Not until the rise of the environmental movement in the 1960's and 1970's did it face any serious challenges to its management or purpose.

What is Organizational Culture?

James Q. Wilson states that every organization has a culture—a persistent way of thinking about the central tasks and human relations within an organization. "Culture is to an organization what personality is to an individual. Like human culture generally, it is passed on from one generation to the next. It changes slowly, if at all" (Wilson, 1989). According to Wilson, a definition of

organizational culture includes: "the process of inculcating points of view fundamental attitudes, loyalties, to the organization...that will result in subordinating individual interests ... to the good of the whole." An organization acquires a distinctive competence (what it actually does better than any other) or sense of mission when it has not only answered the question "What shall we do?" but also the question "What shall we be?" Wilson notes that this leads to the establishment of core tasks that are linked to distinctive competence of the organization. It is the core of the organization's self-concept — of what it is there to do. When an organization's goals are vague, different definitions of core tasks develop for different people. This results in the development of different subunits, and organizations can have several cultures. (While the goals of the Forest Service are clear, the priorities for achieving them often are not clear, thus leading to a similar dynamic described by Wilson.)

Both Wilson and E.H. Schein (1988), discuss the powerful impact of strong founders in shaping organizational cultures. They can instill a sense of mission in an organization which confers a feeling of special worth on the members, provides a basis for recruiting and socializing new members, and enables administrators to economize on the use of other incentives. Wilson cites the creation of the Forest Service in 1905 as an example of how a leader successfully developed a sense of mission that persists to this day.

The Leader, Gifford Pinchot

Gifford Pinchot, the first Chief of the Forest Service, was a charismatic man, and a personal friend of President Theodore Roosevelt. After returning from France where he received professional training in forestry, and subsequent exposure to German and Swiss forestry, he founded the Forest Service in 1905 (Pinchot, 1910). The predecessor to the Forest Service, the Department of Agriculture's Division of Forestry, was created in 1881, but had no forest lands under its management. Only with the Transfer Act of 1905 were the federal forest reserves given to the Department of Agriculture to administer under the theory that growing trees was comparable to growing agricultural crops (Steen, 1976).

Pinchot recruited very selectively and considered it an elite service whose members were expected to conform to a strict code of conduct. He stated that because the agency's 350 foresters were "...so few, they should stand closely together..." and that "...American foresters are united as probably the members of no other profession" (Pinchot, 1947). The organization was hierarchical and had strong management controls, and was able to manage millions of acres all across the United States without succumbing to local dominant political influence groups (Frome, 1984).

The first Forest Service Manual was written by Gifford Pinchot and describes an agency of public responsiveness and professional service (Frome, 1984). The manager role model in that publication was a rugged professional individual: hard working men, self-sufficient, competent, with benign, long-term public concern. This helped to justify the Forest Service tradition of trust and decentralized power given to local Forest Service officers. Such an individualistic, experienced and benign district ranger image was dominant for most of this century, when professionalism in general, and Forest Service professionals in particular, enjoyed more blanket public trust and respect than they do currently (Frankel, 1969; Frome, 1984; Kaufman, 1960).

Importance of Loyalty

J.J. Kennedy and J.A. Mincolla (1982, 1985) found the values most rewarded by the Forest Service were: loyalty to the Forest Service; production or the work ethic; and getting along with people in interdisciplinary teams (which is a value much elevated in importance since the passing of NEPA). Organizational loyalty, however, embodies potential problems when such loyalty becomes excessive and discourages questioning of agency decisions or practices. Professional versus agency loyalty issues were a bigger problem for entry level biologists than foresters, according to results of employee surveys conducted by Kennedy and Mincolla. Wildlife biologists and fisheries biologists were relatively new to the Forest Service, and were not hired because the Forest Service power structure decided it was a good idea, but because NEPA largely forced these new employees into the Forest Service to help priorities

and management practices to reflect better the needs and values of post-industrial American society (Kennedy, 1985b; Kennedy, 1986). Functioning thus as agents of change, wildlife biologists and fisheries biologists often challenged agency decisions and traditions. Sometimes such behavior was perceived as disloyal.

Recent Challenges to Traditional Forest Service Culture and Management

The last 20 years have been a time of transformation of the Forest Service. The National Environmental Policy Act (NEPA), signed in 1969, and the National Forest Management Act of 1976 (NFMA), coincided with the most significant period of change that the Forest Service has undergone since it was established at the turn of the century. While many of the forces that have transformed the Forest Service are the same forces that led to the passage of NEPA, NFMA, and the Endangered Species Act (as well as other environmental legislation passed during the 1960's and 1970's), these three laws have accelerated and stimulated the Forest Service to change.

Although Kaufman described the management of the national forests in the late 1950's as complex and guided by a multiple-use mission, legislation enacted in the 1960's, 1970's and 1980's made the challenge even more complex by expanding the agency's responsibilities. The Multiple Use-Sustained Yield Act of 1960, the Wilderness Act of 1964, the Historic Preservation Act of 1966, the Wild and Scenic Rivers Act of 1968, the National Trails System Act of 1968, the Clean Air Act amendments of 1970 and 1977, the Surface Mining and Minerals Act of 1971, the Clean Water Act amendments of 1972 and 1977, the Endangered Species Act of 1973, and other less well-known pieces of legislation such as the Federal Cave Protection Resources Act of 1989 all served to broaden the scope of activities and objectives for which land is to be managed. They reflect public demands, especially from the urban sector. No longer are timber, range, and fire the dominant resource concerns of the Forest Service. Nor are uses of the National Forests for recreation and wildlife management merely secondary purposes, as they were into the late 1950's. Timber,

range, and fire have been fully joined by wildlife, minerals, soils, water, air, human resources, recreation, wilderness, cultural resources, caves, and a number of other concerns. The result has been a broadening of the mission regarding national forest management from multiple-use management of a few key commodity resources, to a much broader policy of management and protection of biologically diverse areas in the National Forests. This expanded charge has greatly complicated the work of the organization.

As the content areas of work have expanded, so have the processes by which the Forest Service is directed to manage them. The National Environmental Policy Act (NEPA), the Forest and Rangeland Renewable Resources Planning Act (RPA), and the National Forest Management Act (NFMA) all impose process requirements on the Forest Service that did not exist at the time of Kaufman's book. For example, NEPA requires the Forest Service to conduct analyses of proposed actions to determine their environmental consequences and to do so in a way which involves the public. Further, the Forest Service developed prescriptive management planning requirements through formal rule making and internal directives. RPA and NFMA require the Forest Service to plan at the national, regional, and forest levels, and to develop proposed long-range programs of work with full public participation. This opened up the decision making process and made it more complex.

Because of these changes in mission and process, and because of external political and economic forces, the organizational culture evolved to emphasize responsiveness and representativeness as well as efficiency and economy. Field line officers, such as Forest Supervisors and Rangers, in the past interacted with the public in two primary ways: first, through information and education programs, and, second, during transactions of business that directly affected a member or group of the public, e.g., setting limits on the amount of grazing allowed on a rancher's allotment. These forms of interaction were primarily one-way and tended to portray the ranger as the expert, the local authority, and manager-in-charge.

In today's post-NEPA, RPA, and NFMA era, the ranger is being asked to

play a larger role. Although the ranger is still a line manager overseeing and setting policy for projects on the ground, the district ranger is also serving as facilitator of public dialogue about forest management policy within the local community. Communications have become more two-way in this era of interdisciplinary planning and extensive public involvement. Accordingly, these executives in the field must today have stronger skills in small group facilitation, negotiation, and dispute resolution than ever before (Tipple and Wellman, 1991).

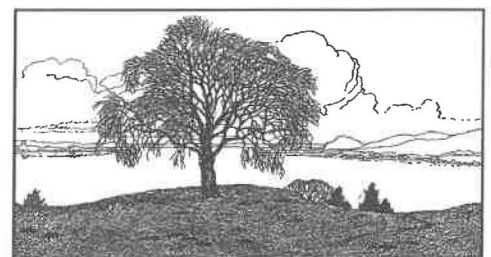
Perpetual Dilemmas Initiate Signs of Organizational Change

In their study of attitudes of district rangers, Twight and Lyden (1988) concluded that multiple commitments to several user constituencies are absent among Forest Service district rangers, the line officials closest to the forest users. This suggests a difficulty with production of the multiple outputs relevant to the goals of these competing groups. At the same time, the authors propose, the lack of managerial commitment to the spectrum of Forest Service constituencies suggests that citizen participation in agency planning by many of those groups may go unheeded.

Organizations frequently pursue multiple, competing sets of goals and values, espoused by a variety of relevant constituency groups. They compete very directly in an organization that has what are often mutually exclusive objectives. When organizational commitment is divided among constituencies with incompatible goals, the partial identifications with those groups among agency managers should reflect those conflicting goals. Members of the organization develop dissonant beliefs and values, and overall organizational commitment is lower (Reichers, 1985). The Forest Service, in other words, could not maintain itself in a social environment of combative constituencies without reflecting those conflicts within its own organizational culture. Consequently, the Forest Service cannot avoid exhibiting both lower organizational commitment and reduced effectiveness in achieving all the various organizational goals, if it is actually responsive to or equitably serving groups with competing and/or incompatible goals.

In their study of forest rangers, Twight and Lyden (1988) found that culturally ingrained agency socialization practices and personnel procedures yield such a high level of organizational commitment among these federal land managers that they avoid pursuing the conflicting goals of multiple constituencies. A.E Reichers' work on organizational commitment in 1985 indicates that organizations that provide services to groups that espouse goals that are in conflict with each other will exhibit decreased levels of organizational commitment. This occurs because organization members develop internal conflicts over where to direct their energies and loyalties. When two or more commitments clash in such a way that the individual must choose to endorse the goals of one constituency at the expense of another, the conflict generated by this choice may reduce the individual's commitment to the organization as a whole (Reichers, 1986). Conflict does this by lessening the member's overall identification with the organization and shifting the identification partially to a constituent group.

The Mohai and Jakes study (1996) assessed employees' views about the direction in which the agency is headed, and how the agency is handling important issues addressed in its 1990 Forest and Rangeland Renewable Resources Planning Act (RPA) Strategic Plan. This plan defines the Forest Service's mission, roles, and program direction for a five-year period and addresses the most salient issues currently facing the agency. These issues include: loss of biological diversity; effects on riparian areas; maintaining water quality; global climate change; threats to wilderness areas; meeting the public's recreational needs; loss of threatened, endangered, and sensitive species; condition of national forest rangelands; loss of old-growth forests; below-cost timber sales; and clearcutting.



While the majority of both Line and Staff felt that a significant change has occurred over the last 10 years, 60 percent of the Line felt that further actions on these issues are needed. Ninety percent of both Line and Staff employees believed that the agency's emphasis on wildlife and fish and recreation has increased (Mohai and Jakes, 1996). Further, the study found that more than 70 percent of both Line and Staff felt that a noncommodity use (wildlife and fish, recreation, or water) should be the most important use of the national forests, while only a minority thought timber and grazing should be. Contrasting sharply with such opinions of what employees thought should be done were their views of what they believe actually is being done—what uses the Forest Service actually sees as most important. The vast majority of employees felt that timber remains the most important land use to the agency.

The researchers found the positive changes perceived as most important were: increased responsiveness to the public, and increased emphasis on commodity uses of the National Forests. Negative changes most frequently mentioned were: increasing political pressure on the agency; loss of direction/mission; poor leadership; the agency's over-responsiveness to political pressure; insufficient funding; and on-the-job stress.

The Influence of NEPA and NFMA on Forest Service Management

Interdisciplinary Teams as Change Agents

Specific requirements of new laws such as NEPA and NFMA pushed the Forest Service to make further organizational changes. For example, NEPA requires a detailed statement of the environmental impact of proposed actions, and challenged the past policy of keeping Forest Service decision making totally internally controlled. The environmental impact statement process opened agencies to the public, the press, interest groups, and the courts. It changed planning from linear forecasting to multiple scenario strategy planning, a much more complex and open process.

It also mandated an interdisciplinary approach to ensure integrated use of natural and social sciences and the design

arts (landscape architecture) in planning and decision making. This resulted in the hiring of wildlife biologists, archaeologists, and economists who were not traditionally employed by the Forest Service. These new and different professionals formed interdisciplinary teams that increased the diversity of values and skills in Forest Service planning and management, although initially few were decision makers. These new professionals also reflected the variety of National Forest values in the urbanizing American culture of the 1970's, and became voices of challenge and confrontation inside the agency (Kennedy, 1985a; Kennedy, 1986; Kennedy, 1988).

The interdisciplinary teams developed forest management alternatives, which included predicting and analyzing their impacts, with involvement from the public, as required under NEPA. Agency values and conclusions were often challenged, both by employees and the public, which questioned the appropriateness of some Forest Service traditions and management practices.

The Forest Service implementation of NEPA and NFMA produced not only a greater variety of professionals in the Forest Service with expertise beyond the traditional and limited forestry focus, but improved the information and analysis prepared for decisions. This resulted in better documentation of decisions, and more thoughtful consideration of impacts.

Increased Legal Challenges to Forest Service Decision Making

The National Forest Management Act (NFMA) established unprecedented specific statutory standards and procedures that directly affected the Forest Service's management of the National Forests. The scope and specificity of NFMA are even more remarkable considering that the statutory direction for management of the National Forests remained essentially unchanged since the passage of the Organic Act of 1897 and the Multiple-Use Sustained Yield Act of 1969. These statutes had provided little substantive direction.

Over the last twenty years, there has been an increase in public awareness, public involvement, and public challenge to Forest Service decisions. The social forces that demanded increased public opportunity to participate in the manage-

ment of the environment in general, and the National Forests in particular, led to expanded opportunities for the public to influence and dispute Forest Service decisions. Often, the very information NEPA and NFMA procedures made available supplied ammunition to challenge the decisions. Over time, a small but vocal fraction of the public became increasingly sophisticated at using these opportunities through public involvement, administrative appeals, lawsuits, legislative lobbying, and even influencing public opinion (Ackerman, 1990).

In response to increasing scrutiny given to Forest Service decisions and increasing legal requirements placed on agency decision making, the Forest Service consolidated authority at higher levels and standardized procedures. The purpose was to better control variations in management that created increased vulnerability to challenges that the agency had inconsistent management practices that were applied subjectively. As federal legislation established more agency-wide standards, and as Forest Service decisions became more politicized, the Forest Service's Washington Office role increased correspondingly. The agency now recognized that the key to its success was not just dealing with local interests, as in the past, but dealing with regional and national lobbying groups and pressures (Ackerman, 1990).

Use of Technical Analyses to Justify Political Decisions

These problems were compounded by the increasingly political nature of Forest Service decisions and the fundamental inability of the Forest Service decision making process (of which NEPA procedures are an integral part) to result in effective and permanent solutions to broad public issues, such as wilderness management. Similar situations may be developing currently in relation to management of the Northern Spotted Owl and adoption of forest plans for certain controversial National Forests. To the extent that these decisions involve the allocation of scarce resources, extraordinarily complex procedures, protracted preparation time, and political decisions in technical wrappings, they create a difficult problem for the agency because they do not lend themselves to manageable, easily defensible, and permanent agency decisions.

When they were first established, the management of individual National Forests was based primarily on local needs and interests because of the autonomy forest supervisors held in the agency's decentralized organization and because National Forests were used almost exclusively by local people. This local focus has changed significantly in recent years. Changing political, social, and economic realities shifted the arena of Forest Service decision making from the local level to the regional and national levels. In response to these new realities, Congress placed additional constraints on how the Forest Service manages the National Forests.

With the adoption of the NFMA regulations, the Forest Service was called upon to reconcile competing interests. The new statutes with their detailed attention to the proper standards for multiple resource management did not resolve questions of competing uses. Decisions about how to distribute scarce resources involve political choices and trade-offs. Yet the Forest Service is expected to address these decisions as if they were technical questions with technical solutions. While the Forest Service makes its decisions by evaluating all resources and in an analytical way optimizing their use, such a decision making process is unlikely to result in a widely accepted resolution of the allocation issues, and may eventually lead to challenges to the decisions. Because these are political decisions involving the balancing of competing public interests, they should be made in a political forum, such as Congress, or through the equivalent of a national referendum such as the 7th American Forest Congress, held in February 1996, where thousands of individuals and organizations provided input on future management of all U.S. forests—state, private, and federal.

To complicate matters further, one of the main decisions in a forest plan is the establishment of the National Forest's allowable sale quantity—the maximum quantity of timber available for sale during the plan period. The stated timber sale level (i.e. quantity to be harvested), however, is subject to Congressional funding and direction, environmental constraints, and appeals. As part of its annual appropriation process, Congress—usually influenced by members from high

timber producing states—directs the timber sale levels for the fiscal year with great precision. Even though consideration is given to the forest-based recommendations, Congressional sale levels sometimes differ from the levels established through either the strategic planning process or existing forest plans. Nevertheless, it is the Congressionally mandated timber sale levels established through appropriations that establish what should be harvested.

A possible solution to the political and management nightmare of trying to develop and adopt a new forest plan (with its attendant reevaluation of all program decisions and new opportunities for appeal) may be to make planning decisions through incremental changes to existing direction based upon an environmental analysis that regularly identifies needed decisions through a scoping process that involves the public in identifying issues. Such a solution would shift emphasis away from the forest plan as a once-in-a-decade product (where all battles must be won or lost) toward viewing the decision making process as a means to dynamically and flexibly address issues in a more manageable, incremental and less absolute way (either there will be grazing or not; there will be timber cutting or not). In the final analysis, the decision making process may be more important than the product.

The diversity, complexity, and breadth of Forest Service responsibilities for managing the National Forests are greater than the scope of responsibilities assigned to any other federal land management agency. Coupled with increasingly broad and prescriptive environmental laws, the Forest Service is currently saddled with a complex, multi-level decision making process that has taken more than a decade to produce the first level programmatic documents—forest plans. Additional time is needed to produce intermediate and project level decisions. This raises the question of whether such a decision making process can ever be effective. To be effective, the process must be more timely and final, and major programmatic planning decisions should be elevated to the political arena, and be based on the original concept of providing the greatest good for the greatest number, in the long run.

Author Daina Dravnieks Apple, below, is a natural resource economist with the USDA Forest Service, Resources Program and Assessment Staff, Washington D.C.



Summary

The Forest Service became a successful and cohesive agency in the first part of this century because it was located in rural areas, and combined the utilitarian values of a rural, industrializing American society with the progressive political ideals of scientifically trained professionals, who could objectively manage natural resources for long-term social welfare (Clarke and McCool, 1985; Hays, 1959). The agency's successful evolution developed an organizational culture with resistance to incorporating the non-utilitarian, amenity values of a post-industrial urban nation, and a reluctance to share power with the public and with other professionals (Kennedy, 1985a; Duerr, 1986). NEPA was the first major legislative challenge to these utilitarian, development values and on agency tendencies to resist change. NEPA and its personnel change consequences made the Forest Service organizational culture more open to internal and external politics. Subsequent legislation, such as the National Forest Management Act of 1976, formalized the "rules of the game" in National Forest planning and management decisions (Cortner and Schweitzer, 1981; Mohai, 1987).

Great changes in the Forest Service culture and its management guidelines also occurred since the 1950's. The traditional respected role model then was a male forester, generally of "John Wayne" omnipotence and style, who objectively

and scientifically managed forest resources for the public, and did it largely alone (Miller and Gale, 1986). This contrasts with today's "teamwork" guidelines of the Forest Service, where men and women from various professions are expected to work together and to respect the public (USDAFS, 1985).

The period of the 1960's and 1970's was also a time of increasing demands on the national forests for a growing spectrum of consumptive and nonconsumptive uses; demands that cannot be met simultaneously. It was a period when users of the National Forests demanded to participate in Forest Service decision making, not only within the agency's processes, but also through administrative appeals, lawsuits, and political action. The combination of increased, often conflicting demands for goods and services from the National Forests, scrutiny of agency processes and decision making, and administrative appeals and legal challenges, all served to force the Forest Service to transform in order to survive the changing economic and social conditions of this time.

And as the social climate changed, so did the Forest Service. Politically astute since the time of its first Chief, Gifford Pinchot, Forest Service administrators read the political winds and began modifying its policies in the 1950's and 1960's to react to the changing public values. In response to criticism that it was too preoccupied with managing the National Forests for timber production, the Forest Service gave increased attention to nonconsumptive resources such as recreation and protection of wildlife. The Forest Service proposed the Multiple Use Sustained Yield Act to codify agency policy, sent a signal to the grazing and the timber industry that the National Forests would be managed for resources other than timber, and countered attempts to transfer all recreational responsibilities for National Forests to the National Park Service (Dana and Fairfax, 1980). As a result of these social changes, the Forest Service emerged from an earlier isolation to find itself at the forefront of public attention, particularly in the Pacific Northwest (Ackerman, 1990).

These post-NEPA changes had both advantages and disadvantages. The liability of a professionally and gender-integrated agency, open to environmental

values and public involvement, could become an agency without belief in itself and its mission; an organization unable to find mutual respect, trust, and cohesion within its diverse workforce. In addition, the Forest Service could become so politically and legally vulnerable as to abandon the strengths of its traditional professionalism and instead vacillate with the political winds—spending more time "looking over its shoulder" than to the horizon (Behan, 1990).

