

women in

FORESTRY

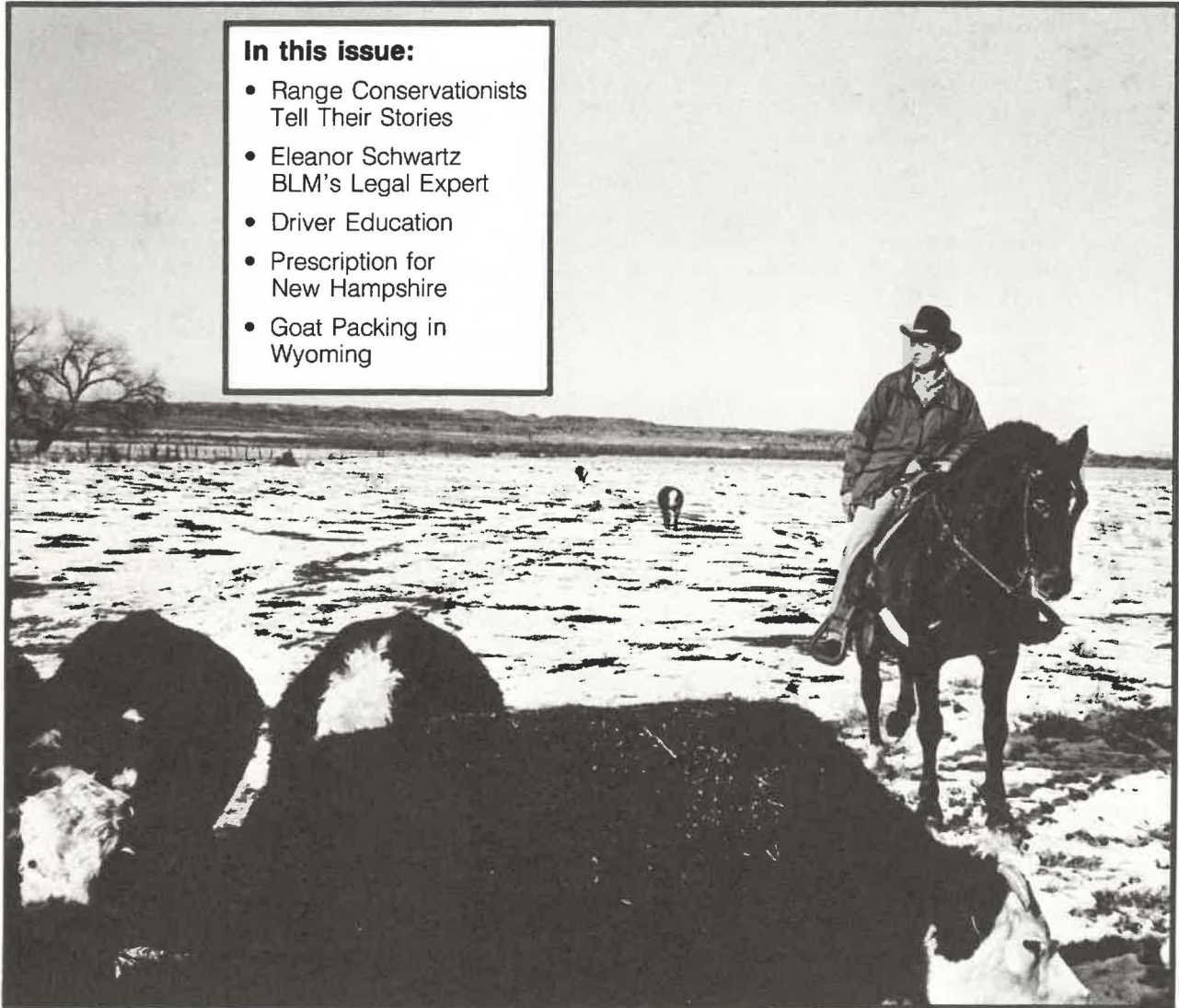
a journal for professionals in the natural and related cultural resource fields

VOLUME 7, NUMBER 4

WINTER 1985-86

In this issue:

- Range Conservationists Tell Their Stories
- Eleanor Schwartz
BLM's Legal Expert
- Driver Education
- Prescription for
New Hampshire
- Goat Packing in
Wyoming



SHERRI MAUTI: at work with her horse.

CONSERVERS OF THE RANGE

This issue of *Women in Forestry* features women who work in the field of range management. We have a wonderful collection of personal accounts, which, when added together reinforce what we have always suspected: Women relish the tough, well-paid, interesting jobs as much as men do. The range conservationists who work for the Bureau of Land Management, the Forest Service, the Bureau of Indian Affairs and others, lead very physically demanding jobs, wrestling their vehicles out of mudholes, carrying their equipment, examining animals, living out of a duffel bag in the field for weeks at a time in all kinds of weather. At the same time, they are the front office for their agencies: the people who deal with the public, and make the decisions which can make or break a rancher. Several of the women included in our issue mention that the thing they like most about range management work is its multi-discipline nature. They work with land reclamation, wildlife, stream improvement, mining claims, forestry, wilderness, and a host of other things. One woman worked on the land exchange between the Hopi and the Navajo; another has been industry oriented; another worked in Brazil.

To be in the business means being in the business of moving around, going where the promotions are, where the agency needs its people. Most of them travel extensively during the field season, often straining their personal lives. As I was writing this, the February issue of *Savvy* magazine came to hand with a large section on travel. *Savvy* notes that "In 1970, only 1% of business travelers were women; today we comprise nearly 40%." What *Savvy* means by job-related travel and what a range conservationist would mean by travel are two different things. Tips on airline tickets, hotel reservations, wardrobe, are lost on folks who must worry if the only motel in the town of 200 in eastern Oregon will be full at nightfall when the workday ends. Will the rain-wet jeans be dry by tomorrow morning? Will the service station have the flat fixed by 7:00 a.m.? What women travelers have in common are the personal things left at home—the children, the house, the chores undone, the husband or living companion if she has one. These are such worrisome elements that many of the range conservationists in our issue are not married, have no children, nor own a home. When they do marry or commit, the dual career problems must often be worked out in the climate of a tiny ranching community. The solutions are many (and various) as you will see when you read their accounts.

Most of those we talked to as the issue was being prepared had praise for their agencies, their supervisors, the ranchers and miners. They had praise for each other, too. In our letters column, Katherine Foster, who is now an hydrologist on the San Bernadino National Forest, calls the Humboldt National Forest range conservationists (with whom she used to work) "highly qualified and damn good" at their jobs.

Range management tends to be a western and southern occupation. To complement the range conservationist's concern for the land, we also feature an article by Sarah Thorne which focuses on New Hampshire. The author does a bit of futuring, painting a very bleak picture if land use planning and sensible steps are not taken soon to head off the ecological "death" of the state. For those who think this is a problem only for the Northeast, California and Florida planners, Ohio and Illinois environmentalists, and Seattle and Houston urban planners would say their areas are not far behind. Thorne offers some tried and true prescriptions you may want to note. Concern for all of our natural resources spans all regional and expertise boundaries.

—Dixie Ehrenreich

WOMEN IN FORESTRY

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LETTERS AND OPINIONS

- We have never received four issues in any of the years that we have subscribed to Women in Forestry. Are we missing some?

Theodore Mack,
Librarian: Paul Smith's
College, New York, and

Lora Iverson
Boise, Idaho

Eds. note: We have never published four issues in one calendar year. What is confusing is that your subscription is for four issues, but we have been changing the Volume number every year. In order to get your four issues, you have to have three Numbers in one Volume and one year, and one other in the next Volume, next year. This issue will be the first ever Number 4.

- I am concerned about my subscription to Women in Forestry. I received one issue and have not heard or seen anything since. One possible cause for confusion is that my address has changed...and also I have recently married.

Nancie R. Bonstedt
Forestry Sciences Lab.
Morgantown, West Virginia

Eds. note: Unless we get an address change notice, we continue to send the journal to the address we have. The Post Office will not forward bulk mail unless you have made a special provision for doing so. The Post Office does not send back these dead-ended copies to us either, so we can't correct our records.

- I became aware of your publication through our Ministry librarian who routed the magazine to me. I am impressed with the quality and diversity of the topics that are covered. I appreciate the balance you have been able to achieve. Congratulations, and keep up the good work.

Carole L. Leadem,
British Columbia Ministry of
Forests, Research Laboratory,
Victoria, B.C.

- With tongue-in-cheek, it pleases me to no end to point out a sexist error on page 25 of your Summer '85 issue. Perhaps not Women in Forestry's error, because you are quoting Paula Unruh, Deputy Assistant Secretary of Commerce, writing in Business America. Susan RoAne makes the same mistake on the same page... The discussion concerns the growing number of women who are entrepreneurs. But that is impossible! The correct term for a woman who performs the business ownership-risk function is an entrepreneuse. Granted, this distinction has not always been made in the past when entrepreneurs were always men, so until recently there was no need for a

feminine form of the word. Some "sexist" dictionaries still do not make the distinction (I found it in Random House Unabridged, 1983, for those of you who want to confirm this.) I predict that it won't be long until some in our profession will suggest that we distinguish between men and women. We will then be forced to write "forester/forestress" to go along with the "he/she" we must now use to acknowledge the possibility that, say, a logger (loggeress?) may in fact be a woman. Our professional societies at annual meetings have referred to certain events as "wives" programs. So we have gone to a non-sexist term, "spouse". But that still implies some kind of legal, binding contract between them, which may not, in fact, exist. A recent meeting I attended in South Africa used the term "companion's program," which pretty much covers it, but, being an international meeting which could have involved nations where bigamy is practiced, perhaps the South Africans would have been more precise to write "companion's program/companions' program."

In a related subject of terminology, Penny Keck, a forestry technician, (page 2, Summer 1985) evidently thinks you should aim your journal at all women in forestry, not just four-year degree-holding women forestry professionals. She argues that she is a technician, but she is a professional technician. She has a point, but if carried to extremes, why should anyone be excluded from anything? That piece of paper that I display on my wall not only certifies that I have been graduated from a reputable forestry school, it represents a considerable investment of my time, money, and hopefully, considerable development of my capability to perform at a level I would not be able to perform at without the training... I don't doubt that Penny is much more capable than I am in performing some "professional" tasks. Each of us can be fully professional in whatever we do. Job discrimination is when we are not allowed to do jobs for which we are fully qualified. Qualified, but not allowed because of our race, religion, sex, etc. We as a society are in grave trouble if in the name of non-discrimination, we permit under-qualified persons to perform as if they were qualified professionals. I think, perhaps, I would like to be a pilot for a major airline because pilots make three or four times as much as wood technologists. But, the airlines would "discriminate" against me.

There is more that could be said, but I expect I have stuck my neck out sufficiently far already for Penny to get back at me. I hope she does. She may argue that she is better qualified than many professional foresters who do the same kind of work, and she may be right. Some employers may use professional foresters in non-professional tasks. But if a professional is doing non- or quasi-professional tasks, that is no valid argument for permitting others who are doing the same task to be called professional foresters. Call them "professionals," but not "professional foresters."

Don Nelson
Member
Society of American Foresters
and Society of Wood Science
and Technology
Accokeek, Maryland

LETTERS AND OPINIONS

- I have recently heard of the journal Women in Forestry and this is to ask for an inspection copy of the latest issue. I am currently attempting to organize a conference on women in resource management professions and the existence of your journal is an important and interesting development. Would you send me a copy please?

B.D. Wilkes
Smithers, B.C.

Eds. note: We are happy to send a complimentary copy to anyone who is interested in seeing it. Good luck on your conference! Our next issue will carry many of the papers presented at the recent Dallas Symposium "Women in Natural Resources" sponsored by the SAF.

- Congratulations. You are producing a very classy publication. The articles are excellent and strike home all of the time. To respond to Penny Keck's letter in the summer issue: Penny is indeed a professional (regardless of her title) and respected by all who know her. I think that we all agree that there are professionals in all occupations. Some of the most professional people I know (including Penny) have technician titles. That does not lessen my respect for them!

Cathy Ream
Missoula, Montana 59802

- I have been receiving the publication for little more than a year and really appreciate all the articles in it. The "fun" jobs are not just for men anymore. I appreciate being a member (although only technician) of Society of American Foresters, but I get far more from Women in Forestry than the Journal! Keep up the good work.

Brenda Lou Roberts
Perrysville, Ohio

- The fall '85 issue contained some comments about the white male "stuck" in U.S.F.S. The other side of the coin is also true. I hold a BS in Forestry from Michigan Tech. University and have completed one year in the MS program in Entomology at Washington State University. I am currently a forestry technician in pre-sale with the U.S.F.S. Not only can I not get a forester position, there's nowhere for me to go in the technical service for quite a few years down the line. I chose to be a forester and worked five seasons with the U.S.F.S. before getting on permanently. I love forestry but it's getting close to time for a career change. I greatly enjoy your publication.

Darlene Robbins
Forks, Washington

- The letter written by Penny Keck, then the responses from Toni Westbrook and Sheila Kurken in the following issue of W.I.F., managed to rekindle an anger within me that has smoldered at varying intensities for nearly twenty years...but it was Ann

Melle's response that prompted me to write. I staunchly disagree the injustice addressed by Ms. Keck is an "agency-specific problem." "Welcome to the ranks", without the opportunity to excel that is afforded our professional forester counterparts, has the same ring to it as "welcome to the S.A.F...as a non-voting, associate member"! The constraints placed on federal forestry technicians limit the career ladder itself and double the time required to move from one rung to the next, it also precludes any opportunity to compete with professional foresters for a position vacancy. The system double-standard has been in existence for a very long time and is perpetuated by the X-118 handbook, a qualifications guide which may have been accurate at the time of its conception but is dreadfully outdated now. This barricade has undergone absolutely no change in at least twenty years despite numerous outcries by highly motivated technicians. It is, however, a truly equal opportunity barricade as it discriminates against all federal employees based not on education or lack of education, but on their failure to major in forestry. Above my desk hang five certificates of merit and three certificates of appreciation of which I'm proud. I very much doubt if these would exist if I didn't have a professional attitude and a dedication to my chosen field. I am professional, as I'm sure Penny, Toni and Sheila are. "Agency-specific"??? I believe not! You see, the only forestry organization with the political clout to effect change on this form of bureaucratic oppression is the Society of American Foresters, and they won't even count a technician member's vote...

Steve Trulove
Professional Forestry Tech.
New Meadows Ranger District
Payette National Forest, Idaho

- I work for the Forest Service and recently transferred from the Humboldt National Forest in northeast Nevada. For a small forest in terms of number of people, we had a good percentage of women in professional positions. I worked with several of these people for four to five years; I thought we were highly qualified and damn good at our jobs. Most of them are range conservationists. They work with ranchers, supervise summer crews, ride the range (yes, the Forest Service still works from horseback in some places), plan and administer allotments, and manage other resource programs. We worked hard and partied together and supported each other. This is admittedly prejudiced, but I thought we were a pretty select bunch out there in the wilds of Nevada.

Katherine Foster
San Bernadino National Forest
Hydrologist

- You are certainly all to be commended for putting out a magazine that has a delightful blend of serious material with appropriate lightness (loved the article on field lunches!) Please send subscription information and I will spread it among women in wildlife here in the northeast.

Ellie Horwitz
Chief, Information &
Education, The Commonwealth of
Massachusetts, Division of
Fisheries and Wildlife

OREGON RANGE WOMEN REMINISCE

Nancy Hopper, Editor

The Bureau of Land Management employs four women range conservationists in eastern Oregon. They are professionals, responsible for gathering information on range resources and managing forage for a proper balance so it will be available for domestic livestock and wildlife for the future.

↑ ↑ ↑ ↑ ↑ ↑

Margaret Wilson, who works out of the Burns, Oregon, BLM district office, spends a lot of time driving across the wide open eastern Oregon rangelands. She says, "We spend much of our time alone or with another person in a truck. Frequently, a partner will become a good friend, but sometimes the macho type can become irritating when they continually say things to upset you."



Photo courtesy BLM.

Before moving to Oregon, she worked in New Mexico, determining range conditions--identifying plants in all stages of growth, analyzing data and discussing results with 50 to 100 ranchers, a normal workload in that area.

She said, "Most ranchers are friendly, easygoing, and polite--especially to women. A few felt uncomfortable dealing with a woman at first, but became friendly as we got to know each other." Wilson spent long hours trying to reach agreements even when "it meant telling them things they did not want to hear, being blamed for decisions that were unpopular, and at times defending decisions we did not agree with."

The problems in dealing with ranchers usually developed from three sources. In southeastern New Mexico, many of the ranchers considered the BLM lands as their land and resented any interference from the government. Other problems developed when ranchers were still paying for the ranch, and in order to meet their obligations, wanted to run more livestock than the ranch would carry. There were also conflicts between the different users. In Carlsbad, the users included oil and gas interests, potash mining, hunters, ranchers, and those wanting predator control. Each user wanted something different from the land and resented the other users.

"As New Mexico allotments were all individual allotments, most range improvements were put in by the ranchers. BLM did the paper work, some planning and design, and often provided the materials. The time required to complete a project could vary from a

couple of days to many weeks. The most time-consuming range improvement I worked on required a number of public meetings, many individual meetings with ranchers and oil field personnel, two trips for the cadastral survey crew, planning and staking the site, then checking the project after completion."

"We determine the range condition and see if the trend was improving, stable, or deteriorating. This requires a lot of time in the field, identifying plants in all stages of growth and use, analyzing the data, and discussing the results with the ranchers."

Wilson offers advice to those who might be interested in the field, "The job requires long hours out of doors in all kinds of weather, walking and driving over all kinds of terrain. A single woman with the BLM must like small towns since most field offices are located in those places--with limited social activities and poor shopping. Frequently everyone knows what everyone else is doing. The townspeople, however, are usually friendly and helpful." Wilson has been a range conservationist for 10 years.

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Jean Findley, range conservationist in BLM's Vale district comments, "As a female in 'non-traditional' employment, I work with three basic groups of men: those in the BLM, ranchers, and other agency personnel outside the Bureau."



Photo courtesy BLM.

She says her dealings with those groups have been "exceptionally positive. I am the only woman on the range staff in the district, and have never felt a hint of either personal bias against women or a condescending type of tolerance. I have never felt that non-acceptance of my ideas or plans was a rejection of me as a woman, but rather that someone simply did not like the ideas. My ideas were put into action because they were good, not because 'we must humor the token woman.'"

She found the same experience working with ranchers as did Wilson, saying, "One rancher said when I first saw him on the range, 'I didn't know they were letting girls do this now.' I work with a terrific group of people and I find my job most challenging and interesting."

Nancy Ryan, range specialist in the Lakeview district says, "Being a female in a male dominated field has been anything but dull and uneventful. As far back as college, I had to continually prove myself. I was the only female in the range department and I felt like an outsider for the entire four years.



Photo courtesy BLM.

"I was one of the first females hired as a range conservationist in Montana and my fellow range conservationists, as well as the managers, seemed uneasy around a female professional--especially in the field. But they found I was very capable of dealing with the users--in many cases, better than the guys. I could change tires and get my truck unstuck, too. I have been in many situations that left me feeling that the users feel I am more sincere than my male counterparts," she said.

Ryan says, "I have always had problems in getting help from others--especially male subordinates. I have found that being a female in a male dominated field has forced me to become more assertive and aggressive." I try to get as much experience in as many fields as I can since male counterparts are more receptive to you and your ideas if you can communicate on a variety of levels in a variety of fields." Duties of Ryan, an Oregon BLM district range conservationist, also include being the wild horse and burro specialist, where she managed the entire program. She is also monitoring manager for the district, which includes keeping abreast of all monitoring studies for all programs (range, wildlife, watershed, range improvements, wild horses), automated data processing coordinator, and the "back-up person for the noxious weed program."

Ryan's advice to women in a male dominated field is to dress and act for the position you are in--"If you wear 'good' clothes to work, then always keep a change of 'field' clothes at the office. Often, people won't invite you to go with them when they know you're not properly attired. I missed many opportunities to see new places and learn new things until I learned to be prepared."

"You must have an understanding husband or be single. Because of family obligations, it is rare for a woman to achieve management levels. Some of our best range conservationists are females and are tied to a GS-9 field job because they can't get ahead without moving, and they can't move because of their families."

"A female professional must be flexible, tough, persuasive, and know what she wants. She can't just ride with the flow; she'll never achieve anything. The men will just pass her on by."

NANCY HOPPER, editor of the letters written by Nancy Ryan, Margaret Wilson and Jean Findley, a full-time EEO manager for Oregon/Washington BLM, not only recruits for women and minorities in professional natural resource occupations, but is also there to assure that once on board, women are not forgotten in training, awards, assignments, details, and promotions. She also attempts to resolve any discrimination problems identified, or charges filed. Hopper says that most women in professional positions won't file charges for fear of reprisal action against them or fear that their future careers will be jeopardized by being labeled a 'trouble making complaint filer.' Usually, if a woman professional does file a charge of discrimination, it is only after all efforts to correct the situation have failed and the situation is intolerable. Even in intolerable situations, however, most women just transfer rather than file a complaint of discrimination. BLM is striving to rid the workplace of all forms of discrimination to attract and retain highly qualified women.

