

# Educational Poster Session

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The educational poster session provided a way of increasing the ordinarily limited time available for discussion of papers, while simultaneously making it easier to communicate visual materials not well suited to oral presentations. Poster presenters were available for 2 hours to discuss their displays. Poster presentations were divided into five categories: user issues; environmental education; partnerships; the urban/wildland interface; and economic issues. These poster sessions are summarized below. This symposium session was chaired by Patricia L. Winter, USDA Forest Service.

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## User Issues

Five of the posters in part addressed the common issue of user characteristics. The first two examined the mountain bike user group. The first, **“Slickrock Trail Mountain Bike Survey: Implications for Resource Managers and Area Communities”** by Dale J. Blahna, Susan Van Patten, Scott A. Dawson, Doug Reiter, and Russ Von Koch, focused on an area known for mountain bike riding—the Slickrock trail near Moab, Utah. Blahna and others reported results from a 1993 study. The study was designed to identify the background and behavioral characteristics of bikers on the trail, and their preferences for current and future mountain bike management. The majority of survey respondents were male, between age 21 to 35, with an annual household income of about \$42,000. Most respondents were on their first or second trip to Slickrock. Findings suggest that management interventions, like use restrictions, are not necessary. Respondents were concerned with protecting resources so that management interventions, like closing trails to protect resources, could be used.

The second mountain bike study, **“Mountain Biking in the San Jacinto Region”** by Deborah J. Chavez focused on an area where a regional mountain bike system is envisioned. Respondents to this survey were typically, male, about 34 years of age, residents of large towns or cities, with an average annual income between \$20,000 to \$39,999. Most respondents had been mountain bike riders for several years and had made large time and money commitments to the sport. Like the participants in the Blahna study, these respondents did not see a need for user restrictions unless it was needed to protect soils, scenic vistas and vegetation. The users had frequented many trails in the areas, which suggested a regional system might be perceived favorably by users. The findings also suggested that plans for development should not include many amenities as they are not desired by current users.

Desired features included maps of trails with mileage, signs indicating permitted and prohibited trail users, and drinking water.

The third poster, **“Commercial and Non-Commercial Visitors to BLM Recreation Sites Along the Mokelumne and Merced River Corridors of the Western Sierras”** by Sam A. Lollar and Robert E. Pfister examined river users. These users were mostly Anglos who expressed satisfaction with their river experiences. User opinions indicated a desire for site conditions to remain the same, for more information about the area, for better clean-up, and to enforce more rules and regulations. Trash bins, facilities for people with disabilities, restrooms, and trails headed the list of improvements desired. Friends and family were the primary means for learning about the areas. User knowledge of who maintained the areas was not strong.

Water-related activity was also the focus of **“Boating Capacity Review and Determination for Pineview Reservoir”** by Randy T. Welsh. Pineview Reservoir is a heavily used recreation/irrigation reservoir located adjacent to the Wasatch Front urban area in Utah. According to Welsh, the issue is how to maximize the boating capacity of the reservoir to provide recreation opportunities while maintaining public safety and perceptions of a quality recreation experience. Reservoir managers feel the allowed numbers in the current carrying capacity policy are too high in order to effectively increase public safety and decrease boating congestion. This poster examined carrying capacity literature, recalculated useable acres, and made recommendations on revising the carrying capacity for Pineview Reservoir.

User information was also a focus for **“GIS Display of Recreational Activity and Associated Economic Value”** by Julie Schaefer. The poster described a study of the Sweet Home Ranger District in Oregon. The data collected included group size, location of activity, user preference of available resources, trip expenditures, willingness to pay, and socio-economic information. The data was used to develop a dollar value for each activity and the demand for recreation activities in the area. This information can be used by resource managers as a land use planning tool as one measure (or layer) in a geographical information system (GIS) map of the area. Decisions made from this information could be used to improve the recreation opportunities of an area and to minimize conflicts between the recreational use and other competing uses of an area.

## Environmental Education

Environmental education and land use ethics were the topics of three posters. The first, **“Children’s Forest: Involving Tomorrow’s Leaders Today”** by Robert Loudon,

described a program meant to empower youth to participate in forest stewardship. The Children's Forest is a 3,400-acre section of the San Bernardino National Forest in California. The planners envisioned that youth will do all the planning, research, and implementation of forest management activities. From this, youth will learn leadership and educational skills to pass on their knowledge.

The second poster, "**National Forest Resource Game for Ecosystem Management**" by Brent H. McBeth, described a computer natural resource game. Many years ago, the Forest Service produced a cardboard game entitled Woodsy's Natural Resource Game. This material was distributed for home and small group environmental education purposes. The game consists of a game board that has land types as spaces around the board. These include rangelands, timbered mountains, rivers, streams, deserts, wetlands, grasslands and others to represent the full spectrum of lands that are managed by the USDA Forest Service. The playing cards represented land uses, from camping to harvesting timber for houses. Surprise cards had statements that begin with "Act of Nature," "Act of Man," and "Act of Congress" and instruct the player to add or remove use cards. Each player is dealt a hand of "Use" cards. The objective of the game is to properly place the "Use" on a compatible land type as you move around the board in turn. The first player to successfully place all of the "Uses" wins. Other players may challenge the placement of a "Use" card on any land type. A computer version of this game is being developed. The computer game will be accessible for home and public school use to teach sound ecosystem management principles of land use and stewardship.