In spite of these observations, others argue that change is not likely to come easily, if at all, in a large, established bureaucracy like the Forest Service. Twilight and Lyden, point out in their study that the promotion and reward system and the socialization and identity-building mechanisms first described by Kaufman in his classic analysis of the administrative behavior of the Forest Service have changed little over time. These mechanisms are very effective in perpetuating conformity to established norms and traditions and in resisting external pressures on the agency. Early evidence of agency change has come from a number of recent surveys of employee attitudes and values (Brown and Harris, 1992b; McCarthy, Sabatier, and Loomis, 1991). Some researchers presumed that such attitude changes would translate, eventually, into management and policy changes. Very recently, a number of studies have analyzed quantitative indicators of agency activity to assess whether such management and policy changes have indeed occurred (Farnham and Mohai, 1995; Farnham, Taylor and Callaway, 1995; Jones and Callaway, 1995; Thomas and Mohai, 1995). These latter studies appear to support the findings of the earlier attitude surveys, offering evidence of change.

In spite of the agency's progress, the fact that its priorities are still somewhat incongruent with what employees believe they should be suggests obstacles that constrain further change. The agency and its employees are greatly influenced by Congressional mandates, executive orders, and court decisions. Organizational customs, norms, and traditions also exert powerful influences on members at all levels of the organization. Many of the challenges facing the agency are not likely to be easily solved.

It will be important for the Forest Service to preserve its strengths while forming a new culture, as it learns to accommodate the ambiguity and complexity of a diverse and more open organizational culture to reflect the diversity in both the ecosystems it manages and the increasingly urban, post-industrial American society that it serves.

Bibliography

- Ackerman, S. 1990. "Observations on the Transformation of the Forest Service: The Effects of the National Environmental Policy Act on U. S. Forest Service Decision Making." *Environmental Law*, 20(2).
- Anderson, H.M. 1993-1994. "Reforming National Forest Policy." *Issues in Science and Technology*: 40-47 (no additional publication information contained in the document).
- Behan, R.W. 1990. "Multiresource Forest Management: A Paradigmatic Challenge to Professional Forestry." *Journal of Forestry*, 88(1).
- Brown, J.C. 1887. *Schools of Forestry in Germany*. Oliver and Boyd, Edinburgh, cited in B.W. Twilight and F.J. Lyden. 1988. "Multiple Use vs. Organizational Commitment." *Forest Science*, 34(2).
- Brown, G. and C.C. Harris. 1992a. "The Forest Service: Changing of the Guard." *Natural Resources Journal*, 32.
- Brown, G. and C.C. Harris. 1992b. "The U.S. Forest Service: Toward a New Resource Management Paradigm?" *Society and Natural Resources*, 5.
- Brown, G. and C.C. Harris. 1993. "The Implications of Workforce Diversification in the U.S. Forest Service" *Administration and Society*, 25.
- Clarke, J. N., and D. McCool. 1985. *Staking out the Terrain: Power Differentials Among Natural Resource Management Agencies*. Albany, NY: State University of New York Press.
- Cortner, H.J., and D.L. Schweitzer. 1981. "Institutional Limits to National Public Planning for Forest Resources: The Resources Planning Act." *Natural Resources Journal*, 21(2).
- Culhane, P.J. 1981. *Public Lands Politics: Interest Group Influence on the Forest Service and the Bureau of Land Management*. Johns Hopkins University Press, Baltimore.
- Dana, S.T., and S.K. Fairfax. 1980. *Forest and Range Policy*. McGraw Hill, New York.
- Duerr, W.A. 1986. "Forestry's Upheaval—Are Advances in Western Civilizations Redefining the Profession?" *Journal of Forestry*, 84(1).
- Farnham, T. J., and P. Mohai. 1995. "National Forest Timber Management Over the Past Decade: A Change in Emphasis for the Forest Service?" *Policy Studies Journal* 23(2).
- Farnham, T. J., C. P. Taylor, and W. Callaway. 1995. "A Shift in Values: Non-commodity Resources Management and the Forest Service." *Policy Studies Journal*, 23(2).
- Fernow, B.E. 1894. "Report of the Chief of the Division of Forestry for 1893. pp. 303-366 in "The Report of the Secretary of Agriculture for 1893. U.S. Government Printing Office, Washington D.C., cited in B.W. Twilight and F.J. Lyden. 1988. "Multiple Use vs. Organizational Commitment." *Forest Science*, 34(2).

(continued on page 40)

WILDERNESS VISION QUESTS: THEY TAP THE SPIRITUAL VALUES OF WILDERNESS

MARILYN RILEY

Introduction

I think I have one of the most interesting and most important jobs of any woman in natural resources. For 18 years now I have led about six programs a year called Wilderness Vision Quests. I take paying clients on eight-day trips into mountain and desert roadless areas and wilderness in California and Nevada. Generally, my clients attend four pre-trip meetings and take an all day "medicine walk" in nature to prepare for the eight-day experience, which includes four days by themselves. During their solo, questers usually fast with only water and engage in reflection. Sometimes they use ritual and ceremony in search of insights about "who they are" and to focus on pressing issues in their lives.

This modern "Wilderness Vision Quest" simulates an activity at least 8000 years old that was practiced in many, if not most, indigenous cultures around the world (Cruden, 1996; Foster, 1995; Foster and Little, 1988). The vision quest was often used as a rite of passage from one life stage to another, or in preparation for a serious event. But the basic process is the same—to affirm, through solitude and fasting—who one really is, and to ascertain among life's choices what rings most true. This is a beautiful, natural, healthy, time tested, ancient yet modern way to find and create meaning in life.

How I Started Doing Vision Quests

I learned about vision questing from my brother Steven Foster in the mid-to-late 1970's. I was living on an island in British Columbia, occasionally receiving letters from Steven and his wife Meredith Little, about a new wilderness business they were starting called Rites of Passage. They sent literature to me which looked sort of stark, primitive, and strange—about spiritual practices in the wilderness? The ritual enactment of a rite of passage? The vision quest? I could not relate. I had a family to raise, a garden to grow. I was



Marilyn Riley, Director of Wilderness Transitions Inc., has led 100 Wilderness Vision Quests in the desert and mountain wilderness of California and Nevada over the past 18 years.

busy building a house in a green island paradise, gathering stones from all over the island for a fireplace. There was never enough time even then to sit down to ponder and reflect, which is what my brother's literature suggested I do.

But it no longer surprises me that a year later I arrived at my brother's doorstep, participated in my own vision quest, trained and studied, became a guide, and eventually took over the Rites of Passage youth program. From hundreds of presentations at Bay Area high schools, and hundreds of days and nights in the wilderness with youth from all backgrounds, I came to know how desperate young people are for some rite of passage to help them make the leap from adolescence to adulthood—a ritual path to maturity. I learned too how desperate many parents are for help in letting go and finding meaning in their own lives as their fledglings prepare to leave the nest.

The years went by, I earned a Master's degree in Psychology focusing on vision questing and human healing (Riley, 1986), and I began my own vision questing business. I joined in 1988 with my dearest friend, Betty Warren, who is now 80, in creating our current company, Wilderness Transitions Inc., a non-profit educational organization. Betty and I lead an average of five or six trips a year, plus some special events, and are proud to demonstrate with our perfect safety record and hundreds of satisfied customers that women too can be competent wilderness guides for men and women.

Like many women, I was denied equality in outdoor activities, usually staying in the campground or at home with my mother and sister when my brothers and father headed down the trail to manly adventures. Today, I see many of my women clients with impacts on their self esteem from similar treatment based on gender; the joy in my work is compounded by the empowerment they gain from completing a vision quest. The hero's journey that the vision quest represents is also a heroine's journey. But it seems no accident that over half of my clients are women, many of whom also missed the chance for such journeys that were available to their brothers.

Ritual and Ceremony

In my former life, I could not have imagined spending 18 years participating in, let alone leading others in, an ancient wilderness ceremony. Though my family enacted many rituals, especially around the holidays, they were not called that. They were traditions—clean, neat, white, orderly affairs with the paternal figure presiding.

I have a brief early memory that now reminds me of the importance of ceremony. My father's father died when I was five years old. My father was sitting at the kitchen table. He was crying, sobbing, and I was not able to comfort him. Maybe he thought I couldn't possibly understand his sadness. Maybe he thought he would lose his strength by showing his feelings to a little girl. The children were cleared from the room and not allowed to attend the funeral. Many of my questers have similar experiences, growing up without closure on so many of life's transitions. If our family had had some kind of ceremony to share thoughts and feelings, to sing a song in my grandfather's memory, to learn more about his life, to lay a flower at the grave and give thanks for his life, it would have helped a lot. It would have drawn us closer, to share the grief, to talk openly

about the meaning of this event. Instead, we somehow scattered and life went on.

Luckily for me, however, my grandfather became a mythic figure, his life and death became a story with certain qualities that eventually became my own. Besides being an attorney, my grandfather was a miner, and I have felt a sense of atonement teaching people to love and heal the same earth in which he made great holes and slag heaps. This is now part of my myth and destiny.

And though my parents would never admit it, my siblings and I see their mythic relationship. My father never tires of telling certain stories—like how he met my mother, what she was wearing, what she was doing, how he courted her, how hard he had to work to win her love. Or, in later years how he followed my mother up Mt. Whitney, how he would never have climbed the 14,000-foot-plus elevation without my mother's indomitable spirit. We integrate our relatives' myths and rituals, and then go on to create our own.

The wilderness vision quest can put people in touch with their myths. Stories emerge from the vision quest. This is real life adventure. This is the stuff that myths are made of—the hero and heroine's journey. We ask of the universe, the Great Mystery, Who am I? Where do I belong in the whole scheme of things? What is my destiny? We listen in the silence of the wilderness. The spirits may visit us. We hear our own inner voice. We tell the story of what the spirits and our inner voice say. We return to live out our own myth of who we are and why we are here.

Why Go on Vision Quests?

People from all walks of life go on wilderness vision quests with us, and they bring all kinds of issues on which they seek clarification. But most questers are involved in some kind of change or adjustment, and are seeking to reconnect

Betty Warren, 80, co-director of Wilderness Transitions Inc., and a veteran of more than 40 vision quests, draws from her rich life of teaching school and Zen meditation in her work with questers.



with a greater purpose in their lives. Some are grieving the death of a loved one; others cope with a divorce or the end of a relationship. Still others deal with an empty nest or are struggling with transition from one life stage to another. Others may be taking time to celebrate or affirm change, such as marriage, graduation from high school or college, menopause, mid-life crisis, retirement. We've watched people seek insights to help themselves transition to more meaningful work, something more aligned with a greater purpose in their lives. Many trips have clients facing imminent death. Everyone needs to get away from the hustle and bustle of life, the stress, and the need to keep up and keep doing that goes hand and hand with modern living. Technology also is invasive, and some clients come to us looking for natural connections with earth and spirit.

In ancient vision questing in indigenous societies, the wilderness was familiar, hunger was no stranger, and the biggest challenge was probably leaving the close-knit community with whom they lived. For modern vision questers, the solitude may be a welcome reprieve from the intense social pressures of urban living, a close knit community may be fiction, and the most difficult challenges are often

fasting and dealing with the wilderness conditions. Yet, upon completion of the quest, the fast and its clarifying and purifying effects, the wilderness conditions of naturalness and solitude are regarded as a key to the benefits of the experience. Thus, vision questers invariably become strong supporters of wilderness and environmental protection, for they have experienced first-hand the healing and spiritual benefits of nature.

Wilderness Transitions Inc. clients first hear about our vision quest programs in San Francisco Bay Area news and service tabloids (34 percent), in booths at two or more annual activity fairs like the San Francisco Whole Life Exposition (20 percent), and 27 percent from personal and professional references. Increasingly, we are attracting clients from out of town, out of state, and repeat questers.

Potential clients are invited to a free slide show about the vision quest, and then those who want to go on the next trip about four weeks hence, commit their \$595 and stay for the first pre-trip meeting. Others may wait and think about it for a few months, or even a year or more, but a majority of those who come to a slide show will return and go on a quest.

It comes as a surprise to many that our evaluation questionnaires indicate only seven percent of our clients come primarily to experience nature or wilderness, but they are all wilderness lovers upon completion of their quest, citing the wilderness qualities of naturalness and solitude as being a key to their experience and insights. Thus, the vision quest introduces many urban people to the value and beauty of the wilderness for the first time, and the healing and inspiring effects of naturalness and solitude.

A Typical Trip

Like any business, satisfied customers are our life blood. So we prepare them carefully in four pre-trip meetings, covering such things as how to prepare for the four days of fasting, and what kind of backpacking equipment is needed. Leave no trace camping and safety procedures are taught, and we describe the natural history of the area to be visited. Travel arrangements are made. But a constant focus of the pre-trip meetings is helping questers develop their intent—that is, what they hope to get from their quest. In addition to time honored rituals such as journaling, art, and creative writing, ceremonies or meditation techniques are suggested as a way to help certain questers achieve their intent. A key part of the preparation is the medicine walk, a day in nature alone early in the preparation, and during which natural influences may



Gathering in a traditional circle or "council," vision questers share their intentions for gaining insights into who they are and life issues that brought them on their quest.



stimulate deeper thoughts about the intent of one's quest.

Finally, the day of departure arrives. We usually leave on a Saturday, car pooling with six to twelve questers the 300-500 miles to a base camp near the end of road access in a desert or mountain area in California or Nevada, the location depending on the season. After setting up base camp and providing orientation and safety information, questers explore the area to find a solo site with their desired degree of isolation, but usually only one-half to two miles from base camp. In the evening, after a healthy vegetarian meal, we hold a campfire if conditions permit (always using a fire-pan and wood brought from home in desert areas). The next day questers continue their search for a solo site and, on finding it, may take out some of the four gallons of water they will use during their fast—one for each day.

During this time, I also hold a personal conference with each quester to help them further prepare, relieve anxieties, and insure safety. Group meetings in a traditional circle (council) these two days in base camp are rich in excitement and anticipation, as well as instruction in safety and tips on journaling. We teach them how to record the abundant dreams that will come on the solo fast, and discuss ritual and ceremony that have proven their value in helping questers get in touch with their feelings and which address the issues that brought them on their quest.

Early on the third day in base camp, after hot drinks, a final group meeting and good byes, the questers—now backpackers—go out to spend four days and nights alone. They leave a daily sign of their well-being at a predetermined place in a mutual check-in with a buddy.

On the morning of day five they return, clear eyed and empowered, to joyously greet the community of other questers. After a breakfast of fruit salad, a council is held where each questers' story is heard, acknowledged, and appreciated. High emotions continue in the now close knit

group as we start the journey home, stopping at a hot springs and a salad bar; we often camp overnight. Two weeks later a reunion is held, and questers share their experience in the hardest part of the quest, the return to daily life.

By now its hard for me to say goodbye to the group, for I have shared so much with all of them. But the next slide show is just ahead, and a new group is forming. It is a consolation knowing that another group of urban people have been connected to wilderness, and that I may be invited to additional reunions in the future. Many questers stay in touch with each other and will meet again to help keep the magic alive.

The Wilderness Guides Council

As you might expect, vision quest guides are also strong advocates for wilderness and roadless wildlands, especially efforts to protect their ecological integrity—and thus their spiritual values. The Wilderness Guides Council is a global network of leaders offering wilderness vision/fasting quests and other earth centered healing and personal growth programs. We organized in 1988 around a Wilderness Ethics Statement and all members agree to abide by these guide-



Guy McPherson and Laurie Oman monitored each other's safety with daily messages. Site: Inyo Mountains of California.

lines in their programs. One of my duties as the current Netkeeper (Chair) is to keep a registry of sites where different questing groups plan to go in California or Nevada, and through this self registration system we voluntarily coordinate and restrict use of base camp areas to no more than once per year in fragile desert sites, and no more than twice per year in forested areas. Besides the site registration system, we hold an annual conference where we discuss such issues as training, permits, fees, insurance, safety, and how to improve the quality of vision questing by the growing number of programs.

Increasingly, the Wilderness Guides Council is becoming more active as advocates for the spiritual values of wilderness. Many of us are concerned that wilderness policies may be made without adequate appreciation for such values by wilderness managers. I dream of taking my wilderness colleagues—my brothers and sisters in the wilderness managing agencies—on a vision quest, where their knowledge might be expanded to matters beyond planning, environmental and needs assessment, Limits of Acceptable Change (LAC), Leave No Trace (LNT), and the technical matters of wilderness on which they focus. I think they would love seeing how vision questing taps the spiritual values of wilderness. I know I would then become more knowledgeable about their concerns.

Literature Cited

- Cruden, Loren 1996. Thoughts on Contemporary Vision Questing Practices. *Shaman's Drum*, Winter 1996, pp. 19-22.
- Foster, Steven 1995. The Wilderness Vision Fast: Therapeutic Use of Wilderness For Personal Growth. *Int'l. Jour. Wilderness* 1(1) 7-10.
- Foster, Steven and Meredith Little 1988. *The Book of the Vision Quest*. Prentice Hall 173 pp.
- Riley, Marilyn 1996. The Psychology of a Modern Vision Quest. M.A. Thesis, Sonoma State University 130 pp.
- Riley, Marilyn 1995. The Wilderness Vision Quest: A Ritual Path to Spirit. *Sacred Reflections* 7(4) 7, Winter Solstice.

Marilyn Riley is Director of Wilderness Transitions Inc., a non-profit educational organization in Marin County, California, and Netkeeper (Chair) for The Wilderness Guides Council, a national organization of Wilderness Vision Quest leaders. Her Bachelor's is in English literature and education from Westmont College, Santa Barbara, California, and her M. A. in Psychology is from Sonoma State University. She has taught elementary school in Berkeley and owns/operates a private business in addition to her vision quest work.

THE BEAUTY MYTH, A BOOK BY NAOMI WOLF, EXPLAINS HOW OUR COMMUNAL PURSUIT OF AN IDEALIZED AND UNREALISTIC FACE AND BODY DIVERTS OUR ENERGY AND ACTS AS A COUNTERFORCE TO THE ADVANCES WE HAVE STRUGGLED SO HARD FOR. WHY DO WE DO IT?

PURSUING THE MYTH

MOLLY STOCK

Leafing through a fashion magazine recently, I was struck by the concentration-camp thin models—gorgeous, perfectly made-up heads on bodies not so much young-looking as wasted and sad, or ill. The boyish, ultrafit look popular a few years ago seems to have given way to something even stranger. But other aspects of the ads have not changed much. High-fashion models continue to wear “career” clothes so short and heels so high that they couldn’t walk or even sit normally and unselfconsciously, much less do useful work. And in catalogs and magazines aimed at the “average” (less rich, less tall, less thin) woman, models still pose with their heads tilted coyly to the side, lips pooched out childishly, fingers tucking hair behind an ear, or fingertips touching with a delicate, helpless air. What’s going on here? Who really looks and acts like this? Who, indeed, would even *want* to? What possible

reason could there be for a popular image so different from what real women look like?

Naomi Wolf’s book, *The Beauty Myth* (subtitled *How Images of Beauty Are Used Against Women*), gives a coherent and persuasive answer to this question. The title of the book refers to the contemporary image of elusive and unreachable beauty, women exquisitely made up and much thinner than anybody actually is. Wolf draws parallels between women’s liberation into the work force in the 1970s and 80s and the changing image of female beauty, and provides a compelling argument for the beauty myth as a political and economic weapon against women’s advancement.

... the ideology of beauty is the last one remaining of the old feminine ideologies that still has the power to control those women whom second wave feminism would have otherwise made relatively uncontrollable. It has grown stronger to take over the work of social coercion that

myths about motherhood, domesticity, chastity, and passivity no longer can manage. It is seeking right now to undo psychologically and covertly all the good things that feminism did for women materially and overtly.

She calls it “the modern version of a social reflex that has been in force since the Industrial Revolution...a counterforce operating to checkmate the advances of feminism on every level in the lives of Western women.” Is this a radical, overstated position? Maybe not...

Wolf’s central thesis is that the beauty myth is not about women at all; it is about men’s institutions and institutional power. “Beauty” is a currency system like the gold standard. Like any economy, it is determined by politics and, in our time, it is the belief system that keeps male dominance intact. The key, she argues, is market protection of a pool of cheap female labor.

An economy that depends on slavery needs to promote images of slaves that “justify” the institution of slavery.

Think about this: Studies show that fashion modeling and prostitution are the only professions in which women consistently earn more than men. In 1989, one woman in four earned less than \$10,000 a year even though working full-time; in that same year, Miss America earned \$150,000, a \$42,000 scholarship, and a \$30,000 car. Wolf asks us to imagine a racial discrimination suit brought in the face of a powerful technology that processes, with much pain, nonwhite people to look more white:



A black employee can now charge, sympathetically, that he doesn't want to look more white, and should not have to look more white in order to keep his job. We have not yet begun the push toward civil rights for women that will entitle a woman to say that she'd rather look like herself than some "beautiful" young stranger.....female identity is not yet recognized to be remotely as legitimate as racial identity...

The contemporary image of female appearance is aided and abetted by the popular media everywhere we look.

Though there has, of course, been a beauty myth in some form for as long as there has been patriarchy, the beauty myth in its modern form is a fairly recent invention.....Before the development of technologies of mass production—daguerreotypes, photographs, etc.—an ordinary woman was exposed to few such images outside the Church. Since the family was a productive unit and women's work complemented men's, the value of women who were not aristocrats or prostitutes lay in their work skills, economic shrewdness, physical strength, and fertility. Physical attraction, obviously, played its part; but "beauty" as we understand it, was not, for ordinary women, a serious issue in the marriage marketplace.

Since the Industrial Revolution, middle-class Western women have been controlled by ideals and stereotypes as much as by material constraints: childhood requires continual maternal supervision, female biology is "weak," respectable women are sexually anesthetic, women are best suited for repetitive, time-consuming tasks, a clean house is the women's responsibility, and so on. Behavior that is essential for economic reasons is transformed into a social virtue.

Remember Rosie the Riveter? Rosie was the well-paid, capable, muscular poster image of working women during the 1940s and World War II. This image—in overalls and headscarf—became socially and economically desirable when women were needed to do what was considered "men's work." When the war

ended and the men came home, domesticity and passivity once again became the social virtues for women.