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District Range Specialist's Duties

↑ ↑ ↑ ↑ ↑

Range Administration

- Maintain licensee and lease case files.
- Transfer grazing privileges.
- Administer trespass and livestock impoundment procedures.
- Monitor grazing protests, appeals, and hearings (testifies as Bureau's expert witness in hearings).
- Maintain and update Range Management Automated system (licensing and leasing system).
- Do range inventories.
- Interpret manuals, directives, and memos.
- Prepare responses to draft policies, manuals and procedural requirements.

Range Management

- Formulate new grazing systems and Allotment Management Plans.
- Interim management until AMP's are implemented.
- Develop/revise range studies, especially long-range studies.
- Monitor results of implemented AMP's.
- Manage seeding and spray areas.
- Interpret manuals, directives and memos.

Range Development and Rehabilitation

- Analyze and select seeding and spray sites.

Prepare seedbeds.

- Select seed species.
- Do range rehabilitation program including various sagebrush and juniper control techniques, both with and without seeding.

Other Duties

- Prepare the range management and range improvement portions of an annual work plan and monitors the progress and funding in the programs throughout the year.
- Monitor and ensure the commitments made in the planning system are being met.
- Is the principal source of knowledge and guidance for authors of the range portion of Environmental Impact Statements and Environmental Assessments. Reviews and judges the adequacy of the material when it is completed.
- Respond to inquiries regarding range management matters, prepare annual reports and special reports dealing with range management, and keep abreast of results of range research and applied techniques that are pertinent to the district range program.

WOMEN ARE AT HOME ON THE RANGE

Linda Howell Hardesty

In the past decade, professional women have become fairly common in universities, government agencies, the Society for Range Management, and other places where range managers congregate. The degree to which we have been accepted and encouraged by male colleagues speaks to their credit. However, in overseas work, range management remains a predominantly male field. This is true even though women can make a unique contribution because of the more defined gender roles which exist in many countries.

Among the reasons why more women are not involved overseas is our recent entry into the field. Team leaders want experienced personnel and few women have been around long enough to have this experience. But this is a temporary situation which is rapidly resolving itself.

Assuming qualified women are available, a more difficult problem is that many men feel ill at ease traveling and working with a woman. When conditions are difficult, men may feel an exaggerated sense of responsibility for a woman's safety or comfort, and at the same time resent this self-imposed obligation. Host country nationals can make erroneous assumptions about a woman's relationship with team members which embarrass everyone. Living quarters lacking privacy, common or nonexistent bathrooms, plans for a dubious evening's entertainment, all can cause discomfort if a woman is part of the group. Some fear that women will lack credibility in cultures which still exclude women from traditionally male disciplines.

In my experience these "disadvantages" have never been a real handicap though they sometimes give us all a great laugh. Considering the possible advantages of having a qualified woman on the team it may be worth the effort to seek one out.

Women have different experience, points of view, and sensitivities. This can be invaluable in forming an accurate picture of an unfamiliar culture or production system. On a recent assignment, our team was debating why cattle weren't pastured on the uncultivated commons above the villages. Cattle are stabled at the house and fed cut forages or led to graze nearby roadsides and fallow fields. This is the women's job, as the men are often away working. Fixing an evening meal with local ingredients such as dried beans is time-consuming. There is too little daylight for the woman to lead her cows any distance, give them enough grazing time, and return home to make dinner. Changing this grazing system will require changes in household routines or labor distribution. Many men might have difficulty recognizing this as a factor in livestock production.

Most of the world's rangelands are used by subsistence-level producers. This differs from the market-based system with which we usually work. A subsistence economy integrates the needs and

resources of the family, the community, and the environment to minimize risk and dependency. Like it or not, most women have been raised with a home-centered bias which may make understanding and working within a family-based, subsistence economy easier.



Sampling leaf fall on woodland range in northeast Brasil. Training and supervising field crews is another area requiring an understanding of cultural differences.

A second advantage is that women professionals may not seem as intimidating and thus be able to win confidence more rapidly and have access to more reliable information. A man may be more willing to risk exposing his ignorance, errors, or uncertainties to a woman than to another man. We all had stunning proof of this on a farm visit where the team had closely questioned the producer on his feeding program. The reported reproductive performance of his cows, and their excellent condition just didn't add up against his forage base and lack of supplemental feeding. Later, I took him aside to try rephrasing the question. As it turned out, he did supplement--heavily. He even gave me a product label, along with an apology. He hadn't wanted to mention the supplement in front of the government veterinarians because they did not approve of the product. In a similar manner, women might be effective in range extension and other promotional work where success depends on being perceived as helpful and non-threatening as well as knowledgeable.

Concerning credibility, I have been better accepted by male colleagues overseas than by some in the U.S. I have found this even in countries where women's roles are still very restricted. The U.S. is known for the freedom and flexibility of its professional women and, approving or not, we are the subject of considerable curiosity. Having no culturally conditioned response to this situation, men are forced to improvise and respond to you as an individual.

Perhaps it is due to my novelty, but I have been accepted, invited to meetings, given introductions, assistance, support, information, and confidence from foreign male colleagues well beyond the stated terms of any formal collaboration. I have to conclude that credibility problems, if they exist, can be overcome.

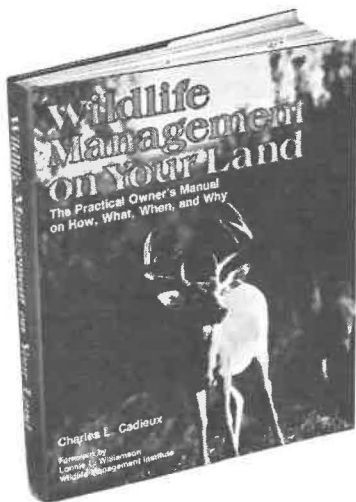
Perhaps the most essential argument for including women in overseas projects is the number of countries in which women either control or have a major part in range livestock production. Often this is a hidden role, unnoticed, or reported by reference works or host country officials. Yet when you get to the field, there they are. Throughout much of Africa and the Middle East, small ruminants may be the woman's property, or if not, at least her daily responsibility. Yet men outside her own family may be forbidden any contact with her. One country in which I worked is striving to maintain and improve its native cattle breeds. Part of the program is to provide approved bulls to each village. We visited a farm where the woman led out the village bull and her own five cows. A government representative lectured us on the fine points of the bull's conformation, then proceeded to evaluate the cows using similar criteria. The woman tried unsuccessfully to interrupt and later showed which cow's calves she really kept, revealing a selection system based on milk rather than meat production. And it is she who has actually been

deciding which calves stay in the herd and which go to slaughter. It makes sense for women to work with production systems run by other women rather than having to rely on second-hand information relayed by men who may have more authority than knowledge.

Women have different insights, access to information, and credibility, all of which can enhance the range of intercultural exchange and add to our ability to understand and improve livestock production in less developed countries.

Returning briefly to the reasons more women aren't involved in overseas work, I would suggest that any competent professional woman has already dealt with these issues. Working overseas with a woman is less disconcerting than most men suspect. If she is a good scientist and works well with people, then encouraging her involvement overseas can result in a more complete and effective program.

Linda Howell Hardesty is an assistant professor in the Department of Forestry and Range at Washington State University. She teaches range and courses relating to international work in natural resources. Howell lives in Pullman, Washington. This article courtesy of *Rangelands* (February 1984).



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Charles Cadieux's background includes lifelong experience in the outdoors. He served for decades with state and federal conservation agencies, including the U.S. Fish & Wildlife Service. His previous books include Coyotes, Goose Hunting, and These Are The Endangered.

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—Lonnie L. Williamson, *Wildlife Management Institute*

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ELEANOR SCHWARTZ: CAREER WOMAN IN LAW

Since 1974, chief legal officer of the BLM.



Eleanor Schwartz was interviewed for Women in Forestry by Jonalea R. Tonn, interview editor, who is a forester at the Intermountain Research Station (Forest Service) in Moscow, Idaho. She is a native of northern Idaho and attended the University of Idaho, receiving B.S. and M.F. degrees in forestry. She works in the Research Work Unit (RWU) entitled "Silviculture of cedar, hemlock, grand fir, and Douglas-fir ecosystems and tree diseases of the northern Rocky Mountains." Tonn's latest publication (1985) with Patricia A. Patterson and Kenneth E. Neiman, is a Field Guide to Forest Plants of Northern Idaho.



Eleanor Schwartz has been with the Bureau of Land Management, Department of the Interior, since 1962, and has served as its Chief, Office of Legislation and Regulatory Management, since 1974. She is a graduate of Hunter College (New York), and New York University School of Law. She has been admitted to practice law in New York State and before the Supreme Court of the United States.

Prior to her career with the Bureau of Land Management, Schwartz practiced law in New York, taught law at the college level, and taught in elementary school.

Of her many accomplishments, the most notable include being elected to Hunter College's Hall of Fame, receiving the Meritorious Service Award of the Department of the Interior in 1980, and the Distinguished Service Award of the Department of the Interior in 1985.

Presently, she is serving for the second time as Chairman of the Board of the Department of the Interior Federal Credit Union, and is active in civic and charitable organizations.

Among Schwartz's most outstanding recent publications are: A Capsule Examination of the Legislative History of the Federal Land Policy and Management Act (1976) which appeared in the Arizona Law Review, and For the Third Century: A Legislative Mandate, published in the Bureau of Land Management publication Our Public Lands (1977).

She has twin daughters, one of whom is a speech therapist, and the other, an accountant.

Secretary of the Interior, Donald Paul Hodel, presents the Distinguished Service Award to Eleanor Schwartz, April 24, 1985.



WIF: How long have you been with the BLM?

Schwartz: I've been with the Bureau since August 1962.

WIF: You are one of the highest ranking women in the organization. How did you come to choose the BLM?

Schwartz: I had heard there was a vacancy in the Lands and Recreation Division. The position involved working with the public land laws and it was of particular interest to me because of my legal background. I applied for the position and was selected for it.

WIF: How did you prepare for the work?

Schwartz: Much of my early work experience prepared me for my work in BLM. My first position in BLM entailed writing regulations, doing staff studies, preparing instruction memoranda and responding to public inquiries about the public land laws and their implementation. Shortly after I came to the Bureau my functions and responsibilities were expanded to include analysis of legislation, preparing legislative reports, drafting bills, and other such work. My legal background prepared me for those aspects of the work. I knew how to analyze laws and to prepare guidelines for their implementation. In addition to my legal background my seven years as a teacher at the elementary school level during the time my children were growing up was excellent training in organization and planning, dealing with people, preparation of in-service training programs and conducting workshops, all of which are elements of my present position.

When the Division of Legislation and Regulatory Management was established several years ago I was selected to staff it, based on my background and training. In 1974 I was selected as its chief. About five years ago the unit became an office working directly under the director and associate director, rather than a division working under a deputy director.

WIF: Have you had to change your values to survive as a woman professional in the BLM?

Schwartz: I do not believe I've changed my values to assure my survival as a woman professional in BLM. I've always had a high standard of performance for myself and I believe in the value of hard work to achieve one's goal. I was accepted in BLM as a person rather than as a woman. I was not aware of any problem with my coming into the Bureau. If there was a problem I paid no attention to it. There were at the time no women in high level positions, probably because there were so few that were qualified in the disciplines important to the Bureau at the time.

I worked very diligently to learn all I could about the Bureau and all of its programs--there was a lot to learn--and it paid off.

Many more women hold higher level positions in the Bureau now than in 1962. Many more women qualify in the disciplines now important to the agency. I believe that is true government-wide and perhaps universally.

WIF: Do women in the Bureau have a "good-old-boy" network?

Schwartz: No, there is no "good-old-boy" network for women in the agency.

SEE NEXT PAGE

members themselves. I also have contacts with other agencies and the Office of Management and Budget. This is a very fascinating part of my job.

WIF: Which law that you have worked on do you take the most pride in?

Schwartz: I've worked on many important laws. However, the most significant law I worked on was the Federal Land Policy and Management Act of 1976. That law replaced some 251 laws that had been in existence for many years--some more than 100 years old--that related to the public lands. The Federal Land Policy and Management Act established one law for the management of public land. It doesn't cover mining and mineral leasing because the Mineral Leasing Act of 1920 still does that. But it covers all of our other activities including land planning, land management, land sales, land exchanges, issuance of right-of-ways, and many more topics.

WIF: Currently, what is the budget for the BLM and how does that compare, say, to the Park Service and the Forest Service?

Schwartz: I'm not involved very much in the budget, but I can tell you that our total BLM budget is \$500 million, the Park Service's budget is \$800 million and the Forest Service's is \$1.5 billion which is about three times our budget.

WIF: How much of the budget is spent on salaries?

Schwartz: Of our budget, about 60 percent is for salaries and benefits.

WIF: Concerning the BLM/Forest Service interchange, could you comment on the concern that the proposal was engineered "from the top down" without involvement of local land users, agency staffs, and managers?

Schwartz: I have been working on the Interchange since the beginning of January 1985. I am involved (with a counterpart in the Forest Service) in drafting the legislation. The proposal definitely was not engineered from the top down. Of course the initial concept had to come from "the top." However, since its initiation by the Director of BLM and the Chief of the Forest Service, it has been developed by personnel from all levels of both agencies. In addition, we have had a series of 28 to 30 field hearings. I was involved in those hearings--going to Arizona, New Mexico, and Colorado. Those field hearings afforded an opportunity for public involvement. The amount of public involvement has been just tremendous.

WIF: Why was the proposal kept quiet before its initial presentation last year?

Schwartz: There was a lot of planning that had to be done before any concept could be presented, and that had been going on for several years. The recommendation is not a new one. It was proposed as long ago as 1979 with a presidential environmental message describing the "urgent need for genuine cooperation" between BLM and the Forest Service to improve coordination of the country's natural resource programs.

WIF: Is the interchange stalled?

Schwartz: No, it's going forward. We hope to have legislation ready to present to the Congress soon.

WIF: Why would a well qualified young woman in natural resources choose to go with the BLM rather than one of the other agencies?

Schwartz: Because the BLM is a great agency. It is a small, good agency, and we have excellent rapport. It has interesting programs and needs a wide range of expertise.

WIF: Do you think that once the Interchange takes place this will change?

Schwartz: No, because the amount of change will not be that significant as far as personnel is concerned. Between the Forest Service and the BLM there will be considerable savings in money but, under the proposal that at this time appears most likely to be presented, about 370 positions will be affected. There will be significant monetary savings because of the elimination of dual offices in the same town or city, but there will not be that much difference in the number of people in the Bureau.

WIF: Do you see big changes ahead for the agency?

Schwartz: In the time I've been with BLM we have developed from a land disposal agency, as we were in the 1940s, 50s and early parts of the 60s, to a land management agency. The last 15 years have been the years of the big changes. Any changes that I see now would be in the refinement of our planning and management processes. For instance, some lands we administer have recently been designated by Congress as wilderness areas. Now we have management responsibilities for every kind of land pattern from mineral development, timber production, grazing--right through to recreation and wilderness.

Thus, I don't see big changes ahead for us; however, I think the Interchange will improve our management capabilities because it will eliminate the overlap that now exists between BLM and the Forest Service and establish better land patterns.

WIF: Many people who are outside (and inside, for that matter) natural resource agencies do not understand the need for your kind of position. Can you describe your work?

Schwartz: I have a two-part unit. Half of my staff works on legislation and half works on regulations. In the legislative half we draft legislation that we believe is necessary for better administration of the public lands. We review all bills that are introduced into the Congress and see what impact they would have on the Bureau. We do drafting services for members of Congress. We prepare statements for departmental witnesses who have been asked to testify before committees of Congress. When requested we work with the Congress in developing legislation.

WIF: What happens once a law is passed?

Schwartz: Once a law is passed, the regulations staff prepares regulations to implement the law. We also regularly review regulations to assure that they meet current needs and we revise them as necessary. The regulatory process takes approximately a year because of various laws and guidelines that must be followed and to assure opportunity for public involvement.

WIF: It would seem that your office has an extraordinary amount of responsibility and impact on the agency.

Schwartz: The work of my office is important because we are involved with every activity of the Bureau. There is no element of BLM's responsibilities that is not covered by a law or regulation. We are drafters of documents and coordinators, assuring that consideration is given to all aspects of the Bureau's responsibilities in every document prepared by the Bureau and assuring that the concerns of all disciplines are reflected in the position taken to the extent possible. We are experts in the legislative process and the complexities of preparing regulations.

WIF: Do you have a large staff, and what work do they do for the most part?

Schwartz: I have a staff of thirteen--four people handle legislation and four people handle regulations. There is a support staff to handle legislative files, and to review the Congressional Record every day. There is also a secretarial support staff.

WIF: How many members of your staff are women?

Schwartz: At present I have one woman on my legislative staff.

WIF: Are you ever involved in current equal opportunity issues?

Schwartz: No. Awhile back (maybe 10-15 years ago) I was the Washington Office Federal Women's Coordinator before that was established as a separate position. It was an additional function that I performed.

WIF: In your experience, do women take full advantage of these programs or do they hesitate for fear of being labeled too "feminist"?

Schwartz: I believe women can take advantage of every program and opportunity we have in the Bureau. I'm not aware of anyone shying away from a program because of the fear of being labeled.

WIF: Mentoring is a word which women tend to use more than men. Have you ever had or been a mentor?

Schwartz: I did not have a mentor. When I started working there was not such a thing as mentoring--it may have been operative among the men, but not among the women. I have been a mentor to others. I have guided several people--both male and female--in their career planning.

WIF: Do you have a feel for the agency's commitment to hiring women? If you have such a policy, has there been a male backlash against it?

Schwartz: I think the agency is very open about hiring women. They are very willing to hire women. I have not been aware of any male backlash.

WIF: Is there a policy which favors hiring veterans? I ask this question because it is widely perceived that only women benefit most from such policies.

Schwartz: When we get a list from the Office of Personnel Management, veterans are higher on the list because of their veteran status.

WIF: Is there a policy for hiring minorities or any other special group such as the handicapped?

Schwartz: Many of our offices are in the 11 western states where there are a high number of what are called minorities, though in those states they may not be minorities. There is no prejudice in hiring. I think the same is true for handicapped--there is no prejudice in hiring.

WIF: What is the part of your job which gives you the most visibility? Do you enjoy that aspect of it?

Schwartz: The part of my job that gives me the most visibility is the legislative part which requires that I be on the Hill a great deal, and there I have contacts with Hill staffers and sometimes with Congressional

PEOPLE



WILMA MANKILLER, sworn in as the first woman to head a major U.S. Indian tribe, says she's excited about her new job and the chance to try and break "the circle of poverty" among Cherokees.

Mankiller became principal chief of the Cherokee Nation of Oklahoma, succeeding Ross Swimmer, who held the post for 10 years before being confirmed Wednesday as head of the federal Bureau of Indian Affairs.

"The only people a little worried are my family. They're expecting a tired, overworked mom," Mankiller said about her two children. "My grandson, now he thinks it's great that grandmother is a chief."

Mankiller said she had received much support in her new job leading the 68,000-member tribe. Only the Navajo Nation in Arizona, with 150,000 members, is larger.

"Cherokees have stated they are ready for female leadership. We all knew this was coming," she said. "The issues are our programs, the breaking of the circle of poverty, not me."

Mankiller becomes the tribes' spokeswoman and overseer of a \$30 million annual budget that includes scores of small businesses, manufacturing ventures, and a social and community service empire in 14 counties of northeastern Oklahoma, and an annual payroll that tops \$9 million a year.

She describes the Cherokee Nation as "scholars not warriors" with economic and social roots in Oklahoma as deep as the memories of the 1,200-mile "Trail of Tears," which brought the Cherokees to the Oklahoma territory in the winter of 1838.

"We are staffed with professionals--educators, physicians, attorneys, businessmen. "Our history has been one of organization and personal and economic development."

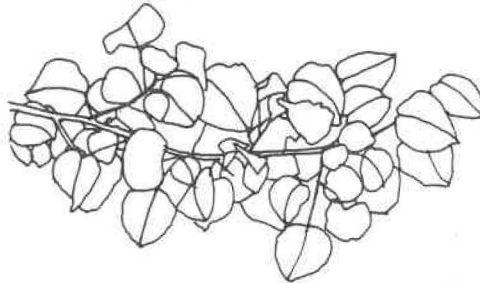
. . . .Associated Press

LAVELLE BLACK, Springfield, Virginia, has been appointed Chief of the Branch of Lands and Minerals operations in BLM's Oregon-Washington state office. Hers is the most responsible position held by a woman in Oregon and Washington BLM, according to Bob Rivers, deputy state director for operations.

