
Summary of 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 3 hours to discuss their displays. Poster presentations were divided into two categories: minority issues and management issues. These poster presentations are summarized below. This symposium session was moderated by Tracie Welton, USDA Forest Service, and George Welton, California State University at Northridge.

Issues Affecting Minorities

Six of the posters in part addressed the common issue of minorities. The first, **"Communication Issues in Multicultural Environments"** by John M. Baas, focused on land managed by Federal agencies. Baas pointed out that, for effective natural resource management, good communication is essential. It can enhance resource protection goals, users' recreation experiences, resolve conflicts between user groups, enhance the public image of resource management agencies, and enhance land management agency understanding of increasingly complex and politically astute publics. In the multicultural environment in southern California, several factors serve as barriers to good communication. These include different values of agency and user personnel, numerous languages spoken by users, and poor communication technique (message or medium used to transmit the message). By being aware of these factors, natural resource managers can improve communication in multicultural environments.

The second poster paper on this topic, **"Wildland-Urban Interface: Site Observations in Southern California"** by Deborah J. Chavez, addressed minority participation patterns and other issues concerning minority visitation to two southern California National Forests. Chavez described the study sites as having concentrated dispersed usage and being water-based recreation areas. Patterns of visitor use, land ethics, and social interactions were examined. Average group size was eight, and most visitors spoke English or Spanish. Visitors showed a preference for sites next to the water and for shaded areas. Activity preferences were for hiking, picnicking, and visiting with others. Passive depreciative behaviors were seen, but active depreciative behaviors were not. Most of the interaction between natural resource managers and the public were law-enforcement related. Cost-effective management techniques to reduce depreciative behaviors include suggestions for signs, and to improve social interactions include adding some positive interactions—such as a short chat after—stopping to cite visitors.

The third poster presentation concerning minorities was Dale Hom's **"Natural Resource Challenges for a Culturally**

Diverse Pacific Northwest: An Outdoor Recreation Model."

Hom reported that resource managers have not been proactive in delivering quality customer services to ethnic minorities, which is evidenced by low participation in outdoor recreation. Resource agencies provide benefits for the American mass culture, and may be inadvertently excluding ethnic minority groups. Utilizing concepts of strategic marketing, recreation managers and providers can better understand this "new" customer. Asian, black, Hispanic and Native American groups have unique differences, needs and concerns, which must be considered in service delivery. Recommended strategies were identified to improve customer services for a culturally diverse population in the Pacific Northwest.

Victor Caro examined depreciative behaviors in his poster entitled, **"Hispanic Culture Influence on Land Stewardship Development and Land Preservation Issues."** Caro's areas of study are riparian corridors located in the San Gabriel Canyon on the Angeles National Forest and in Lytle Creek Recreation Area on the San Bernardino National Forest. He reported that within the Hispanic population there exists three distinct subgroups (U.S.-born Hispanics, Mexico-born Hispanics, and Central America-born Hispanics) that have significantly different beliefs on environmental awareness and land preservation issues. Foreign-born Hispanics, in many cases, are less environmentally attuned than are their U.S. counterparts. Activities that contribute to global warming and land degradation are considered less harmful by Mexico-born and Central America-born Hispanics. "Hispanic" visitors are more likely to modify the recreation site for water sport activities and open fires, and to improve the picnic area. Certain activities, such as bathing or washing in the stream, tree carving, and leaving trash at the recreation site are viewed as reasonable by Hispanic forest visitors. Land managers, however, consider these activities "depreciative" behavior. To preserve the recreation site, land managers must develop an environmental education program that will provide appropriate land stewardship information geared to particular visitor groups.

Theoretical frameworks for minority issues were addressed by J. Mark Fly and Gillian C. Brown. In **"A Conceptual Framework for Understanding Recreation Behavior from a Multicultural Perspective,"** J. Mark Fly suggested the need to consider the complexity of minority recreational experiences. Even though there have been an increasing number of studies concerning recreation behavior from a multicultural perspective, we are far from understanding the true complexity of leisure participation by ethnic minority populations. The driving force behind this line of research is to explain the bases for differential participation in recreational activities by different cultural groups. Fly noted that for some time now, attempts have been made to explain differential participation using subculture (ethnicity) and marginality theories. A more recent introduction into the theo-

retical foray is the "interracial relations" explanation by West. These findings suggest that for any given situation each of the theories may singly or jointly explain differential participation in recreation and leisure activities by ethnic minority populations. Given the complexities of human social behavior and the diversity of the infrastructure that provides recreational opportunities to citizens, simple explanations understandably are scarce.