Western economies are absolutely depending now on the continued underpayment of women. An ideology that makes women feel "worthless" was urgently needed to counteract the way feminism has begun to make us feel worth more.

The beauty myth serves the same purpose today as these earlier stereotypes did before: the image of physical appearance that she must strive for is as imaginary and unrealistic as the image of the perfectly clean home and the perfect housewife. Today most women no longer feel that the world measures her worth by the spotlessness of her house; instead, it is measured by the loss of (or lack of) pounds recorded on a bathroom scale, by the smallness of dress size and, to a lesser degree, by the youthfulness of her face. Wolf refers to these ideas as "time- and mind-consuming fictions."

As soon as a women's primary social value could no longer be defined as the attainment of virtuous domesticity, the beauty myth redefined it as the attainment of virtuous beauty. It did so to substitute both a new consumer imperative and a new justification for economic unfairness in the work place where the old ones had lost their hold over newly liberated women.

Once the women's movement had successfully taken apart these [earlier] fictions of femininity, all the work of social control once spread out over the whole network of these fictions had to be reassigned to the only strand left intact. Inexhaustibly ephemeral beauty work took over from inexhaustible but ephemeral housework. As a result, we are as repressed and controlled as a group as we were before.

When feminists (inspired by Betty Friedan) broke the stranglehold on women's popular press of advertisers for household products (promoting the feminine mystique), the diet and skin care industries became the new cultural censors of women's intellectual space. While we may have hoped that as the baby boomers grew old, aging would finally be acceptable, that

it would be OK to have wrinkles and gray hair, this has not happened. At a time when the popular media and the culture in general accept (and in some cases promote) sexual freedom, alternative lifestyles, and cultural diversity, the image for women's appearance has become *more* rigid and narrow. Fat in any form (including that associated with normal weight) is despised, and wrinkles and gray hair are considered "unnatural."

A magazine cover recently showed Liz Taylor holding a condom. Liz herself looked spectacular—gorgeous violet eyes and black hair, perfect skin, and not a wrinkle or gray hair in sight. At 60 she looked 20—no, 30—years younger. While the topic of safe sex was considered appropriate for a women's magazine, it was still clearly *not* acceptable for Liz to look her age.

Naomi Wolf writes much about the changes that have occurred in our image of women over the past two decades.

[When] reproductive rights gave women control over our own bodies, the weight of fashion models plummeted to 23 percent below that of ordinary women, eating disorders rose exponentially, and a mass neurosis was promoted that used food and weight to strip women of that sense of control. Today cosmetic surgery is the fastest growing medical specialty, eating disorders are rampant, and 3,000 women told researchers that they would rather lose 10-15 pounds than achieve any other goal.

Why have we believed the myth to the extent that we waste so much money, energy, and time trying to conform to it? Wolf says, the beauty myth is "summoned out of political fear on the part of male-dominated institutions threatened by women's freedom, and it exploits female guilt and apprehension about our own liberation—latent fears that we might be going too far." This observation seems accurate for many middle-aged professional women who had no older female role models and who were living in a society that thought they were stepping outside the bounds of correct behavior in seeking graduate

degrees and serious professional work. But what about young women (and men) today? Why do we continue to believe that being thin is a worthwhile goal and that wrinkles and gray hair are not signs of wisdom and achievement but of ebbing usefulness? Why do we continue to reward each other with praise for looking younger than our years and for losing weight?

One clue might be the way the beauty myth is promoted. As something we can work for and achieve, it appeals to our sense of "meritocracy" ("get the body you deserve"), entrepreneurial spirit ("make the most of your natural assets"), and absolute personal responsibility for our body size and rate of aging ("you can totally reshape your body," "your facial lines are now within your control"). We are told that if we only work harder, try harder, we can achieve the standard of thinness and beauty shown in the popular media. Although we are beginning to realize that body size is not nearly as malleable as women's magazines would like to have us think and that genetics might have a lot more control over this than we might like, we have a long way to go before we can internalize this information and spend our efforts elsewhere. A woman will stop following the beauty myth, Wolf says, when

....she has a choice. She will have a choice when a plethora of faculties in her field, headed by women and endowed by generations of female magnates and robber baronesses, open their gates to her; when multinational corporations led by women clamor for the skills of young female graduates; when there are universities with bronze busts of the heroines of half a millennium's classical learning; when there are research-funding boards maintained by the deep coffers provided by the revenues of female inventor; where half the chairs are held by women scientists. She'll have a choice when her application is evaluated blind.

We will be two percent of top management and five percent of full professors and five percent of senior partners forever if we do not get together for the next great push forward. Higher cheekbones and firmer bustlines clearly won't get us what

we need for real confidence and visibility; only a renewed commitment to the basics of female political progress—to child-care programs, effective anti-discrimination laws, parental leave, reproductive choice, fair compensation, and genuine penalties against sexual violence—will do so.

I've often thought that if women spent as much time on social and political activism as they spend on dieting, talking about dieting, reading about dieting, and fretting in general about the pounds they think shouldn't be there, they could run the world and probably do a better job of it. The beauty myth reinforces the double standard and keeps women psychologically and materially poor. When women's identity is premised upon their "beauty," they will remain vulnerable to outside approval for self esteem.

It also keeps them poor financially: "...professional women are devoting up to a third of their income to 'beauty maintenance' and considering it a necessary investment." And it makes them tired. Adding serious beauty maintenance, whether through dieting, exercise, shopping for enhancements, or elaborate make-up rituals, adds another dimension to our professional agenda. Today's Superwoman is a professional career person, a professional wife and mother, and a professional beauty.

Professional, high-achieving women have, because of [the beauty myth], just enough energy, concentration, and time to do their work very well, but too little for the kind of social activism or freewheeling thought that would allow them to question and change the structure itself.

I read this book in England in 1994 (it was first published by Vintage Press in Great Britain in 1990, in the

Models (shown on page 14 and on page 1) are from catalogs: *Peruvian Connection*, Holiday 1996; *Old Pueblo Traders*, Fall 1996; *First Person Singular* (Land's End), 1996; *Clifford & Wills*, Autumn '96.

U.S. in paperback by Doubleday & Co. in 1996) and have re-read it twice more—once in preparing a report for a book group and again for this paper. Each time my plan was to skim it, but each time I found myself re-reading it word-for-word, riveted by the excellent writing and the wonderful array of examples with which she illustrates her points.

The Beauty Myth is a fascinating and clearly logical argument that makes more and more sense the more I think about it and observe women's images in the media. I have not even begun to cover here the range of topics in the book. Her chapters include Work, Culture, Religion, Sex, Hunger, and Violence. Naomi Wolf helps explain the strange Janus-like persona of working women, including those in the natural resources occupations—competent and strong professionally, but anguished, at times, over a widening body that no longer looks 17 and a face that is losing its youth.

My hope is that we are the last generation caught between these feminine stereotypes—of youth, delicacy, and incompetence—and the emerging image of women as strong, independent, and increasingly self-assured with age. Perhaps the younger generation will see the image of women in the media for what it is, a figment of the imagination created to sell products and to keep women from feeling good about themselves and from competing equally as members of the work force.

If we are to free ourselves from the dead weight that has once again been made out of femaleness, it is not ballots or lobbyists or placards that women will need first; it is a new way to see.

Molly Stock is a professor at the University of Idaho with a joint appointment in Forest Resources and Computer Science. She teaches an interdisciplinary graduate research methods course, a computer class, and is both the freshman advisor and the coordinator of graduate studies for the Department of Forest Resources. Her research interests are in human-computer interactions and the use of multimedia computer-aided natural resource education. She has just purchased an "ab" machine.

Jessie A. Micales

Land Uses, Habitat Protection and Native Wildlife

Joan Morrison, University of Florida

One of conservation biology's major challenges is to determine how natural habitats and biodiversity can best be protected given complicated and sometimes conflicting land-use issues. In rapidly developing states such as Florida, a growing interest in ecosystem management is fostering increased cooperation between scientists, land managers, regulatory agencies, and private landowners. These efforts demand new, creative approaches to protecting natural areas. Understanding the needs of species that inhabit these areas is of prime importance.

Because of their role as top predators, birds of prey are indicators of ecosystem health and an important component of biodiversity. We are studying the Crested Caracara, a unique bird of prey that inhabits open prairies and grasslands in south-central Florida. This population is listed as "threatened" because it is isolated from all other caracara populations. Also, much of its native grassland habitat has been lost or fragmented due to widespread urban and agricultural development. Today, much of the remaining natural habitat in this region occurs on large, privately owned cattle ranches, where most of the remaining caracaras are found.

Our research focuses on understanding the caracara's population biology and use of the complex matrix of habitats in this region. During the nesting season, we locate nests and monitor them regularly. Data such as fecundity, number of nesting efforts per year, and individual survival are being used to develop a demographic model for this population. We are also comparing the timing of nest initiation, nest success, and productivity among caracaras nesting on the highly managed cattle ranches and on less intensively managed, more natural grassland habitats. Adult and young caracaras are captured and banded with uniquely colored aluminum leg bands which permit identification of individuals. Selected birds are fitted with radiotransmitters which allow long-term monitoring. To keep track of these individuals, we survey our entire study area weekly from a Cessna single-engine airplane.

Because most nests are on private land, studying the caracaras requires cooperation with the land owners. Many local ranchers are supporting our research by permitting access to their lands, and our results suggest that caracaras are doing particularly well on the ranches. Routine land management activities that occur there, such as grassland burning, seem to keep the habitat in a condition preferred by caracaras. Thus, a major accomplishment of our research has been to focus attention on the importance of cattle ranches to native

Research In Progress Focus on: Wildlife

Below: Researchers Morrison and McGehee (left) and Morrison



wildlife using the caracara as an example of how humans, agriculture, and native wildlife can coexist.

Other important findings include the previously unknown fact that caracaras feed regularly in wetlands. Although this raptor will eat carrion, during the nesting season it feeds its young live prey including fish, snakes, rodents, amphibians, reptiles, and insects. Through radiotelemetry, we have also learned that caracaras are quite social. Family groups remain together for several months. After the young leave their home territory, they form aggregations, sort of like teenage "gangs." These young birds are nomadic, wandering long distances throughout south-central Florida, but occasionally returning to the familiar area near their home territory.

Future research plans include long-term monitoring of known nests to continue data collection on population biology and continued tracking of radio-tagged juvenile caracaras to assess their long-term survival. Development of management guidelines for this population is also planned. These guidelines will assist private landowners and public land management agencies alike in future land-use planning so that known caracara nest sites and important feeding areas can be protected.

Joan Morrison received her B.S. in Biology from the College of Wooster in Ohio (1975) and a M.S. in Resource Ecology and Management from the University of Michigan (1979). After working for several years for the U.S. Forest Service and U.S. Fish and Wildlife Service, she returned to the University of Florida, where she will soon complete a Ph.D. in Wildlife Ecology.

The Role of Structurally Complex Habitat in Predator-Prey Interactions Between Largemouth Bass and Bluegill

Christine Storley, University of Wisconsin - Madison

In north temperate lakes, vegetated littoral zones provide structurally complex habitats which several species of predators and prey frequent and is a key process structuring ecological communities. Predation directly affects predator growth and population size structure. Predation has been reported to cause both increased growth rates in prey resulting from reductions in prey density and decreased individual growth rates resulting from behavioral changes in habitat use and activity patterns. Density and morphology of vegetation can mediate predator success on invertebrates and fish. Since prey exposure and movement are the two main components of the total risk prey incur, aquatic vegetation is a refuge in which fish abundance will increase with the structural complexity of the plant community. Structurally complex habitat influences the behavior of predator and prey, thus influencing the outcome of predator-prey interactions, and the growth and abundance of both predator and prey.

Bluegill (*Lepomis macrochirus*) is a prey species that commonly occurs abundantly in association with vegetation in order to avoid predation by largemouth bass (*Micropterus salmoides*). Predator behavior and rate of capture both change with habitat structure, such that at low plant densities predators can feed efficiently but there are few prey available. At high plant densities, predation rates are inhibited, even when prey is ubiquitous. The amount of prey captured per quantity of prey available declines monotonically with

increased structural complexity. Since prey density is positively correlated with structural complexity, feeding rates will be maximized at intermediate levels of structural complexity. Therefore, intermediate plant densities maximize the growth of predators via high feeding rates, and of prey by decreased intraspecific competition, and allow predation to have the strongest influence on structuring the fish community.

The Fish Lake project is interested in quantifying the effects of a macrophyte decline and fragmentation of dense plant beds on fish population characteristics, such as population structure, growth, and fitness. Within the scope of the Fish Lake project, my specific objectives are to assess the largemouth bass and bluegill population dynamics in a densely vegetated littoral zone, before and after a macrophyte decline, and to use fish bioenergetics modeling to determine present consumption rates. Future growth scenarios will then be predicted given increased consumption rates. The predicted growth rates will then be compared to post-decline growth rates for these populations. Due to the variable nature of growth and predator-prey interactions in littoral zones, bioenergetic modeling will be conducted with a variety of scenarios designed to simulate the influences of increased food availability, decreased intraspecific competition, and increased predation (by bluegill on invertebrates, bass on bluegill, and anglers on both species).

Chris Sorley's B.S. in Philosophy and Biology (1990) and an M.S. in Biology (1992) are from the University of Wisconsin - LaCrosse. She is currently working for the Wisconsin Department of Natural Resources as a fisheries ecologist and is pursuing a Ph.D. in Zoology at the University of Wisconsin - Madison's Center for Limnology.

PARTNERSHIPS WITH GIRL SCOUTS GREATLY COMPLEMENT THE MISSIONS OF NATURAL RESOURCE AGENCY PROGRAMS.

GIRL SCOUT CONNECTIONS

ANNE S. FEGE

In Girl Scouts, girls learn about careers in the outdoors and environmental fields. They develop outdoor recreation interests and skills, becoming avid outdoorswomen with a strong ethic of "leaving a place better than when you found it." Girls learn about their connections to the land, becoming educated voters and conservation advocates. And Girl Scouts learn the value and rewards of volunteer service becoming lifelong stewards through these connections. Federal natural resource agencies have been and will become even stronger partners with the Girl Scouts, as girls become the next generation of employees and public.

The Girl Scout Program

Girl Scouts of the U.S.A. is a national not-for-profit organization providing informal education to its 2,534,000 registered Girl Scouts and 860,000 adult volunteers and leaders. Founded in 1912, it is open to all girls ages five through 17 (or in grades K-12) who subscribe to its ideals.

The Girl Scout program is based upon the Girl Scout Promise and Law, adapted to

meet the developmental, educational, emotional, and social needs and interests of girls at varying age levels and designed to develop each girl's values and sense of worth as an individual. Girl decision-making and girl-adult partnerships are unique aspects of the program. Girls and their leaders work as partners in planning and decision-making, and girls at each age level are given increasing opportunities to act independently and handle responsibilities. Adult role models are essential, and interaction with women in leadership positions is critical in girl development.

Girl Scouts emphasize "pluralism" and membership diversity. They actively develop programs in minority neighborhoods and communities, reaching urban children and building multicultural troops and programs.

The 334 Girl Scout councils in the United States are local units chartered by the national organization to administer and develop Girl Scouting in a specific geographic area. Girl Scout councils bring girls together in groups with trained volunteer adult leader-

ship and provide services necessary for those groups to participate. A council board of directors, headed by a president, retains an executive director to organize the work of the council. Many volunteers in management and leadership roles work with the employed staff to deliver Girl Scout programs.

Girls meet in five program levels: Daisy Girl Scouts, ages 5-6 (K or grade 1), Brownie Girl Scouts, ages 6-8 (or grades 1-3), Junior Girl Scouts, ages 8-11 (or grades 3-6), Cadette Girl Scouts, ages 11-14 (or grades 6-9), and Senior Girl Scouts, ages 14-17 (or grades 9-12). Adult members (women and men) are volunteer leaders, consultants, board members, and staff specialists in such areas as child development, adult education or administration. Girls and leaders participate in Girl Scouting through interest groups, ongoing troops, or as individual Girl Scouts. There are 188,000 troops, including those in USA Girl Scouts Overseas in 62 countries.

Activities in the Girl Scout program are divided into five worlds of interest to provide a basic framework for balanced group activities: The World of Well-Being, The World of People, The World of Today and Tomorrow, The World of Arts, and The World of Outdoors.

Girls at the Daisy level focus on simple activities with their leader and parents. Brownie Girl Scouts earn "Try-Its" rather than badges, which include topics such as "Plants and Animals," "Outdoor Fun," "Earth and Sky," "Water Everywhere," and "Earth is Our Home." Junior Girl Scouts may earn badges. For example, girls interested in the outdoors may be learning about flora and fauna through the "Wildlife" badge, doing an "eco-action" project while earning the "Troop Camper" or exploring an ecosystem for the "Ecology" badge.

Cadette and Senior Girl Scouts work on such diverse interest project patches as "Audiovisual Production," "Orienteering," "Animal Observation" or "Global Understanding." Cadette Girl Scouts earn the Cadette Girl Scout Challenge or the Girl Scout Silver



Forest Service Chief Dale Robertson and Girl Scouts of the USA Executive Director Mary Rose Main sign Memorandum of Understanding on February 26, 1990. Girls are from Girl Scouts of the Nation's Capital.

Award, while Senior Girl Scouts work on their Senior Girl Scout Challenge or earn the highest award in Girl Scouting, the Girl Scout Gold Award.

Girl Scout Partnerships

In the late 1980s, the Girl Scouts of the USA signed Memoranda of Understanding (MOU) with the U.S. Soil Conservation Service (now Natural Resources Conservation Service), U.S. Department of the Interior, and the U.S. Forest Service. The MOU with the Forest Service, for example, covers troop and council activities, wider opportunities, the GSUSA Convention, and use of National Forest land.

Historically, many Girl Scout camps have been located within National Forest boundaries, or operated as special use permits on National Forest land. (The June 1995 issue of *WinR* has an article about a Girl Scout camp constructed by the pre-World War II Civilian Conservation Corps—located on a National Forest—and which is now being renovated.) With this proximity, there are opportunities for Forest Service personnel to help, e.g., design summer programs or special camp sessions focused on environmental education, and outdoor recreation. For older girls, staff can assist them in recreation opportunities (such as canoeing on Wild and Scenic Rivers, backpacking in wilderness). Girl Scouts, in turn, can help with service projects in the National Parks, Wildlife Refuges, National Forests, on Bureau of Land Management land, on state lands, or at local natural areas.

In an era where it is obvious that girls need the same kinds of exposure to outdoor activities as boys are offered, it is time to ask agencies to invest in and cooperate with Girl Scouts at the same levels as they do Boy Scouts. Federal natural resource agencies have invested considerably in Boy Scout activities over the years, and benefitted greatly by the service projects and by hiring men whose outdoor experience and interests began and grew with their Boy Scout activities. There is every reason to believe they would benefit in the same ways by sponsoring more activities for girls.

Many federal and state agency professionals have been Boy Scout leaders, badge consultants, and board members in their local communities. Some National Forests are sponsoring co-educational Explorer Posts for high school students. Nationally, the natural resource agencies have built and staffed large exhibits at the 10-day Boy Scout national jamboree held every four years. These same agencies offered programs and instructed at the national center in Philmont, New Mexico, they developed the "trail boss" volunteer training certification, and worked to incorporate "leave no trace" methods into

the Boy Scout program. Girl Scouts need the same kinds of time commitments, too, although the agency programs and cooperation need to be designed with and for the girls.

Agency coordinators for Girls Scout programs meet regularly in Washington DC, working together with Girls Scouts of the USA staff. In 1997, they expect to enhance commitment of agency leaders to Girl Scout partnerships, increase local programs between agency field units and Girl Scout councils. They will sponsor several state-wide interagency workshops to introduce agency professionals to Girl Scout outdoor program managers and thus generate ideas for local programs.

Where there is agency input, the benefits for young women are noticeable. Individual girls' awareness of natural resource agencies has been greatly increased by exhibits at the triannual national Girl Scout conventions. The Forest Service had exhibits in Portland in 1987, Miami Beach in 1990 (see photo), and Minneapolis in 1993 as did other agencies. The Bureau of Land Management, Fish and Wildlife Service, Forest Service and National Park Service sponsored an interagency exhibit in Ft. Worth in 1996.

I was honored to be one of the banquet speakers at the 1993 convention, sharing my "Voices for the Land," and know that this kind of role model activity leads to interest in natural resources careers for girls. One—and there are many—of the pay backs for the Forest Service professional like me who participates is to see a career light in natural resources flicker to life in a young mind and heart.

Girl Scout Programs Benefit Agencies

"Leave a place better than you found it" has been taught for more than 80 years in the Girl Scout program, and is now a cornerstone of the interagency "Leave No Trace" program developed in the last 20 years. Almost a dozen Girl Scout program directors and trainers have completed the "Leave No Trace Masters" program taught by the National Outdoor Leadership School (NOLS).

The Mountaineers, the Washington (State) Wilderness Coalition, Mt. Baker-Snoqualmie National Forest, the Totem Girl Scout Council and local Boy Scouts have developed a program to teach—and certify—Boy Scouts and Girl Scouts in "leave no trace" practices. The program includes an introductory workshop for troop leaders and older girls, a Leader's Guide, trained leaders teaching their troops, and a day-long certification for troops that evaluates and awards patches to those who pass written and practical tests.

On hike to Nordhouse Dunes Wilderness, lower Michigan, 1993. *Amy Smith, Hollidaysburg, Pennsylvania; Melinda Latimore, Redondo Beach, California; Heather McKinley, Oak Park, Illinois; Nadine Cowey (Leader), Bastrop, Texas.*



To celebrate the 80th birthday of Girl Scouting in 1992, Girl Scouts adopted a national service project, "Girl Scouts Care for the Earth." Girls organized environmental fairs and public education efforts, adopted local sites and parks, did clean-up and habitat improvement projects, organized recycling campaigns, planted trees, monitored water quality and revegetated streams. Girls and their leaders worked with local communities, nature preserves, National Forests, Wildlife Refuges, National Parks and more.