She started her BLM career ten years ago as a mail clerk in BLM's Anchorage, Alaska, state office and worked her way up through positions in filing, documents and land law examination. She managed the transfer of 5.2 million acres of public land to Alaska native corporations.

BARBARA H. HONKALA, Botanist, is retiring after 21 years with the USDA Forest Service. A recent recipient of a second Department of Agriculture's Certificate of Merit for her work on Forest Service publications, she began her career in 1965 as the first woman biological technician at the Intermountain Forest and Range Experiment Station. Honkala says she considers this a dubious distinction, but that it was significant in the Forest Service in the 1960s.

For five years she worked with the Research Entomologists on the Spruce Budworm Project at the Forestry Sciences Laboratory in Missoula, Montana. In the summer of 1971, her career was interrupted briefly when she agreed to accompany her husband in a move to the Washington, D.C. area, but early in 1972 the Forest Service rehired her in the Washington office as a cartographic aid. At the end of that year, however, the position of botanist with the Dendrology Project was open and she accepted it, working with E.L. Little, Chief Dendrologist, until he retired in 1975 and the project was closed. The position of botanist was then transferred to the Timber Management Research Staff, where Honkala provided technical information to hundreds of people who wrote or called the Department of Agriculture about trees. She also assisted with all phases of producing Agriculture Handbooks and Miscellaneous Publications initiated by the Timber Management Research Staff.



DIAN FOSSEY, an American naturalist who spent most of the last 18 years befriending and defending Rwanda's rare mountain gorillas, was killed by attackers at her remote mountain cabin, Rwandan officials said.

Fossey began her pioneering work with gorillas of central Africa in 1967 and soon pronounced them a misunderstood, gentle species. Through articles, television programs and a 1983 book, *Gorillas in the Mist*, she crusaded to protect the endangered animals from poachers who sell gorilla heads and hands as ashtrays and household decorations.

Fossey lived in a two-room corrugated metal cottage near the top of 12,175-foot Mont Visoke in Volcanoes National Park in northern Rwanda.

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DRIVER EDUCATION

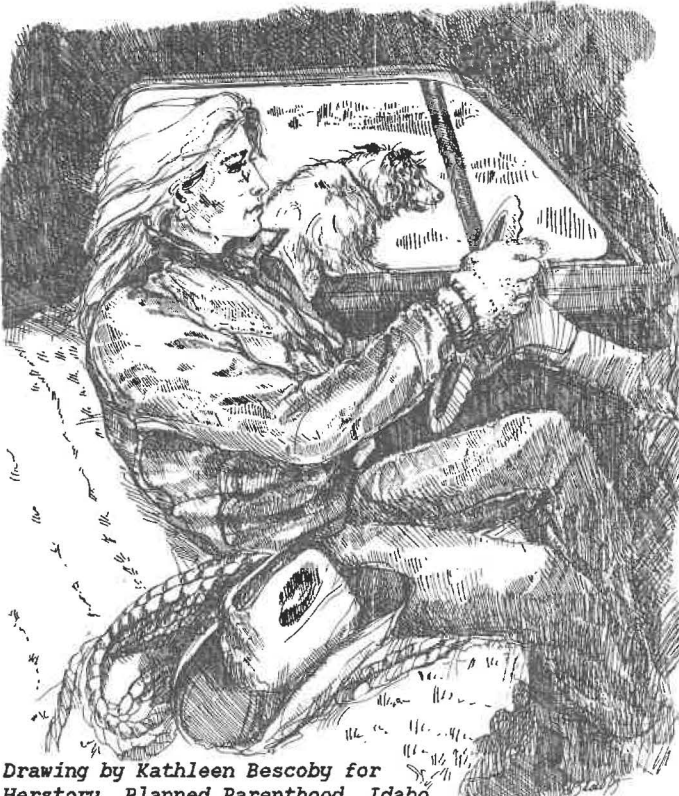
Karen Smith

In the interest of furthering our education and understanding of the laws of the field, stream, and forest, I intend to spell out certain basic (little-known but extremely useful), information regarding the treatment and care of one's work vehicle. How we, as professionals, treat this valuable piece of equipment, can identify us as neophytes or seasoned regulars in the field.

The first order of business must be to correct how we refer to our vehicle. We do not drive pick-ups, trucks, four-wheel drives, or any variation thereof--we drive rigs. This is important. Any other term connotes rank amateurism.

Now that we know just what it is that we are driving, we can appreciate another equally important facet of our rig: the proper accessories. Most newcomers mistakenly believe that a first-aid kit is the first item you should put in your rig. This is laughable. Seasoned workers instinctively know that a flattened roll of toilet paper stashed in the jockey box comes first.

The second most important item is probably what you might expect: a handyman jack. Learn never to count on the dangerous jacks included as standard equipment with your rig. They will fail you. Besides, carrying around a hefty jack (all scarred up of course) will mark you as a person who deals with flats like you deal with pesky flies: no problem.



Drawing by Kathleen Bescoby for Herstory, Planned Parenthood, Idaho.

Further, to properly accessorize your rig, you should customize with whatever you might need to carry you through the day. By this, I mean your lunch, thermos, raingear, spare boots, an extra coat (or t-shirt depending on the weather), water bottle, a couple of bandanas, and a hat. Usually, the items I require fill up a good-sized duffle bag. Whether you carry a duffle bag or back pack, be sure to keep your gear together. There is nothing worse than watching some poor slob with arms loaded up, thermos teetering on the edge of the pile, struggling to climb into the rig. Streamlining is the key.

Next in significance are the various items that ride constantly in the cab of your rig. These articles may range from several pairs of dusty sunglasses sitting on the dash to a large bag of peanuts on the seat. The importance of these things is that they will show others that you use, nay, live in your rig, which, of course, means you take your work seriously. I have always found that a few stray air photos and perhaps some inventory forms on the floor or dashboard lend a great deal to my credibility. I must warn you that there is the danger of overdoing it. I have a colleague whose rig is so full of "credibility" that a major overhaul is necessary to fit in one passenger. The idea is to look busy, not slovenly.

Additional equipment for your rig is strictly up to the individual. You may wish to bring your field equipment daily, or leave it in your rig. If you have a tool box, leave your stuff there; you never know when you might actually need it.

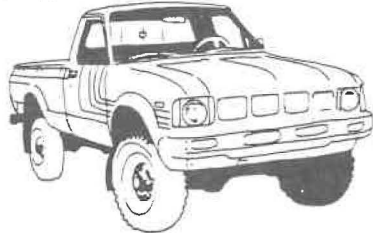
Next in importance is a discussion of the status, or ranking of your rig, and how to improve that status. Obviously, the newer the vehicle, the better off you are. The goal should be to be assigned a brand-new, four-wheel drive pick-up in a muted, yet tasteful color with a white tool box. Especially watch your transmission. A standard four on the floor with a basic transfer case is worth fighting for. You should also be very careful about the question of bench or bucket seats. Because I am short, if I drive a bench seat, any male passenger over the size of a ten year old must ride with his knees up around his ears. If I drive with buckets, I can only have one passenger at a time. Nevertheless, I always choose to have one reasonably comfortable passenger than two incredibly cranky ones.

I should mention here that vehicular newness is not always an accurate barometer of rig status. Sometimes with the Forest Service, the practice of leasing vehicles results in all temporary personnel driving new rigs. This can lead to confusion in the ranking system and should be discouraged.

Another vitally important benchmark is the possession of radios in your rig. You should try to have both an AM/FM radio in the dash (cassette decks are great, but don't push it) and a two-way radio. If you can't wangle a two-way radio, by all means get at least a CB. The point here is to have a couple of

wavy antennae on your rig. This will mean that you are important because someone may want to talk to you.

Now that we have the ideal rig sitting in the parking lot, our attention must be directed toward the proper way in which to operate it. The rules are really quite simple. The most important thing to do is to grab control of the steering wheel. I don't care who says the navigator is in charge, the person steering and shifting the gears is in the power position. Whatever you have to do to get there, do it. Car sickness is one of the more effective ploys I have used over the years.



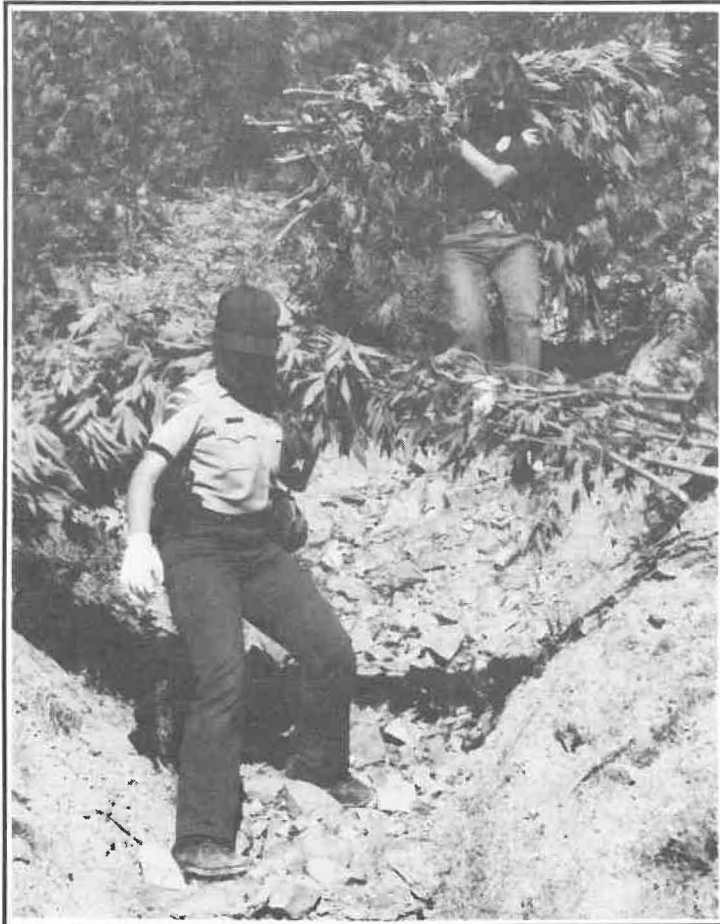
Secondary to the power position is the window seat. If you can't control the wheel at least have control of a window. But never sit in the middle. This is the most powerless spot of all. No matter who you are, if you're in the center, both parties on either side of you will lean around you, in front or behind, to carry on conversations. You will be ignored entirely (unless, of course, you start to get car sick . . .).

Once you have wrested control of the rig from your partners, you must learn the basic maxims regarding speed. Observation tells us that you must take longer to get to work than you do to come home. The formula to use is the ratio of 2:1. That is, it should take you twice as long to get to work as it should for you to get home. The route to your drop-off spot in the morning should be cruised, while the trip home should be treated like that last lap of the Indy 500. Believe me, if this formula seems rather foreign to you now, practice and it will be second nature in no time.

I am a firm believer in the idea of blending one's personal style to those of your profession and your co-workers. While I will never fit the mold of many peoples' idea of the perfect forester, I am going to be very sure that I can function as proficiently in the rig as any other professional.



Karen E. Smith is a forester with Idaho Overseas, Inc., a log and lumber exporting firm. She is assistant editor for Women in Forestry and appeared recently with her article "Another Look at Lunch" (Winter/Spring 1985).



BLM law enforcement officers from Oregon, Arizona, Utah, Colorado, Nevada, and Wyoming in conjunction with the Oregon State Police raided 54 cannabis gardens in three Oregon counties eradicating 3,835 cannabis plants from public lands. The estimated street value of the confiscated crop is \$7,670,000. Lynell Schalk and Kris Rohn-Hartmann load out some of the contraband.

*Kurt Austerman
BLM News*

Photo courtesy BLM.

WOMEN: A GROWING RANGE RESOURCE

Berta A. Youtie

Ten years ago it was quite unusual to meet a female range conservationist employed by a government agency. Recently an increasing number of women have shown an interest in a range management career and a noticeable number of women are entering the professional work force. Equal opportunity legislation has aided women in securing employment within the federal agencies. However, women as individuals must prove their abilities in order for the old barriers to dissipate.

In 1977 I applied for a seasonal position with the Bureau of Land Management (BLM). Responsibilities were to conduct a rare and endangered plant inventory on nearly 2.5 million acres of federal rangelands. Since no women had previously been hired for a field position by that office, the supervisors were skeptical. However, my qualifications were good. I had a degree in botany with range training and I had identified plants and mapped vegetation types on National Parks and Nature Conservancy lands in the sagebrush grassland region. The people I listed as references were all questioned, in particular, regarding my abilities to work under strenuous field conditions.

I obtained the position and began work in February before the snow melted from many areas. To accomplish my job I would leave the office on Monday morning, drive backroads to locate suitable sites, hike to inaccessible areas, camp in the evenings, and return to the office on Friday afternoons. By the end of the summer I had demonstrated that even a woman raised in Philadelphia could survive on the range and successfully complete the job. Today many women biologists and range conservationists in similar situations have proven their competency.

When I first enrolled in rangeland resources classes at Oregon State University in 1973, only three women were associated with the program. During the ensuing years, I worked for the department as a work-study student and later as a research assistant. When I left Oregon State in 1981, a much larger number of women were enrolling in range courses. Women constituted 50 percent of the graduating seniors in 1980 and three women were enrolled in graduate programs. In view of this apparent increasing interest by women in rangelands, I wondered if other universities were experiencing similar trends.

Last spring I conducted a survey of 28 U.S. universities which offered a degree program in rangeland resources or range science. I asked the schools to provide data on the number of men and women who were granted B.S., M.S. and Ph.D. degrees in range from 1970 through 1983. Many of these schools did not have a separate range department, but included range science within agronomy, plant science, botany, forestry, natural resources, wildlife or animal science departments. A few universities granted combined degrees, but these

were not included in the following summary. Sixteen of the 28 universities provided usable information.

The total number of women earning each degree each year and the percentage of total degrees which were granted to women were analyzed to determine if there were significant trends. There was a statistically significant increasing trend in both the number and percentage of women granted professional range degrees from 1970 through 1983 (Table 1).

In 1970 only one woman graduated from the 16 responding universities with a bachelor's degree. However, since 1977 women have constituted a yearly average of over 20 percent of the graduating seniors. Perhaps, this recent growth of female interest in the range management profession reflects the change of the female role in our society and the increased awareness of environmental issues.

Even though there has been an increase in the number and proportion of range degrees granted to women, the critical question is whether or not these women are obtaining employment in their profession. Statistics from the federal agencies have been difficult to obtain; however, at the end of the third quarter of 1983 the U.S. Soil Conservation Service included 20 women in their employment of 299 range conservationists. As of October 1983, 70 out of 514 U.S. Forest Service range conservationists were women. The BLM employed 31 (6.7%) females in their range program in 1983. If these available figures are taken as estimates of the percentage of range positions held by women in federal agencies, then the 10 percent average is only about one-half of the proportion of bachelor's degrees earned by women from 1977-1983. Alternate employment sources and a lag between graduation and professional employment may account for part of this difference.

In addition to federal employment, women in the range management profession may be finding positions with universities and with other state and private concerns. Since statistics on these sources of employment have not been obtained, it is difficult to objectively evaluate whether or not women are entering the job market at the same rate they are graduating from universities or if they are dropping out or experiencing some personal prejudice. A survey of women members of the Society for Range Management may be the best way to evaluate some of these questions.

I have never felt any personal discrimination because I was a woman. I have always found range management professionals to be helpful and encouraging. The inspiration and support of Dr. A.H. Winward and E. William Anderson encouraged me to pursue my interest in rangeland ecology. Currently, I am seeking an advanced degree in a rangeland entomology program at the University of Idaho.

Women need to be encouraged to further their education in rangeland resources. Although women are entering the profession in increasing numbers, a smaller proportion of women obtain advanced degrees (Table 1). Hopefully, with higher education, women will attain greater responsibilities and add much to the range management profession.

The author is a graduate research assistant in the Department of Plant, Soil and Entomology Sciences, University of Idaho. She currently resides in Moscow, Idaho. This article is reprinted with permission from *Rangelands* (February 1984).

Table 1. Summary of information on rangeland resources graduates from 16 U.S. universities.

Year of Degree	Number of women granted degrees in rangeland resources				Percentage of rangeland resource degrees granted to women		
	B.S.	M.S.	PhD	Total	B.S.	M.S.	PhD
1970	1	0	0	1	1.5	0	0
1971	0	1	0	1	0	5.0	0
1972	0	2	0	2	0	8.0	0
1973	4	2	1	7	3.5	6.0	7.1
1974	2	4	0	6	1.5	8.9	0
1975	6	0	0	6	4.8	0	0
1976	12	0	1	13	8.2	0	4.5
1977	24	6	1	31	18.2	9.7	4.5
1978	28	10	2	40	17.2	15.2	9.5
1979	46	14	1	61	21.1	26.4	3.6
1980	57	9	3	69	30.0	12.7	14.3
1981	40	19	2	61	23.8	24.4	10.5
1982	39	9	0	48	26.2	11.0	0
1983	35	9	0	44	31.3	19.1	0
Totals	294	85	11	390			



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All of the above rates are for camera-ready black and white copy. A one-time offer--buy one and have it printed in two issues. For more information contact Lei Bammel, 325 Percival Hall, Division of Forestry, West Virginia University, Morgantown, West Virginia 26506-6125, (304/293-4411)

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WOMEN IN RANGE MANAGEMENT: IS THERE A DIFFERENCE?

Sherry Mauti

I just recently ran across a copy of the article I wrote for the Western Horseman magazine in 1979 while working on the Coronado National Forest. While reading through it, the thought came to mind that Danny Freeman had requested an article from me back then.

Since that article, I have worked on the Prescott National Forest and I am now working for the Bureau of Indian Affairs in Keams Canyon, Ariz., at the Hopi Agency. The duties have been varied but the fact that I'm female seems to make a difference each place. After having worked in three different areas and two agencies, I have determined that the basic on-the-ground range management is the same whether you are a male or female, only the initial approach to the individual rancher is different. The fundamentals of livestock movement, watering facilities, fence construction, reseeding, etc., will hold true for anyone. We all have access to the same knowledge. Individual application varies because of the ranger, livestock type, terrain, and existing facilities. No problem, right? Wrong! On-the-ground acceptance by people can vary from immediate acceptance to absolute refusal to work with a "woman." Heaven forbid!

I was told once by a forest range staff officer that any time spent drinking coffee and visiting with a permittee/rancher was not wasted because you were building a working relationship with them. I still believe that is true.

In one case, I was warned in detail about how very hard several ranchers were to get along with. Some, but very little, cooperation had been obtained by previous forest service personnel, usually under a threat of some kind. Acting on the advice I had received earlier, I went to their home to talk management plans, around their kitchen table. When they were on their "home ground" it was easier for them to relax and get down to management. They were not intimidated by an official office and the forbidding "desk." Besides, the office couldn't find me at a ranch. It was only a short time before they came to accept me and respect my judgements and opinions. Management with these people became much easier as time was spent with them on the ground and knowing them as living, breathing people who had separate personalities (no matter how crusty.) These people are rare treasures in my memories. They taught me a lot about people management, as well as land management.

Although during my tour with the Forest Service I had some trouble with acceptance by the ranchers, it was the wives that were most suspicious of me. The woman calling "her" husband or spending several days on horseback wasn't usual and was not to be trusted. After a few visits to the home they decided I was "harmless."

Shortly after moving into a new area I remember calling a rancher one day and his wife answered the phone. After asking for him and failing to identify myself, there came the very cold question, "Who is this?" After a short time she got to know me and a lot of joking about early suspicions was tossed back and forth.

Nonacceptance of me, as a professional range conservationist is not limited to the ranches. Many of the professional people I work with have a hard time believing I am "for real" and that I can handle the job. Since the beginning, many have come to accept me, but there are a few who will go to their graves believing I will never be a real range conservationist because I can't grow a beard, won't chew tobacco, or drink Jack Daniels. But these doubters did one very important thing for me, they never allowed me to give up or believe I knew everything. I kept going in spite of them and now I am in debt to them for that. I wouldn't have tried nearly as hard if they had been on my side.

As a woman, you will find a few ranchers who just can't stand to see a woman saddle her own horse. I remember one rancher whose headquarters were situated such that we always had lunch at the house. Horses were unsaddled at lunch to grab a bite and roll. It never failed that my horse was saddled for me when we got back to the barn. His reasoning? "My wife doesn't saddle her own horse, neither should you." That was his way of showing his acceptance of me as an equal.

I believe my greatest tribute of acceptance was from a third generation, opinionated rancher. After nearly two and a half years of working with him and countless saddle hours, he saddled my horse after a rest break. I can't remember just what he said when he did it, but again, it was his way of saying I was OK in his book. That day will always stand out in my mind as the actual complete acceptance into a very closed organization of special people.

As any range conservationist can tell you, there are always those ranches at which you can get lunch, and/or even supper if you time it right. I had several firsts at these meals, including Rocky Mountain Oysters, but I would not trade dinner at the Hyatt Regency for a good ranch-style meal with real, genuine people. My favorite beverage was, and still is, fresh milk, and it was usually abundant at the ranches.