In **"Understanding Social Stigma as a Barrier to Recreation Participation of Individuals With Disabilities Using Fishbein's Model of Attitude Formation,"** Gillian C. Brown examined another minority population—individuals with disabilities. Brown noted that societal attitudes are the fundamental foundations for the barriers that individuals with disabilities encounter in their daily life, as well as in their recreation. Fishbein's model of attitude formation facilitates a vital understanding of the root of such negative attitudes. This model shows that attitudes and behavior are based on beliefs. Beliefs (whether they are based on fact or fiction) and strength of belief are the basis for attitudes (be they positive, negative, or neutral). The behavior, then, is the response to the attitude. Finally, feedback or "the action of others" finishes the cycle by reinforcing the belief or altering it. Attitudes are formed, and subsequently attributes that make one different are categorized and stereotyped along with negative archetypal information linked to the "difference." In this way, stigma are assigned. In recreation participation, the attitude and similarly the stigma create a large psychological barrier to participation for persons with disabilities. Lack of interaction and exposure to individuals who are markedly different, coupled with misconceptions and low tolerance, manufactures a hostile environment for recreation and its inherent benefits. A basic comprehension of attitude formation can lead to education which can, in turn, reverse the pervasive negative attitude in our society.

Issues Affecting Management

Eight poster presentations addressed management issues. The first by Tess Albin-Smith and Pam Linstedt was entitled **"Resolving Recreation Land Use Conflicts on the Jackson Demonstration State Forest."** The Jackson Demonstration State Forest (JDSF) is the only state recreation area on the Mendocino Coast managed for both sustained yield timber production and related research, education, and outreach programs. In a study of camping and use permits for 16,719 visitors to the JDSF in 1992, Albin-Smith and Linstedt discovered quite different recreation expectations between local and nonlocal visitors. Whereas many local visitors use the JDSF because they or their families historically camped or grew up on the forest, nonlocals are unfamiliar with its history or management role. JDSF recently added a program specifically to address recreation. A consulting firm was hired to develop a plan to provide high quality recreation and to address some of the land use and recreation conflicts on the State Forest. Conflicts of use, such as hunting and horses, off-road vehicle use, target practice, vagrancy, and patrol problems continue to be a challenge for future planning.

Lynn Roberts, in **"Opportunities for Research at Mount St. Helens: A World-Class Living Laboratory,"** described research resulting from management needs. She reported that during the first 3 years following the 1980 eruptions, Mount St. Helens was a focal point for geological and ecological study. In the USDA Forest Service, scientists from the Pacific Northwest Research Station and managers from the National Forest System joined forces to enable and coordinate an unprecedented suite of interdisciplinary investigations. More than 300 scientists represented dozens of universities and public agencies. In recognition of this research opportunity, the Forest Service created a staff scientist position for Mount St. Helens National Volcanic Monument. This scientist is responsible to ensure that baseline data and ongoing studies are maintained for both the benefit of visitor information programs and the future needs of society. The Monument was created for its research, recreation, and environmental education opportunities.

Reed E. Gardner also focused on the management of Mount St. Helens following the volcanic eruption, in **"Mount St. Helens National Volcanic Monument: A Decade of Excellence."** Gardner reported the last words of geologist David Johnston as the eruption of Mount St. Helens rushed toward him at Johnston Ridge—"Vancouver, Vancouver—This is it!" Never in recorded history had an event enveloped a National Forest to make it the object of worldwide focus. The eruption of Mount St. Helens on the Gifford Pinchot National Forest was an event known throughout the world. It drew communities and governments together to deal with unprecedented problems and to take advantage of unparalleled opportunities, and it placed the Forest Service in a unique leadership and stewardship role. Recreation opportunities were created and facilities developed as a result of the volcanic eruption, including these: 30 view points with interpretive signs, a state-of-the-art information board system, 8 campgrounds, 2 backcountry toilets, 1 backcountry shelter, 3 Sno-Parks, 3 information stations, 1 concession, 1 horse camp, 216.5 miles of trails, 21 trailheads, 6 bridges, 1 visitor center, 39.6 miles of road restoration, and 52.9 miles of road construction.