"Rancho 2000" was held at Rancho del Chaparral Girl Scout Camp in the Nacimientos Mountains in northern New Mexico in 1994. Critical thinking and decisionmaking skills were highlighted as the girls went through the National Environmental Planning Act (NEPA) planning process, using geographic information systems (GIS) to plan the future condition of their camp. An exercise in conflict resolution helped the girls select the preferred alternative.

In 1994, the Wasatch-Cache National Forest and the Utah Girl Scout Council offered a week-long summer camp session "Mystic Mountain," at which FS and BLM professionals led girls in developing a 30-year management plan for 100,000 acres. They learned about firefighting, soil conservation, water quality testing, mining, and wildlife management.

"Journey Through the Inside Passage" was a 17-day adventure for 12 teenage Girl Scouts. They learned about natural resources conservation issues and careers, and participated in conservation projects that reached another 400 people in southeast Alaska.

Sponsored by the Tongass Alaska Girl Scout Council, partners included the FS, NPS, Alaska Marine Highway, Sitka Raptor Center, Alaska Serenity Kayaks and Southeast Alaska Gillnetters.

Mile Hi Girl Scout Council in Colorado has "adopted" the Kelly Dahl Campground in the Arapaho-Roosevelt National Forests. Troops have cleaned up, learned light maintenance skills, and helped Forest Service staff take care of the campground from Memorial Day through mid-September. This began in 1980 as a troop project and is now a council-wide effort. Certificates of Appreciation are awarded annually and the Council received the 1000-hour volunteer recognition from the Chief of the Forest Service in 1986.

The Black Hills National Forest staff hosts an outdoor day annually for the eight troops in Custer, South Dakota. It is held at Camp Paha Sapa, operated by the Black Hills Girl Scout Council, on land surrounded totally by National Forest.

Seventeen girls from Pacific Peaks Girl Scouts Council (Tumwater, Washington) adopted the 1936 Hamma Hamma historic ranger guard station in the Olympic National Forest that had been vandalized. They worked for 18 months to refurbish the cabin and the land around it so it looked lived in: scrubbing floors, hauling trash, making repairs, sewing curtains, trapping 127 mice, and planting a garden. The troop continues to care for the cabin, and because of their efforts, the public can now rent it and experience the rustic, remote lifestyle.

Most troops and councils can't take on ambitious projects like the ones above. But girls can invite people with disabilities or elderly people to visit a National Forest for an afternoon, perhaps for a short hike or picnic. They can take a long hike on an agency trail to build up a troop's fitness level and bring along plastic trash bags to pick up litter.

Older girls can organize an "outdoor cleanup day" in the community or on federal land, inviting local environmental groups and other youth groups to be the volunteers. Girls can organize a "hike-a-thon" on National Forest trails and closed roads. They enjoy counting birds, building birdhouses, improving stream habitat, or constructing nature trails. Troops can hike, canoe, ski, and enjoy new recreational pursuits on public lands, and they can plan a car-camping trip.

Interagency Training Offers Opportunities for Agencies, for Girls, and Their Leaders: An Example of How It Works

Four natural resource agencies co-sponsored a four-day outdoor education training in December, 1995, "Linking Girls to the Land: Building Partnerships Between Girl Scouts and the Federal Natural Resource Agencies." Co-sponsored by the Girl Scouts of the USA and the Forest Service, National Park Service, Fish and Wildlife Service, and Bureau of Land Management, there were 41 Girl Scout staff members and adult volunteers from 28 states. They included professional Girl Scout outdoor program directors, Girl Scout volunteer outdoor trainers, and camp directors. Four of the Girl Scout participants were also agency employees. Workshop program fees and some travel costs were subsidized.

The "Linking Girls to the Land" training focused on agency missions, outdoor recreation, service projects, environmental education, and careers in the natural resources field. Agency instructors invited Girl Scouts to plan more outdoor recreation activities on federal land, and to practice "leave no trace" and "tread lightly" outdoor practices. Service projects are central to the Girl Scout program at all age levels, and agency instructors and participants together outlined what it takes to make a successful volunteer service project.

The training was held at Girl Scout Camp Joe Scherman within the San Bernardino National Forest in southern California. This setting made possible activities that are successful with girls: making rope from yucca plants, the "impact monster" wilderness education skit, "first morning light" hikes, birdwalks, "Intrigues of the Past" activities, telling Native American stories, and computer-based geographic information systems. Denise Meridith, Bureau of Land Management's Arizona State Director, was the keynote speaker.

Each participant has agreed to design and implement a project in 1996 cooperatively with a local federal natural resource agency and Girl Scout troops. Each program will reach dozens to hundreds of girls, greatly increasing agency partnerships and oppor-



Natural resource instructors at the December 7-11, 1995 workshop, "Linking Girls to the Land: Building Partnerships Between Girl Scouts and Federal Natural Resource Agencies." From left: cQuavator Gatson, Interpretive Specialist, Cabrillo National Monument, (now Santa Monica Mountains National Recreation Area) NPS; Denise Meredith, Arizona State Director, BLM; Elayn Briggs, Public Information Specialist, California Desert District, BLM; Author Anne Fege, Forest Supervisor, Cleveland National Forest, FS; Stacey Smith, Wilderness and Trails Coordinator, Willamette National Forest, FS; Fran McTamaney, Environmental Education Coordinator, San Francisco Bay National Wildlife Refuge, FWS.

tunities for young women. Agency instructors repeatedly stressed the funding and staffing limitations on agencies working directly with each Girl Scout and troop, inviting Girl Scout councils to train adults or older girls as interpreters, volunteer organizers, and program managers. The instructor team has proposed another national training in the fall of 1997 and intends to develop a 1- to 4-hour interagency training module on how to work with Girl Scouts.

Older Girl Scouts Have "Wider Opportunities"

"Wider Opportunities" have been held for over 50 years at the national and international level for Cadette and Senior Girl Scouts. They are organized by councils for 30-100 girls, usually 10-14 days at a camp or college campus. Themes range from career exploration, archaeology and history, science, ecology, marine biology, sailing, working with people with disabilities, the arts, and more. About 20 events are held each year, which are described in a publication that is mailed directly to each Cadette and Senior Girl Scout. Girls complete a formal application for events of their choice. Many of the natural resource agencies support these events.

These four Wider Opportunities were co-sponsored by the Forest Service in 1994, and typify those held in other years:

- Sixty Girl Scouts from across the U.S. and Japan explored "Pedals, Paddles and Perseverance" on the Colville and Idaho Panhandle National Forests in July, 1994. They canoed on the Pend Orielle River, mountain biked along Priest Lake, met with Forest Service recreation professionals, and learned about Native American culture from the Spokane Indian Tribe.

- The Chugach National Forest hosted 64 Girl Scouts and 16 leaders for a week in August 1994 for the event, "Alaskan Discovery 1994." They set up camp, worked on bird banding, pulled alders, planted willows, inventoried small mammals, made bat boxes, counted salmon, and then maintained a trail.

- The Ouachita National Forest co-hosted "Arkansas Outdoor Adventure" in July 1994. Forty participants learned firsthand about careers from landscape architects, recreation managers, botanists, foresters, hydrologist and engineers.

- The Hiawatha National Forest hosted "Hiawatha Forest Expedition" in 1994. Fifty girls stayed at Clear Lake Camp in the middle of the forest and close to Seney National Wildlife Refuge and Pictured Rocks National Lakeshore. Girls accompanied women professionals (an archeologist, botanist, forester, wildlife biologist, fisheries biologist, and recreation planner) to survey sites on the Indian River and Scott's March. They then recommended management strategies and projects

Table I: Grade Levels of Former Girl Scouts.
Source: Forest Service Survey

	Survey Number	Survey Percent	Forest Service Female Workforce Percent
GS-3 to GS-6	19	12	46
GS-7 to GS-9	48	32	33
GS-11 to GS-12	48	32	17
GS-13 or higher	36	24	4
Total	151	100	100

Table II: Influence of Girl Scouts on Forest Service Career Choices.

	Number of Responses		Percent
Major influence on career	39		22
Work experience at summer camp	20		11
Love of outdoors and environmental values	53		30
Outdoor interests and skills	73		41
Leadership skills	46		26
Team skills	22		12
Developing self-esteem in all-girl environment and women as role models	13		7
Total responses	265		

[Percentages based on total 176 respondents;
some indicated more than one influence.]

for each area. Girl Scouts and professionals formed interdisciplinary teams to make final recommendations on the proposed projects.

Direct Links to Careers

Our choice of natural resource careers was influenced somehow in our childhood—by individuals, by family members, by living on farms or near forests, by teachers, and/or by outdoor activities through some organized groups. Girl Scouting provided many of us with the outdoor opportunities and encouragement that resulted in our choosing natural resource professions.

In February and March 1995, an informal survey was conducted of Forest Service women, asking them if they had belonged to Girl Scouts or another nationally organized youth group geared to outdoor activities. We polled through the computer network, beginning with the "women's network" and the "female line officers" mailing lists; 176 replied affirmatively that they had. Ninety of the respondents had been a Girl Scout in grades 1-6 only (Brownie or Junior Girl Scout), and an additional 67 had been a Girl Scout during grades 7-12 (Cadette or Senior Girl Scout). Eighteen had been in Campfire

Girls, seven stated they had been an Explorer Scout (co-educational high school Boy Scout program), and 14 had been active in 4-H.

Respondents were asked their current position, grade and number of years in the Forest Service. The combined years of Forest Service or federal service was 1475 for the 116 respondents who indicated their length of service, an average of 12.8 years each. Current grade levels (Table I) indicate that many former Girl Scouts are in upper-level technical and leadership positions. The responding group also had considerably higher grade levels than averages; 18 are currently District Rangers or Forest Supervisors.

Respondents were asked what influence Girl Scouts had on their career, leadership skills, love of the outdoors, and outdoor skills (Table II). They acknowledged the value of Girl Scout experiences in outdoor values and skills, as well as leadership and team experiences. Respondents were also asked their current Girl Scout involvement (Table III). Among the Forest Service respondents were three members of the local council Board of Directors, a president-elect, and numerous leaders and trainers.

Table III: Current Girl Scout Involvement.

	Number	Percent
Not currently active	87	49
Leader	37	21
Other volunteer	18	10
Daughter in Girl Scouts	14	8
Buy cookies or contribute money	32	18
Volunteer in other youth group	10	6
Presenter for Girl Scout events	31	18
Total responses	229	

[Percentages based on total 176 respondents; some indicated more than one type of involvement.]

This limited, voluntary sample of Forest Service professionals indicates that many agency professionals and leaders were greatly influenced by their outdoor experiences and developed leadership skills through Girl Scouting. As some respondents pointed out, other outdoor youth programs have also greatly influenced women professionals (4-H, Campfire Girls, Explorers, or others) and should be included in a more comprehensive survey.

Some respondents offered specific examples of the influence of Girl Scouting on their current professions. One woman, currently in a GS-14 position in the Washington Office, epitomized the strong Girl Scout experience and influence:

•"Growing up in Montana, every summer I went to Girl Scout Camp Scoutana on the edge of the Bob Marshall Wilderness where we spent a lot of time hiking and backpacking. I paid my way by buying Camp Stamps; one week cost \$17.50 in the late 1950s. My leadership potential was recognized and nurtured by a wonderful web of leaders, mostly women—and a few men. In 1965, I was one of eight on the patrol from the Big Sky Girl Scout Council at the last big Roundup in Farragut, Idaho. In the summer of 1987, I worked in Connecticut as an arts and crafts director; that was a great experience and a long way from home for a 17-year-old. My senior year, I was president of the Montana Statewide Senior Planning Board for all councils within the state, and I also led my first Brownie troop. The impact on my career was that my Girl Scouting experiences gave me a common interest with people in the Forest Service and provided a way to relate and speak the language, particularly of field-going people."

Many current professionals had strong leadership experiences and successes:

•"Being a leader in Girl Scouts was never something delegated to me by my troop leader, but was something I earned from my peers. I was responsible for making sure I knew who was coming, what we needed to bring, what groceries we had to buy, and how much money to collect from each camper. Sounds like the beginning of management to me—personnel, budgets, logistics, etc."

•"One thing I got from my experiences in working at the resident camp was the ability to work with folks from different walks of life; learn to view issues from both sides; and how to have fun in spite of rainy campouts and wet cereal."

•"I got to see women in outdoor roles, comfortable in outdoor jobs, and women in leadership and administrative positions running the summer camp."

•"Looking back now, I can see where working on badges, earning Cadette Challenge pins, and earning the First Class Award taught me how to set goals and achieve them step-by-step, gave me my first leadership experiences (patrol leader, treasurer, etc.), and especially helped my self-esteem... I also feel that the volunteer service I do today is a result of the same experiences."

•"I learned to function in a team setting, have respect for people, develop independence, set and accomplish targets, i.e. work for my badges, market cookies and myself, and be a responsible citizen. My troop earned enough money to go to Mazatlan, Mexico in 1965, which greatly broadened my horizons about life and lifestyles. We hiked 12 miles into Havasupai Canyon in 1963; at age 13 those trips definitely develop character."

Some current professionals were first introduced to the idea that an interest in nature could lead to a career.

•"Something that has stuck with me was a talk given to our Girl Scout troop about



Fran McTamany of San Francisco Bay National Wildlife Refuge leads Girl Scout participants in the "creating a tree" activity at the 1995 workshop, "Linking Girls to the Land."

WIDER OPPORTUNITIES

The Forest Service has provided \$10,000 to \$20,000 each year since 1991 to Girl Scout councils and local agency units to co-sponsor these "wider opportunities."

In 1992, the Forest Service co-sponsored "All Around Puget Sound" with the Olympic National Forest, "Alaska ABCs: Arts, Biology, and Culture" with the Tongass National Forest, "Rocks, Rapids and Ridges" with the National Forests in North Carolina.

In 1993, they co-sponsored "Southwest Sampler" with the Santa Fe and San Juan National Forests, "Pioneering Careers with Pioneers" with the Beaverhead National Forest, and "Caribbean Ecology Adventure" with the Caribbean National Forest.

In 1995, the co-sponsored events were "Down Under Kentucky" with Daniel Boone National Forest and Mammoth Cave National Park and "Explore the Ottawa" with the Ottawa National Forest and Peninsula Waters Girl Scout Council.

"Canoe Country Rendezvous" has been held every year since 1992 in the Boundary Waters Canoe Area, part of Superior National Forest. Since 1993, an event "Women in Natural Resources," in cooperation with the Huron-Manistee National Forest, is held.

In 1996, older girls canoed in the U.S. Forest Service Boundary Water Canoe Area, explored fitness and environmental awareness in Rocky Mountain National Park and the Arapaho-Roosevelt National Forest, visited Gettysburg National Park, learned about timber management in Mark Twain National Forest, hiked at Sleeping Bear Dunes National Lakeshore, and learned about careers on the Huron-Manistee National Forest.

forestry. A gentleman from the Louisiana Forestry Commission talked about forestry work and I was fascinated. At that point, I knew forestry was something I wanted to do."

And finally, the love of the land. . .

• "The connection between Girl Scouts and the Forest Service, of course, is love, respect and a reverence for land and nature."

• "I came by my love of the outdoors naturally, but Girl Scouting . . . introduced me to other girls and to women who shared my interest, thus legitimizing it."

How to Involve An Agency

Girl Scouts are already organized, they can plan and lead a project. You may be amazed at what "girl-power" can accomplish! If given proper instruction, Girl Scouts often go "above and beyond" in seeing a task to completion, as many agency managers can testify.

Start by meeting the program director at your local Girl Scout council, and bring information about your agency programs. Be sure your local council knows about nature centers, hiking trails, and campgrounds so they can share this information with troops. When you start talking about specific projects, it's OK to say "no" to a council's or troop's initial request, then together design a project that meets both of your needs and resources.

You can train volunteers to help groups of girls who are working on Brownie Girl Scout Try-Its, Girl Scout badges, or interest projects. These might include topics such as wildlife, ecology, eco-action, outdoor recreation, sports, camping, and global awareness. You can encourage council outdoor trainers to use existing programs such as Project Learning Tree and Project Wild. You can invite girls to participate in "hands-on" conservation projects. Girls enjoy being part of projects to count birds, improve riparian habitat, build habitat structures, or construct interpretive trails.

The highest awards in Girl Scouting, the Silver and Gold Awards, require girls to design and carry out a substantial service project, and these can be done cooperatively with natural resource agencies. For the Silver Award, junior high girls can carry out a project suggested by an agency or cooperator. For the Gold Award, high school girls must identify a community need, build on her own interests and skills, and completely design the project. Agency professionals can advise, e.g., a Senior Girl Scout from Tongass Alaska Girl Scout Council developed interpretive brochures for the Mendenhall Glacier Visitor's Center for her Gold Award project. Be sure to wear your uniform!

As an individual, a professional can volunteer to help your Girl Scout council develop long-range property management goals for their land. You can serve on a committee to analyze the property for its natural resources, ecological communities, flora and fauna, and geology. You might suggest ways to improve the wildlife habitat, establish a monitoring system, develop new outdoor recreation opportunities, construct and interpret nature trails, or complete a long-term plan for site management. You can participate in a career conference and be a role model for girls who are exploring careers. Partnerships with Girl Scouts can help us better serve our public and achieve our missions. And we should never forget that we are helping to prepare the way for a new generation of natural resource professionals.

Anne S. Fege is a Board Member of the San Diego-Imperial Council, an older girl advisor, and volunteer with the Girl Scouts of the USA. She was Cadette leader in five states, author of the Memorandum of Agreement between the Forest Service and Girl Scouts of the USA in 1989, and co-organizer of the national training, "Linking Girls to the Land: Building Partnerships Between Girl Scouts and Federal Natural Resource Agencies" in 1995. Fege is Forest Supervisor of the Cleveland National Forest (since 1991). She has worked for the Forest Service since 1983 as a research manager and as National Leader for Wilderness Management.

Restoration & Management Notes

Editor:
Dr. William R. Jordan III

Published: 2 / yr.
ISSN: 0733-0707

. . . the first and major journal in field of restoration ecology. Restoration and management of prairies, forests, wetlands and other plant and animal communities. Edited at the University of Wisconsin Arboretum. **Founded 1982.**

Rates:

Individuals: \$22 / yr.
(must prepay)
Institutions: \$60 / yr.
Foreign postage: \$ 8 / yr.
Airmail: \$11 / yr.

We accept MasterCard and VISA. Canadian customers please remit 7% Goods and Services Tax.

Please write for a *free* back issue list:
Journal Division, University of Wisconsin Press,
114 North Murray Street, Madison, WI 53715 USA
Or call, 608-262-4952, FAX 608-265-5277

We facilitate effective resource management... and career success.



BARB BECK, Pres.
Beck Consulting

We'd like to help you make the hard decisions easier, and maximize your personal effectiveness.

Forest Service line officer experience and work with the Fish & Wildlife Service, BLM, Park Service, Biological Service, local and state governments and the

private sector enable us to offer:

- Meeting facilitation
- Conflict resolution
- Managing personal and organizational change
- Organizational culture issues
- Team building

Call us. We're easy (and fun) to work with.

BECK

CONSULTING

P.O. Box 870 Red Lodge, MT 59068-0870
Phone/fax: (406) 446 3628

Book Review

by Jonne Hower

Profiles of Women Past and Present, Volume 1 and 2 was created, researched, and written (1993) by members of the Thousand Oaks California Branch of the American Association of University Women (AAUW).

Both of these volumes presents 15 first-person monologues about women. (I started to write "important" women, but each of us is important in our own way.) The intent of the volumes is to provide the monologue to be spoken, information about props and costumes, and suggestions about how to get started with youth groups or school classes.

Who are these women? Some I knew; some I had never heard of. We meet Grace Murray Hopper (1906-1992), who retired as Rear Admiral from the Navy in 1985 at the age of 80. The oldest officer on active duty, Grace was instrumental in developing the Mark I and UNIVAC computers.

We also meet Maria Mitchell (1818-1889), the town librarian for Nantucket. After spending years studying the heavens through a telescope, she spotted a comet just above the North Star. Being the first person to see it, the comet was named in her honor. After being invited to become the first woman member of the American Academy of Sciences, Maria Mitchell taught at Vassar, even though she had never been to college.

Some names that were new to me were Julia Morgan, an architect; mountaineer Annie Smith Peck; and Native American doctor Susan LaFlesche Picotte. I recognized Sacajawea, Sally Ride, Sojourner Truth, and Sandra Day O'Conner.

Each monologue is written in the first person. Each has, in addition to the list of props and clothes, a bibliography and a series of "discussion questions." There are some line drawings to show what the famous woman looked like.

This is a great "how to" book. If you are at the point in life where you are called on to give women's history presentations at work, this is a good resource.

Jonne Hower works for the Bureau of Land Management in Oregon. She is a WinR editor.

Excerpts from the Grace Murray Hopper monologue

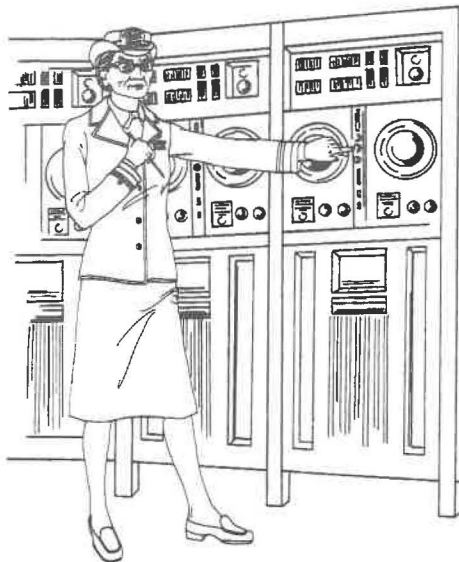
I went to college at both Vassar and Yale. I earned a doctorate in math at Yale and joined the Naval Reserve in 1943. Joining the military was not so unusual for my family. Some of my relatives included a minuteman from the Revolutionary War, a captain from the Civil War and an admiral in the Navy.

