

# The Prevalence and Significance of Displacement for Wilderness Recreation Management and Research

BY INGRID E. SCHNEIDER

**Abstract:** The concept of visitor displacement has important implications for wilderness management and research. Research on actual displacement of wilderness visitors is extremely limited, but this displacement likely follows patterns found for general recreationists: visitors employ a variety of coping responses and displacement is prevalent. Understanding if and when visitors are displaced is useful for anticipating and responding to resource impacts, impacts to visitor experiences, and needs to improve regional management strategies. Displacement implications extend beyond evaluation of on-site experiences to also serve as an indicator of the condition of a visitor's relationship with the resource or agency. Management and research must be more prepared to respond to use and user displacement as an indicator of changing relationships with wilderness and other wildlands.

## Introduction

Change is inevitable. In the 21st century, wilderness visitors contemplate not only the number and type of visitors they may encounter (common indicators used in the past to evaluate threats to wilderness character), but also new forms of personal technology and changes in their own age or family life cycle (see figure 1). Although managerial response to social change can be implemented through policy changes, visitor responses have no such formal response mechanisms. Visitors can respond to change by forming new perceptions about a place or experience and change their visitation patterns, as well as changing their inclination to politically or financially support an area. Visitor response ultimately influences not only their own experiences but the experiences of others, the resource itself, and the type and amount of public support for wilderness. Therefore, visitor response to change requires attention (see figure 2). Among the range of possible

responses to change, displacement deserves particular attention as it can significantly impact resource benefits and may ultimately indicate a change in the public's relationship with an area or agency. Therefore, in this article displacement is reviewed within the context of wilderness, and its consequences for management and research are considered.

## Displacement

Displacement occurs when users leave the site or change activities in response to an



Ingrid E. Schneider. Photo by C. Wentworth.

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**Figure 1—As family life stage changes, changes in wilderness experience opportunities may follow. Photo courtesy of Explore Minnesota Tourism.**

unacceptable or adverse change in social, managerial, or resource conditions (Anderson and Brown 1984; Shelby, Bregenzer, and Johnson 1988). Displacement not only entails



**Figure 2—Visitors can respond to change by forming new perceptions about a place or experience and change visitation patterns, as well as change their inclination to politically or financially support an area. Photo Photo courtesy of Explore Minnesota Tourism.**

unacceptable changes, but settings that are substitutable. Essential components of the displacement process are changes in behavior, time, or in the environment (Anderson and Brown 1984). An example of displacement in outdoor recreation is an angler who desires a wilderness fishing experience but encounters more people at an area than desired. The angler might leave the area, seeking a less crowded site either within the area (intrasite displacement) or at an entirely new area (intersite displacement). If anglers change the time they fish, they are temporally displaced. Displacement can be categorized as a problem-focused coping response. Visitor responses to change, or use of coping mechanisms, have been broadly identified as either emotion- or problem-focused (Schneider and Hammitt 1995). Emotion-focused coping regulates distressing emotions, whereas problem-focused coping does something to change the problem causing the distress. Within the realm of problem-focused coping, perhaps the most studied response is displacement.

Displacement might arise in response to on-site social conditions such as crowding, managerial changes such as fee implementation, or resource changes such as erosion. Among all recreation visitors, the majority of research has focused on displacement in response to on-site conditions, such as crowding (Arnberger and Haider 2007). Until 2000, knowledge of actual visitor responses to change was limited in that the majority of research focused on hypothetical responses to changes rather than actual changes (Shelby et al. 1988; Hammit and Patterson 1991; Lime and Lewis 2000). Researchers asked visitors what they would likely do in response to something such as

new fees rather than what they actually did in response to fees. A handful of studies examined actual visitor response to either on-site social or managerial conditions. These projects revealed that up to 55% of visitors changed their behaviors with subsequent changes in resource conditions and in other visitor experiences (Kuentzel and Heberlien 1992; Robertson and Regula 1994; Schneider and Hammitt 1995).

Studies since 2000 similarly suggest that between 42% and 92% of visitors can be temporally displaced due to on-site social conditions, whereas 15% to 86% can be spatially displaced (Barnett 2004; Gramann 2002; Hall and Shelby 2000; Hall and Cole 2007; Johnson and Dawson 2004; Schneider 2000). Displacement due to managerial conditions can range from 22% to 46% (Barnett 2004; Schwartz and Lin 2006). In summary, between 15% and 92% of visitors have reportedly chosen displacement in response to social or managerial changes. But, how does this relate to wilderness visitors?

Research on actual displacement among wilderness visitors is extremely limited, but findings suggest the same pattern of displacement as among recreationists as a whole. Multiple coping responses are employed, and some form of displacement is prevalent (Hall and Shelby 2007; Johnson and Dawson 2004; Schneider 2000). Considering crowding specifically, Johnson and Dawson (2004) found that visitors who coped with crowded conditions responded most frequently with temporal displacement (64%) or spatial displacement (51%). Similarly, Hall and Shelby (2007) found that more than 50% of visitors were either temporally or spatially displaced due to perceived crowding, with 13% completely leaving the

area. Interestingly, several of Johnson and Dawson's respondents indicated they would like to temporally displace, but could not due to life circumstances. Therefore, the potential for even more temporal displacement is high when visitor life circumstances change. Beyond crowding as a motivation to displace, Schneider (2000) examined wilderness visitor conflict and found about 32% of visitors were intrasite displaced, and 15% left the area altogether in response to conflict occurrence. However, 24% planned to avoid the area on their next visit. This intrasite displacement and planned intrasite displacement indicate that within wilderness areas substitutable sites exist. These results indicate that the proportion of wilderness visitors employing displacement in response to on-site social conditions is similar to the general recreationist.

