



Recreation Research Update



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Agency Fire Management Options in the Southwest – Public Opinion in 4 States

General opinions about wildland and wilderness fire management and management interventions for the Forest Service are the focus of this summary. Results are drawn from a telephone survey of 1,811 residents in Arizona, California, Colorado and New Mexico. Portions of this study were discussed in other issues of our research update.

The respondents were about equally divided among males and females, with the vast majority completing the survey in English. More than one-third had a Bachelor's degree or more education. A majority were white, with between one-tenth and one-fourth Latino depending on the state of residence. Asians, Blacks, and Native Americans were among the respondents as well. Most had visited National Forest lands in their states, and more than half participated in outdoor recreation on at least a monthly basis.

The majority (63%) of respondents agreed that "we probably have to let some fires burn, but must protect residences"; while about one-fourth (26%) agreed that "all fires must be extinguished regardless of cost." Few (8%) agreed that "fires must be allowed to take their natural course when burning in wildland or wilderness areas, even if structures are involved."

Respondents indicated their approval or disapproval of six management interventions, and how effective or ineffective they thought each would be for fire management. Approval ratings ranged from an average of 7.4 to 5.7 on an 8-point scale, with 8=strongly approved. Effectiveness ratings ranged from an average of 6.3 to 5.5 on an 8-point scale, with 8=highly effective. Therefore none of the interventions was rated especially low on approval or effectiveness.

On the high end of approval and effectiveness were signs at recreation sites and closure of some areas to recreation use. Restrictions on recreation use and controlled burns fell into the mid-range of ratings. Lowest in ratings were chipping and other mechanical means of fuel reduction, and banning mechanically based recreation uses of forest lands. This result echoes findings from other unit studies indicating that bans of specific recreation uses are the least-preferred management option.

Trust in the Forest Service, concern about fires, age, education, and gender, were significant in

predicting intervention ratings. *For more information about this study contact Pat Winter at 909-680-1557 or pwinter@fs.fed.us.*

Interpretation Effectiveness at Taylor Creek Visitor Center

A report on interpretation effectiveness at Taylor Creek Visitor Center (TCVC), Lake Tahoe Basin Management Unit is available (Ward, et al. 2003). Objectives included socio-demographic characteristics, an assessment of interpretive needs, preferences and expectations, and measures of sign use and visitor satisfaction. On-site data collection during July, 2002, used self-report questionnaires (n = 406), personal interviews (n = 182), and unobtrusive observations (n = 172). The data were analyzed to evaluate the overall effectiveness of two separate interpretive trails (Smokey's and Rainbow), the Information Building, and the Stream Profile Chamber.

Visitor characteristics (age, education, household income, group size and type) are included along with visitor experience data (sign use, satisfaction with the site and memorable details).

Information needs and uses data shows that visitors sought out, used, and were satisfied with the interpretive information found on site. While on the site, almost half of visitors sought out the self-guided signed trails (46%) and brochures/pamphlets (45%). Visitors were highly satisfied: over 88 percent of them responded that they had their information needs fully met while on-site.

The study also showed that interpretive signs and messages were sought out, used and effective at communicating the intended messages. There was consistency in the main messages visitors remembered from the site. The various trail themes were the most cited messages. In addition, the specific themes of the individual trails were frequently cited as a prominent message.

Visitors rated the overall quality of the information in the signs as very high and thought the reading level was OK. Visitors spent an average of 23 seconds at each individual interpretive sign located throughout the site. This suggests that visitors had time to read about 100 words per sign, which is adequate to read most of the text on most of the interpretive signs. The seven most effective signs were interactive, short, colorful,

and/or offered something different from the others, and seem to be the effective at making visitors more mindful. *For more information about this study contact Jim Absher at 909-680-1559 or jabsher@fs.fed.us.*

Fire Research in Fireprone Areas: The Big Sur Region

Funded by the National Fire Plan, this is the second study with California State Polytechnic University, San Luis Obispo to examine outdoor recreation use in the Big Sur region. We were interested in learning the opinions about fire and fire management from visitors to Big Sur. Data were collected from 431 outdoor recreation visitors.