Because of my background in math, the Navy assigned me to work on the very first computer called the MARK I. That was in 1944 and working with computers is how I became famous.

In 1945, when I was working with the Mark II computer, something went wrong. This computer, which filled an entire room, just wasn't working correctly. So I opened up the machine's doors and poked around the insides. What did I find? A moth! The moth had gotten stuck on part of the electrical wiring and was preventing the machine from doing its work properly. Once I removed it, everything clicked into place. And that is why we now say that if something is not working in a computer, it has a "bug" in it!

In 1949, I helped develop UNIVAC, which was the first computer used in business. I did not spend all my time just building the computers (the "hardware"). I also helped develop the programs which make them work (the "software"). As a matter of fact, I developed COBOL. COBOL is software which lets people tell a computer what to do using words instead of math symbols. This makes computers usable by everyone, not just mathematicians and scientists. I'll bet you use computers....

GRACE MURRAY HOPPER



Excerpts from the Annie Smith Peck monologue

All my brothers attended college, so naturally I wanted to go too. I went to the University of Michigan and graduated with honors in every subject. I taught for several years and was one of the first women in the United States to become a college professor.

My interest in mountain climbing began the first time I saw the Matterhorn in Switzerland. I was seized with a determination to climb it one day. To prepare myself, I spent the next 10 years climbing smaller mountains and learning mountaineering skills. My first climb was Mount Shasta in California in 1888.

When I climbed the summit of the Matterhorn in 1895, I was instantly famous, both for my endurance and courage and my "unladylike" climbing attire.

Five times, I tried unsuccessfully, to climb Mount Huascarán in the Andes Mountains of Peru. At the time, it was thought to be the highest mountain in the Americas. In 1908, when I was 58 years old, I attempted to climb it for the sixth time. I hired two experienced Swiss guides and also four porters to carry our equipment.... We began our expedition by riding on burros for several hours before camping for the night. The next morning, the mountains were covered with clouds, so I postponed our climb. The third day, we hiked to the snow line and set up our camp. The next two days we climbed across the glacier between the two high peaks of Huascarán. We wore boots studded with nails to grip the ice. The next day, we almost had to turn back when the porter carrying our stove fell down into a deep crevasse. Luckily, we rescued him and the stove.

On the sixth day, we began our final climb to the summit. It was backbreaking work. We had to cut steps with an ice ax most of the way. We rested often because of the high winds and altitude. By late afternoon, we were almost at the summit. One of the guides and I stopped to try to measure the altitude. After a few minutes, we gave up and looked for the other guide. I was furious when I learned he had climbed to the summit ahead of me. By tradition, the honor of reaching the summit first should have been mine as organizer of the expedition....

I planted a "Votes for Women" flag at the summit. I was a suffragist because I believed women should have the right to vote.... I was world famous after climbing Huascarán. The government of Peru gave me a gold medal and named the north peak Huascarán Cumbre Ana Peck in my honor.

Guest Editor
Marion Larson

Remembering. . . .

Mollie Beattie

Mollie Beattie was nominated by President Bill Clinton to serve as Director of the U.S. Fish and Wildlife Service and was confirmed by the U.S. Senate on September 10, 1993.

She came to the Service from the Richard A. Snelling Center for Government in Vermont, an institute for public policy and service, where she was Executive Director. Prior to that position, she served as Deputy Secretary for Vermont's Agency of Natural Resources from 1989-90, with responsibility for fish and wildlife, forestry, public lands, water quality, and energy issues.

She and her husband Rick Schwolsky continued to maintain a home in Grafton, Vermont. Beattie died of brain cancer June 27, 1996 in a private hospital near her home town. She was 49.

Carl Newton
School of Natural Resources, Aiken
Center, University of Vermont

I first came to know Mollie Beattie in the mid-1970s. She had been working in a local outdoor equipment store and had become interested in learning more about forestry. Dr. Max McCormack, who taught a popular forestry course for non-majors, suggested that she consider pursuing a Master's degree. At that time, a requisite for entrance to our Master's program was either a BS in Forestry or having completed a core of undergraduate courses.

The next thing I knew, she was registered for a full schedule of forestry courses. She totally immersed herself in the subject matter. She had the enthusiasm and excitement of a "kid in a candy store" while studying forestry theory, practice, and philosophy. After a full academic year of exemplary success at the undergraduate level, she became a Master's graduate student and I agreed to be her advisor.

At the Master's level, Mollie's intellectual enthusiasm and budding professionalism intensified. Graduate studies seemed to be yet one more challenge that she would attack with vigor. She exhibited an open, energetic, but sometimes self-effacing manner. When free to choose a topic, for ex-

ample, instead of choosing something new for herself, she would choose one directly related to my project. Ultimately she decided to focus on an evaluation of a system that was then used by the U.S. Forest Service to predict the potential productivity of northern hardwood forest stands. Her approach to the evaluation was straightforward. She reasoned that by definition, the potential productivity of undisturbed stands should not change over time, and further, that such stands should not be able to grow more wood than the predicted (maximum) potential. By remeasuring a wide sample of permanent forest plots and then, on a per plot basis, assessing the potential productivity predictions over time, and comparing the actual forest growth with the predicted potentials, she would be able to achieve her objectives.

Mr. Joseph Barnard represented the U.S. Forest Service on Mollie's research advisory committee. He helped make it possible for us to use some of Vermont's Forest Inventory and Analysis permanent inventory plots for the study. Mollie's notekeeping was meticulous. Access maps not only carefully showed the way to the plots, but also included sidenotes of natural and historic significance; it was as if she wanted to connect land use history and interesting environmental observations to provide a context for all those numbers. Part

way through the summer, she asked if I'd pick up field guides for mushrooms and ferns so that they could learn more about the understory. The field work continued at an exhausting pace and she swore that it was because of, not in spite of, these "extra" observations that they were able to complete the work. Evenings were spent checking the day's work, rectifying any discrepancies with earlier observations of the plot, getting ready for the next day, having dinner, and of course, some physical exercise! That summer, Mollie was training for her first marathon so it was necessary to put in several miles of running before the day was considered complete.

The analysis of her data clearly demonstrated that the predictions of potential productivity were often inexplicably exceeded by actual observed growth. Furthermore, potential productivity estimates seemed to fluctuate with no obvious environmental or biological rationale.

Based on her thesis, we co-authored a paper which she presented at a national forestry meeting in Colorado. Mollie's emphasis for the thesis, the paper, or her presentation was explanatory, stating the current situation and what might be an appropriate next step to improve the predictive system. From a firm foundation of an extensive literature review, her orientation was to look to the future, relate from personal experience, while conducting a thorough analysis. That same orientation seemed to stay with Mollie as a hallmark of her professional life.

From my perspective as her advisor, editor, and teacher, Mollie Beattie was an ideal graduate student. I'm sure that she challenged me more than I did her. The journey was memorable and I know that I'm better for it.

Jack Ward Thomas
Chief, USDA Forest Service, Wash-
ington DC

I liked Mollie. I liked Mollie a lot. I enjoyed working with Mollie.

Now that may not sound like much, but in Washington, DC, it is not often that one can sincerely make that claim about the people they work with. During these contentious times, I worked closely with the Director of Fish and Wildlife Service, the Bureau of Land Management, and the National Marine Fisheries Service, and there was better cooperation between us than there had been for a long time. Mollie gets much of the credit for that.

Mollie was entrusted with what she did. She was intelligent. She was committed to the resources. She was willing to work with others and kept an open mind. She was conciliatory and she was gracious. And, she had steel in her spine when her limits were reached.

She and I spent much time together on Capitol Hill as witnesses in one grueling hearing after another. No matter how severe the questioning, how unceasing and personal the attacks, she remained cool and clear-headed. She parried questions from the most powerful congressmen on the Hill, then nailed them with that dazzling smile and penetrating remarks. She earned the respect and admiration of many of these same congressmen—if not their agreement.

I miss Mollie. I mourn her passing. But I am grateful for the opportunity I had to know her and work with her in what we both considered a noble cause.

Lynn Levine

Forest*Care, Dummerston, Vermont

It was about 1980 and I was sitting in the Spring Tree Cafe in Brattleboro Vermont, having conversation with a client about their forest land. Rick, Mollie's soon-to-be husband, walked over to my table and said to me "You've got to meet my partner, she's a forester too." And over time, with Jane Difley, we became a "she-wolf pack." Jane has so often told the story of how when we went to forestry meetings the greeter would ask "Are you Mollie, Lynn, or Jane?" We would spend hours yapping about our common vision for forestry. Mollie was destined to be the leader of the pack with her gift for seeing the larger picture and her talent for finding the story to paint the picture.

The intense times I spent with Mollie were during the years of writing and then revising *Working with Your Woodland*. As Mollie, co-author Charlie Thompson, and I moved each week from library to library, living room to cafe, we discussed the practice of forestry with heated, caring words. Oftentimes the debate would boil down to the choice of one word to preface a phrase: "possibly" or "probably"... "could" or "should"... "should" or "must." Those debates live on in a special place of my heart and in the forest.

I was (still am) in awe of Mollie. As she became the "alpha" she always followed her heart onto paths least travelled with conviction and integrity. I miss her.

Joanne D. Nunes

Forester, Massachusetts Department of Environmental Management, Pittsfield, Massachusetts

When I began my forestry career in the mid-1970s, there were few role models for women entering the natural resources field. It wasn't long, however, before Mollie Beattie stood out as a woman to emulate.

Though I didn't know her personally, and had the privilege of meeting her only once, in that short meeting, her dedication to the profession was readily apparent. She distinguished herself as a leader of women

and men, clearing the path so that others could follow. She made it look easy, although those of us trying to keep up were well aware of some of the obstacles she had to overcome. I sometimes wonder if she recognized the influence she had on those who knew her or knew of her as she went about her life, living her commitment.

I was deeply saddened to hear of Mollie's passing, but my heart is saddened more for those who are still to follow without the benefit of Mollie's continuing influence and leadership. The profession has lost a courageous partner.

Charles Thompson

Amherst, Massachusetts

I co-authored a book with Mollie and Lynn Levine entitled *Working with Your Woodland*. It was published in 1983 by the University Press of New England. After finishing forestry school in the mid-70s, I had gone into consulting forestry and was soon perturbed by the absence of a comprehensive lay guide for interested forest landowners. I made periodic abortive attempts at trying to fill this gap, never getting too far. One day, I was talking about the book idea with Jane Difley, a classmate in the UMASS forestry program. She told me about a friend of hers, Mollie Beattie, who had been making the same kinds of noise. She introduced us and our project was born.

Lynn Levine, a UMASS forestry grad who had established a consulting forestry business in southern Vermont, was the third author. In our initial meetings, we got to know each other and wrestled with the problems of defining our project and how three people write a book together. Mollie immediately took the lead in finding a publisher. This turned out to be relatively easy—some houses weren't interested because we were proposing a "regional" book. The University Press of New England was enthusiastic, even though ours was not a scholarly work. The book fit with the press' "Futures of New England" series.

We bumped along, making progress in fits and starts. When the publisher presented us with a deadline for a complete draft, we started meeting weekly in the law library at the Brattleboro, Vermont Public Library. This was the phase of our work I remember most clearly and fondly. We debated every technical topic thoroughly, recognizing that we had to get to consensus somehow. And, of course, every forestry topic had the potential to send us off into arguments about politics, history, ecological theory, food, sports, machines, whatever. It was great fun discussing everything with Mollie and simultaneously forcing ourselves to complete each session's writing and editing tasks. In retrospect, I marvel at her ability

Mollie Beattie, June 1994, on the cover of *WiNR*



to be both extremely focused and interested in just about everything.

Darby Bradley

President, Vermont Land Trust

Robert Frost once wrote: "Two roads diverged in a yellow wood, and I took the road less traveled by, and that made all the difference." Mollie Beattie took a road less traveled by, and made a profound difference to the people and communities of Vermont during her too brief tenure with us.

Vermont's first woman Commissioner of the Department of Forests, Parks, and Recreation, a founding board member of the State's innovative affordable housing and land conservation program, a trustee of the Vermont Land Trust and other environmental organizations, Mollie left a stamp on Vermont's landscape in many ways, both large and small.

Her three years as the Director of the U.S. Fish and Wildlife Service would be too short a time for most mortals to have an effect on a hostile Congress, but Mollie managed to do it.

We Vermonters loved Mollie Beattie. We miss her, but we are grateful to have shared this planet with her. Her courage and grace during the last year, when she knew that she was dying and yet continued to fight for something larger than herself, should be an inspiration to us all. Her legacy will be long remembered and felt.

Steve E. Wright

Craftsbury Common, Vermont

It was the license plate. It read, 4STR, so I knew it couldn't be anyone else. I had my head down, staring at the yellow line when we met—and she just zipped by so I didn't have time to look up. But I saw the plate, and that was enough to make me search for a quick turnaround spot. There wasn't one, so

I used someone's lawn in the center of Middlesex village on US Route 2. I know the motorcycle chewed up some grass and I feel bad about that even now, five years later. But letting her get away when we had been playing phone tag for weeks was not an option—so across the lawn it was. Less grass to mow.

Now I had to catch her. I knew she liked to drive the five or six mile stretch of Route 2 between Montpelier and Middlesex because it had some nice views of the Winooski River and adjacent farmland. You could do this, avoid the interstate and use the drive to unwind. Usually, after leaving the capitol, you needed to unwind. But she was moving on pretty fast, so I guessed she would get on the big road just outside the village and cruise on to Burlington where she was now working. So, I took the gamble and the entrance ramp and gave the Harley the throttle, reluctantly because it was only two weeks off the showroom floor. But, I had to catch her.

It took about three miles at unreasonable speed before I pulled alongside. She ignored me at first, maybe thinking I was just another long-haired, wise-ass biker. She finally turned and made eye contact, she threw both hands in the air laughing, and motioned to take the next exit in Waterbury.

We pulled off at a Mobil station and did the obligatory jumping up and down and hugging—both offering excuses as to not being able to get together. Then, she looked over at my bike, still ticking and clicking, with little heat waves coming off the pipes from the short, but intense chase. She said, "Oh my God, it's beautiful. I want it."

She was standing on the left side with her right hand reaching across to the right handlebar when suddenly she stepped back, bent over and with both hands, rolled up her long dress. She then threw a leg over my bike, hit the starter, jammed down the gear shift with the left toe of her black flat, snapped the clutch and was gone in a roar, north on Route 100, toward Stoke, past the Thatcher Brook Inn and the Ben and Jerry's plant. No helmet, no gloves, no boots—just a long dress and a pair of black flats.

I was too stunned to move. Everyone around the station, guys pumping gas, tourists, locals, were all staring after her and then looking at me. No one was saying anything. Then, from the back of one of the bays one guy yelled out, "Hey buddy, you just lost a nice bike." I turned to look at him, still too stunned to say anything, and just shrugged my shoulders.

About 10 minutes later, just long enough to make me really nervous, I could hear her heading back. She came over the hill through Colbyville past the "mansion" down by the hardware store and the Chamber of Com-

merce information booth with her dress blowing over her head. Her left hand was thrashing at it, trying to regain control so she could see the road. But she made it back into the parking area next to the pumps, hopped off, put her hands on her hips, grinned, and said, "Nice bike."

That one incident for me is so typical of Mollie Beattie. Beyond honesty, integrity, commitment, loyalty, brilliance, courage, and lots of other notable qualities, you never knew what Mollie was going to do, and I loved her for it. She was my colleague, my confidante, my advisor, my fellow-sufferer, and my friend. And I miss her terribly.

Marion Larson Division of Fisheries, Commonwealth of Massachusetts

I did not know Mollie, but I met her once at a regional Society of American Forester's meeting where sessions about Women in Natural Resources were held. It was a meeting where I saw a significant number of women natural resource professionals who wanted to learn of opportunities, share with one another, and communicate their experiences. Men and women in nearly equal numbers attended the informal and formal meetings.

I recall Mollie's presence at that meeting as one of positive energy, active listening, and genuine interest in other people. She was one of several ordinary, yet extraordinary people at that meeting who cared about people, the resource and finding a way for professionals to network with one another. I came away from the meeting with a sense of energy, excitement, and dreams for the future. I have since followed the careers of several women from that meeting, Mollie being one of them.

I suspect my reasons for making calls, sending e-mail, and chatting with both friends and strangers about Mollie are tied up in that meeting experience. I think it's my way of giving back to her and the other women who taught me then and now of the power of networking as well as the importance of sharing—and supporting one another.

Carl Reidel Professor of Environmental Policy, University of Vermont; Member, Vermont House of Representatives; Past Presi- dent, American Forestry Association

In searching for a few words to describe Mollie's special spirit, I discovered them in the title of a new book about the Lewis and Clark expedition—*Undaunted Courage*. It's the quality of being brave in the face of danger; of not giving up to fear. It was that quality of spirit, and the openness to let others know of her deepest fears and highest hopes, that made her a genuine woman

leader. You wanted to be part of her hopes. You knew that she shared your doubts, but refused to let them constrain her best efforts. Courage overcame the limits of fear.

Although Mollie always worked within male-dominated organizations, she never gave up being a caring woman who could be a tough advocate for "the critters" (as she put it) without abandoning her gentleness toward others, foes and friends alike. She taught me that we all can draw on those qualities of the human spirit, everyone of us, if we so choose. They are not reserved for the highly educated, the rich and famous. We all can be gentle leaders if we choose to be courageous; undaunted.

Mollie was a special person because she made that brave choice, and made all the difference as a professional woman in conservation leadership.

Jean Richardson Associate Professor of Natural Re- sources, University of Vermont; One of the five Americans on the Commission for Environmental Cooperation in NAFTA

I met Mollie shortly after or during her Master's degree work in forestry at the University of Vermont. I had just been appointed as the first woman tenure track professor of Natural Resources at UVM—being treated as a hybrid-secretary/wife by the paternal order of natural resource professionals! Mollie was struggling to decide what kind of clothes to wear to gain respect as a woman forester. We found solace in much laughter over a glass of wine, plotting outrageous schemes whereby we could make headway to soften the approaches to natural resources management. We learned from each other over the years, building a network of similar minded women—and men.

We both relied on the broad liberal arts education of our undergraduate years. Most recently, Mollie spoke at a Women in Conservation Leadership workshop that I was running in New England. Her speech was brilliant, drawing again on her humanities education. This background allowed her to rise above the pettiness and narrow perspectives which so often cloud natural resources issues. And as always, her ability to see the humor as well as the pathos in the debates shone through her talk to reinvigorate us all.

There is still much for us to do. Let's get on with it.

Brendan J. Whittaker

Former Director of the Vermont Natural Resources Council's Northern Forest Project; Vermont's Secretary of Environmental Conservation (now the Agency of Natural Resources) 1977-1985

Reprinted with permission from The Northern Forest Forum, MidSummer 1996

Several hundred people gathered the day before the Fourth of July this past month in a New England white village church in Grafton, Vermont to celebrate Mollie's life, her career, and her being. She died on June 27 at age 49, after a valiant year of fighting brain cancer. It was the same church in which she and her beloved husband Rick Schwolsky married, many years before.

Mollie's life was celebrated in the church that day. There were tears, laughter, and abundant stories. Her husband Rick, her relatives, her close friend and fellow forester Jane Difley of the Vermont Natural Resources Council, Senator Patrick Leahy, former Vermont Governor Madeleine Kunin, her Vermont physician, people from the hospital staff, a professor from her time at Harvard's Kennedy School, all shared memories of Mollie. I was deeply privileged to be asked to share thoughts from Vermont's environmental community. This was followed by friends, speaking informally and from their hearts.

Many recalled, one in a poem an admirer had written, a story which is already Mollie-legend: the release by Mollie for the gathered crowd and the TV cameras in July 1995 of the eagle she had named "Hope" from the Blackwater National Wildlife Refuge in Maryland to celebrate the de-listing of the bald eagle from "endangered" to "threatened." The bald eagle as a species is returning to the lower forty-eight states, as we who live near the Umbagog National Wildlife Refuge know, and it was during "Mollie's Watch" at Fish and Wildlife that its recovery from DDT and other human assaults was celebrated.

A couple of my own memories of this grand person, who, before going to Washington, had majored in philosophy at a Roman Catholic college, received a masters in forestry at the University of Vermont, and a masters in public administration from Harvard, had been commissioner of the Vermont Department of Forests, Parks, and Recreation, deputy secretary at the Vermont Agency of Natural Resources, and subsequently the executive director of the Richard A. Snelling Center for Government.

One is the book *Working With Your Woodland* (1983, University Press of New England) which she wrote with colleagues Charles Thompson and Lynn Levine. In that book the three of them lay to rest that phony term "selective cutting" which not a few professional foresters themselves, to their

shame, still use. Correct, of course, is "selection cut," which takes lots of skill and understanding to accomplish in a forest stand over the years. Mollie Beattie was a good forester, a constant critic of a simplistic sound-bite "forestry," heard all too often, which states, for example, "growing a forest is just like growing corn." Mollie cut right through that nonsense.