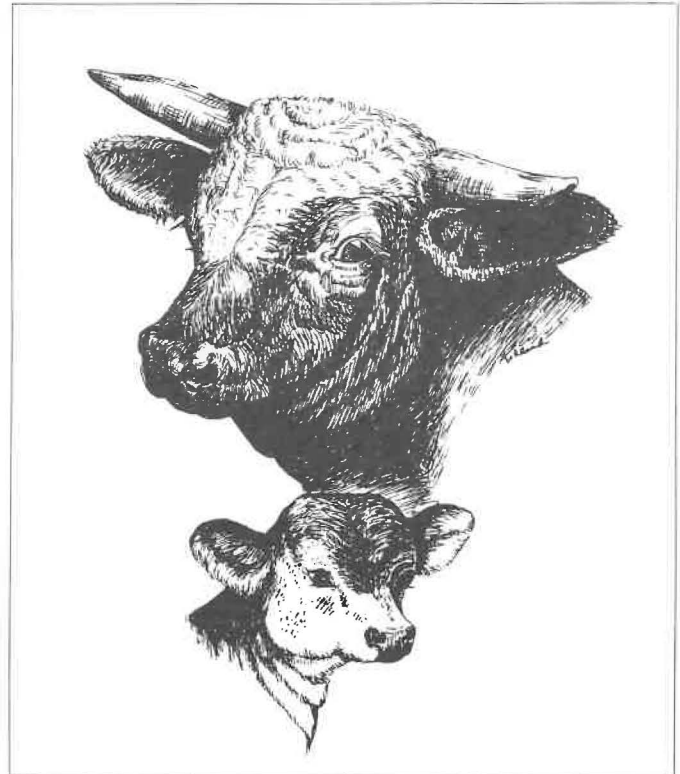
Since arriving at the Hopi Agency most of my range management experience has been jockeying paper and working on the problem-laden Hopi Partitioned Lands (HPL). This is part of the former Joint-Use Area that was awarded to the Hopi Tribe. The job entails coordinating the livestock use by the Navajos

awaiting relocation, with law suits, court decrees, tribal wants, and the Code of Federal Regulations. Not exactly on-the-ground management, but it is still a very important part of any range management program.

I have and always will believe that women belong in range management and related fields. The only difference between male and female range conservationists is, and rightly should be, our approach to the subject and to people.



Sherry Mauti is a range conservationist with the Fort Apache Agency in Arizona, coming there from the Hopi Agency, Bureau of Indian Affairs in 1985. Mauti now lives in Whiteriver, Arizona. This article is reprinted courtesy of Rangelands (February 1984).



ENVIRONMENTAL EDUCATION WORKSHOP REPORT

Before the race, Lewis Nelson told the students sitting on the grassy baseball field to study their conifer cones carefully. They looked for broken bracts, lost parts, a peculiar bend to the stem. They looked for hints in shape, size, and color that would allow them to know their own cone from all others. While teammates cheered, students took turns in lines to race to the cone pile, find their own and dash back.

The 90 students were participating in an environmental education activity from Project Learning Tree. They were mostly Idaho elementary and secondary school teachers, some young and recently out of college, some nearing 60.

The two-day environmental education workshop at the University of Idaho (UI) was sponsored by the UI Wildland Recreation Management Department and the Idaho Panhandle National Forest. Its goal was clear: to teach teachers about environmental education.

Environmental education is human ecology, said Sam Ham, workshop speaker. It emphasizes the relationships between people and their environments: all environments--the environment of a city sewer system as well as the environment of a forest.

Speaker Mary Rellergert-Taylor, (who also designed the workshop), explained that research done by UI graduate student Daphne Sewing indicates teachers see several common barriers to teaching environmental education because some teachers think it is a part of science only, the same as outdoor education. Some think they lack time, money or materials. Some think they lack proper training to teach it. Some think it's not important.

The workshop was designed to break down those barriers, Rellergert-Taylor said. For example, the workshop showed that environmental education can happen inside, at little or no cost, be incorporated into existing school courses--even math and music--and can be taught by people who are most uncomfortable with science.

Most of the workshop was devoted to hands-on explorations of a variety of already available materials on environmental education. They are:

OBIS (Outdoor Biological Instructional Strategies) Delta Education, Inc., Box M, Nashua, New Hampshire 03061-6012 (1-800-258-1302). Cost is \$9-12 for modules of 7-8 activities. Ask for guide and order form.

PROJECT LEARNING TREE, The American Forest Institute, Inc., 1619 Massachusetts Avenue, NW, Washington, D.C. 20036. Ask for information about workshops.

PROJECT WILD, Contact Fish and Game office.

INVESTIGATING YOUR ENVIRONMENT, Contact Forest Service offices.

NATIONAL WILDLIFE FEDERATION, 1412 Sixteenth Street, NW, Washington, D.C. 20036 (202/797-6800). Request Conservation Education Catalog.

INSTITUTE FOR EARTH EDUCATION, P.O. Box 288, Warrenville, Illinois 60555 (312/393-3096).

A-WAY WITH WASTE, Washington State Department of Ecology, 4350 150th Avenue, NE, Redmond, Washington 98052 (206/885-1900).

EVENTS

FIRST NATIONAL SYMPOSIUM ON SOCIAL SCIENCE IN RESOURCE MANAGEMENT: PEOPLE, PARKS AND FOREST
12-16 May 1986

Oregon State University
Corvallis, Oregon

Contact: Dr. Donald R. Field,
Department of Resource Recreation
Management, Oregon State University,
Corvallis, Oregon 97331.

NATIONAL WOMEN'S STUDIES
ASSOCIATION'S EIGHTH
ANNUAL CONVENTION
11-15 June 1986
University of Illinois

The theme is Women Working for
Change: Health, Cultures, and
Societies. Contact Jeann Rice and
Paula Gray, NSWA 86, University of
Illinois at Urbana-Champaign, 304
Stiven House, 708 South Mathews,
Urbana, Illinois 61801

ANNUAL MEETING OF THE URBAN AFFAIRS
ASSOCIATION
5-8 March 1986
Fort Worth, Texas

The theme is Planning for Urban
Growth. Contact Mary Helen Callahan,
Executive Director, Urban Affairs
Association, University of Delaware,
Newark, Delaware 19716

WESTERN SNOW CONFERENCE
15-17 April 1986
Phoenix, Arizona

For more information contact Neil
Berg, USDA Forest Service, Box 245,
Berkeley, California 94701 (415-486-
3456).

NATIONAL SYMPOSIUM ON URBAN WILDLIFE
3-6 November 1986

For information on papers and program
contact Lowell W. Adams, National
Institute for Urban Wildlife, 10921
Trotting Ridge Way, Columbia,
Maryland 21044.

NORTHWEST ANTHROPOLOGICAL CONFERENCE
27-29 March 1986
University of Idaho

The theme for the conference will be
Anthropology and the Law. For
registration information contact:
Roderick Sprague, Laboratory of
Anthropology, University of Idaho,
Moscow, Idaho 83843 (208-885-6123).

WHEN IS NATURAL MANAGEMENT
APPROPRIATE: CAN IT BE MADE
EFFECTIVE AND FEASIBLE
7-8 March 1986

Forestry and Environmental Studies
Yale University

Contact Tropical Symposium Committee,
205 Prospect St., New Haven,
Connecticut 06511.

POPLAR COUNCIL CONFERENCE MEETING
28-31 July 1986
Seattle, Washington

For information contact Continuing
Education Manager, College of Forest
Resources, AR-10, University of
Washington, Seattle, Washington
98195 (206-543-8067).

CONSORTIUM FOR INTERNATIONAL
FISHERIES AND AQUACULTURE DEVELOPMENT
(CIFAD)
Summer 1986

Michigan State University
and
Oregon State University

The first course is "Water Quality
and Aquatic Ecology" on June 9-
August 1st at Michigan State
University. This is a training
program for beginning to junior-level
scientists. Oregon State University
will offer two courses: Fisheries
Data Management Using Microcomputers,
July 21-August 22; and Fisheries
Economics, August 25-September 26 for
middle and upper-level administra-
tors. Write CIFAD Training Programs,
443 Snell Hall, Oregon State Univer-
sity, Corvallis, Oregon 97331.

NINTH INTERNATIONAL WILDLIFE
FILM FESTIVAL
7-13 April 1986
Missoula, Montana

For information write Wildlife Film
Festival, Wildlife Biology Program,
University of Montana, Missoula,
Montana 59812.

INTERNATIONAL WINDBREAK SYMPOSIUM
23-27 June 1986

University of Nebraska
For program information contact James
Brandle, Department of Forestry,
Fisheries, and Wildlife, University
of Nebraska, 101 Plant Industry,
Lincoln, Nebraska 68583-0814.

PEOPLE TO PEOPLE FORESTRY AND
WILDLIFE DELEGATION TO THE PEOPLES
REPUBLIC OF CHINA
3-24 April 1986

Call or contact Jim O'Donnell, N.W.
Pine Association, 326 Peyton Bldg.,
Spokane, Washington 99201
(509-450-6067).

TENTH ANNUAL NORTH AMERICAN PRAIRIE
CONFERENCE
22-26 June 1986
Denton, Texas

The conference entitled The Prairie:
Roots of Our Culture, Foundation of
Our Economy, will attract conserva-
tionists, scientists, anthropolo-
gists, landscape architects, park
managers. Special emphasis will be
placed on the economic aspects of the
modern prairie. For more information
contact Prairie Conference, Texas
Woman's University, Box 22675,
Denton, Texas 76204 (214-644-0778).

7th PACIFIC ECOLOGY CONFERENCE
27-28 February - 1 March 1986
University of British Columbia
Vancouver, British Columbia

To register contact the Institute of
Animal Resource Ecology, University
of British Columbia, 2075 Westbrook
Mall, Vancouver, BC Canada V6T 1W5.

PRESCRIBED BURNING IN THE MIDWEST:
STATE OF THE ART
3-6 March 1986

Stevens Point, Wisconsin
Contact College of Natural Resources,
University of Wisconsin, Stevens
Point, Wisconsin 54481 (715-346-
2269).

51st NORTH AMERICAN WILDLIFE AND
NATURAL RESOURCES CONFERENCE
21-26 March 1986
Reno, Nevada

For more information contact L. R.
Jahn, Wildlife Management Institute,
Suite 725, 1101 14th Street N.W.,
Washington, D.C. 20005
(202-371-1808).

COLD REGIONS HYDROLOGY SYMPOSIUM
Call for papers
23-25 July 1986

Fairbanks, Alaska
For more information, contact Brent
M. Petrie, 334 W. 5th Avenue,
Anchorage, Alaska 99501 (907-276-
0001).

AMERICAN WATER RESOURCES ASSOCIATION
Call for papers
9-14 November 1986
Atlanta, Georgia

The national and international
meeting has water and human health
issues for the theme. For more
information contact Joy A.
Bartholomew, Deputy Secretary,
Department of Environmental Quality,
P.O. Box 44066, Baton Rouge,
Louisiana 70804.



EVENTS

**CURRENT TOPICS IN FORESTRY RESEARCH:
EMPHASIS ON CONTRIBUTIONS BY
WOMEN SCIENTISTS**
Call for papers
4-5 November 1986
Gainesville, Florida

The symposium is sponsored by the School of Forest Resources and Conservation and the Forest Service. Papers are solicited from those doing research in natural resources. There will be a session of invited women speakers and a session of contributed papers by both men and women. A poster session is contemplated. Send abstracts by May 1, 1986 to Sue Kossuth or Nancy Pywell, 1143 Fifield Hall, University of Florida, Gainesville 32611 (904-371-4360).

**SERIES OF FOREST PESTICIDES
SHORTCOURSES**
offered

February and March 1986
Washington State University
These courses are intended as prelicense training for restricted pesticides applicators (forest environment) license exams in Washington, Oregon, and Idaho. For information about places, costs, and dates, contact David Baumgartner, Conferences and Institutes, Rm. 208, Van Doren Hall, Washington State University, Pullman, Washington 99164-5220.

**SUMMER INSTITUTE FOR WOMEN IN HIGHER
EDUCATION ADMINISTRATION**
6-31 July 1986
Bryn Mawr College
and
Higher Resource Services (HERS),
Mid-America

A residential program offering women faculty and administrators intensive training in education administration. The program includes instructional units in Academic Governance, Finance and Budgeting, Management and Leadership, Administrative Uses of the Computer, Human Relations Skills, and Professional Development. Particular attention is given to the development of professional networks, support systems and mentor relations.

The cost for the Summer Institute including tuition, room and board, instructional materials, and recreational facilities is \$3,500. The deadline for submitting applications, with a non-refundable application fee of \$75, is April 15, 1986.

For brochure and application write to: Betsy Metzger, HERS, Mid-America, University of Denver, Colorado Women's College Campus, Denver, Colorado 80220.

TWELFTH VERTEBRATE PEST CONFERENCE
4-6 March 1986
San Diego, California

For more information contact Terrel P. Salmon, Wildlife Extension, University of California, Davis, California 95616.

**WILDLAND FIRE MANAGEMENT AND USE
WORKSHOP**
28 April - 9 May 1986
Logan, Utah

The section is Module III (Economics of Fire Management Systems). For more information contact Michael Jenkins, Department of Forest Resources, UMC 52, Utah State University, Logan, Utah 94322 (801-750-2455).

VEGETATION MANAGEMENT WORKSHOPS
5-7 March 1986

LaSells Stewart Center
Oregon State University
This year's workshop in forest vegetation management at Oregon State University has been divided into a one-day session on basics followed by a two-day session that focuses on efficiency in vegetation management practices. The sessions may be registered for separately or together. Contact the Conference Assistant, College of Forestry, Oregon State University, Corvallis, Oregon 97331.

**PRESCRIBED FIRE IN THE INTERMOUNTAIN
REGION**
3-5 March
Ridpath Hotel
Spokane, Washington

Basic considerations, operational alternatives and the economics of forest site preparation and range improvement with fire. Contact Conferences and Institutes, 208 Van Doren Hall, Washington State University, Pullman, Washington (509-335-2946)

FEMINISM AND ECOLOGY COURSES
21 June - 2 August 1986
Rochester, Vermont

The Institute for Social Ecology will be offering courses in Feminism and Ecology, and Advanced Concepts in Feminism and Ecology. Feminism and Ecology (June 21 - July 19) is an examination through anthropology, philosophy, women's health, and political studies, of the relationship between the domination of nature and the domination of women. Advanced Concepts in Feminism and Ecology (July 21 - August 2) will explore the feminist perspective on issues of reproductive rights, peace and disarmament, questions of domination and hierarchy in society. College credit is available. For more information write the Institute for Social Ecology, Box 384, Dept. WF, Rochester, Vermont.

**THIRD ANNUAL INLAND EMPIRE FOREST
ENGINEERING CONFERENCE**
26-28 February 1986
University of Idaho

New ideas and proven methods for increasing production, using personnel. Special shortcourse offered for applications of electronic spreadsheets (additional fee and limited enrollment). For costs and more information contact Leonard Johnson/Harry Lee, Department of Forest Products, University of Idaho, Moscow, Idaho 83843.

**ARTIFICIAL INTELLIGENCE AND EXPERT
SYSTEMS**
20 February 1986
Iowa State University

Focuses on developments that most dramatically impact business productivity and profitability. Contact Engineering Extension Service, Continuing Education Building, Iowa State University, Ames, Iowa 50011 (515-394-6222).

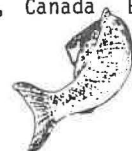
**COMMON STRATEGIES OF ANADROMOUS AND
CATADROMOUS FISHES: AN
INTERNATIONAL SYMPOSIUM**
9-13 March 1986

Boston, Massachusetts
The symposium is sponsored by the Northeastern Division of the American Fisheries Society. For more information contact Mike Dadswell, Fisheries and Oceans, Biological Station, St. Andrews, New Brunswick, Canada E0G 2X0 (506-529-8854).

Third National Urban Forestry Conference

Urban Forestry for Livable Cities
December 6-10, 1986
Sheraton Twin Towers Orlando, Florida

For program, exhibit, and registration information, write the American Forestry Association, 1319 18th Street, N.W., Washington, D.C. 20036.



WE MADE GOATS OF OURSELVES IN THE WILDERNESS

Lynn Kinter

The sun marked midday in the high country of Wyoming's Wind River Range. We'd been hiking all morning, and as my stomach growled, I surveyed constantly for something to eat. Two of my companions, Bob and Cindy, were kneeling in a clearing and digging excitedly. "Look what we found--" Cindy called, "wild chives!"

After 18 hours without food, a strong onion wasn't exactly what I wanted, but I knelt and joined the feast, munching flowers and all.

My friends and I had just embarked upon a ten-day trek with five goats and no food. The goats would carry our gear, and we would forage alongside them.

One day earlier, when my friend John Mionczynski, a naturalist (and accordion player), had asked me to join the expedition, I admitted I was scared. Although I enjoyed collecting plants to eat or study, I'd never gone ten days without 'real food.' And while my work for the Bureau of Land Management--fencing a ghost town and caring for campgrounds--kept me fit and active, I didn't know John's other friends and was afraid I'd hold them back. "So is everyone else afraid," he assured me, "only they've been worrying a lot longer than you have!"

We loaded John's goats in the truck, started off, and waved to neighbors in Atlantic City, Wyoming. In this town of about 50 cabins and 1870s gold fame, the old mining days are kept alive. A few residents still work claims; others have cottage industries--like John, who makes goat-packing gear. So, in keeping with the region's pioneer spirit, we set off.

My other companions, all in their mid- to late-thirties, had high expectations. Roy Ozanne, who studies mice (and yoga) in Wisconsin, first thought of this trip. He wanted to be in the alpine on nature's terms. Jeff Springett, a carpenter from Alaska and Kelly, Wyoming, planned to hike to a glacier, as evidenced by the ice ax on his pack. Cindy Day, who sells herbs in the Teton Valley, wanted to cleanse her body with a diet of pure mountain food.

When I was growing up in the hills of West Virginia, I spent much time outdoors and often collected wild nuts and berries. Then as a teenager, I began experimenting with other wild edibles and took a botany class to better identify the plants. So at age 21, this trip was a great way for me to combine my life-long fascinations with wildlands and native flora.

I wondered if this would be a big change for another companion, Bob Rountree, a doctor from Colorado who usually worked long hours and drank a lot of coffee. We were all fit, but I suspected the mental adjustment might be greater than the physical one. None of us realized just how difficult it would be.

Packing goats was also a first for most of us. One morning over our breakfast tea of spruce needles (for vitamin C and energy), yarrow flowers (to balance out body functions), and rose hips (for almond flavor), John told us how he got started: "In 1972, I had too much gear to haul while tracking bighorn sheep as a Forest Service wildlife technician. My horses couldn't get around in the rough terrain, so I packed the 125 pounds of equipment. After falling into a torrential river, then struggling up a steep mountain as my sheep disappeared, it was clear I needed help. I went home to get my goat and try out an idea. I fashioned a saddle from scrap wood and broom handles, but it broke apart. So I built another one which I still use. That summer I packed two goats and carried a knapsack--it worked beautifully and I've done it ever since!"

My friend, lean and lively with bright brown eyes, looked agile enough to be part goat himself. As far as I can tell, he invented goat packing in North America. A brilliant idea, I thought, as our pile of gear mushroomed.

We packed the gear (including oil and spices to make the plants more palatable), in canvas bags (called panniers), which Kate Bressler had sewn. "Cattle Kate" is a seamstress who lived in Atlantic City ten years ago and who used a treadle machine there.



Heidi, a Swiss Toggenburg. Roy Ozanne photo.

Now she makes period clothing in Jackson. She and John were the only members of our group who had packed with goats.

We learned quickly about fitting cinches and loading the animals. Each goat had a special rig and a specific amount of weight to carry. Tin Cup, the largest male, stood as tall as an antelope. Not yet full-grown, he could haul 70 pounds. Brownie, a youngster on his first trip, was packed with light unbreakables. When Jeff saddled Brownie, the goat dashed off to lose that strange thing clinging to his back. He galloped around, then charged his brothers while still fully packed. Pans and sleeping bags went flying. We scrambled as the goat headed straight toward us. When Brownie decided he couldn't outrun the saddle, Jeff slipped on the panniers. The little guy took off with a buck and a bawl. More reckless dashing and sailing gear followed. Goat packing is a pioneering way to travel for both goats and people!

As John led the oldest goat, Heidi, up the trail, the others fell into line. Brownie stayed on his mother's heels and Tin Cup followed. Bekins (like the moving company) was next, and Jupiter brought up the rear.