The majority of respondents were male, white, married, about 39 years of age, with an average 16 years of education. Most respondents were at the Big Sur sites with family members and friends. The median group size was four. Most respondents were on overnight camping trips. The average number of nights spent in the Big Sur region was three. The vast majority of respondents were on repeat visits to the Big Sur region. The median number of visits in a 12-month period was one. Most visitors were hiking, walking for pleasure, sightseeing, wild/marine life viewing, and picnicking. Continuing to provide these services for recreation visitors is very important.

Managers will need to consider potential barriers to outdoor recreation as identified by the respondents. Those barriers perceived as most influential to future visitation were fires that were out of control. The top barriers were a fire started by arson that is uncontrolled, a fire started by logging operations that is out of control, a fire started by an unextinguished campfire that is out of control, a prescribed fire that has escaped and is out of control, and a fire started by natural causes (lightning) that is out of control. Decreased air quality from wildland/prescribed fire smoke and traffic delays due to fire suppression activities were also barriers of importance to many respondents. Others thought that restrictions on fire pits or on cooking grills in developed campgrounds and picnic areas would be an important or extreme barrier. Many respondents considered closures of developed campgrounds, trails, and picnic areas to be barriers to future visits. Lesser barriers were prescribed fires set intentionally for ecological benefit or fires started by natural causes (lightning) that are allowed to burn for ecological reasons. *For more information about this study contact Debbie Chavez at 909-680-1558 or dchavez@fs.fed.us.*

Unit Publications

Absher, J.; Graefe, A.R.; Burns, R. 2003. A **methodological comparison of customer service analysis**

techniques. In Schuster, R. (comp/ed). Proceedings of the 2002 Northeastern Recreation Research Symposium; 2002 April 13-16; Bolton Landing, NY. *General Technical Report NE-302.* Newtown Square, PA: Northeastern Research Station, Forest Service, U.S. Department of Agriculture: p. 41-45.

Chavez, D.J. 2003. **Mexican-American recreation: Home, community & natural environment.** [Proceedings paper]. Hawaii International Conference on Social Sciences; 2003 June 12-15; Honolulu, HI. [on CD ROM only] 13 p.

Chavez, D.J.; Olson, D.D. 2003. **Day use of National Forest series: The Willamette National Forest, 2002.** Unpublished report. Riverside, CA: Pacific Southwest Research Station, Forest Service, U. S. Department of Agriculture. 27 p.

Cvetkovich, G.T.; Winter, P.L. 2003. **Social trust and the management of threatened and endangered species: A study of communities of interest and communities of place.** *Res. Paper PSW-RP-247.* Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture; 65 p.

Kyle, G.T.; Absher, J.D. Graefe, A.R. 2003. **The moderating role of place attachment on the relationship between attitudes toward fees and spending preferences.** *Leisure Sciences* 25: 33-50.

McAvoy, L. 2003. **American Indians, place meanings and the old/new west.** *Journal of Leisure Research* 34, 4, 383-396.

McAvoy, L.; McDonald, D.; Carlson, M. 2003. **American Indian/First Nation place attachment to park lands: The case of the Nuu-chah-nulth of British Columbia.** *Journal of Park and Recreation Administration* 21, 2, 84-104.

Thapa, B.; Holland, S.; Absher, J. 2002. **Wildfires and tourist behaviors in Florida.** Unpublished report. Riverside, CA: Pacific Southwest Research Station, Forest Service, U. S. Department of Agriculture. 71 p.

Ward, C.J.; Martin, S.R.; Absher, J.D.; Newman, D.M.; Tarlton, J.L. 2003. **Interpretation effectiveness at Taylor Creek Visitor Center.** Unpublished report. Riverside, CA: Pacific Southwest Research Station, Forest Service, U. S. Department of Agriculture. 125 p.

Winter, P.L.; Cvetkovich, G.T. 2003. **A study of Southwesterners' opinions on the management of wildland and wilderness fires: Fire management version.** Unpublished report. Riverside, CA: Pacific Southwest Research Station, Forest Service, U. S. Department of Agriculture. 91 p.

Make Plans to Join Us! The 4th Social Aspects and Recreation Research Symposium will be held February 4-6, 2004 at the Presidio of San Francisco, Golden Gate National Recreation Area, San Francisco, California. The theme is "Linking People to the Outdoors: Connections for Healthy Lands, People and Communities." Abstract submission deadline has been extended to **October 1st**. Information can be found at:
<http://www.rfl.psw.fs.fed.us/recreation/sarr2004.html>.