Another memory was Mollie's keynote evening talk in October 1994, to a large national gathering of "Women in Conservation" held at Lake Morey, Vermont. Mollie's story of what it is like to be immersed in "the belly of the beast," as she termed the political process in Washington, was profoundly moving. At that time, and subsequently during her three-year stint during the Gingrich revolution, Mollie was point person in defense against bitter, vile attacks, not only on the federal Endangered Species Act, the restoration of the timber wolf to the Yellowstone ecosystem, and conservation-oriented federal fish and wildlife refuge policies in general, but on herself as a person, her beliefs, her vision. It was a beautiful message to those women professionals in environmental work. It was a sermon really, in the classic style of the prophets of Scripture. I will never forget that evening.

Those of us who knew her will never forget Mollie Beattie. She was, and remains, a blessed inspiration to so many engaged in conservation battles. She nudged us often with her humor—among her last words, as shared by her Vermont doctor: "Tell them all (at my funeral) to make sure they all go see (the movie) 'Babe'!" She inspires us still with her courage, honesty, skill, and toughness. May she now, finally, rest. In peace Mollie, in peace.

Postscripts: First, two of her former bitterest critics in Congress, Representative Don Young (R-Alaska) and Senator Ted Stevens (R-Alaska) have introduced legislation to name an eight-million acre wilderness in the Arctic National Wildlife Refuge (ANWR) after Mollie.

Second, at the gathering on July 3rd in Grafton, a speaker identifying himself as a writer for outdoor sports magazines told us that he perhaps was the only one at that gathering who didn't know Mollie personally, and had never met her, but that he had come that day because he firmly intended to tell her true story to the hunting and fishing magazine national readership.

Third, as the Yellowstone wolves continue to prosper, "Hope," through her species continues to soar. For all of us here, and for generations yet unborn: Thank you Mollie!

Beattie's tenure as director was marked by intense national debates over reauthorization of the Endangered Species Act, concerted efforts to open the Arctic National Wildlife Refuge to oil exploration, proposed National Wildlife Refuge System legislation and often contentious Congressional funding issues. Under her guidance, the Fish and Wildlife Service was able to weather these storms and reach many milestones.

Daina Dravnieks Apple interviewed Beattie for *Women in Natural Resources* for the June 1994 issue. Daina asked about the status of the Endangered Species Act (ESA). Beattie said:

We are really working hard to get the message out that you cannot see, for instance, jobs and endangered species on opposite sides of the equation, or in confrontation with each other, because the endangered species are almost always a signal that jobs are in danger, too. Endangered species signal a non-sustainable use of resources. To see the situation any other way puts us all at risk. It is very important to us to start to address multiple species listings, because that is the way in which we demonstrate that what we are really after is protection of our own species. And the message is very simple: multiple species in trouble show that the ecosystem upon which we depend is being threatened.

In the interview, Daina also asked what "good science" meant to her because the ESA allows anyone to bring before a judge their view of what the "best science" is. Unlike the National Environmental Policy Act, the oversight agency has no advantage in its case. Mollie answered:

There is always this praise of good science, as if it is going to give us the answers. Good science sometimes just gives us the questions, because you can often find conflicting indicators in science. I think the thing people really have to understand is that science almost never gives us the answer, and that the question we face in natural resources is rather: 'What are you going to do until the science gets here?' My answer to that is: we should do the most conservative thing for the natural resources. Too often it has been the other way, which is, we have to let the species go into further decline until we know more and can act with science behind us. In fact, we should be making a conservative judgment, which is to admit that there is clearly some risk here, so we must act. Our natural resources are too precious to risk; therefore, we should not stand around until the science gets here. I think that is the 'best science' issue that we face at the moment.

BOOST YOUR EMOTIONAL COMPETENCE

SOLVE THE PROBLEM: DON'T STRIKE BACK

Barb Beck

On the Grow:
A Management Column

Have you ever noticed how some people are good at knowing and managing their emotions, motivating themselves, and handling relationships? Conversely, others take out their anger on the wrong person for an unconnected reason or flare up excessively at small incidents. Awareness of our own and other's emotions, and how we handle these emotions make up our emotional intelligence. In addition to brainpower, emotional intelligence plays a big role in the happiness and success we enjoy in life.

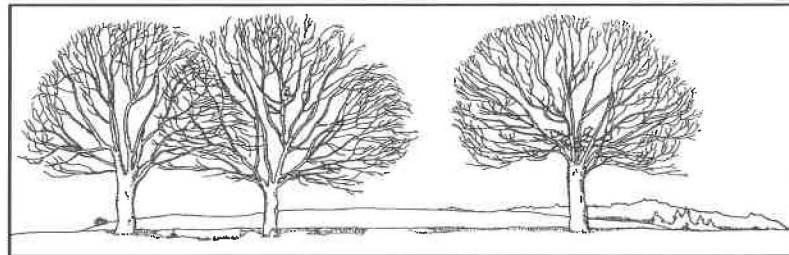
The term emotional intelligence was coined in the early 1990s by Peter Salovey, from Yale, and John Mayer, from the University of New Hampshire. Emotional intelligence is a separate competency from rational intelligence. Skills such as self control, zeal and persistence, empathy, the ability to motivate ourselves, control impulses, and regulate our moods make up emotional intelligence. Unfortunately, as children many of us were never taught these important skills, but our ability to acquire and perform them have great bearing on all aspects of our personal and professional lives. Some researchers believe, in fact, that people who are emotionally adept will have an advantage in any domain of life. They consider emotional aptitude a "meta ability," or an ability which determines how well we use our other abilities.

Those with high IQs may flounder. Accused unabomber, Ted Kazcynski, by all accounts, is a brilliant man. Unfortunately, due to his inability to handle emotions, great

harm has resulted and his brilliance will not be put to beneficial use. Merely possessing a high level of rational intelligence, does not guarantee equally high overall performance and achievement. When we "see red" we are likely to be experiencing an emotional hi-jacking. If you can remember when this has happened to you, you know that you are unable to think clearly until you have calmed down and the situation has de-escalated.

From an evolutionary perspective, emotional intelligence has had a very real survival value. The emotion of fear, for example, created and—still creates—an impulse to act. If you see a vehicle traveling directly toward you at a high rate of speed, you will jump out of the way whether you have time to think about it or not. These actions, resulting from fear, undoubtedly saved the lives of our ancestors and continue to be beneficial even in modern times.

Standard intelligence tests have long measured the capability of the logical, rational mind. Researchers now believe that we may have gone too far in emphasizing the rational mind, and that a broader view of intelligence is appropriate. According to researcher Daniel Goleman, author of *Emotional Intelligence* (1995), "In a very real sense we have two minds, one that thinks, and one that feels." These two minds are often referred to as the head versus the heart, or emotional versus rational mind, although in fact both are necessary, and the two interact.



In the world of natural resources, the workplace has changed. For some resource managers, the new world is a truly uncomfortable place. Dealing closely with the public, working on teams, giving and receiving criticism, understanding others, and solving conflicts, are situations many employees find themselves confronted with. Traditional resource managers who signed on to work with the resources, not with people, may feel frustrated and unprepared to meet these changed expectations.

Effectively utilizing our brainpower in a world filled with others, requires that we also have emotional competence. This competency is becoming ever more important as the emphasis in the workplace shifts increasingly toward teamwork. Each of us has probably had the experience of working with someone we recognized as very bright, but who completely lacked the social skills to recognize and manage their own emotions. An interdisciplinary team working on a timber sale project offers a good example. I have seen a team on this type of project make a decision which goes against the recommendation of the wildlife biologist who has strong feelings. The biologist who was not adept at handling his emotions, announced that he was resigning from the team, stormed from the room denouncing the entire project. If he had been able to control his emotions, perhaps he could have contributed to a solution rather than opting out of the whole effort.

Perhaps as you read this, you are reflecting on your own emotional

skills. Each of us have distinctive styles for handling emotions, and varying levels of competence in the areas which make up emotional intelligence. At this time, there is not an accepted test for measuring our emotion IQ, but there are some things we can do.

In handling our own, and dealing with others' emotions, our goal should be awareness of those emotions and their appropriate expression. Balancing feelings, not repressing them, is the desired result. The first step is self awareness. This involves monitoring our emotional and physical state and understanding what is happening to us and how we are responding. For example, when we feel criticized or threatened by a remark, our emotional response (the desire to attack back, or retreat into silence) may be apparent through physical symptoms such as becoming hot and flushed. When this happens, we need to be aware of what is happening to us. Once we are aware that we are experiencing this, we can take steps to control and channel the strong emotions. This can be done by reframing the issue, or by challenging the appropriateness of the reaction we are having. The art of soothing oneself is an essential skill to master, and can be done with conscious practice.

Managing our own emotions is also a key skill in successful relationships, both personal and professional. The more we are in touch with our own emotions, the better we will be at understanding others and showing empathy. Shared emotional intelligence is the ability to calm oneself and

others. It involves listening, understanding, and speaking with clarity. Negative thoughts are caught and challenged so that they do not hold sway. In team work this is an especially critical skill, essential for the effective team leadership.

These skills involved in emotional competence are difficult to measure and have not been formally incorporated into the work setting. But as you can see, given the demands of today's workplace, they can affect our ability to achieve our personal goals. Goleman believes that emotional intelligence in the work world provides a competitive advantage. By the year 2000, one third of the workforce will be knowledge workers, and teams will be the primary work unit. Improving how people work together will boost the collective emotional intelligence and leverage intellectual capital. The ability for team members to "harmonize" and motivate themselves will be critical. Given this scenario, it is easy to see that individuals highly skilled in understanding and managing their emotions will be in demand no matter the work setting. By becoming adept at recognizing and handling emotions at work, you can give yourself a real competitive advantage and truly be an asset to your employer.

Barb Springer Beck is President of Beck Consulting, a firm that specializes in meeting facilitation, conflict resolution, and managing personal and organizational change. Prior to starting her own business, she was a District Ranger for the USDA Forest Service. She is a WiNR editor.

WILDFIRE WAS A YEARLY VISITOR TO THE LEAVENWORTH RANGER DISTRICT IN WASHINGTON STATE. DISTRICT RANGER BECKI HEATH TALKS ABOUT ONE PARTICULARLY BAD FIRE YEAR IN 1994 AND WHAT THE WENATCHEE NATIONAL FOREST IS DOING TO REDUCE THE DANGERS.

A DISTRICT RANGER'S TALE

MARTI AMES

A forest primed for fire

In the summer of 1994, a July 24 lightning storm ignited over 40 fires on the Wenatchee National Forest in north central Washington. Record-breaking summer temperatures, reaching into the 100-degree range, had already damaged forests impacted by several years of drought. A large volume of natural fuels, steep terrain, and winds gusting from 35 to 50 miles per hour contributed to the severity of the resulting wildfires.

The largest of these was the Tye Fire, which began on the Entiat Ranger District and eventually moved onto the neighboring Chelan and Lake Wenatchee Districts. This monster of a fire threw towering smoke columns in the air and chewed its way across 140,000 acres of forest land. It periodically closed off highway access between the towns of Wenatchee, Entiat, and Chelan and forced evacuations in several areas.

Almost simultaneously, a fire ignited in the Tumwater Canyon area of the Forest's Leavenworth District and began to spread. A hold-over lightning strike then started a fire on Round Mountain near Lake Wenatchee to the west of Leavenworth on July 27. Two days later, the human-caused Rat Creek Fire started in nearby Icicle Canyon. The community of Leavenworth found itself literally surrounded by fire.

When the fire advanced down Icicle Ridge, Leavenworth District Ranger Becki Heath, could feel the discomfort of employees and residents alike. Speculation as to when this newest fire would come out of the Icicle Valley closer to Leavenworth added a level of tension and intensity of activity that Heath had not yet experienced in large fire situations. This was one of the few fronts where the fire was moving fairly slowly, just backing down the ridge. But at the bottom of that ridge there were homes, and the homeowners were getting nervous.

"I didn't think the fire fighting organization saw that area as a high priority—with

everything else that was going on—so I authorized some of my people to bulldoze a fire line at the bottom of the ridge. It put me somewhat crosswise with the fire team, but it made the folks in my community feel a whole lot better." Heath says the event provided some lessons. "It's easy to get caught in second-guessing the fire team's actions. So, it's important for the resident District Ranger to get involved with them early and talk out the local concerns with the Incident Commander, or whoever you feel comfortable talking to on the team. A rapport needs to be developed. We need to be able to call and check on things, then attend to emerging local issues."

FIRE TOLL: THE HUMAN DIMENSION

Heath's District employees were impacted by the fires on both a personal and professional level—helping to fight the fires that burned the land they worked on and loved while their own homes were being threatened. Heath remembers seeing many employee vehicles in the Ranger Station compound filled with personal belongings—mute testimony to their uncertainty. "I was very concerned about the effects of this emergency on my employees. There was about a seven-day stretch early on that was filled with feelings of tension, uncertainty, and fear. I had to evacuate my own family."

Another dimension of stress emerged when the Rat Creek Fire burned over both Leavenworth District entry points to the Alpine Lakes Wilderness, trapping backcountry visitors and Forest Service wilderness rangers. "It was an incident within an incident," Heath recalls. She handled it by getting authorization to fly a rescue team of employees into the Wilderness by helicopter. They were able to herd everyone into the Enchantments area where they kept them overnight before leading the group out via Colchuck Lake to the Eightmile Road and back to civilization. "One couple we brought out of the Wilderness lost their Icicle Valley home

to the fire, and they got their first look at it on that ride down the valley." Situations like this added to the emotional toll for sympathetic Leavenworth District employees.

Heath put half her employees in uniform, armed them with maps and information about the fires, and sent them into Leavenworth neighborhoods to talk with residents. These regular information-sharing visits kept citizens informed about the activities around them and provided stress-releasing work for Heath's people. Several days later, with fire fighting still in full swing and no relief in sight, Heath learned of plans by the American Red Cross to hold a "Critical Incident Stress Debriefing" for the community. She was prepared for the worst.

Heath reflects, "The fires had been so hard on everyone in Leavenworth. I thought we'd get blasted." But at the beginning of the meeting, the local superintendent of schools started things off by thanking the Forest Service for everything they had done for the community, and the crowd applauded those words with a standing ovation. Then local residents asked if there was anything they could do for Forest Service employees.

"That moment gave me such a strong sense of community that I decided to take a chance with something I had some trepidation about—going on live television. I didn't want a nameless face talking about what was going on with the fires." So, Heath responded to a request for an interview from the Today Show, and represented the community as well as the Forest Service.

Although the healing process had begun for the community, Heath felt the time was not yet right to take formal steps in that direction for her staff. "We were not truly out of our emergency mode," she recalls. At the peak of activity, 8,000 fire fighters—which included National Guard troops and Marines—were involved in the suppression activities. Cost of fire fighting reached \$72 million. Thirty-seven homes

were lost. Although the fire fighting was winding down, Heath remained very aware of her employees' concerns. For instance, some of her staff were off-District working on fires burning in other areas when the Leavenworth District began to burn. "It was hard for those who hadn't been a part of the initial emergency at Leavenworth to come home and to work in the middle or toward the end of the crisis." At the appropriate time, debriefing sessions were provided for those who had worked in the intensity of initial attack on the fires as well as for those who supplied critical support to the overall effort. In the meantime, there were some tears and some informal tailgate sessions in the garage.

"We needed to discuss the reality that we are going to be doing a different kind of work for the next several years. It was important to talk about how we were going to move into the next phase of work." That next phase was immersion in the rehabilitation and restoration effort on the burned lands. Emergency work had to begin immediately to avoid further threat to life and property from flooding. Heath's staff also needed to implement a long term strategy to bring these lands back to life while moving them into a condition that would make them more resilient in the face of fire. The salvage of burned timber would only be one of the new jobs. Where maintenance and enhancement was the order of business "pre-fire," long-term health and sustainability were now the goals.

Rehabilitation—the next emergency

Even before the fires were out, a massive rehabilitation effort began that encompassed portions of Heath's Leavenworth District as well as significant areas of the Chelan, Entiat, and Lake Wenatchee Districts of the Wenatchee Forest. An organization representing many agencies and many disciplines was assembled with the goal of preventing erosion and flooding in the burned areas. "This new direction was similar to our fire fighting effort because the objective was also to protect life and property." It was also similar in that time was critical. The work needed to be done before winter snow curtailed on-the-ground activity, and erosion control structures needed to be in place before potential fall and winter flooding.

The Interagency Fire Rehabilitation Team included Chelan County, the USDA Forest Service, the Natural Resources Conservation Service, Washington State Department of Natural Resources,

Washington State Department of Fish and Wildlife, and the Bureau of Land Management. Across the four-District area, there were at least 70 watersheds affected by the wide-ranging wildfires. The Rehabilitation Team had to evaluate fire intensity and map the areas of high, moderate, and low intensity burns. The potential impacts of flooding and threats to life and property were also evaluated and mapped, using Geographic Information System computer technology.

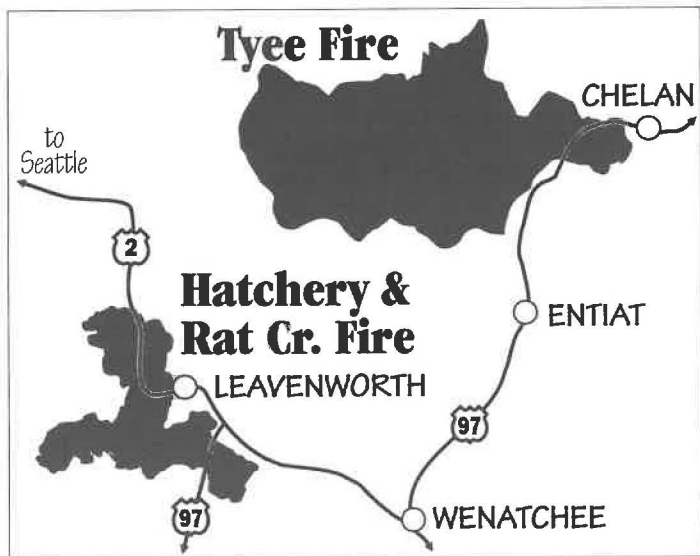
"Historically, the flooding that occurs after a large fire can be as great a threat to life and property as the wildfire. From a resource management standpoint, the loss of soil and soil productivity and impacts on water quality are critical elements to address in long-term recovery efforts." They began seeding and fertilizing to stabilize slopes and provide food and cover for wildlife. Helicopters broadcast six different types of seed mixtures over

111,069 burned acres on the four Ranger Districts. Application of high nitrogen fertilizer followed, on more than 90,000 acres, to assist the seeds in growing quickly. Erosion control measures—from log terracing on burned hillsides to installation of road culverts and straw bale and rock check dams—were undertaken.

School children built and installed hundreds of bird boxes and volunteer service organizations provided habitat for displaced birds. Over 100 wildlife feeding stations and water guzzlers were built and installed. Heath's employees plunged into these new tasks, both in the planning and implementation stages. They shared their talents across Ranger District and agency boundaries as members of the larger team effort. "After the intensity of the fire fighting effort, I'm still impressed by the ability of these folks who literally had to turn on a dime and head in another direction with a new sense of urgency."



The Bavarian theme village of Leavenworth and the Rat Creek Fire burning on Icicle Ridge to the west (1994).



The work of the Chelan County Interagency Rehabilitation Team is a proven success. Grasses stabilized soil across the burned landscape. The check dams, driveable dips, and culverts have been effective in preventing damage from flooding in the months following the fires. Nearly 1,200 people participated in the three-month rehabilitation project. It was completed in mid-November, 1994, at a cost of \$18 million, \$2 million under budget.

Recovery—the long view

Long term recovery of burned lands on the Wenatchee Forest was the next challenge to be faced—one that would take years, if not decades to complete. On the Leavenworth District, their successful interdisciplinary team approach to the complicated task of watershed assessments provided the framework to begin the task. "The team had been operating very successfully before the fires. We have a good mix of personalities who respect each other and are respected in their fields of expertise. I had great confidence in the ability of this team to work together and come up with answers." Heath's team had a common vision, as well. "The Forest's dry site strategy is central to our recovery mission on the Leavenworth District. It recognizes that the once resilient character of the dry forest has been altered by 90 years of fire exclusion and selective harvest practices. It provides us with a plan to turn that around. Many areas of the forest are now in a dense dry condition, with hundreds of small trees per acre where once there were dozens of large-size trees on each acre," Heath notes. A new set of management concerns has emerged as more and more families move into the intermingled private lands near the National Forest. A big chunk of these overcrowded dry forests near the urban interface burned in Chelan County in 1994.

"Wenatchee Forest Supervisor Sonny O'Neal had a very clear picture of what the Forest needed to do. He envisioned a strategy that would reduce the heavy accumulations of fuels on a landscape scale." To begin the job, however, the public needed to be included in the plans. Heath was already aware of community concern that decisions would be heavily influenced by national lobbies rather than by local citizens. "We knew that the fire recovery effort was potentially very controversial because of the salvage logging component. We needed a fresh approach to public involvement that would ensure we had done all that we could to involve our community."

A technique developed by Dr. Steven Daniels and Dr. Gregg Walker of Oregon State University called "collaborative learning" got a test run on the Leavenworth Ranger District. In a nutshell, collaborative learning is a public involvement method character-

ized by inclusiveness. It is open to all parties interested in an issue and is front-end loaded with information on the topic at issue. Participants typically experience a steep learning curve before being asked to share their concerns and ideas. They then work together in pairs, then small groups, and larger groups to seek improvements to proposed projects, rather than attempting to achieve consensus on resolving issues. In applying this process to the restoration of areas on the Leavenworth District, Daniels and Walker relied on support from a cadre of Ranger District professionals to conduct information meetings as well as a day-long workshop held in early 1995.