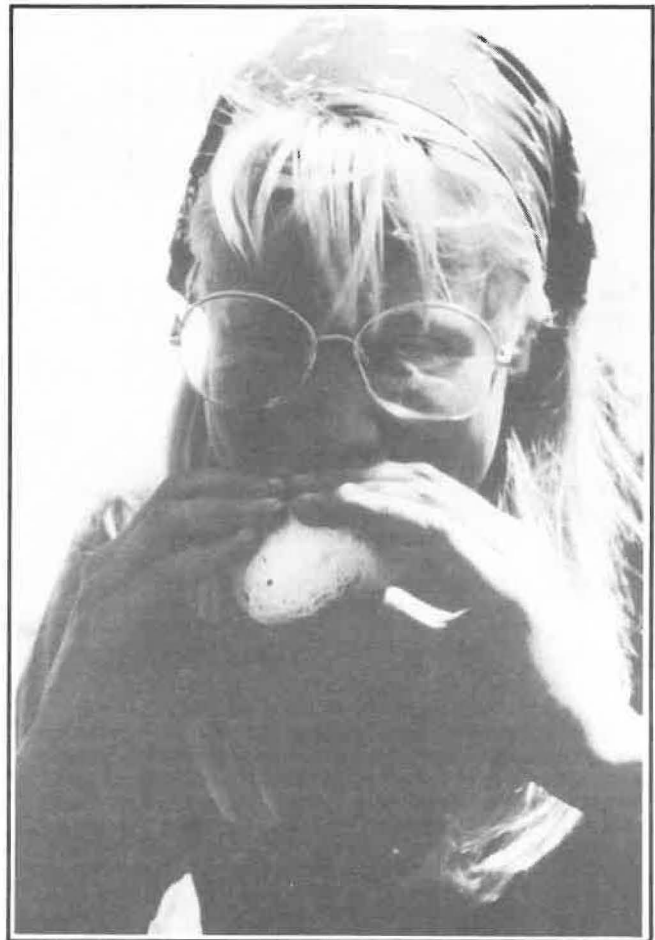
While we hiked, we looked continually for plants to snack on or to collect for supper. Shortly after our feast of wild onions, we came to a meadow where ribbons of water cut a far timbered slope and wound down past us. I hacked at a few prickly thistles which dotted the field. Although some people know thistles only as weeds, their crunchy inner stems make a pleasant treat.

That evening, our supper consisted of stew and salad--bluebells, fireweed, pigweed, wild buckwheat, chives, and other greens we'd gathered while hiking. After studying my salad and relishing each crisp bite, I then dipped hesitantly into the pot simmering on the fire. One small cup of the slimy, brownish-green stew was enough for me. But Roy enjoyed his and went back for more. In coming days, he would always rave about our concoctions. The rest of us sometimes just gagged them down.

Next morning I was glad I'd only tasted the stew. John and Roy had stomach aches and didn't feel very chipper. John thought one of us might have dropped poisonous Arnica in the pot, mistaking it for bluebell. "From now on," he said, "I'll check everything that goes into our dinners." In those early days, we all felt lethargic. Later, our energy returned.

The rough trail snaked across steep talus slopes, and we stopped often to lounge in the sun or look at plants. John knew a use for nearly everything we saw: Arnica, though toxic when eaten, can be used topically to kill pain; green juniper berries boiled in water make a hair rinse to cure dry itchy scalp, and alumroot, which grows on rock outcrops, is a strong astringent.

John's lessons occupied us; we never tired of the strengthening sight of rugged mountains. The days slipped by. One day, we crested the highest peak on our trip and descended to Goat Flat, a dry, barren plateau. I'd been collecting greens earlier, including my favorite, tangy mountain sorrel, but didn't see much here to fill us up. Yet on these treeless slopes, we would discover several special foods. Jeff and Roy found puffballs--large white fungi without stems. After spying bistort around us, I grabbed my trowel and went to work. The pinkish-white root knobs of



Lynn samples a puffball picked on a windy slope. Roy Ozanne photo.

bistort grew about five inches deep in the gravelly soil. Although my fingers ached digging them out, it was well worth the trouble. We sautéed the nut-flavored roots of bistort with puffballs for a fireside delicacy. As I curled up under a gnarled fir for that night, my stomach full of bistort, I thought it was the best meal I'd ever had.

Four days into the trek, we decided to give the goats a rest and make a side trip to find biscuitroot, a starchy carrot. Bob, Cindy, and Kate wanted to fish in a lake nearby. So we sneaked away from the goats to search for supper. We labored up rocky summits to find puffballs and magnificent views, but no biscuitroot was found.

We explored a krumholz made up of dwarfed pines on the lee side of a mountain that must have been the site of an old Sheepeater Indian camp. Flint chips from tool-making littered the ground, and a medicine turtle--a ring of stones shaped like a turtle--watched over the Indians' homeland. Afternoon brought frigid rain and eerie mist, and as I shivered in the krumholz, I imagined the long ago Indian families seeking protection there too.

We also spied on some bighorn sheep. Unfortunately for the other women, who felt very weak, it was not our day to find biscuitroot.

Cindy caught a trout that went in the stew pot. She and Kate made a stunning flower salad of white columbine, purple hairbell, red paintbrush, rosecrown, and miners lettuce. The salad, stew, and dandelion

tea put new fire in my muscles, and my body felt cleansed and strong. I was ready to go on like this all summer.

By the time the fellows were ready to go next morning, I felt like flying up the mountain. I knew we'd find lots of energizing food, then head out toward Jeff's glacier the next day. We wished the anglers luck.

Our energy subsided a bit on the first 3/4-mile slope; we weren't in a hurry and took time to study the plants. We climbed high above the trees to a saddle where we'd seen bighorns and fanned out to hunt for the elusive biscuitroot. Finally John called to us. He made a few triumphant jabs with his trowel, then held up a lacy-leaved plant with a thick root--the reward of a long climb and a two-day search. We all dropped to our knees on the windy ridge and began digging furiously. After four days of surviving on little but greens, this starchy plant would lift us to a new energy level.

Kate and Cindy had hooked one tiny fish. It was less than four inches long, but they fried it and ate it bones and all. I knew they were getting desperate for energy food, and I worried that biscuitroot wouldn't be enough. They confirmed my fears that afternoon. As we huddled by the fire, Kate said, "We can't enjoy the trip when we're so weak, and (we) don't want to hold you all back. So Cindy and I will hike out tomorrow."

This seemed acceptable to me, but others were more thoughtful. If these two left now, the whole experience would be a defeat for them. We decided to hike where fishing might be better, instead of to the glacier, and to cut our trip two days short.

On the seventh day we started hiking out, just when our spirits were picking up. "That's how it works," John told me. "Your energy wanes at first, then surges as your body adapts." Our energy WAS surging; we hiked all day, hardly stopping to pick a puffball.

That last night I slept in a meadow lighted by a large moon and rose to frost and a magnificent view of the southern Absaroka range. None of us had anticipated how relaxed we had become, nor the special bond we had developed with the land. It was hard to leave this place. But we loaded the goats early, waited for Roy to get up, and took off down the mountain.

The trail out was steep and rocky with many switchbacks. Bekins tried to shortcut every turn; Tin Cup and Brownie were worn out and had to be coaxed through the last few miles. My own back and knees ached.

We had thrived on clean mountain food for the past eight days. But by the time the trailhead was reached, everyone had one thing in mind. Bob voiced it first: "Let's go to a deli!"

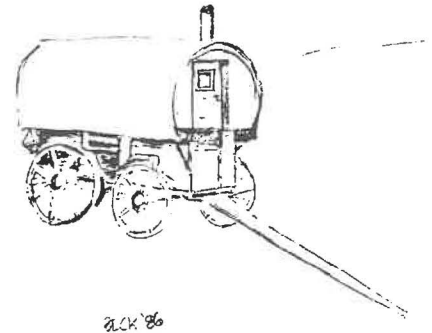
Lynn Kinter will receive her degree in Wildland Recreation Management from the University of Idaho in the spring. She is the founder and director of Friends of Wild Wyoming Deserts. She plans to work as a naturalist in an environmental center in Wyoming, near Lander, where she will make her home after graduation.

CONTRIBUTIONS WELCOME

One of our subscribers, Barb Springer Beck, recently sent us a sketch for our consideration. Barb is Forest Archaeologist and Federal Women's Program Manager on the Deerlodge National Forest, Butte, Montana.

Her sketch is shown below. Barb says, "It depicts an early sheepherder's home, his wagon. The sheep industry began in Montana in the early 1860's. The wagon saw a long period of use in conjunction with the industry."

Thanks, Barb, for your submission.



Editor's Note: Art work submitted to WIF should be in ink as black and white line drawings reproduce well. Drawings should be carefully packed, sandwiched between two layers of stiff cardboard. Please include some biographical data and some explanation about the drawing(s). Items submitted should not be larger than 9" x 12" and please tell us if you wish to have them returned. Send to:

Lorraine Ashland, Art Director
Women In Forestry
Forestry Publications
College of Forestry, Wildlife
and Range Sciences
University of Idaho
Moscow, Idaho 83843



RESEARCH IN PROGRESS

COPPING TO IMPROVE DRY SEASON FORAGE PRODUCTION IN NORTHEAST BRASIL: Woody and herbaceous regrowth in woodlands cleared for slash and burn agriculture or firewood harvest are an important source of forage for small ruminants in northeast Brasil. Dried fallen leaves of trees and shrubs are the major forage during the 6-9 month dry season. This research explores the possibility of modifying traditional land clearing practices to improve the quantity, quality, and seasonal availability of browse. Modifications include changing the season of cutting and height of the stump, and periodically defoliating the coppicing stump. Preliminary results indicate that all of these factors can be manipulated successfully. Defoliation treatments cause the stumps to resprout, producing foliage which remains green for several months into the dry season. Defoliation treatments also cause significant mortality among those species least desirable for forage production.

When data analysis is complete we should be able to recommend coppice prescriptions to achieve specific objectives including altering the species composition, forage production potential, phenology, and accessibility of regrowth.

This research is a joint effort of Utah State University and the Empresa Brasileira de Pesquisa Agropecuaria under the auspices of the Small Ruminant Collaborative Research Support Program of the U.S. Agency for International Development.

Linda Howell Hardesty
Department of Forestry and
Range Management
Washington State University
Pullman, Washington 99164-6410

EVALUATION OF THE GRAZED-CLASS METHOD FOR ESTIMATING UTILIZATION ON TRANSITORY RANGELANDS IN NORTHERN IDAHO: This study compares two methods of estimating livestock use of grasses. These are the paired plot method, a well tested and accepted method, and the grazed-class method which is newer and not as well tested. The paired plot method uses clipped plots and their associated weights to determine use while the grazed-class method uses standard photographs.

The primary objective of the study is to determine the accuracy of the grazed-class method as compared to the paired plot method. Comparisons of the methods will be made using three plots on each of three different habitat types in northern and central Idaho. The usefulness of the grazed-class method for minimally trained personnel will be evaluated by comparing use estimates from inexperienced samplers with the actual use of the same plants determined by weight measurements.

Preliminary results of the study show that there is no significant difference between the two methods and that inexperienced samplers tend to overestimate use. I will conduct further tests of the same nature before making any final conclusions. Future possible applications of the grazed-class method include the development of photo guides for browse species and the use of existing photo guides (for grasses) on other habitat types, specifically the arid areas of southern Idaho.

Carol Boyd
Department of Range Resources
University of Idaho

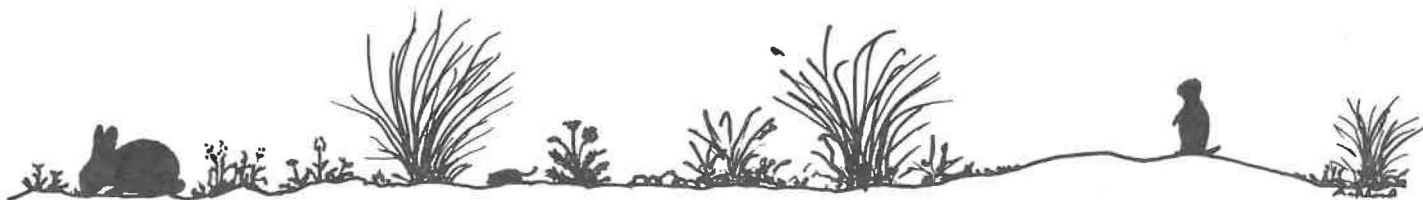
GENDER TEST DIFFERENCES: A variety of environmental programs has developed as America's concern for wise use of natural resources has increased. Some of these programs have been evaluated in terms of attitude/and or knowledge changes.

An analysis of the West Virginia Forest Industries Youth Camp's data was undertaken to determine if the variable of gender had any significant effect on the various test scores from past years. Initially one year, 1980, was selected to pilot test the null hypothesis of no significant differences. Two significant differences were found. Females were significantly lower on pre-test knowledge scores but made significantly greater gains between the pre- and post-test. No significant differences occurred on the post knowledge test nor on any of the attitude measures. Other years are being added to the data pool.

There is ample research in educational and psychological literature to support the notion that the initial test difference is due to sexism in the classroom and America's socialization of sex stereotyping which prevents females from developing interests and knowledge in science - related areas as well as preventing them from developing those traits which would lead to success.

Lei Lane Burrus-Bammell
Professor/Forest Scientist
Division of Forestry
West Virginia University
Morgantown, West Virginia 26506

*RESEARCH IN PROGRESS
Continued on page 37*



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CAN YOU HELP

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We are starting a NEW COMPANY DEDICATED TO PROVIDING HIGH-QUALITY, HEAVY-DUTY CLOTHING TO WORKING WOMEN. We hope to offer women the opportunity to purchase clothing, foul weather gear, and safety accessories that are cut to women's sizes yet designed to hold up under physical stress.

Do the women in your organization need a single source of these products? Are any items particularly hard to find? For more information write to me directly, Elaine S. Eisenbraun, P.O. Box 2692, La Grande, Oregon 97850.

I am a graduate student pursuing a Ph.D. in range economics and policy at Utah State University. I am generally interested in the political economy of natural resources. Presently I am trying to generate funding to investigate the economic and policy implications of the wildlife/agriculturalist/public conflict. I would appreciate comments from your readers about the study, possible sources of funding, and experiences they have had pertinent to this issue. Write to: Lucy A. Jordan, Department of Range Science, Utah State University, Logan, Utah 84322 (801-750-2471).

(Eds. note: see Jordan's topic discussed more fully in Research in Progress this issue).

IRIS, a journal about women, is now seeking subscriptions. The rates are \$10 annually for institutions and \$4 for individuals. Presently two issues per year are published. IRIS is devoted to publishing all types of information of interest to women. IRIS accepts unsolicited poetry, articles, artwork, photographs and book reviews. Any contribution should be accompanied by a stamped, self-addressed envelope. To subscribe or to send material, write IRIS, Women's Studies Program, B2 Garrett Hall, University of Virginia, Charlottesville, Virginia 22903.

The Women in International Development Office at Michigan State University maintains a collection of newspaper and journal clippings on the NAIROBI CONFERENCE held this past July. Interested persons are invited to review them or copy specific articles at 5¢ per page. Contact: Office of Women in International Development, Michigan State University, 202 Center for International Programs, East Lansing, Michigan 48824-1035 (517-353-5040).

The WOMEN'S HISTORY RESEARCH CENTER, Inc. of Berkeley, Calif. announces the availability of three sets of microfilms documenting women's lives from 1968-1974, and include: Women and Law, Women and Health/Mental Health, and Her Story. For more information, contact: Women's History Research Center, Inc., 2325 Oak St., Berkeley, California 94708.

The ASSOCIATION FOR WOMEN IN SCIENCE (AWIS) publishes a bimonthly newsletter on activities of AWIS committees and chapters, news of members, current feminist literature, grant application deadlines, civil rights issues and laws, statistics on the status of women in the professions, and employment opportunities. Along with legislative alerts, AWIS publishes a jobs bulletin. AWIS has also established an educational foundation and a legislative task force. For more information, contact: AWIS, 1346 Connecticut Ave., NW, Suite 1122, Washington, D.C. 20036, (202-833-1998).

The GEORGIA FORESTRY COMMISSION, armed with a wide assortment of tree species and a new mechanical tree planter, is looking for people who want to plant trees. Equipment was purchased with the help of the Tennessee Valley Authority, which is providing \$25,000 to restore trees and improve conservation methods.

INTERNSHIPS IN ENVIRONMENTAL EDUCATION/INTERPRETATION AVAILABLE SHAVER'S CREEK ENVIRONMENTAL CENTER

Responsibilities: Emphasis placed on teaching while working with scheduled school groups, families, youth groups, youth leaders and teachers; trail and habitat management; exhibitry; writing trail books, newsletter articles and brochures; raptor rehabilitation; care and feeding of live animal collection; conducting programs at school sites, fairs and festivals; supervision and feedback by direct observation and video taping. Positions available winter-spring, 1986, summer and fall 1986. Room and a stipend of \$50.00 per week provided. Apply to: Corky Potter, Director, Shaver's Creek Environmental Center, 267 Recreation Building, University Park, Pennsylvania 16802.

The WALNUT COUNCIL is a national nonprofit organization representing walnut growers and enthusiasts. The Council offers assistance in establishing and managing black walnut stands, promoting walnut products, and exchanging information with plantation owners, landowners, industrial wood users, government agencies, and universities. The organization sponsors meetings, provides information and research data, offers a hotline, and gives discounts on walnut-made gifts. It publishes a quarterly bulletin and a walnut manager's handbook. Membership costs \$15 per year. Write to Box 41121, Indianapolis, Indiana 46241 (317-244-3312).

I received copies of WOMEN IN NATURAL RESOURCES: AN INTERNATIONAL PERSPECTIVE and the DIRECTORY OF WOMEN IN INTERNATIONAL NATURAL RESOURCES from the conference held at the University of Idaho in 1982. I submitted my name and job related information to be included in the directory. Since then I have worked overseas in forestry. I would like to find out if there is or will be an updated version of the directory published. Also, if any more conferences of this type are planned. At the present time I am working in Los Angeles. I am trying to find another overseas position. I have contacted AID, the Forestry Support Program, various embassies, and private consulting firms that do overseas work. I would appreciate any information or suggestions you may have for other possible contacts or the names of other women who have worked overseas who may be willing to help with information. Write to: Andrea Stein, 4479 Casa Grande Circle, #466, Cypress, California 90630.

(Eds. Note: At this time, we do not plan to update the directory, nor do we have plans for another conference. Check the article following this for someone who might help you. See also the job information exchange box, this issue.)

Can you supply a list of women in natural resources who do INTERNATIONAL WORK? I am interested in integrating more women into the work that we do. My husband, Norman L. Brown, is also often called on to suggest technical people for overseas work. Those who are interested should write to me and send resumes. Janet W. Brown, Senior Associate, World Resources Institute, 1735 New York Avenue, N.W., Washington, D.C. 20006.

NEWS AND NOTES

EXCAVATING A SEVENTEENTH-CENTURY HURON VILLAGE

Floral and faunal data from a late 17th century site reveal much about the diet and technology of the Huron Indians. Analysis of the faunal specimens by Beverley Smith of Michigan State University Museum staff provides specific details on the types of mammals, fish and birds exploited and on techniques of butchering, preparation and storage. The analysis has led to several preliminary conclusions about life at the Marquette Mission in Michigan.

Several bird species found are not of primary importance as food resources, but their feathers were probably valued for their ornamental quality or perhaps for use as arrow shafts.

Remains were found of several animal species commonly hunted for their pelts, including otter, marten, beaver and perhaps snowshoe hare. The beaver was also a food resource, as indicated by butchering marks and charred specimens. Several specimens of black bear substantiate the ethnohistorical accounts of the ceremonial use of bears, including Marquette's disapproving description of a dance performed by Huron women: "They were covered with bearskins and wore fine porcelain collars (bead necklaces); they growled like Bears; they ate and pretended to hide like Bears. . . ."

Several fish specimens were identified, including lake trout, whitefish, walleye, lake sturgeon, northern pike, and burbot. No fish bones were found in the fire pits, confirming the observation of the French explorer Father Gabriel Sagard-Theodat in 1624 that the Huron believed the spirit of fish whose bones were burned "would warn the other fish not to allow themselves to be caught." The majority of botanical remains, analyzed by Nancy Nowak Cleland of Aurora Associates, were corn kernels. A few specimens of pond nut, squash, plum and sand cherry indicate variations in the Indian diet.

....Susan M. Branstnet
Archaeology

HOORAY FOR THE WORKERS IN THE VINEYARD

Last year, 43,496 volunteers contributed 1,784 work-years worth an estimated \$24.1 million to the public under Forest Service tutelage. That work would not have been done otherwise.

...USDA News

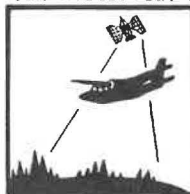
AERIAL PHOTOGRAPHY A CHALLENGE AND A COMMITMENT

Each day thousands of aerial photos are acquired for a variety of purposes by private organizations and by local, state, and federal agencies. The diverse aerial platforms range from low-flying helicopters and light aircraft to the U-2 and SR-71, the reconnaissance resources of the military services, the overhead reconnaissance systems, the NASA sensor-laden satellites and shuttles, and the meteorological satellites photographing the hemispheres from an incredible 22,300 miles in space.