The third poster, "**History of the Trabuco District**" by Judith L. Behrens visually portrayed historic land use ethics of this Ranger District of the Cleveland National Forest in California. The poster emphasized the cause-effect processes that influenced historic land management practices. The photographs and narrative summaries focused on the impacts of early users and demonstrated that land use ethics in the "good old days" were not necessarily positive from an environmental or ecological standpoint.

## Partnerships

Two posters described partnership activities. The first, "**Look What's Blooming on the Mt. Baker-Snoqualmie National Forest**" by Laura Potash and Penny Falknor was a visual display celebrating wildflowers. Celebrating Wildflower events are largely educational, emphasizing wildflower appreciation and conservation by the public. In 1992 the Mt. Baker-Snoqualmie National Forest cooperated with 22 businesses and community groups in creating a beautiful "Celebrating Wildflowers" quilt; hosted a wildflower festival; produced 15 "Look What's Blooming..." table top displays; and produced 10,000 copies of a "Celebrating Wildflowers!" newsletter. The program was expanded in 1993 with a full day wildflower festival in Darrington,

Washington. The program was expanded again in 1994 with a 2-day festival, development of a native plant school curriculum, and 20,000 copies of the "1994 Celebrating Wildflowers!" newsletter.

The second poster, "**Puget Sound Eyes on Wildlife—A Watchable Wildlife Program**," by Mary Sagal and Charlie Vandemoer described a partnership between the Mt. Baker-Snoqualmie and Olympic National Forests, the Washington Department of Wildlife, and the Pilchuck and Black Hills Audubon Society Chapters. Goals of the program were to promote the protection of wildlife and its habitats in both forests; provide enhanced opportunities for all people to view wildlife and wildlife habitat while at the same time protecting this resource; promote learning about forest wildlife and its habitats needs; develop broad public support for forest practices that maintain healthy ecosystems for all forest wildlife; and establish internal and external partnerships that foster a sense of ownership in the use and management of National Forests.

## The Urban/Wildland Interface

Two posters examined issues in the urban-wildland interface. The first, "**Emerging Challenges to Natural Resources: Keeping the 'Wild' in Wilderness**" by Lee DiGregorio and Sue Zahn, describes the San Mateo Canyon Wilderness (SMCW) on the Cleveland National Forest in southern California. The SMCW contains 40,000 acres nestled within the Santa Ana and Santa Margarita Mountains. Primary features of the SMCW are the many canyons that support intermittent and perennial streams that support a wide variety of riparian vegetation. Located within a 1-hour drive from the densely populated cities of Los Angeles and San Diego, this island of Wilderness is surrounded by encroaching residential neighborhoods and urban growth. Primary management challenges are related to easy access to the Wilderness, ever growing conflicts among our visitors, and a general lack of understanding of wilderness ethics by the public. The poster summarizes the effects of urban pressures and the emerging challenges to manage the natural resources while resolving conflict issues among users.

The second poster, "**Fire Managers Must Talk With People**" by Arthur W. Magill, examined fire-related issues in the urban-wildland interface. Managers have repeatedly stressed the need to avoid building with flammable materials and landscaping with fire-prone vegetation yet residents continue overlook these warnings. Several problems may prevent managers from achieving their fire management goals. Communicating with homeowners is challenging; professionals in the building trade build to satisfy the desires of homeowners; community plans frequently do not address the interface fire issue; and fire managers do not spend enough time dealing with the public. Some barriers may be removed if fire managers overcome their reluctance to public involvement and become leaders in interpersonal communication. This could be achieved

in part by training in the social sciences that emphasizes interpersonal relations, and communication strategies.

## **Economic Issues**

Two posters examined economic issues. The first, **“Natural Resources in the Invisible Economy of Rural New England”** by Ron Glass, Thomas More, and Rod Zwick examined the nature and magnitude of the invisible economy in Vermont’s northeast area. This rural area is faced with economic loss of traditional resource-based industries and is characterized by high unemployment rates and low household incomes. The data, based on a mailed survey, suggests that residents are quite active in resource harvesting activities. The study results also suggest that the “invisible economy” is a highly significant factor in the lives of many rural residents. Knowledge of this economy may be of value for resource management decisions.

The second poster, **“The Role of Natural Resource Managers In International Tourism and Rural Develop-**

**ment”** by Arthur W. Magill, examined the economic potential of regional complexes. The United States had a service trade export surplus of \$31.7 billion in 1990. Tourism is the largest category of service exports, and foreign tourism accounted for a surplus of nearly \$2 billion in 1990. Wildland areas of the United States are important destinations for international visitors, but little is known about these visitor’s use of wildlands, their contribution to local economies, or their influence on the service export surplus. The surplus might be increased if resource agencies encouraged international visitation to wildlands. This poster describes how lesser known wildland attractions can be packaged to develop regional complexes to attract more tourists than the attractions may draw alone. It suggests that increasing foreign tourism may provide more dollars to support rural community development, to bolster sagging rural economies, and to reduce the United States trade deficit. Resource managers are encouraged to overcome their reluctance to public interactions and assume the leadership for building an international tourism strategy for wildlands.

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# Wednesday Evening Session

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## Simulated Field Trips

Chair: Linda Hecker  
USDA Forest Service