The goal was to gain an understanding of how the public wanted the burned lands restored and local forest lands managed in the wake of the catastrophic fires, using options such as salvage logging, with an eye toward long-term forest health and sustainability. The workshop held in Leavenworth was community-oriented and done cooperatively with support from the Chelan County Department of Emergency Services, the Natural Resources Conservation Service, the Leavenworth Chamber of Commerce, the City of Leavenworth, and the U.S. Fish and Wildlife Service.

Heath feels that the Forest Service gained tremendously from this process. "We spent quality time with the many faces of our public, and it gave us a running start in shaping alternatives for recovery that would be mutually acceptable to all of us," she says. From this public involvement, Heath found support for some salvage of burned trees and a desire to reduce the risk of future catastrophic fires. There was also sentiment expressed for recovery actions that would not require new roads. The public urged caution when thinning of green trees was necessary, and they wanted impacts on scenery, wildlife, recreation, and economics addressed.

Wenatchee National Forest "Dry Site Strategy"

The portion of Wenatchee Forest lying closest to the Columbia River and at the lowest elevation is called "dry forest." It comprises about a third of the Forest's 2.2 million acres.

Forest managers have realized for years that in some areas, decades of successful control of wildfires was having unintended consequences on forest health by interrupting the natural fire cycle and allowing dense stands of small Douglas-firs and grand firs to develop beneath the larger trees. The resultant increase in fuels has created an explosive fire condition that now threatens forests that once thrived on fire.

A combination of actions will be needed to restore sustainable forest conditions. First, fuels must be reduced by reducing the density of smaller trees in the dry forest. Much of this "thinning" of trees can be accomplished through commercial timber sales because many of these smaller trees now have value as wood products. In areas that lack commercial value, more costly fuel reduction treatments will be required, such as precommercial thinning of small trees and pruning of tree branches. After fuels are reduced, the use of prescribed fire will be considered to further allow the forest to be more in tune with ecological processes, and thereby more sustainable. Forest managers will monitor and learn from these efforts, and adapt as needed.

The public expects bold but reasonable steps to protect communities and forests from catastrophic fires, and the public is expected to continue to actively participate in this process. The understanding and advice of citizens will be essential to success.

Across the four-District area included in this initial recovery effort, collaborative learning helped managers shape a recovery process that included 22 timber sales to salvage 138 million board feet of burned timber. This resulted in landscape level fuel treatment on over 30,000 acres. By using helicopter logging in sensitive areas, avoiding road building, maintaining snags for wildlife, protecting riparian areas, and avoiding roadless areas, public concerns were met. No lawsuits have been filed on any of the sales.

Heath and the other District Rangers working through recovery projects also invited the public to join them in the field for "Make a Difference Day" projects related to post-fire forest recovery. A number of wildlife and vegetation projects were offered that allowed the public a closer relationship with the overall issue of recovery and how salvage logging might fit into the picture. To accomplish the on-the-ground results, the Forest's management strategy directed that the four District Rangers with the wildfires be responsible for planning and implementation of salvage sales. Heath and her neighboring Rangers worked in close coordination with all six Ranger Districts of the Wenatchee Forest to facilitate the movement of key personnel between units to staff their teams. Any expertise not available on Forest was recruited from other National Forests, and detailers from every Forest Service Region in the United States came to work on the Wenatchee's salvage projects, many of them at Leavenworth. "The use of detailers allowed us to get work done quickly, and provide a feeling of accomplishment that was a real boost to morale on the District."

In developing the environmental documents that ultimately provided the direction for recovery and salvage, Heath's interdisciplinary team also utilized a wealth of current scientific data in addition to their own expertise and public input. "Science-based decision making is very important internally in the Forest Service, and it's also important to our publics. We felt we had a strong ecological basis for conducting salvage of timber, and we felt the public would recognize that. Any timber volume produced by the salvage logging would only be an outcome of the primary goal, which is to remove the excess material that could fuel another fire."

Heath notes that the partnership with Forest Service research staff has been instrumental in providing sound scientific rationale in support of the Wenatchee Forest's dry site strategy relative to recovery. A science research team established by Supervisor O'Neal and headed by Dr. Richard Everett of the Wenatchee Forestry Sciences Lab sought to describe a landscape that was in synchrony with the inherent disturbance regimes. A dozen scientists labored to produce a preliminary report in June 1995. The report was of great value to the various inter-disciplinary teams on the Wenatchee Forest who were evaluating alternatives in the eight environmental assessments and one environmental impact statement developed for the salvage sales barely a year after the fire emergency itself.

Three other unique studies were initiated in an effort to make the best decisions relative to recovery and salvage. They included a Deterioration Study, to determine how rapidly wood fiber breaks down and the impact on economic value; a Fire Scar History Study, to determine intervals of fire in the burn areas; and an evaluation of Historic Burns ranging back 80 years. "We have learned a tremendous amount about the history of these forests and how nature and human intervention have changed them," Heath says.

Because of the extensive science team interaction, which has provided critical knowledge about what a sustainable ecosystem is, the Wenatchee Forest has been afforded the opportunity to do much more than salvage fire-killed timber. "We recognized a

Staff meeting: from left, Matt Karr, hydrologist; Becki Heath, district ranger; Bill Hartl, pre-sale forester; Lisa Therrell, wilderness manager; Bob Stoehr, interdisciplinary team leader.



long-term forest health issue, and salvage provided an opportunity to take out some of the extra trees to alleviate stress on larger healthy trees as well as enhance wildlife habitat and support the perpetuation of older forest conditions," Heath notes.

Like the catastrophic fires themselves, the recovery efforts also gained national attention. Last May, Forest Service Chief Jack Ward Thomas visited the Wenatchee Forest to take a look for himself. Chief Thomas wanted to find out about the Forest's winning formula for handling recovery of the lands burned in 1994, but he learned other things, too, when his visit took him into Heath's country. "We had a lot we wanted to share with the Chief. He came to us wondering about our salvage sale successes. We gave him those answers, but I know he took away something more. The Chief came away impressed by the high morale of Wenatchee Forest employees, and their dedication to the concept of improving forest health," Heath says.

Becki Heath Talks About Becoming a District Ranger

Since 1990, Becki Heath's first year as District Ranger, the Leavenworth District has had significant fire activity. Few situations test a District Ranger's mettle more, and on so many levels, than wildfire. Heath's journey to the District Ranger job at Leavenworth involves preparation.

Becki Heath grew up in the Pacific Northwest community of McMinnville, Oregon, where an experimental "outdoor school" program she attended in sixth grade provided the defining moment in Heath's journey into the world of natural resource management. The four-day environmental education camp was held at Camp Trestle Glenn, outside Oregon City, Oregon. It was a joint venture supported by Oregon State University and the Forest Service, and utilized college students as counselors. Ernie MacDonald, who designed and ran the program along with Margaret Millican of OSU, provided Heath with the imprinting of environmental education values she would carry throughout her career. Digging soil pits and testing the Ph of water samples also took their toll on Heath, and by high school she was a camp counselor and "outdoor ed camp" had become household words.

After high school, Heath went East to attend Kalamazoo College in Michigan. In her sophomore year, she entered an intern program that allowed her to work in an outdoor education camp in New Hampshire. "It was continuous, week after week of working with sixth graders from all over New England for \$33 a week and room and board," Heath remembers. "I loved it."

For her Junior year, Heath transferred to Oregon State University and took up studies in their Environmental Education/

Close partnerships in the community have helped the public to mobilize against forest fires. District Ranger Heath talks with Leavenworth City Manager Mike Ceka.



Interpretation program. In 1974, she signed on for a summer job as “crew leader” at Camp Cody, a residential Youth Conservation Corps (YCC) camp located on the Mt. Hood National Forest in Oregon. Camp Cody is still in operation and is the longest-running residential YCC Camp in the country. Dave Gross, the YCC program coordinator and Forest Service employee made a big impact on Heath. “I learned the basics of how to use tools, how to work in the woods, and how to work with a crew. He was my first Forest Service role model and he was what I wanted to be,” Heath remembers.

With this in mind, Heath loaded up on forestry courses her senior year. Upon graduation from OSU, she had earned a bachelor of science degree in Recreation/Environmental Education but she still didn’t have enough forestry credits to get hired by the Forest Service in a permanent position. So, she went to work for Roger Clark at a Forest Service Research Station doing recreation research on the Mt. Hood National Forest. Much of that experience involved administering questionnaires to visitors to the National Forest. “Roger really helped me get an understanding of the Forest Service culture, especially the big picture and national perspective. I also gained some confidence in my presentational abilities because part of the job was to take presentations on the road on behalf of the projects being conducted by the research station.”

With the Forest Service still in her sights, Heath went to graduate school at the University of Washington in Seattle and earned a master’s degree in Forest Management.

Her first job with the Forest Service was on the Clackamas Ranger District of the Mt. Hood National Forest in the “junior ranger” program. “For the next two years, I rotated through many different fields of work. The amount of experience I gained was tremendous. It was more than just becoming familiar with the variety of work done by the agency. I got to know all the other people on the District and learned how they got the work done. I really believe that it’s important for young professionals to nurture relationships with people throughout an organization. You need to get to know people at different levels. Don’t wait for them to come to you. You find mentorship in little bits and pieces of many people,” Heath advises.

In 1980, Heath married Monty Heath and became part of a two-career Forest Service family. Their first transfer together was to the Ochoco National Forest in Oregon. Heath’s assignment involved all aspects of timber management, including silviculture—the art and science of growing trees. They later transferred to the remote Dale Ranger District on the Umatilla National Forest, also in Oregon.

Jan Wold, the Ranger at Dale, was one of the first women to become a District Ranger in the Pacific Northwest Region of the Forest Service and was the first woman that Heath had worked for. “Jan was really a pioneer for women in the District Ranger position. Based on what she was going through on the District, it was a tough

role. I was bothered by the idea of the ‘first woman’ tag and thought the job could be much more interesting once there were more women in the picture,” Heath recalls.

In 1986, Heath had what she calls a “watershed experience.” It began with a regional conference entitled “Women in the Forest Service.” She worked with a group of women from the Umatilla and Wallowa-Whitman National Forests to design a workshop for their two forests after the conference. The women were from all levels of the organization, and it was the first time Heath had worked on a team comprised solely of women. “I was really awed by the power we had together and what we were able to get done. We had respect for each other’s abilities and we worked very well together. It was a revealing experience to learn to have that much trust and faith in other women. I still keep in touch with several of them.”

During the three-and-a-half years on the Dale District, Heath also earned certification of her increased knowledge in timber management through training in the Silviculture Institute. It was taught jointly by the University of Washington and Oregon State University through six, two-week modules. Having accomplished this step, the Heaths began looking for new opportunities.

That search brought them to the Wenatchee National Forest in Washington in 1987. Heath moved into the silviculturist position on the Cle Elum Ranger District, while Monty took a recreation job in the Forest headquarters in Wenatchee. They chose to live in Leavenworth, half-way between the two duty stations. “I really like the idea of remote ranger stations and the historical reference to the ‘Ranger on the lookout.’” The culture of the Forest Service is one thing that is very important to Heath.

During her Cle Elum tour, she and Monty had a son, Evan. “The idea of balancing a career and family seemed overwhelming even before Evan was born. We have been able to find some balance, even though Forest Supervisors had told us long ago that we would have to choose whose career we were going to chase.” Heath thinks they have kept their balance by maintaining realistic expectations. “We knew any move we made wasn’t likely to mean a promotion for both of us. We’ve been willing to compromise, and move laterally in our career when the overall benefit was there.”

When Heath arrived on the Leavenworth Ranger District in August of 1990 to transition into her first assignment as a District Ranger, the mountain air was alive with the electricity of a summer lightning storm. Since it was a Friday, the departing Ranger said, “If there’s any fire activity, why don’t you just go ahead and take it.” By Saturday, Heath was overseeing a massive fire suppression effort in a remote and rugged area of the Alpine Lakes Wilderness under her jurisdiction. Six tense days and 600 acres later, the Blackjack Fire was contained and Heath had gotten her official “trial by fire” welcome. She’s been “re-welcomed” nearly every year since.

Having spent nearly nine years on the Wenatchee Forest, Heath is considering what the future beyond a District Ranger job might be. “I’m not really interested in moving right now, although when Monty is eligible to retire in a couple of years, I might look at a transfer. I’d be interested in a Deputy Forest Supervisor job, but those kinds of openings are pretty scarce.”



Marti Ames is a Public Affairs Specialist for the USDA-Forest Service and has worked for 22 years at the Wenatchee National Forest headquarters in Washington State. For 20 years she has been the “voice of the Wenatchee” on radio station KPQ, sharing information about recreation opportunities and current forest events.

Fire photo courtesy Leavenworth Echo newspaper. Other photos by Paul Hart, USDA Forest Service.

The Huge Returns of Microenterprise

My desire to build a foundation to promote the growth of microenterprise lending began with a vague feeling that I wanted to be of service. Unlike others who may know the ultimate pathway for their skills, I didn't know I had something to offer until the opportunity suddenly took shape when my wife, Paula, and I were invited to El Salvador in 1992. There I first encountered micro-enterprise lending, or, more colorfully, "village banking." Unlike the bank down the street, these banks are collectives of 25 to 30 poor women who meet in their homes and use small loans as capital to fuel their fledgling businesses....

I was stunned that something so simple as a small loan (under \$100) could make a dramatic impact on the quality of life of someone living at the poverty level. I was equally stunned that, as informal as the system was, the repayment rate of these small loans was extraordinarily high (over 97 percent), and the borrowers were able to save money as well....

We began Global Partnerships in 1994 with the help of many wonderful people, and launched a model microenterprise program in Guatemala. Today we have 4,000 borrowers and growing. That's 4,000 families, or 20,000 people that we are reaching....

There are many well-understood reasons why we should get involved with the issues that face the developing world. More than 40 percent of U.S. exports go to Third World countries. By the year 2000, over half of the airborne pollutants in the U.S. will come from overseas. And as we have all become aware, rapidly spreading diseases know no borders. We should ask ourselves why so many people seek to immigrate to our country at such personal cost. Wouldn't it be in our collective interest to help the poor in other nations to achieve economic opportunities and freedom at home?

Most of our business leaders don't know enough about the challenges faced by those working in the Third World human development sector, and the non-profit organizations don't have access to us. We need to bridge that gap and share ideas with one another. There is a real need for the experience and practical problem-solving skills that we take so much for granted.

Bill Clapp, *Puget Sound Business Journal*, June 7-13, 1996

The Tipping Point and Liberalism's Crisis

Once the symbol of urban violence, New York City is in the midst of a strange and unprecedented transformation. According to the preliminary crime statistics released by the F.B.I. earlier this month, New York has a city wide violent crime rate that now ranks it 136th among major American cities, on a par with Boise, Idaho. Car thefts have fallen to 71,000, down from 150,000 as recently as six years ago. Burglaries have fallen from more than 200,000 in the early 1980s to just under 75,000 in 1995. Homicides are now at the level of the early 70s... Over the past two and a half years, every precinct in the city has recorded double-digit decreases in violent crime. Nowhere, however, have the decreases been sharper than Brooklyn North, in neighborhoods that not long ago were all but written off to drugs and violence....

But what accounts for the drop in crime rates?... Inspector Edward A. Mezzadri, who commands the 75th Precinct, has a team of officers who go around and break up the groups of young men who congregate on street corners, drinking, getting high, and playing dice—and so remove what was once a frequent source of violent confrontations. He says that he has stepped up random "safety checks" on the streets, looking for drunk drivers or stolen cars. And he says that streamlined internal procedures mean that he can now move against drug-selling sites in a matter of days, where it used to take weeks....

All these changes make good sense. But how does breaking up dice games and streamlining bureaucracy cut murder rates by two-thirds. Many criminologists have taken a broader view, arguing that changes in crime reflect fundamental demographic and social trends—for example, the decline and stabilization of the crack trade, the aging of the population, and longer prison sentences, which have kept hard-core offenders off the streets. Yet these trends are neither particularly new nor unique to New York City; they don't account for why the crime rate has dropped so suddenly here and now. Furthermore, whatever good they have done is surely offset, at least in part, by the economic devastation visited on places like Brownsville and East New York in recent years by successive rounds of federal, state, and city social-spending cuts.... What if homicide, which we often casually refer to as an epidemic, actually is an epidemic, and moves through populations the way the flu bug does?... Every epidemic has its tipping point and to fight an epidemic you need to understand what that point is. Take AIDS, for example. Since the late 80s, the number of people in the U.S. who die of AIDS every year has been steady at 40,000, which is exactly

the same number of people who are estimated to become infected. In other words, it is self-perpetuating.... If the number of new infections increases just a bit—if the average H.I.V. carrier passes on the virus to slightly more than one person—then the epidemic can tip upward... On the other hand, even a small decrease in new infections can cause the epidemic to nosedive.... Donald Des Jarlais, an epidemiologist at Beth Israel Hospital, in Manhattan, estimates that halving new infections to 20,000 a year would be ideal. Even cutting it to 30,000 would probably be enough. The point is that it's not some completely unattainable number. "I think people think that to beat AIDS everybody has to either be sexually abstinent or use a clean needle or a condom all the time. But you don't really need to completely eliminate risk. If over time you can just cut the number....

Epidemics aren't linear. Improvement does not correspond directly to effort. All that matters is the tipping point... When it comes to fighting epidemics, small changes can have huge effects. And large changes can have small effects. It all depends on when and how the changes are made.

The reason this seems surprising is that human beings prefer to think in linear terms. Many expectant mothers, for example, stop drinking entirely, because they've heard that heavy alcohol use carries a high risk of damaging the fetus. They make the perfectly understandable linear assumption that if high doses of alcohol carry a high risk, then low doses must carry a low—but still unacceptable—risk. The problem is that fetal-alcohol syndrome isn't linear. According to one study, none of the 16 problems associated with fetal-alcohol syndrome show up until a pregnant woman starts regularly consuming more than three drinks a day....

In recent years, social scientists have started to apply the theory of epidemics to human behavior. The foundational work in

Visit Women in Natural Resources on the web at <http://www.ets.uidaho.edu/winr/>

this field was done in the early 70s by the economist Thomas Schelling, then at Harvard University, who argued that "white flight" was a tipping-point phenomenon. Since that time, sociologists have actually gone to specific neighborhoods and figured out what the local tipping point is. A racist white neighborhood, for example, might empty out when blacks reach five percent of the population. A liberal white neighborhood, on the other hand, might not tip until blacks make up 40 or 50 percent. George Galster of the Urban Institute, in Washington, argues that the same patterns hold for attempts by governments or developers to turn a bad neighborhood around. "You get nothing until you reach the threshold," he says, "then you get boom."

Some of the most fascinating work, however, comes from Jonathan Crane, a sociologist at the University of Illinois. In a 1991 study in the *American Journal of Sociology*, Crane looked at the effect the number of role models in a community—the professionals, managers, teachers whom the Census Bureau has defined as "high status"—has on the lives of teenagers in the same neighborhood. His answer was surprising. He found little difference in teen-pregnancy rates or school-dropout rates in neighborhoods with between 40 and five percent of high-status workers. But when the number of professionals dropped below five per cent, the problems exploded. For black school kids, for example, as the percentage of high-status workers falls just 2.2 percentage points, from 5.6 percent to 3.4 percent—dropout rates more than double. At the same tipping point, the rates of child-bearing for teen-age girls—which barely move at all up to that point—nearly double as well... Crane's study essentially means that at the five-percent tipping point neighborhoods go from relatively functional to wildly dysfunctional virtually overnight. There is no steady decline: a little change has a huge effect....

It is possible to read in these case studies a lesson about the fate of modern liberalism. Liberals have been powerless in recent years to counter the argument that their policy prescriptions don't work. A program that spends, say, an extra thousand dollars to educate inner-city kids gets cut by Congress because it doesn't raise reading scores. But if reading problems are nonlinear the failure of the program doesn't mean—as conservatives might argue—that spending extra money on inner-city kids is wasted. It may mean that we need to spend even more money on these kids so that we can hit their tipping point. Hence liberalism's crisis....

In the late 80s and early 90s, the New York City Transit Authority was intent on removing graffiti from every subway car and cracking down on the people who leaped over subway turnstiles without paying. Why? Because those two "trivial" problems were thought to be tipping points that invited far more serious crimes. It is worth noting that this strategy seemed to work—since 1990 felonies have fallen more than 50 percent.... It is the nature of nonlinear phenomena that sometimes the most modest of changes can bring about enormous effects.

Malcolm Gladwell, *The New Yorker*, June 3, 1996

Nobel Prize Winner Was a Volunteer Because Universities Would Not Give Her a Job

Maria Goeppert Mayer, the first American woman to win the Nobel Prize in physics, worked for 30 years in her field for little or no pay. Strict nepotism rules forbade the German immigrant from being hired as a professor as she followed her husband, Joseph, to university posts in Baltimore, New York, and Chicago between 1930 and 1960. "They would not give a post to a man and his wife—these were laws left over from the Depression" her daughter Maria Mayer Wentzel noted. "Of course, she wanted to continue her research and teaching, so she did a lot of voluntary work at the universities. By the time she was appointed a full-time physicist at the University of California at San Diego in 1960, Mayer had developed the shell

model of an atom's nucleus, a breakthrough that earned her the Nobel Prize in 1963.

For that accomplishment, and for her silent battles against the injustices of the male-dominated field of science, Mayer was inducted with 10 other women into the National Women's Hall of Fame. The ceremonies take place annually in Seneca Falls, New York, where the first women's rights convention was held in 1848. The Hall of Fame honors women who have made valuable contributions to society and to the progress and freedom of women.