Each aerial platform was designed to achieve specific objectives, but all are engaged in a common generic activity--the creation of an historical record. Each photographic exposure creates an irreplaceable record of an activity or condition at a specific moment in time, and each photograph establishes a baseline that is of critical importance in recognizing the inevitable changes that will occur in the future.

The next logical question is: "How large is this record and where is it stored?" The National Cartographic Information Center has catalogued over 350 organizations holding aerial photography but readily admits that there are probably hundreds more. The largest holder, the National Archives, has over 600,000 cans of aerial photography in their records center. The film was acquired by the military services, federal agencies, and contractor missions and covers the period from World War I to the Vietnam conflict. The archives of the Departments of Agriculture and the Interior contain more than 25 million prints of the United States. The EROS Data Center at Sioux Falls, South Dakota, stores more than a million photographic exposures taken from assorted space platforms. In the archives of a private mapping and charting organization in the Carolinas, typical of the many private organizations, are several hundred cans of aerial photography, a record of the happenings of that area for the past 20 years.

...Dino A. Brugioni
Perspectives
American Historical Association



VIP CREATED FOR VENEER

Engineers at the Forest Products Laboratory have developed a comprehensive procedure to help veneer mill operators improve processing efficiency. The Veneer Mill Improvement Program (VIP) measures raw-material conversion efficiency and predicts the effect of processing improvements through the use of a computer model.

...Jane Charlton Suleski
Forest Products Laboratory News

HOW GENETICS MAY MULTIPLY THE BOUNTY OF THE SEA

When the mercury dips, commercial fish farmers worry almost as much as Florida orange growers do. A sudden freeze, and thousands of dollars' worth of valuable seafood may be destroyed. But help may be on the way--from a lowly fish called the winter flounder. It produces its own antifreeze so it can swim about in the North Atlantic when the water temperature is barely a degree above freezing.

Scientists at John Hopkins University in Baltimore have isolated the gene that permits the flounder to brave the icy seas and are close to transferring it to less well-endowed fish. By next spring, the researchers plan to inject the gene into striped bass and trout, which they hope will then be able to live in colder waters than their parents.

The researchers at Johns Hopkins are part of a small band of scientists who are bent on altering the genetics of fish and other aquatic creatures. While most of the research and funding in biotechnology has focused on drugs and agricultural crops, these researchers are applying such techniques as recombinant DNA to coaxing food and useful chemicals from Davy Jones's locker. By manipulating the genetic traits of marine organisms, they are trying to produce fish and shellfish that grow fast, resist disease, and thrive in polluted environments. "The potential for returns is enormous," says Rita R. Colwell, a marine biotechnology researcher at the University of Maryland.

But there is also a potential risk. Some experts fear that the release of modified fish could alter the entire marine ecosystem. Sea bass that could withstand low temperatures, for instance, might crowd out the fish that already live in cold seas. And once the process was started, it would be impossible to reverse.

...Emily T. Smith, et al
Business Week

NEWS AND NOTES

PIGEON RIVER PROBLEMS AND TRIUMPHS

Ned Caveney, manager of a forest for the Michigan Department of Natural Resources, is a Renaissance man among foresters--an ardent grouse hunter and trout fisherman who understands what makes elk browse (and what damage browsing elk can cause), and at the same time a petroleum manager and a sawlog forester. He'd better be--the multi-use Pigeon River Forest has all the ingredients of a massive headache if it isn't handled right.

In 1975, there were fewer than 20 elk in the forest and considerable worry that the herd would vanish but a decade of management worked wonders. The herd increased to nearly 1000. "We want a visible elk herd, but we also want hunting," Caveney says.

Although the DNR makes the rules, it does so only with local input--the Pigeon River Country Association, an 18-member citizens' advisory committee formed 10 years ago, is far more than a figurehead. When the committee speaks, the DNR listens. Not that the tail wags the dog, but . . . well, it's that delicate balance again. And it's apparent the PRCA and the DNR have a mutual respect and fondness.

It took discovery of oil and gas to crystallize the public's sentiment on both sides of the development issue--always present but not always aroused. Say "oil well" to a preservationist, and she sees red. Others see green--the color of money. Oil is an important economic asset in Michigan, especially when the steel and auto industries are depressed.

A 1982 DNR survey of recreation-users indicated that 60% disapproved of oil development; cross-country skiers and bowhunters were most opposed, and mushroom hunters and horseback riders were least opposed. The DNR and the oil industry were forced to devise a careful plan, keeping local concerns at the forefront of considerations.

As it turned out, not only were the elk willing to share drilling sites, they thrived. Regeneration cuttings and other management projects in the drilling area actually increased elk activity, and dry-well openings proved to be ideal clear-cuts.

But management problems only seem to increase. Recently there has been a dramatic increase in off-road vehicles, especially the omnipresent three-wheelers. And elk poaching is a continuing threat to the herd.

Summer 1984 produced a weird pollution problem that killed thousands of trout in Pigeon River and fouled the river ecology. Some 22 miles of the 42-mile river were slimed by silt from a 60-acre dammed lake owned by the Golden Lotus Foundation, a nonprofit yoga camp.

Ned Caveney, employee of the DNR, champion of the trout fisherman, grouse hunter, and forester, is thinking of taking up a new hobby. Juggling. After all, he's had plenty of practice.

...Joel M. Vance
American Forests

ARSON AND APATHY

Forest fires created chaos in the South last year. Fully 60% of them were later classified as arson. In fact, forest fires and arson are considered synonymous by many in the southern states (Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia), where roughly 90% of the forestlands belong to timber companies and private landowners. Nearly 98% of all intentionally lit fires in the country are in the south.

1985 was one of the South's worst fire years in more than 20 years. Yet serious fires occur regularly there. During the last three years, for example, 224,549 fires have burned more than 5 1/2 million acres.

...Deborah Borfitz
American Forests

THERE'S MONEY IN THEM THAR TREES

Arborist Gary Merrill recently calculated the dollar value of Salt Lake City's urban forest, using the estimate of 100,000 trees on public property. To do this, he made several assumptions and estimates of species composition, diameter classes, condition and location of trees, and replacement costs for each species in the 2" to 6" diameter classes.

Based on these factors, and using the formula developed by the Council of Tree and Landscape Appraisers, he came up with a figure of \$105,748,000.

...National Urban and Community
Forestry Forum

GETCHER SLASH UP

A new means of starting slash burns simply called "the Blowgun" by its California manufacturer, uses compressed air to fire small projectiles up to 300 yards carrying flammable agents to the bottom of a logged area. After about 45 seconds, the projectiles ignite. The flammable agents are inert until combined, so they can be safely transported. Carol Rice, owner of Wildland Resource Management, said her company hoped to develop a system that would be on the market in a year and sell for about \$200.

...BLM News

LET US SPEAK OF BALD EAGLES AND BATS

West Virginia is the home for 70% of all the endangered Virginia big-eared bats known to still exist. Population surveys were conducted by Department of Natural Resources biologists in June. The mammals were counted, using an infrared night scoping technique, as they emerged from caves to feed on insects. Results show that there are now nine known colonies representing a total population of approximately 3,700 in West Virginia. This denotes an increase of 10% over the past two years.

According to the National Wildlife Federation's Raptor Information Center, 130 bald eaglets were produced in 1984 from the 124 known nests in the Chesapeake Bay area. This is the highest number of birds recorded since 1977, the first year the Center began the study.

...West Virginia Non-Game News

COMPARED WORTH IN WASHINGTON PLAN

Here's a quick look at the highlights of Washington State's new "comparable worth" plan. The six year program is designed to erase most of the wage bias against female state employees.

COST: Actual increases will total \$104 million, but because the new raise will be added to a higher base every year, total effect is \$482 million.

IMPACT: Nearly 35,000 state workers, mostly women, will get hundreds more dollars each year, to put them closer to parity with those in comparable job categories. Distribution is through a complex formula.

BACK PAY: None.

EFFECTIVE DATE: Next April 1, through July 1, 1992.

RATIFICATION: Legislature and federal court must concur.

...Lewiston Morning Tribune

NEWS AND NOTES

ENVIRONMENTAL FUND INVOLVED IN ASSESSING IMPACTS OF POPULATION GROWTH

The Environmental Fund's new objective--to develop a constituency for the adoption of a national population policy within the next five years--requires a sound underpinning of factual data on population-change effects if it is to be achieved. Key to the success of the effort is the involvement of the scientific community in compiling evidence that proves even to skeptical cornucopians that the United States does indeed have population problems.

As an initial step toward obtaining better data, the Environmental Fund convened a meeting in mid-April at the University of Michigan, co-hosted by the University of Michigan's School of Natural Resources and its Population Studies Center. The academics and practitioners present concurred that expertise from diverse fields is needed to conduct comprehensive analyses of the impact of population growth on our society's resources and economy. Demographers' "hard numbers" can describe how many people there have been in particular places and how many people there may be in the future. Economists can work with market prices to determine --to the extent that the environment's products, services and values can be measured in dollars--what the cost to society will be if we lost certain environmental services as a result of overpopulation. They can project higher costs associated with the relative scarcity of water, lumber, energy, etc., which accompany increased demand.

Sociologists are comfortable describing the more subjective effects--the decline in natural beauty, visibility, or other esthetic values. They study the impacts of rapid population growth on rural America--the small towns, family farms and family ranches--and can contribute important data to environmental assessment.

Lawyers can suggest possible avenues for litigation to force recognition of the impact of population growth in the planning and project-approval processes. They can help determine, for example, whether The Environmental Fund can sue under the National Environmental Policy Act (NEPA) to require improved analysis of the socioeconomic impact of proposed federal actions.

....The Other Side
Environmental Fund

WOMEN OUTNUMBER MEN IN WSU VETERINARY PROGRAM

More women are becoming veterinarians, a trend that can be seen in the number of new students in Washington State University's veterinary program.

Sixty percent of the students in the 1985-86 class are women and this is the first year women have outnumbered men. Many veterinary professionals believe the field is becoming dominated by women because men are seeking more lucrative professions that require less education. Most veterinarians make less than \$40,000 a year.

....Associated Press

WORK TURF

Human beings, like other animals, insist on a certain territory marked "mine," says anthropologist Edward T. Hall, author of The Hidden Dimension. Your prime turf is your personal "space bubble," a distance of one-and-a-half to two-and-a-half feet. Only intimates are invited inside this "bubble" of air.

In a crowded office, especially one where you share telephones or video display terminals, you and your office mates will constantly be reaching inside each other's personal space. This will probably make each of you very uncomfortable, even though you may not know why.

In fact, Hall discovered three "hidden" territories in American offices: "hidden" because most of us don't consciously recognize that these turf boundaries exist, or how important they are to us. The first is the immediate work area surrounding your desk and chair - your personal space bubble. Next come those points within arm's reach that you can touch without getting up and, third, the boundaries you can reach when you push away from your desk without actually leaving your chair.

Barbara Bartocci
SELF

BYLINE BIAS

Kent State psychologists Michele Galudi and Lisa Strayer asked 300 men and women to evaluate an article supposedly written by a man (John T. McKay), a woman (Joan T. McKay) or an anonymous author.

The article was either on a subject judged to be masculine (politics), feminine (the psychology of women) or neutral (education).

As the researchers expected, people rated the articles as better written more insightful, more persuasive and higher in overall quality when they were told they had been written by a man. "This pro-male bias was present even for articles in feminine and sex-neutral fields," Paludi and Strayer say.

....Vincent Bozzi
Psychology Today

FAT CHANCE

For decades, doctors kept tables of ideal weights pinned to a wall in their offices. Cheryl Ritenbaugh, an associate professor in the department of family and community medicine at the University of Arizona, studied standard weight tables for men and women over a 40-year period and noticed a peculiar pattern: The weights for men have yo-yoed up and down, but in general, women's ideal weights slid steadily downwards for years. Ritenbaugh found that between 1943 and 1980, the ideal weights for women had dropped about 10% on the Metropolitan Life Insurance tables, the most widely used by health-care professionals.

In other words, more and more women who didn't look like models were being defined as fat. "What we have done is create this illness--obesity--for a healthy part of the population-women," Ritenbaugh says. Ritenbaugh also found that when she compared the average weights of real women against the ideal, 70% of all women were declared obese by the age of 50. "We have created numbers that fit a cultural picture, not the medical facts," she says.

....Betty Holcomb
Savvy



PROTECTING NEW HAMPSHIRE LANDS

Sarah Thorne

In 1983 there was a 71.9 percent increase in housing starts in New Hampshire.

Early land protection efforts focused on the White Mountains. Today, after 74 years, the 750,000-acre White Mountain National Forest is nearly complete. The forest is within a day's drive of 75 million people and is a recreational gem of the Northeast.

Imagine that your children are charged with conducting a post-mortem examination on an ecologically "dead", thoroughly suburbanized New Hampshire. The year is 2050, only 65 years away. If the 1950-1970 rate of land consumption for roads, homes, business, and industry were to continue, this is how long it would take to settle all of New Hampshire's land that is not now permanently protected! Your children's task is to identify the symptoms, and much more difficult, to diagnose the cause of the land's expected mortality.

Symptoms

The symptoms of the decrepit patient are obvious. Your children are likely to list them as follows:

- The surface of the land is scarred by haphazard development and subdivided into small compartments.
- The only farm and forest lands left are the few relics that had been preserved by public and non-profit initiatives and by foresighted landowners. The public land is so overrun by hikers, hunters, anglers, snowmobilers, and trail bikers, that even with strict regulation wildlife is gone. Trails are paved. They are constantly patrolled by law enforcement officials to prevent conflicts between the various user groups and to present violations of strict noise and speed limits for the motorized vehicles.
- The forest products industry has vanished. Papermills and sawmills have departed for more productive, less acidic forests. Private forestland is divided into such small tracts that commercial forest management is uneconomical. Public forest land is in such demand for recreation that only a few fuelwood dealers and specialty mills are still in operation. Fuelwood poaching and vigilantism are rocking private forest land owners more frequently as energy prices rise.
- Commercial farming has been reduced to a few intensive fruit, vegetable, and horticultural operations. Dairy farms are gone. Even the scattered farms that were protected when their development rights were purchased or donated are struggling from a lack of farm supply dealers and processors. The most productive farmlands with valley soils have all been developed.
- Plant and animal diversity has declined. Deer have lost their wintering grounds and have been run out of all but the most remote areas by dogs and hunters. Populations of moose, bear, bobcat, and fisher cat now survive only in the White Mountain National Forest and are so small in numbers that they may not survive inbreeding, epidemics, and severe winters. Only five lakes

are large and undisturbed enough to support loons. Hopes of regaining breeding osprey and eagles are gone forever.

•The golden age of tourism has passed. The ski slopes and marinas are still crowded, but the uncrowded scenic landscapes, fresh air, and restorative get-aways around which the state's former number-one industry revolved are gone.

•The state's waters have suffered as well. Shorelines are studded with condominiums. Expensive water and sewer networks have been built throughout the state to service communities whose wells have been contaminated by toxic wastes, road salt, and failing, densely packed septic systems. Salmon restoration projects, so close to completion in 1990, have been abandoned.

“RESIDENTS OF THE STATE MUST HAVE BEEN POSSESSED BY THE SELF-DESTRUCTIVE NOTION THAT THE LAND WAS A PURELY PRIVATE RESOURCE, NOT PART OF THE COLLECTIVE BODY...”

Further Diagnosis Needed

Despite the abundant and long-recognized symptoms of suburbanization, your children may have difficulty in diagnosing the cause of the state's disease. Perhaps their report will read something like this:

The patient seems to have suffered from a serious addiction. Residents of the state must have been possessed by the self-destructive notion that the land was a purely private resource, not part of the collective body, not the lifeblood of the state's economic activity, not the essence of its residents' identity. The land was treated as an expendable commodity.

The fertility of the soil, the richness of the habitat, the scenic beauty of the landscape, and the recreational opportunities of the undeveloped spaces were not regarded as irreplaceable resources.

Present Condition, Past History

Fortunately, all of this was not a foregone conclusion. The patient is for the most part healthy in 1985. There is still time to act. Because land use decisions are made close to home, individuals and communities can make a tremendous difference. New Hampshire has a long history of protecting the best of its land. An impressive array of tools are available for guiding growth and for identifying and protecting high priority land. Current growth rates, however,

challenge land protectors to improve their tools, address the concerns of their critics, and dramatically step up their activity.

In the early years, land protection meant protection from forest fires, indiscriminate timber harvesting, and attendant soil erosion and water pollution. These conditions were the impetus behind the creation of the Society for the Protection of New Hampshire Forests in 1901, the State Forestry Commission in 1909, the White Mountain National Forest in 1911, and the state park system in 1935. Some of the outstanding protection successes of that era were Franconia Notch, Crawford Notch, Mt. Monadnock, Mt. Kearsarge, Mt. Sunapee, Lost River and, of course, the White Mountains. Now, approximately 16 percent of the state's 5.8 million acres have been permanently protected from the excesses of the past, largely through these public acquisition efforts initiated early in the century.

“THE MOST URGENT THREAT TO LAND-BASED RESOURCES IS NOW FROM CONVERSION TO ROADS, SUBDIVISIONS, AND COMMERCIAL STRIPS.”

Medication History

Today, both the rationale and methods of protecting land have changed markedly. Mismanagement is still a problem. However, a concerned citizenry, the influence of professional foresters, and landowner assistance programs such as Tree Farms and the Cooperative Extension Service have improved forest and farmland management dramatically. The most urgent threat to land-based resources is now from conversion to roads, subdivisions, and commercial strips. The pressure is so great that even the 16 percent of our land that has been protected is not enough to meet our demands for open space.

New Hampshire's population grew nearly twenty percent during the last ten years. While this break-neck pace may not continue, even a continuation of the projected five percent increase over the coming five years would double the state's population every 65 years! This doesn't even account for the residential and commercial development associated with tourists and second-home visitors to the state.

“THE AVERAGE FOREST PARCEL SIZE HAS FALLEN FROM 90 TO 45 ACRES.”

Read the Warning Labels

The toll of development has been especially heavy in southern New Hampshire. Rockingham County lost 19 percent of its best agricultural soils to development in just two decades, according to the New Hampshire Agricultural Experiment Station. Only three percent of the state's land remains in agricultural use, in large measure due to land values hoisted by development pressure.

Land turnover is rapid. With an average change in ownership every seven years, the opportunities for future development and subdivision proliferate. Simultaneously, the average forest parcel size has recently fallen from 90 to 45 acres (U.S. Forest Service). This has put many landowners under or

close to the limit of commercial forest operability. In turn, the inability to manage land economically for forest or agricultural crops increases the incentive or need to sell for development.

The millions of tourists and recreationists who enjoy the state also seek large undisturbed territories. Tourists ring up \$1.5 to \$2 billion in sales for the state's economy annually. The 165 summer camps alone provide 50,000 children with an outdoor experience each year and pump \$50 million into the economy. There are over 30,000 snowmobilers in the state and 254,163 hunting and fishing permittees, not to mention untold hikers and Sunday drivers. It is vital to the state's economy and its citizen's quality of life to protect trail corridors, water access, scenic vistas, and hunting grounds.

Preventative Medicine

The most effective first step that individuals, communities, or conservation groups can take is to identify their high priority lands that deserve protection. Scarce resources can then be applied to save that land while development is guided toward less sensitive areas. Ecologically significant lands should be identified for protection using the best obtainable scientific information. These lands include aquifer recharge zones, prime wetlands, prime farmland, highly productive forest soils, and habitats of rare species or exemplary natural communities. To this inventory should be added land of outstanding social importance. This includes recreational, scenic, and historic land.

Recently the public sector's response to the need to protect land has dwindled. The Forest Service budget contains virtually no funding for land acquisition although the White Mountain National Forest is only 86 percent complete. The recent major national forest acquisitions in the White Mountains have been initiated by the Forest Society and the Appalachian Mountain Club through the passage of special legislation.

On the state level, only the Department of Fish and Game currently has funds to acquire conservation land. The state parks and state forest systems are accepting gifts of land, but haven't received acquisition funds from the legislature for several years. Towns are eligible for 50-50 matching grants from the federal Land and Water Conservation Fund for the development of recreational facilities or the purchase of land. Again, funding is severely limited. Town projects selected in 1985 will receive a maximum of \$25,000 each. A final protection effort was the Department of Agriculture's purchase of development rights on 1000 acres of New Hampshire farmland. At a cost of \$3,000 per acre, it is unlikely that this stalled program will receive additional funding.

Getting a Second Opinion

In this era of limited public spending, the major public involvement in land use decisions is through the administration of zoning and subdivision regulations, and current use assessment. Although most towns will



soon have master plans and zoning and subdivision regulations, these rarely give towns a firm grip on guiding growth away from their ecologically and socially sensitive land. The stand-by for limiting growth has been large lot zoning of from two to ten acres. Ironically, large lot zoning may actually accelerate the loss of economically viable farms and forest land.