Looking at landscapes from the perspective of visitors was the emphasis of Arthur W. Magill's poster entitled **"Our Managed Landscapes: Opinions of What People See."** Magill reported that visitors to wildland areas of the United States see an untold variety of natural and manmade features comprising our national landscape. People endow meaning to the landscapes they see, and they use words to express that meaning as well as their concern. A study completed in 1989 identified what people saw in landscapes and assessed their opinions of what they saw. Color slides provided simulations of commonly seen natural landscape features, manmade structures, and resource management. A rich collection of terms were used by 788 respondents to describe 154 objects that were seen. Respondents additionally indicated whether the objects were liked, disliked, or seen with indifference. "Roads" were the most frequently reported evidence of management while less than half as many responses were for "clearcuts." Despite being reported most frequently, roads were not disliked nearly as much as clearcuts. Responses showed that people liked "green moun-

tains," "green hills," and "green valleys." This study suggests that the sooner a landscape disturbance reverts to green, the less likely it will be regarded with disfavor.

In **"Planning and Management of USDA Forest Service, National Park Service, and Bureau of Land Management National Recreation Areas,"** Rick Dorrance examined guidelines for special designation of resource areas. Federal land management agencies increasingly are using special designation of areas as a means to focus attention on valuable assets. Because there are no standard designation guidelines or operational procedures, the management of these areas varies widely. Nationwide, 49 managers responsible for 54 specially designated areas were surveyed. Interviews suggested enabling legislation, area attributes, management mechanisms, and public advocacy factors as most likely to produce successful recreation areas.

Linda E. Kruger, Roger Clark, and George Stankey presented a poster on **"Alaska as a Wildland-Urban Interface: What Questions Do We Need to Answer?"** Under the auspices of the Consortium for the Social Values of Natural Resources, they conducted a delphi process to identify critical questions that need to be answered to more effectively manage Alaska's wildlands. The delphi process involved Native corporations, researchers, academicians, and citizens with a known interest and past involvement in management of Alaskan lands, as well as managers from local, State, and Federal agencies. Key areas identified in the problem analysis include these: the need to integrate social, economic, and ecological aspects in research, planning and management; the need to improve the public participation process; and the need to improve information on the acceptability of human modifications from both social and ecological perspectives.

Lynn Huntsinger and Jeremy S. Fried examined the important management issue of conflict in their poster entitled, **"Resource Management Conflict at the Urban Fringe: The Case of Mt. Diablo State Park."** They describe Mount Diablo State Park as a rapidly expanding urban area, bordering central Contra

Costa County in California. Controversy surrounding the Park's recently adopted general plan has been of surprising extent, vehemence, and duration, mostly due to the proposed elimination of grazing—a traditional use of Mt. Diablo's oak-dotted slopes. For the most part, the conflict echoes grazing controversies on Federal lands: a remnant rural community favors traditional forms of "wise use," while urban environmentalists see grazing as detrimental to environmental preservation. The serious threat of wildfire, however, and the extraordinarily high real estate values at the urban-rural interface in Contra Costa County, have lent unusual power and financing to the pro-grazing side of the issue. The Mt. Diablo grazing controversy offers the opportunity to explore the changing composition of controversy over resource management. Improved understanding and anticipation of the interests affected by resource management decisions can help land managers avoid costly conflicts like those experienced at Mt. Diablo.

The poster **"National Forests Are for Everyone,"** by Brian Kermeen describes another important management issue—access. Kermeen noted that National Forests are the leading provider of outdoor recreation in the United States, yet most of the developed facilities were built without fully considering the needs of persons with disabilities. As a result, a large segment of the population has been excluded from using them. The goal of Chief F. Dale Robertson, USDA Forest Service, is to "become the leading provider of accessible outdoor recreation." To accomplish this goal, the America's Great Outdoors initiative has a major emphasis on access. The initiative involves a design guide, facilities survey, data management, and training. In addition to the emphasis on outdoor recreation, Chief Robertson wishes to be the employer of choice for persons with disabilities. Universal design provides the opportunity to also incorporate multicultural considerations. By better understanding the needs of all our customers, and designing for them, we can provide facilities and programs free of barriers to participation. National Forests are for everyone!