Ben Dobbin, *Associated Press*, October 6, 1996

Alabama Herp Atlas

In recent years, scientists around the world have reported alarming declines in populations of frogs and salamanders, and some species are now believed extinct. Loss of habitat is obviously the main cause, but it doesn't explain the mysterious declines that have occurred in large preserves and undisturbed areas. Acid rain, increased UV radiation (from thinning ozone), and viruses have been suggested as "invisible" causes. So how are the amphibians doing in Alabama? It's hard to say, because most of our 71 frogs and salamanders are shy and secretive, and have not been the subject of long-term monitoring programs. It's easier to see declines in some of Alabama's 83 reptiles, especially the more conspicuous snakes and turtles... Not all species are declining (the water snakes seem to be doing fine), but hognose snakes are....

Now the good news: a network of volunteer amateur herpetologists is being established across the state to gain a better understanding of what's happening. This is the baseline data against which we can make future comparisons, and it is the primary purpose of the Alabama Herpetological (Herp) Atlas, a statewide survey coordinated by the Alabama Natural Heritage Program. Partial funding comes from the U.S. Fish and Wildlife Service and Legacy, Inc... We need to know where we stand today so we can recognize trends and take the appropriate conservation measures down the road.

In Alabama, there are 40 snakes, six of which are venomous; twelve lizards, including three legless forms. There are 30 turtles, more than any other state has, and one crocodylian, the American alligator. We know of 29 native frogs and toads, more than Florida has. And Alabama's 42 salamanders constitute 12 percent of the world's total.

Mark Bailey, *Outdoor Alabama*, Summer 1996

Upfront, Realistic, and Ambitious About Contraception

More than half of the 1.3 million pregnancies that end in abortion each year in the United States may be the result of contraceptive failure, according to a report released in May by the National Institute of Medicine. *Contraceptive Research and Development: Looking to the Future*, calls for more and better research in contraceptive technology, as well as efforts to reduce the unmet needs for contraceptives among millions of women worldwide. The report, which included researchers from Columbia University and the Boston Women's Health Collective, endorsed continued research on male contraceptives that can halt sperm production without hormonal side effects and on methods for women that prevent ovulation without otherwise disturbing their menstrual cycles.

In response to a slight increase in abortions to 15.7 per 1,000 women, New Zealand's Health Ministry will offer oral contraceptives to all women free of charge. In comparison, the U.S. rate is 26 abortions per 1,000 women. The New Zealand government is also offering to pay for doctor's visits for low-income women who need a prescription and is considering a proposal to allow the over-the-counter sale of emergency contraceptives. The three-year cam-

paign to boost contraceptive use will cost \$14 million, an amount that the Health Ministry views as worthwhile because "a modern society like ours should be up-front, realistic, and ambitious about having a positive attitude towards our sexual reproductive health and set ourselves specific goals."

Zero Population Growth Reporter, September/October 1996

Wilderness Management Training by Correspondence

A correspondence study program in wilderness management was created in 1989 in a collaborative effort by the four U.S. federal wilderness management agencies (Forest Service, Park Service, Bureau of Land Management, and the Fish and Wildlife Service). Six individual courses were developed. These courses were designed to meet a broad range of knowledge needs in the fields of natural resources and wilderness planning and management.... The National Wilderness Preservation System (NWPS) has grown dramatically. When The Wilderness Act was passed in 1964, it designated nine million acres in the NWPS. By 1995, 31 years later, the NWPS had grown to over 100 million acres, four percent of the U.S. land mass. The additional acres, accompanied by increasingly complex management requirements and diverse wilderness uses brought unanticipated new challenges to wilderness management. Education of wilderness managers lagged behind... Distance education was one way of helping close this gap.

Between 1989 and 1991, David Porter, USDI BLM wilderness specialist developed six wilderness management courses in partnership with Colorado State University's Department of Natural Resource Recreation and Tourism... By 1993, the administration of WMCEP was transferred from BLM to the Forest Service. The program continued at CSU, but the program direction was given to the interagency Arthur Carhart National Wilderness Training Center in Missoula, Montana... From 1993 to 1995, course enrollment grew from 600 to 900 students, and the program attracted interest and enrollment in the courses by non-agency students, including conservational organization members; staff from Outward Bound, the National Outdoor Leadership School, and the Wilderness Society; teachers from the National Geographic Alliance; and wildland managers and students from South America, Africa, and Canada....

Today, the University of Montana's Center of Continuing Education administers the day-to-day operations... The program may [soon] use the latest in electronic technology such as the internet and World Wide Web and explore new ways to deliver the courses

to broader and more diverse national and international audiences. Other technologies, such as satellite down-links and video conferencing will also be explored.

David Porter and Ralph Swain, *International Journal of Wilderness*, August 1996

Sculptors are Mostly Male, But Not All Are...

Works by African American sculptor Nancy Elizabeth Prophet, as well as by nine other artists—ranging from Mary Edmonia Lewis, who began sculpturing in the 1850s, to Selma Burke, who died last year and whose bust of President Franklin Roosevelt provided the image imprinted on the dime—are now on display at Philadelphia's Afro-American Historical and Cultural Museum. It took nearly five years to secure funding for this landmark exhibition, *Three Generations of African American Women Sculptors: A Study in Paradox...*

The 10 artists comprise a time line that links two centuries. The 60 works displayed—in bronze, marble, plaster, metal, stone, or wood—are proudly, securely, albeit invisibly, connected by a spirit of courage and artistic passion.... "If you take the specific community of African American artists over the last 200 to 300 years, the number of women who have been involved in sculpture is astonishing, given the great social disadvantage, greater economic challenges, and probably greater social oppression and repression," says Lowery Stokes Sims, a curator at New York City's Metropolitan Museum of Art.... Despite the strictures of race and gender placed upon them, all of the artists in this show achieved a measure of success....

The majority of women included in this exhibition managed to attend prestigious art institutions in the U.S. and Europe. Few were women of economic means, although most married and had children with men who held respected positions in their communities. Some worked as teachers, nurses, writers, laundry women, and housekeepers.

Sharon Fitzgerald, *Ms Magazine*, September/October 1996

Scotland's Millennium Forest

The Millennium Forest is coming to Scotland thanks to some 500 local projects designed to restore land now barren of trees. The ambitious undertaking will attempt to

**Searching for a new position?
Got a book or journal to sell?
Want to give everyone notice
about your conference?
Advertise with
Women in Natural Resources.
Call 208-885-6754 for
information.**

double the country's forested area by the year 2000. It is estimated that only four percent of Scotland's original forest remains. Oak, ash, and pines are the key species being used in the effort. According to its organizers, The Millennium Forest will involve scores of local people and will include projects related not only to tree planting but also landscaping, recreation, employment, art, education, wildlife habitat, and woodland product development.

Arbor Day, September/October 1996

A Mommy/Grandpa/Stud Car

On the radio the other day, a pregnant woman was talking about buying what she called "a mommy car," and the guy she was talking to immediately jumped to the conclusion that she was talking about a mini-van. "A Ford Windstar?" he asked? That's what I drive and that is *not* a mommy car. I like to think of it as a stud car. There's a truck inside that soft round shell. It's a rig, a rig driven by a real man who uses it to haul his hardware, his lumber, and his testosterone. That is not a mommy car.

We are no different from any other suburban cowboys. We need an actual pickup truck about six times a year. But a pickup was tempting anyway [because] nobody doubts a guy with a gun rack. In fact, that's the real reason they buy pickups. It's something to hang a gun rack in. A pickup by itself doesn't necessarily speak of manhood the way a gun rack does. A gun rack holds guns. Guns are used to kill little fuzzy things. You know that anybody who kills fuzzy things is a man... at the very least, nobody is going to tell a guy with a gun rack that he isn't a real man. I could put one in the back of my mini-van, but I would have to crawl over three rows of seats to get at it every time I encountered something fuzzy that needed killing...

You will sometimes see me trucking along in the mini-van with little heads bobbing behind me, doing the grandpa bit. But you will also see me on occasion hauling lumber and sprinkler pipe and huge power tools that let you know there's a lot more than a grandpa behind the wheel.

But you have to excuse the jerk on the radio the other day. An ethereal name like "Windstar" does sound like a mommy car. It sounds like some word out of a children's story book about some kid who is dusted with magic sprinkles and rides the wind behind a star to wondrous worlds way over there past the moon on the far edge of imagination. More accurately they should call it the Ford Stud, the Macho, the Brute, the Attitude. Or perhaps more accurately, the Grandpa. You better step aside when you see me coming, stranger, because I drive a Ford Grandpa.

Bill Hall, Lewiston *Tribune*, September 1, 1996

Daina Dravnieks Apple, Forest Service Changes

continued from page 10

- Frankel, C. 1969. "Social Values and Professional Values." *Journal of Education for Social Work*, 5(3).
- Frome, M. 1984. *The Forest Service*. Westview Press, Boulder.
- Garcia, M. W. 1989. "Forest Service Experience with Interdisciplinary Teams Developing Integrated Resource Management Plans." *Environmental Management*, 13(6).
- Hays, S. 1959. *Conservation and the Gospel of Efficiency*. Harvard University Press, Cambridge.
- Jones, E.S., and W. Callaway. 1995. "Neutral Bystander, Intrusive Micromanager, or Useful Catalyst?: The Role of Congress in Effecting Change Within the Forest Service." *Policy Studies Journal*, 23(4).
- Kaufman, H. 1960. *The Forest Ranger: A Study in Administrative Behavior*. Johns Hopkins University Press, Baltimore.
- Kennedy, J.J. 1985a. "Conceiving Forest Management as Providing for Current and Future Social Values." *Forest Ecology and Management*, 13(4).
- Kennedy, J.J. 1985b. "Viewing Wildlife Managers as a Unique Professional Culture." *Wildlife Society Bulletin*, 13(4).
- Kennedy, J.J. 1986. "Early Career Development of Forest Service Fisheries Managers." *Fisheries*, 11(4).
- Kennedy, J. J. 1988. "Legislative Confrontation of Groupthink in US Natural Resource Agencies." *Environmental Conservation*, 15(2).
- Kennedy, J.J., and J.A. Mincolla. 1982. "Career Evolution of young 400-series U.S. Forest Service Professionals." Unpublished manuscript. College of Natural Resources, Utah State University, Logan UT.
- Kennedy, J.J., and J.A. Mincolla. 1985. "Career Development and Training Needs of Entry-level Wildlife/fisheries Managers in the USDA Forest Service." Unpublished manuscript. College of Natural Resources. Utah State University, Logan UT.
- Kennedy, J.J., R.S. Krannich, T.M. Quigley, and L.A. Cramer. 1992. *How Employees View the USDA Forest Service Value and Reward System*. Utah State University, Department of Forest Resources.

McCarthy, C., P. Sabatier, and J. Loomis. 1991. "Attitudinal Changes in the Forest Service: 1960-1990." Paper presented at the 1991 Annual Meeting of the Western Political Science Association. Seattle WA.

Miller, M.C. and R.P. Gale. 1986. "Professional Styles of Federal Forest and Marine Fisheries Resource Managers." *Journal of Fisheries Management*, 6(2).

Mohai, P. 1987. "Rational Decision-making in the Planning Process: Some Empirical Evidence from RARE II." *Environmental Law*, 17(3).

Mohai, P., and P. Jakes. 1996. "The Forest Service in the 1990's; is it Headed in the Right Direction?" *Journal of Forestry*, 94(1).

Pinchot, G. 1891. "Government Forestry Abroad." *American Economics Association*, 6(3), cited in B.W. Twight and F.J. Lyden. 1988. "Multiple Use vs. Organizational Commitment." *Forest Science*, 34(2).

Pinchot, G. 1910. *The Fight for Conservation*. Doubleday, Page, and Co. Garden City, cited in B.W. Twight and F.J. Lyden. 1988. "Multiple Use vs. Organizational Commitment." *Forest Science*, 34(2).

Pinchot, G. 1947. *Breaking New Ground*. Harcourt Brace, and Co., New York.

The Principal Laws Relating to Forest Service Activities. 1993 ed. Washington, D.C.: U.S. Government Printing Office.

Reich, C. 1962. *Bureaucracy and the Forests*. Center for Study of Democratic Institutions, Santa Barbara.

Reichers, A.E. 1985. "A Review and Reconceptualization of Organizational Commitment." *Academy of Management Review*, 10(3).

Reichers, A.E. 1986. "Conflict and Organizational Commitments." *Journal of Applied Psychology*, 71(3).

Sabatier, P.A., J.Loomis, and C. McCarthy. 1995. "Hierarchical Controls, Professional Norms, Local Constituencies, and Budget Maximization: An Analysis of U.S. Forest Service Planning Decisions." *American Journal of Political Science*, 39(1).

Schein, E. H. 1988. *Organizational Culture and Leadership*. Jossey-Bass, San Francisco.

Seitznick, P. 1957. *Leadership in Administration: A Sociological Interpretation*. University of California Press, Berkeley.

Steen, H.K. 1976. *The U.S. Forest Service - A History*. University of Washington Press, Seattle.

Thomas, J. C., and P. Mohai. 1995. "Racial, Gender, and Professional Diversification in the Forest Service from 1983 to 1992." *Policy Studies Journal*, 23(2).

Tipple, T. J., and J. D. Wellman. 1991. "Herbert Kaufman's Forest Ranger Thirty Years Later: From Simplicity and Homogeneity to Complexity and Diversity." *Public Administration Review*, 51(5).

Twight, B. W. 1983. *Organizational Values and Political Power*. The Pennsylvania State University Press, University Park, PA.

Twight, B. W., and F. J. Lyden. 1988. "Multiple Use vs. Organizational Commitment." *Forest Science*, 34(2).

Twight, B. W., and F. J. Lyden. 1989. "Measuring Forest Service Bias." *Journal of Forestry*, 87(5).

USDA Forest Service. 1985. *Working Together for Multiple-use - Integrated Resource Management*. USDA Forest Service, Eastern Region, Milwaukee.

Wilkinson, C.F. 1987. "The End of Multiple Use." *High Country News* (March 30):15-16.

Wilson, J. Q. 1989. *Bureaucracy: What Government Agencies Do and Why They Do It*. Basic Books, NY.

Zucker, L.G. 1977. "The Role of Institutionalization in Cultural Persistence." *American Sociological Review*, 42.

Daina Dravnieks Apple, a natural resource economist, is a strategic planner with the Forest Service, Resources Program and Assessment Staff, Washington D.C. She has served as Assistant Regulatory Officer in the Washington Office, and as Regional Appeals Coordinator, and on the Engineering Staff in Region 5, San Francisco. She began her Forest Service career as an Economist at Pacific Southwest Research Station, Berkeley. Her B.Sc. in Political Economy of Natural Resources, and her M.A. in Geography are both from the University of California, Berkeley. She is currently in the Environmental Science and Public Policy Ph.D. program at George Mason University in Virginia. She has been active in the Society of American Foresters National Capital Chapter, and has served as Chair of several committees. She is a member of Sigma Xi Scientific Research Society.

Women in Natural Resources

A quarterly journal devoted to those professionals who work in the many fields of natural resources

We offer • articles • news & notes • advertising

For those who are

- looking for a broad range of articles under one cover
- looking for a good place to publish a manuscript
- seeking information about workplace diversity
- advertising positions or looking for a job

*...and sometimes we like to play around,
with cartoons and humor*

To subscribe

- send \$23 for a personal subscription,
 - or \$17 for a student subscription,
 - or \$39 for a business, university, or government agency subscription

**To: Women in Natural Resources,
P.O. Box 3577, Moscow ID 83843**

Call 208-885-6754 or e-mail dixie@uidaho.edu

The Southern Forestry GIS Conference will be held in Athens, Georgia on December 11-13, 1996. The conference will focus on forestry applications of GIS. For information on conference registration contact Kristi Hefner at 706-542-6645.

The Yellowstone Grizzly Foundation is a non-profit organization dedicated to the conservation of the grizzly bear in the Yellowstone Ecosystem. They do independent research and produce publications, educational materials, and public programs. Write to 104 Hillside Court, Boulder, Colorado 80302 (303-939-8126).

Forest Products for Sustainable Forestry will be held at Washington State University-Pullman July 7-12, 1997. The focus will be on recycling, economics, markets, building construction, composite wood, energy, and chemicals. For information, contact International Union of Forestry Research Organizations /WSU Conferences and Institutes, PO Box 645222, Pullman WA 00164-5222.

Cornell is hosting the 5th Agroforestry Conference August 3-6, 1997 and has issued a call for papers (due December 1) for the theme: Exploring the Opportunities for Agroforestry in Changing Rural Landscapes. Contact them at 118 Fernow Hall, Ithaca NY 14853-3001 (607-255-2810; fax 607-255-0349).

The World Organization for Women in Science is an independent, non-profit, non-governmental organization which aims to promote the role of women in the development of science and technology in Third World countries. For information about membership and costs, write them at PO Box 586, Strada Costiera 11, 34100 Trieste ITALY.

American Fisheries Society's annual meeting will be held August 1997 in Monterey California. They are calling for papers and posters due in December 1996 and January 1997. The theme is "interfaces" highlighting the interconnectiveness of disciplines, environments, cultures, and nations. Call Jennifer Nielsen 408-655-6233 or jnielsen@leland.stanford.edu. for details.

The George Wright Society announces the 9th Conference on Research & Resource Management in Parks and on Public Lands, 17-21 March 1997, to be held in Albuquerque, New Mexico. The theme is Making Protection Work. Contact them for information at PO Box 65, Hancock MI 49930-0065 or <http://www.portup.com/~gws/gws97.html>.

Women in the Outdoors: Review of Research Studies by Nina S. Roberts is available for \$15 (incl. postage) from 9703 47th Place, College Park MD 20740-1470.

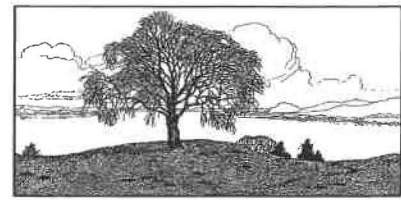
BLM sponsors an 8-week experience (includes one week in camp) in Oregon called Resource Apprenticeship Program for Students (RAPS) designed to provide high potential/low opportunity youth with mentoring and information about college and other opportunities. Contact coordinator Shannah Anderson at 503-952-6343 for information about summer of 1997's program.

Effective Communications—Doing Better in the Next Century is a University of Idaho short course (December 2-6, 1996) on theory and practices to help gain public support for scientific resource managers. Topics include public relations, public involvement, communication, using computers for public presentations, communication law, and media relations. Contact James Fazio at 208-885-7209 jfazio@uidaho.edu.

International Range News, published by the Society for Range Management is seeking contributions from practitioners of range science around the world. They especially want brief articles or notes on techniques that have been successful in range work in developing countries. Submit text by fax to Douglas Johnson at 541-737-0504.

World Wise Schools is a program to match Peace Corps Volunteers with teachers and classes grades 3-12. PCVs interact with information and teachers get packets with videos, suggested activities, etc., suitable for the age group. Call them at 202-606-3294 or email DPINFO@PEACECORPS.GOV.

FAO has a training package on use of gender analysis (using the individual rather than the



household) for foresters, planners, rangers, extensionists and others going into resource development work. Email FAO at Helen.Gillman@fao.org for costs/details.

The Agroforestry for Sustainable Land Use conference focuses on fundamental research and modeling for temperate and mediterranean applications. It will be held in Montpellier France 23-28 June 1997. For information fax Daniel Auclair at 33-67 59 38 58 or email auclair@cirad.fr.

The Design and Environment Conference focuses on the links between the design of the built environment and the transformation to a sustainable society. The call for papers is on now: the meeting will be held December 5-8, 1997, University of Canberra Australia. For information email Dr. Janis Birkeland jlb@design.canberra.edu.au or fax 06 201 2279.

Campus Ecology is a program created in 1989 as part of the National Wildlife Federation's Earth Day. Now it is a program offering resource packets, publications, and services such as getting an organization or project going on a campus. Contact them at 703-790-4317/4322 for information.

TO SUBMIT A MANUSCRIPT to Women in Natural Resources journal, send to the editorial office a single spaced preliminary draft by FAX (208-885-5878) for consideration to Dr. Dixie L. Ehrenreich, Editor. To discuss a topic, please call 208-885-6754.

TO ADVERTISE A POSITION OR PRODUCT in a flyer or journal, send text by FAX (number above) for an estimate of cost. WiNR sends out twice-monthly job announcement flyers. The journal is quarterly. Price for a full page (8 1/2 x 11) in the journal or the flyer is \$900; half page is \$450; one-third page is \$300; quarter page is \$225; the smallest is one-eighth at \$115. We format at no extra charge, or accept camera ready copy sent to our address (see below).

TO SUBSCRIBE, send (to address below) \$39 for a library, government agency, business, or university; \$23 for a personal one; \$17 for a student. Non-USA add \$10 postage. We do accept credit card payments. Please include credit card number, expiration date, amount, and signature.

WiNR, PO Box 3577, Moscow ID 83843-1913

Phone 208-885-6754; Fax 885-5878; E-mail dixie@uidaho.edu

Please indicate: new or a renewal.

Our ID# is 82-6000945.



Women in Natural Resources

A quarterly journal devoted to those professionals
who work in the many fields of natural resources

We offer • articles • news & notes • advertising

For those who are

- looking for a broad range of articles under one cover
- looking for a good place to publish a manuscript
- seeking information about workplace diversity
- advertising positions or looking for a job

*...and sometimes we like to play around,
with cartoons and humor*



To subscribe

- send \$23 for a personal subscription,
• or \$39 for a business, university,
or government agency subscription

To: **Women in Natural Resources**
P.O. Box 3577, Moscow ID 83843

Call 208-885-6754 or e-mail dixie@uidaho.edu
<http://www.ets.uidaho.edu/winr/>



GDY225

University of Idaho

Women in Natural Resources
Bowers Laboratory
Moscow, Idaho 83844-1114

Forwarding and return postage guaranteed,
address correction requested

Non-Profit Org.
US Postage
PAID
Moscow, ID 83843
Permit No. 120