In 1984, a major court decision sent many towns fleeing from their reliance on large lot zoning. The court found the town of Atkinson's two-acre minimum lot size to be exclusionary for low and moderate income people and unacceptable. This and other court cases have warned towns that their zoning codes and control over the number of building permits issued per year must be based on scientific evidence and a well-planned town capital improvement program. Arbitrary growth rates and lot sizes in all likelihood will not withstand a developer's court challenge.

“THE MOST COMMON PROTECTION TECHNIQUE OF THE PAST HAS BEEN DIRECT ACQUISITION....

THE TECHNIQUE THAT PROVIDES THE MOST COMPLETE PROTECTION IS THE CONSERVATION EASEMENT.”

For these reasons, a community's inventory assessment of all of its land is vital. Some towns have crafted special ordinances to limit development and other uses in sensitive areas such as wetlands, steep slopes, shoreline, aquifers, and natural preserves. Cluster zoning allows increased densities on one portion of a tract in return for the permanent setting aside of open space on more sensitive parts of the tract.

Because a town's ordinances are in a constant state of flux as it makes the transition from rural to urban, it's high priority natural resources are rarely secure. Even current use assessment is at best a temporary incentive to encourage landowners to keep their land undeveloped. A landowner can withdraw from current use at any time, with a 10 percent land use change tax as an often inadequate deterrent to development. What can be done to permanently protect important land?

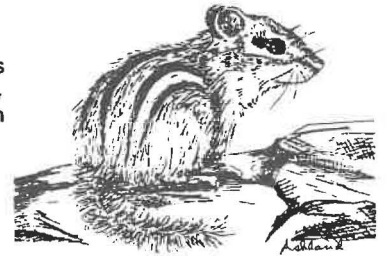
High Potency Vitamins Needed

During the last two decades, there has been an explosion in the land protection movement. Much of the impetus has come from private, non-profit land conserving organizations, often referred to as land trusts. Many of the most successful projects involve a cooperative effort by land trusts and communities. According to a 1981 national survey of land trusts, 423 organizations with 300,000 members had protected 680,000 acres of significant natural resource land. In New Hampshire, land trusts such as the Audubon Society, the Connecticut River Watershed Council, the Lakes Region Conservation Trust, the New England Forestry Foundation, the Piscataquog River Watershed Association, the Squam Lakes Conservation Society, and Society for the Protection of New Hampshire Forests, and many local groups have protected over 35,000 acres.

The most common protection technique of the past has been direct acquisition. Full ownership of land is acquired through gift, bequest, land transfer allowing

the residents to retain a life estate in the land, or purchase. A purchase at less than full market value is a bargain sale and allows the seller to take income tax deductions for their partial gift. The possibility of an acquisition can be held open by securing an option to buy or a right of first refusal on a sought-after piece of land. For outright acquisitions, land trusts or communities obviously depend on the generosity of donors and conservation-minded citizens. In many cases, a purchase may not be affordable. In addition, a land trust or town may not want the management responsibility for a particular tract of forestland or, especially, farmland.

In such cases, the land trusts and towns can choose techniques that allow land to remain in private individual ownership and care while protecting the critical resources from development and misuse. The technique that provides the most complete protection is the conservation easement. This is a legal agreement between a landowner and a conservation group or government body. It is based upon the principle that certain rights of ownership--such as residence, recreation, forestry, and farming--can be separated from other rights of landownership, such as development, mining, altering water bodies, and road building. When a landowner grants a conservation easement, he or she retains certain rights of ownership, which, depending upon the exigencies of the resources needing protecting, usually include the rights to continue living on the land, to enjoy it for recreation, to manage it for wildlife, forest products, or agriculture, and to sell the land. The present and all future owners, however, have relinquished the right to develop the land or to use it in specific ways that would destroy its natural resources and productive potential.

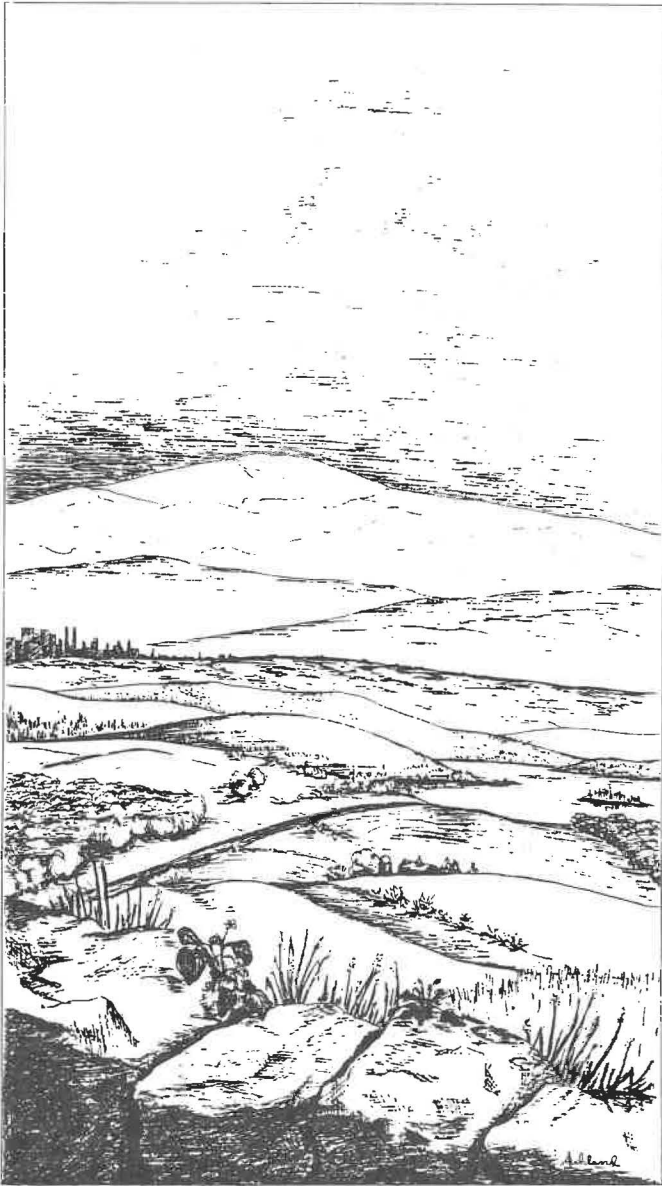


Because they are permanent, easements must be applied judiciously and must be monitored regularly by the grantee organization. Deed restrictions and covenants among neighboring landowners can be effective but may be more difficult to enforce over the long term. Voluntary, non-binding agreements can be used to raise awareness of a resource and can possibly lead to permanent protection. (For more detailed information about these techniques and their tax advantages, contact Society for the Protection of New Hampshire Forests, 54 Portsmouth Street, Concord, New Hampshire 03301).

“A \$900 MILLION TOURIST SECTOR, A \$600 MILLION FOREST PRODUCTS INDUSTRY, AND A \$600 MILLION AGRICULTURAL OUTPUT REVOLVE AROUND THE HEALTH, PRODUCTIVITY, AND BEAUTY OF ITS LAND.”

Read the Prescription and Follow Directions

For too long the need to protect our critical land-based resources and our simultaneous need to change and progress as a society have been perceived as irreconcilable. The land protection movement has been charged with being intolerably elitist, expensive, emotional, unscientific, idealistic, and self-righteous.



Furthermore, land protectors are accused of being preoccupied with aesthetics, advocating resource lock-ups, and bringing the economy to ruin. Many of these criticisms have been well earned. Now, the land protection movement has the knowledge and obligation to retire these charges as empty myths.

In a state in which a \$900 million tourist sector, a \$600 million forest products industry, and \$220 million in agricultural output revolve around the health, productivity, and beauty of its land, judicious land protection can hardly be called an elitist luxury and a threat to economic well being. In fact, in many cases, protecting land actually saves a community money. Often, the hidden costs of development (schools, sewers, water; roads, fire and police protection, etc.) are not offset by the added property tax revenue from the development.

By scientifically targeting ecologically and economically important land, charges of arbitrary, haphazard obstructionism can be defused. The challenge is to move beyond guerrilla land protection. Once land is protected, management for compatible multiple use can open up land for long-term economically productive use, ecological protection, and recreational enjoyment.

In the year 2050, will the inheritor of New Hampshire have any lingering hints of the landscape that moved the native Americans to name Hooksett for the "place of the beautiful forest hill", Amoskeag for "place of the fish", and Pemigewasset for "crooked place of the great pines"? If the land protection movement is to flourish in New Hampshire, it may hinge on a renewed commitment to this heritage--the natural endowment that is the foundation of freedom in this "Live Free or Die" state.

Sarah Thorne has worked for the Society for the Protection of New Hampshire Forests since 1983 as land protection specialist. She has a B.A. from Williams College in political science and environmental studies. She did graduate work at the University of Vermont, and then earned an M.F. in Forestry from Dartmouth College in 1983. Thorne's article is reprinted with permission from Forest Notes (Spring 1985).



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
OREGON STATE OFFICE

The Bureau of Land Management is interested in receiving applications from women now working in natural resources, such as foresters, forestry technicians, range conservationists, range technicians, botanists, archeologists, soil scientists, etc.

We are under a hiring freeze except for Forest Service employees and we expect some possible cutbacks under the Gramm-Rudman-Rollings bill. However, there is an occasional opportunity to hire an employee from outside BLM when we have no applications from our own

agency. Then we ask for an exemption to the freeze when a federal employee or employee with reemployment status applies.

The EEO Office will retain your application in the event there is a possibility for employment. If you are interested, please send your application to the Bureau of Land Management, Oregon State Office (EEO 913), P.O. Box 2965, Portland, Oregon 97208.

Non-federal applicants should contact the Office of Personnel Management (OPM) to seek status on an OPM register.

WOMEN ON THE RANGE: FEMALE RANGE CONSERVATIONISTS ON THE HUMBOLDT NATIONAL FOREST

Tina Gast
and
Susan Grundy

Nevada's Humboldt National Forest is not one of the nation's richest forests in terms of money, but it boasts one of the richest concentrations of women range conservationists in the U.S. Forest Service. Prior to recent transfers, there were six women range conservationists--compared to seven men holding the same position.

The Humboldt National Forest ranks first in its region, the Intermountain Region, and sixth in the nation, for animal unit months of livestock grazed. This places a great responsibility on the "range cons" whose task it is to maintain and improve range conditions while still allowing livestock grazing on the great tracts of rangeland that make up a large portion of the Humboldt. It is a demanding job, further hampered by the remote locations of most of their posts; the Humboldt sprawls across 2.5 million acres of sparsely populated eastern Nevada and then north into Idaho.

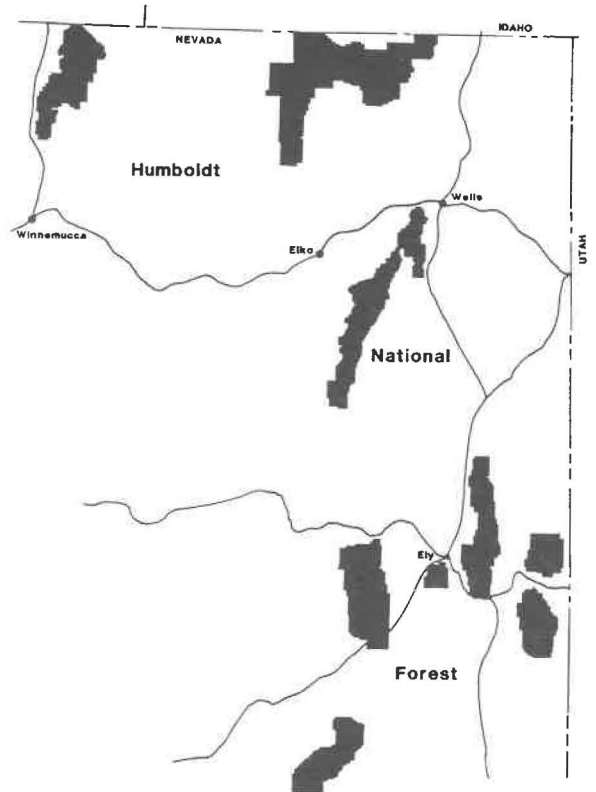
What brought these women into the predominantly male field of range conservation? What keeps them there? What problems do they encounter?

* * *



All photos in this article courtesy of USDA Forest Service.

Jane Chwastyk, a native of Philadelphia, is a range conservationist with minerals responsibility on the Ely District of the Humboldt. A graduate of Oregon State University, Chwastyk has always loved the outdoors, sparked in childhood by her family's concern for a limited land base. She chose range science because it stresses a more holistic view of ecology than other fields. As a six-year veteran of



the minerals program on the Ely District, Chwastyk says she works "with dozens of mining companies, large and small, to ensure that they operate on the national forest within the framework of our mining regulations and that they mitigate the impacts of their exploration and development. Mining reclamation projects draw on your artistic abilities; they're not 'cookbook,' and you can see results. You see a project through to completion." She also would like to work more on watershed improvement projects, if she had the time and the forest had the funding.

Chwastyk is single with no children, "My first priority lies with my personal life, even though my career is important--actually critical--to me." Jane's basic conflict is with her future career plans, she says, adding, "A lot of pressure is brought to bear on young professionals to choose their career goals very early, which is often unrealistic. Goals and desires evolve over time; major events such as marriage and children shift priorities, often for many years. Many professional men do not seem to comprehend this ambivalence (or choose not to) because they often expect a woman in a 'man's job' to act like a man."

Chwastyk is philosophical about her position as a woman in a predominantly male field. She feels that her attitude, more than the attitudes of those she works with, determines how she will be accepted by her co-workers and the public with which she deals: "You must accept that in some respects you will always be in the spotlight. You must prove yourself to every new person you work with. It is a motivating force. I don't dwell on the differences; and therefore, most of the men I do business with don't emphasize it either. Sometimes I'm amazed when I recall the past six years (working in minerals). I must have dealt with over 100 miners, many the grizzly, Nevada prospector-type; and I've had only one walk out of the office because I was female. My boss told him that he could either work with me or he could work outside the law, and he saw the light. We had no problems after that.

"Working with Forest Service men has sometimes been another story. My first job with the Forest Service was as a seasonal in the northern region. It was a miserable experience and shocking to me at the time--the prejudice against women was blatant and permeated every minute I worked there. This was seven years ago, and I swore I'd never try the Forest Service again. I was hesitant when I got the job on the Humboldt, but it has been quite a different story here. The bad experiences have been greatly outweighed by the good, and I am quite impressed by the Humboldt's success at bringing a significant number of women--highly qualified women--into the range and wildlife positions on the districts. I'd be surprised if another forest can show as good a track record in this area as the Humboldt."



Cheri Howell recently transferred from the Humboldt to the Prescott National Forest in Arizona. While stationed in Nevada, Howell worked, after a brief stint with BLM, for the Ruby Mountain Ranger District, headquartered in Wells, Nevada. Originally from southern Idaho, she received her B.S. in range management from Oregon State University. Her mother had long impressed upon her the need for a woman to have a career. "She had kind of a rough life, and wanted to be sure that none of us would be without a way to make a living," Howell noted. She had always enjoyed plant sciences, so the decision to go into range science was attractive because "I love the unpredictability, variation, and unanswered questions

relating to natural vegetation, uncultivated soils and variable water cycles. I enjoy the variety of the job. I have many friends who go to work and do the same thing every day; but I get to work in range, soil, wildlife, watershed--plus public relations and firefighting." The small number of employees on her district was a plus, too, says Cheri. "You can get to know each other and build friendships that last forever. After you've been a part of a district or forest, and you've gone through hardships together, you feel like a member of the team. It's a good feeling."

Howell takes on problem allotments, gathering data and working with ranchers who graze their livestock on the national forest. She regrets, however, that "we often don't spend enough time with those of our permittees who don't have serious livestock management problems."

How does Howell deal with being a woman in a man's field? "There have been many times when I have had much better luck dealing with people than have my male counterparts, and vice-versa. We're all perceived differently by different people; you just have to develop a style to help modify the negative assumptions people make in their first impressions of you."

Recently married, Howell has some real concerns about balancing her career and her family. "Job transfers are a worry for us, because my husband has career goals which cannot be met in many of the small towns where there are Forest Service jobs. Because my job requires me to be away from home for fires, training, and fieldwork, I don't think having children is a good idea right now. I believe children should be raised by their parents, not a babysitter, if at all possible."



Donna Nyrehn is a range conservationist for the Mountain City District of the Humboldt. Mountain City, located in the far northeastern corner of Nevada, is a town of about 50, surrounded by huge ranches and rich hunting and fishing lands. Donna received her B.S. in agriculture (range option) from the University of Nevada, Reno, and she started her current job after two years with the Forest Service in North Dakota. Though her main responsibility is range administration, Nyrehn is also involved with wildlife and watershed management. One current project is a sheep operation management plan involving three grazing allotments, a project that allows her to be creative in handling some unique problems.

This past year Nyrehn became a mother, a process that was carefully planned because of the demands of her job. "My baby was born December 26th so that I could work in the field for the entire field season. I could easily take six weeks off during the winter." This careful planning is just the start of a lifetime of balancing parenthood with career goals for women like Donna, planning that is made more difficult by the lack of a regular 8-to-5-type schedule. Donna's conflicts are somewhat eased because her husband is a self-employed geologist who is able to move with Donna in her career and take on some of the child-care responsibilities. However, Nyrehn says that "there are plenty of times during the field season, when both my husband and I often don't get home until around 8:00 p.m.

Nyrehn feels generally accepted as a woman by the Forest Service, and by the ranchers with whom she works: "They are used to their wives being equal partners in the family ranch. The permittees who have not accepted me have felt that way because of their opinion of the federal government; they don't like to see that green truck, and it doesn't matter who gets out of it."

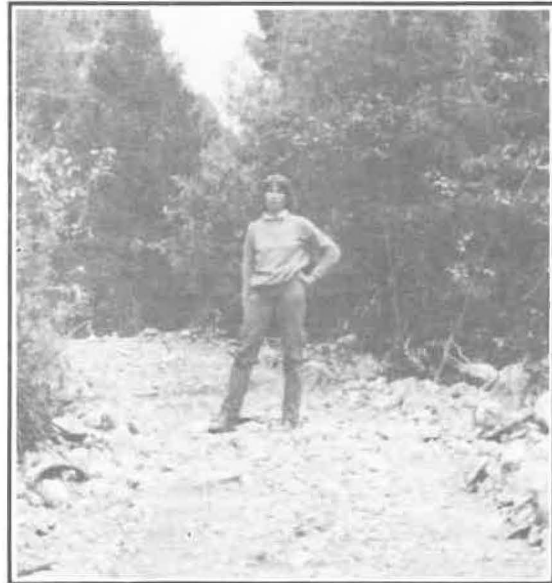


Elko, Nevada, is the largest Nevada town northeast of Reno--and is also the home of the supervisor's office of the Humboldt National Forest, the duty station of Lynda Peck. A Reno native, Peck holds a B.S. in plant, soil, and water science from the University of Nevada, Reno, and is currently working on a M.S. in range and biology. With a career in range, she feels her employment and advancement options are good, and she can work outdoors, away from metropolitan areas.

Peck works on stream classification, assisting with water rights applications and developing soil/vegetation correlations; she feels the latter work, being done forest-wide, "will have many applications in future resource management." Her work on this project involves computer compilations and analyses of the vast amounts of data she has collected. Lynda is also developing plant species lists (which will be specific by mountain range) in conjunction with the regional botanist in Ogden, headquarters of the Intermountain Region.

Peck is single, with no children, and finds that "a resource career for a single woman is much less complicated than for a married woman. I have much more flexibility in my work schedules and travelling arrangements which, as a result, leads to longer field seasons. I am far away from major sources of entertainment and connections with the 'real' world. At times I do wonder--for about five minutes--what it would be like to lead a normal life; and then I continue to do what I love best!" Her chances of finding a companion who can be flexible and mobile so that she can maintain a serious career in her field are, as she knows, not good.

As for being a woman in a man's field, Peck says, "I've been working (both seasonally and permanently) in the field of natural resources for about ten years. I think at first I was bothered by the fact that it appeared women always had to prove themselves. Now either I've grown used to working in a mostly male profession or else they've grown used to seeing me!"



Buhl, Idaho, is the isolated seat of the Jarbidge Ranger District where Marianne Breeze is a range conservationist. Originally from Salt Lake City, she received her B.S. in range science from Utah State University, and decided on a career in range management as an offshoot of her interest in plant identification. She worked as a summer seasonal employee doing range studies, and her career has developed from there. She admits she is "a fanatic about being outside and could never stand a job that required being inside."

Breeze came to the Humboldt after three years on Idaho's Caribou National Forest. She says, "No matter where you work for the Forest Service, you know you will have nice country to work in." Her responsibilities include range, wildlife, minerals, special uses, and watershed. Marianne, like Jane, enjoys mine reclamation work most of all. "You really feel like you've accomplished something when you see an area that has been disturbed put back into production." She also enjoys the variety of work in her current position. "I wouldn't like a job that was straight range," she admits. Along with the opportunity to work outdoors, however, come inconveniences. Since her duty station is not located near where her field work is, she is away from home most of the field season, leaving Monday morning and returning on Friday.

Though she is single and childless, Marianne points out that "if you want promotions you have to move, and it's not always to a place you really want to go, which is hard on your personal life. I've placed priority on my job in an effort to keep my career going. Marriage right now might mean quitting my job, or me living in one place and my husband somewhere else. I'm not interested in those options."

Does the fact that she is a woman have an effect on her job? Breeze says, "Most of the time I don't even think about this. Ninety-eight percent of the people you work with don't care, either."



Tina Gast is a Texan by birth, and received a B.S. in wildlife and fisheries science from Texas A&M University. She took enough range courses to qualify for the federal roster as a range conservationist, and currently is working for the Santa Rosa District of the Humboldt, based in Winnemucca.

Gast, like the others, best enjoys projects where "you can see some fairly immediate results. For the most part, the results of good range management are long-term and are often very subtle. Rangeland seeding programs, prescribed burns, and watershed projects, however, show immediate results. We have a stream habitat improvement project in the planning stages that I am pretty excited about. Also, I am excited about an upcoming bighorn sheep introduction on our district. Twelve sheep were released on the district in 1979 and we estimate that the herd has increased to about forty sheep. We hope this release, planned possibly for this spring, will be as successful. It gives you a good feeling to know that you helped a species to increase its range and numbers. It's also pretty exciting to catch a glimpse of these majestic animals every once in a while."

Recently married, Tina has no children, but she is already experiencing the pressure of maintaining a career and family, saying "One of the things I learned right off the bat was that a career in the Forest Service can cause terrible conflicts in your personal life. This is especially true early in your career when, for a lot of us, we haven't made the career commitment yet. We haven't been in the outfit long enough to know if we want to make the Forest Service a career. This uncertainty carries over into your

personal life, where you become afraid to get involved, because a relationship will just confuse you even more."

During her first two months with the Forest Service, Gast was twice approached about moving. She decided against the transfers and has now been in Winnemucca for six years. She says she has "passed up opportunities for moves and promotions because of some personal relationships, and at the times I was interested in moving, jobs weren't available. Now that I have a house and a husband's career to consider, the conflict has definitely intensified. I ask myself over and over . . . can I ask my husband to put aside his career goals and opportunities to move with me? Am I willing to take the sole responsibility as breadwinner? So far I've been able to avoid making that decision. But at some point that decision will have to be made . . . and I can see that adding children to the picture will only complicate the situation."

How does Gast feel about being a woman in range? Though she sometimes has to deal with problems associated with her sex, "most times I don't even think about it. When I first came to this job, though, I felt I had two strikes against me--one was being a woman, the other was being a wet-behind-the-ears college graduate from Texas trying to tell a native Nevadan how to manage part of his livelihood! But I found that as long as I was honest about my abilities and showed a willingness to work with these people, I could earn their respect. It was only natural that they be skeptical, so initially we had to work through that. This same approach has worked well with my male co-workers. I have been fortunate so far in my career in that I have not had to deal with any blatant discrimination or abuse because I am a woman. I know of a few women who have, and it's a no-win situation.

* * *

The science of range management is presently undergoing many changes, partly as a result of the population explosion in the West; more and more people are wanting to use land. The consensus among these six women is that range science will become increasingly land management-oriented out of sheer necessity. They feel that local interests will give way to more regional and national interests. Wildlife and recreation interest groups are growing in power and are demanding a larger share of the land base and its resources; they look increasingly to the western states to meet their hunting and other needs. Mineral exploration interests will continue to compete with livestock grazing; another issue competing with grazing will be wilderness.

Nevada's wilderness bills are presently creating controversy. As a result, the six women agree, range management will become more sophisticated in the future; there will be more intensive management with a more informed rancher participating in land management decisions.

The six agree that range conservationists have a much broader resource background than do many other resource specialists, enabling them to cope with a wider spectrum of range management problems. There is some concern among them that, due to budget constraints, there has been no appreciable hiring of new people into the range management field since 1980.

This in turn has led to a drop in college enrollment in this field and a resulting decline in the expertise needed to meet the future challenges of range management. There is also a concern that the current political atmosphere, in conjunction with reduced funding levels, is hampering their ability to properly manage the public lands. Under these conditions, these women feel that their jobs will continue to challenge them to find creative solutions to the

multitude of resource management problems facing them now and in the future.

Tina Gast is a range conservationist on the Santa Rosa Ranger District of the Humboldt National Forest.

Susan Grundy is the Deputy Public Affairs Officer on the Toiyabe National Forest, USDA Forest Service.

RESEARCH IN PROGRESS

Continued from page 24

AN ECONOMIC AND POLICY ANALYSIS OF WILDLIFE MANAGEMENT POLICIES INVOLVING AGRICULTURALISTS, THE PUBLIC, AND STATE WILDLIFE MANAGEMENT AGENCIES IN THE PUBLIC LAND STATES OF THE WEST: Big game wildlife (deer and elk) populations in the western states find abundant summer habitat on primarily publicly owned land. However, adequate winter habitat is severely limited and often coincides with private land used for agriculture or residences. Wildlife requirements for winter habitat (and additional use in other seasons of crops such as alfalfa) have resulted in crop, hay, fence, and other damages to agricultural enterprises. Farmers and ranchers, already struggling to maintain viable operations, often feel that they bear a disproportionate share of the costs of supporting wildlife, a publicly owned and managed resource. Conflicts over use of public land by wildlife, and access to or through private land by sportsmen in pursuit of wildlife, are becoming both more frequent and more acrimonious. Programs designed to alleviate conflicts between wildlife, sportsmen, and private landowners, such as reimbursement to landowners for wildlife damage, are becoming increasingly costly. These costs are ultimately borne by taxpayers.

On the other hand, the uncertainty of the economic climate for ranchers and farmers combined with the presence of a sought after

resource (wildlife) on their lands has served as an incentive to both landowners and sportsmen to try to extract some mutual benefit from the circumstances. This has led to increases in leases of private land to hunting clubs, marketing of trespass permits to hunters, and issuing of coupons for hunting access to private land (with redemption of coupons to the proper state agency allowing reimbursement for wildlife damages). Unlike the private land states of the east or Texas, however, the success of these efforts is hindered in the west by the abundance of free public land for hunting. Some species of game constitute fugitive resources and may not be present on private land during the hunting season set for them. As a result, innovative arrangements between state wildlife management agencies, landowners, and sportsmen are necessary to make such programs viable.

I propose to examine the economic and policy aspects of the relationships between agricultural landowners, state agencies charged with the management of wildlife, and the public (particularly but not exclusively hunters) with respect to big game wildlife. Although localized studies have been done on some aspects of these relationships, a recurring frustration has been the lack of documented, rigorous economic analyses. In addition, policy

options that have been or are being tried to manage the wildlife/agriculturalist conflicts or turn them into benefits have not been adequately publicized or evaluated.

The purposes of this investigation are therefore to:

I. Conduct an economic analysis of the costs and benefits to private agricultural landowners resulting from the presence of wildlife, the presence of hunters and other wildlife-appreciating publics, and changes in agricultural management practices because of wildlife. The resulting information can be combined in the linear programming model COPLAN to examine the economically optimal combinations of management practices involving wildlife.

II. Describe and analyze programs involving landowners, the public, and state wildlife management agencies with respect to wildlife (such as leasing, special hunting seasons, coupons, litigation, damage claims, etc.). We intend to describe all options being tried in order to foster an exchange of ideas. Programs will be subjected to an economic analysis of costs and benefits and a policy analysis in which they will be ranked and compared.

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PUBLICATIONS

In *DECLARATION OF A HERETIC*, author Jeremy Rifkin is one of the most vociferous and effective opponents of genetic engineering and nuclear technology. In the last few years he has single-handedly forestalled the emergence of an entire scientific revolution. Millions of dollars have been put on hold, scientific experiments have been blocked, and shackles have been placed on new fields of commercial development.

In this essay, Rifkin challenges the scientific worldview and the high-tech optimism of the "Age of Progress." He questions many of the most fundamental assumptions of contemporary Western civilization. In this *DECLARATION* Rifkin identifies the underlying values that give rise to nuclear bombs and genetic engineering. He thinks modern science and technology are not morally neutral but arise from a vision of ourselves as "masters of nature." And he describes the new emphatic worldview which is beginning to emerge.

Send \$7.95 to Foundation on Economic Trends, 1346 Connecticut Avenue NW, Suite 1024A, Washington D.C. 20036.

ANOTHER DIMENSION: A GUIDE FOR WOMEN WHO LIVE OVERSEAS (Intercultural Press, Inc., \$9.50) is by Nancy Piet-Pelon and Barbara Hornby. It has long been recognized that women who go overseas to work and live have special concerns rarely addressed in the "moving abroad" literature or by the sending organizations. This book fills the gap. Written by two women who have lived abroad for many years, it examines the overseas experience from a variety of perspectives and recommends ways to cope effectively and get the most out of the experience.

A brochure with color photographs of West Virginia's threatened and endangered wildlife resources is now available. Endangered species included in this publication are the bald eagle, eastern cougar, northern flying squirrel, peregrine falcon, Virginia big-eared and Indiana bats, and two freshwater mussels. A land snail listed as "threatened" in West Virginia is also included. This free brochure may be obtained by writing to: *ENDANGERED SPECIES BROCHURE*, West Virginia Department of Natural Resources, P.O. Box 67, Elkins, West Virginia 26241.

Tennessee will conduct a five-year *BREEDING BIRD ATLAS* project beginning in 1986. They have adopted the same size block as West Virginia and other atlas states. Tennessee bird watchers will have 720 such blocks to cover, as compared to about 500 in West Virginia. There are currently 20 other atlas projects in progress across the eastern U.S. and Canada. The West Virginia breeding bird atlas is scheduled to be completed in 1988.

A unique coalition of energy and environmental groups--dubbed the Acid Rain Roundtable--has released the results of a *STUDY ANALYZING NEW COST-EFFECTIVE PROGRAMS FOR CONTROLLING ACID RAIN*. The group sought answers to the non-environmental issues that have blocked progress on pollution control legislation. For this reason, the study not only focuses on possible emissions reduction strategies but also suggests methods to mitigate the social, economic, and political impacts of such pollution control programs.

The study, conducted for the Roundtable by ICF, Inc. analyzes the associated costs and employment impacts of significantly reducing both sulfur dioxide (SOX) and nitrogen oxide (NOX) emissions. The study examines SOX reductions of eight and 12 million tons and NOX reductions of 3.5 million tons below 1980 levels, to be achieved in a two-phased approach by 1995.

Roundtable participants include: American Forestry Association, American Public Power Association, Burlington Northern, Inc., Isaak Walton League of America, League of Women Voters, National Wildlife Federation, Pacific Power and Light Co., Public Service Co. of New Mexico, Rocky Mountain Energy, Society of American Foresters, Tennessee Valley Authority and Trout Unlimited. Copies of the Roundtable report cost \$10-\$20 and are available from the National Wildlife Federation, 1412 16th St., NW, Washington, D.C. 20036.

In *SURVEY OF DRY-ZONE PLANTS* the Royal Botanical Gardens in Kew, West London, have recently launched a survey of economic plants for arid and semi-arid tropics. It is intended to draw up an annotated world list of plants of actual and potential value as food, forage and firewood and indicate those species judged to be the most promising. Further details of this three-year program may be obtained from G.E. Wickens, Royal Botanical Gardens, Kew, United Kingdom.

Proceedings from the Symposium: *AIR POLLUTANTS EFFECTS ON FOREST ECOSYSTEMS* are now available. This international conference held in St. Paul in May, 1985, was sponsored by the National Acid Precipitation Assessment Program: USDA Forest Service, U.S. Department of Energy, U.S. Environmental Protection Agency, U.S. Department of the Interior, the National Oceanic and Atmospheric Administration, and Environment Canada. The 440-page volume contains contributed papers and posters dealing with research and new findings regarding symptoms, causes, and potential effects of air pollutants on high and low elevation forests in North America and Europe.

Purchase price of the Proceedings is prepaid \$45 total U.S. For a brochure of other resources available, contact: The Acid Rain Foundation, 1630 Blackhawk Hills, St Paul, Minnesota 55122 (612-455-7719).

The Maryland Natural Heritage Program has just published *THREATENED AND ENDANGERED PLANTS AND ANIMALS OF MARYLAND*. This publication contains 30 separate papers dealing with the State's rare plants and animals presented at a symposium held at Towson State University in Towson, Maryland. The cost is \$13.00 per copy. Your check or money order should be made payable to the Maryland Department of Natural Resources and sent to: Threatened and Endangered Plants and Animals of Maryland, Maryland Dept. of Natural Resources, Fiscal and Supportive Service Office, Tawes State Office Building, Annapolis, Maryland 21401-9974.

MATERNITY, MORALITY, AND THE LITERATURE OF MADNESS by Marilyn Yalom explores the interrelationship between the option and experience of motherhood and the experience of mental breakdown.

Yalom calls attention to the ways in which maternity and motherhood represent common forms of apprehension for all women, reactivating the fear of death that has been discovered and repressed in childhood, and, in some instances, contributing directly to mental breakdown. It offers evidence of the particular stresses encountered by highly gifted women who try to negotiate their way between creation and procreation and "write their way out" of madness.

The book is available through the Pennsylvania State University Press, 215 Waggoner Building, University Park, Pennsylvania 16802 for \$17.95.

FROM GENDER AND SCIENCE - - - -

Book by Evelyn Fox Keller

Review by Elisabeth Carpenter

What does gender have to do with science? Most people would field this question much as one scientist has: "The laws of nature are as impersonal and free of human values as the rules of arithmetic." Evelyn Fox Keller builds a compelling counter-argument in Reflections on Gender and Science (Yale University Press, \$17.95). She maintains that both the questions scientists ask and the conclusions they draw about the natural world have been profoundly influenced by the dichotomy between male and female.

Specifically, Keller argues, a deeply entrenched mythology links objectivity and reason with the male and subjectivity and nature with the female. Since the "birth" of science, she says, the language that scientists have used to describe nature has been adversarial and controlling. Even with this language of gender and power, science somehow manages to come off as objective and impersonal.

Metaphors of sex and domination may infuse the language of science, but how does gender come into play when scientists actually sit down to sequence a piece of DNA or measure people's reaction times in a psychology experiment? Keller argues that gender ideology operates indirectly in the making of science. Unexamined predispositions about the world shape scientific goals and values. For example, scientists tend to choose dictatorial rather than interactive models of nature. They perennially seek "the seat of the soul," "the pacemaker" or the "master molecule." Inevitably, this sort of underlying preference plays a role in determining which theories are embraced by the scientific community and which are left by the wayside.

"As a woman and scientist, the status of outsider came to me gratis," writes Keller in her introduction; yet, throughout this remarkable book it is clear she has retained dual status. She understands science as only an insider can, but her insight is that of someone who has had the courage to step outside for a clearer view. Keller would like to see science transcend gender, and she believes the change can come from within the scientific community. Given enough scientists like her, she may be right.

Author Evelyn Fox Keller was trained in theoretical physics and molecular biology. Her current interests are history, philosophy and psychology of science. She is Professor of Mathematics and Humanities at Northeastern University.

Reviewer Elisabeth Carpenter reviews books for Psychology Today. This review was originally published in the December 1985 issue of Psychology Today. Reprinted with permission © 1985.

TO WILDLIFE MANAGEMENT

Book by Charles L. Cadieux

Review by Ellie Horwitz

Wildlife Management on Your Land (Stackpole 1985) is a volume that offers a refreshing new look at wildlife management for interested landowners. Written by Charles Cadieux, who could undoubtedly transform a shopping list into an adventure story, the book is billed as, "a practical owner's manual." Wildlife Management on Your Land covers ground ordinarily reserved for management textbooks, ecology primers, and natural history articles in a delightful, easy-to-digest form. It is designed for the owner of small plots of land—a particularly important audience, since many large landholdings are being subdivided and loss of habitat is a major threat to wildlife species. As readers try the management suggestions offered by Cadieux, wildlife benefits, and as these habitat improvements accumulate, the overall outlook for wildlife brightens.

While Cadieux concentrates on the practical "how-to" he discusses the economics of fish farming and rearing exotic game, and the delights of game in the kitchen complete with excellent (I've tried a few) recipes. He offers information on the management of nongame birds, techniques for conducting a wildlife inventory, and a chapter on the roles of trees. To increase reader awareness, Cadieux also raises a number of interesting current wildlife issues.

The book is conversational, profusely illustrated and reads like a novel. Don't be misled. Wildlife Management On Your Land is actually a wonderfully comprehensive overview of practical wildlife management: one which will certainly become a staple in our library and one we will recommend to the general public or to anyone dealing with land management.

Author Charles L. Cadieux has spent over thirty years with state and federal conservation agencies interpreting wildlife management. He has now retired to become a full time free-lance writer/photographer and currently lives in New Mexico.

Reviewer Ellie Horwitz has been Chief of Information and Education, Massachusetts Division of Fisheries and Wildlife since 1977. Previous positions have been with Massachusetts Audubon, USFWS, and the State of Oregon.

BOOKS, REVIEWS, ETC.

ANNOUNCING THE 1986

WOMEN IN FORESTRY

PHOTOGRAPHY CONTEST



Time to take some new shots or send us your old favorites!

Categories

1. Women in Natural Resources—Women may be depicted working, recreating or relaxing in the field, office, etc.
2. The Natural World—Scenery—(landscape, waterscape) plant or animal photos may be submitted.
3. Humor in Nature—Be creative.
4. International—Photos taken outside the U.S. that communicate the exotic flavor of foreign places through the depiction of natural landscapes, people, flora and fauna found there.
5. Historical—In this category you need not be the original photographer, but you or your organization must own the picture and it should be at least 35 years old.

Prizes

Winning entries will be published in *Women in Forestry*. All prize winners will receive a one-year subscription to the Journal. Two grand prizes of \$75 & \$50 will also be awarded.

Submissions

Black-and-white prints of a maximum size 5"x7" are preferred. Color prints will be accepted, but entries will be published in B&W. Glossy paper preferred. No size limit on historical photos. Group or organization submissions are permitted. Negatives or slides will not be judged.

Deadline

All entries must be postmarked by Sept. 1, 1986. Winners will be notified by Oct. 15 and photographs will appear in the Winter '87 issue. Send entries to Berta Youtie, *Women in Forestry*, Laboratory of Anthropology, University of Idaho, Moscow, ID 83843. (208) 882-2096.

Judging

Three professional photographers will judge entries. Judging will be based on image sharpness, composition, imagination and artistic merit. Judges reserve the right not to select winners in a category if there are no entries that merit publication.

Contest Rules

Contestants may send as many as 10 entries. Please attach the category, photographer's name, address and phone number with each entry. All entries must be available for publication. If contestants would like prints returned, please specify and send a stamped, self-addressed envelope. You must know the name/address of each recognizable person in your photo and they must sign a release before it can be published (release forms will be sent to winners).

WOMEN IN FORESTRY

Information for Contributors

The journal *Women in Forestry* aims to provide information and ideas for, from, and about women on topics related to: the natural resource professions and associated social science fields; the use and conservation of natural and cultural resources; and issues of administration and personnel of special interest to women in natural resources. We want to serve as a source of ideas, contact, and support, to help women in the natural resources reach their professional goals.

We seek contributions that will effectively integrate the factual, the personal, and the philosophical aspects of our profession. There is a place to express insights or experiences as brief as a few lines or paragraphs, as well as for articles several pages long. We want *Women in Forestry* to provide interesting, thought-provoking reading, and not to be merely a repository for factual data buried in esoteric technical jargon and statistics.

Look through this issue to get ideas of where and how *you* can contribute. Contributions in the following categories are especially welcome:

- Letters and opinions
- Articles and reports
- Interviews or suggestions for people to interview
- Calendar events, conferences, meetings
- Book reviews and announcements of new publications
- News and notes
- Abstracts or clippings from other publications (please provide information on source)
- Announcements and awards
- Positions wanted and positions available
- Requests for specific types of information
- Summaries of research in progress
- Cartoons or other humor (original or clipped with source noted)
- Advertisements
- Photographs or drawings

As you can see from this issue, our format is flexible. For material acceptable for publication in *Women in Forestry*, we will provide, as needed, help with editing, illustrations, and layout. Authors of feature articles will be sent a photocopy of the final version of their article for proofing and approval. All letters must include author's name and address, but names will be withheld from publication upon request.

With all contributions, please include your name, job title or specialty, full address, and phone number(s) where you can be contacted most easily. For longer letters, opinions, or articles, please also include a brief biographical sketch (approximately one paragraph) giving both professional and relevant personal information about yourself and your article that might interest readers of *Women in Forestry*.

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