Understanding if and when visitors are displaced is useful for anticipating and responding to resource impacts, impacts to visitor experiences, and needs for regional management change. Displacement can lead to changes in resource conditions. For example, if visitors are temporally displaced to earlier in the season, they could have greater impact on the soil and/or wildlife nesting patterns. If visitors are displaced to a different time of the week, staffing levels and monitoring efforts may need to be evaluated. If visitors are displaced within a site, their use of previously lightly used areas will increase the impacts to these sites and influence resource conditions. When visitors change the time or location of their experiences, changes and perhaps increases in visitor encounters may follow (see figure 3). By understanding changes in visita-

tion patterns as a result of displacement, managers can influence visitor expectations for numbers of encounters and, also, enhance opportunities for experiences that match expectations. For example, managers may monitor changes in trailhead or entrance use to understand displacement or substitution occurrence. Knowledge of intersite displacement can assist regional wilderness and recreation management planning through anticipation of increases in visitors and development of appropriate information or other managerial responses.

### **Displacement as an Indicator of Relationships with Wilderness**

Beyond being important for immediate management response, displacement has potential longer-term outcomes as well. Displacement may serve as an indicator of the public's relationship with the resource or agency. Therefore, and in response to Hall and Shelby's (2000) call to "link displacement to other frameworks that account for individual decision-making" (p. 454), considering how displacement fits into visitor-area and agency relationships is warranted. One framework that seems appropriate to help understand the role of displacement as a relationship is relational marketing.

Relational marketing, as the name implies, focuses on the relationship between entities such as the public and protected areas or organizations. In contrast to the more commonly applied transactional marketing approach in which products or services are provided for profit,



**Figure 3—Displaced visitors who change the time or location of their visits may experience increases in visitor encounters. Photo courtesy of the Aldo Leopold Wilderness Research Institute.**

Borrie, Christensen, Watson, Miller, and McCollum (2002) suggested that relational marketing focuses more on the identification, development, and maintenance of relationships. Thus, in addition to monitoring the number of on-site interactions between visitors, one might also monitor relationship elements. These relationships depend on social trust, commitment, and perceptions of social responsibility. Trust in this context is viewed in one of two ways: (1) based on confidence in competence, objectivity, fairness, consistency, and caring (Earle and Cvetkovich 1995), or (2) perceptions of shared values, direction, goals, actions, and thoughts (Winter, Palucki, and Burkhardt 1999). Commitment refers to willingness to invest, intensity of attachment, and length of attachment, whereas social responsibility is the perception by a person of social equity protected through public land administration.

Displacement may indicate the status of visitor trust in or commitment to an area or agency, as well as influence perceptions of social

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responsibility. For example, if a visitor is displaced in response to fees, they may be indicating that they perceive the fee to be unfair to them or others, or they do not share the agency's goals related to cost recovery. Similarly, if visitors are displaced due to on-site social conditions, this may indicate that the agency is not managing the site in alignment with visitor goals or perceptions of public purpose. Inter-site displacement is an indicator of commitment in a relationship, as it changes the temporal nature of the relationship. Although there are reasons for displacement beyond changes in an area or an agency, such as a visitor's time or ability, displacement still reflects the visitor's willingness to invest in the site. Visitor displacement appears to be a prime candidate to serve as a relationship indicator for wilderness management agencies.

### Conclusions

Relationships with anyone, particularly the public, can be both rewarding and challenging. We cannot reap the rewards of support, trust, and confidence in meeting the public purpose of public lands without meeting the challenge of understanding, enhancing, and revitalizing such relationships. There are management and research opportunities to better understand visitor displacement in response to change and as an indicator of relationships with the public.

Management opportunities include the need to establish objectives for

understanding current relationships with various stakeholders, visitor use monitoring, and the optimization of education and interpretive services to strengthen relationships. Although research efforts have examined public perceptions for decades, only recently has a focus on relationship elements emerged (Winter et al. 1999; Borrie et al. 2002). It is important to understand that a visitor's relationship with the area, relationship with on-site management staff, and relationship with an organization as a whole can differ. Once these differences are identified, they can shed light on what and how to manage to obtain trust and commitment among constituents. A differentiation of on-site management and organizational relationships points to the possibility of separate, but related, stewardship efforts that work to increase effectiveness and efficiency in accomplishing agency missions regionally and nationally. Obviously, such intensive efforts cannot and should not be done in isolation by the managing authorities. Rather, coordinated and integrated communication campaigns among government, nongovernmental organizations, and the private sector can work to benefit both the organizations involved and the public. These efforts will positively impact the relationship of visitors and nonvisitors to wilderness. Visitor use monitoring is heralded and often discussed, but the resources to achieve it are sometimes scarce or prioritized to other areas. However,

the significant impacts that intra- and intersite displacement can have make visitor use monitoring essential for effective stewardship of both the resource and relationships. Given that one-quarter of wilderness visitors have been found to consider intersite displacement, monitoring their proposed and actual behaviors will greatly inform management efforts both on-site and off-site. Revisiting interpretive and educational materials in light of the relational marketing paradigm can be constructive. Any revisions may lead to a better visitor understanding of the managing organization and subsequently increase support.

The current direction of visitor research to study actual, rather than hypothetical, visitor responses to change should be applauded and continued. Although knowing what visitors plan to do is informative, their actual behavior has significantly more impact on the resource and other visitors. Identifying actual responses to change can be achieved through several means such as panel studies, pre- and postchange assessments, and observations. Although not without their challenges, the value of actual data on visitor behavior far outweighs their costs. Innovative visual assessments of conditions that instill displacement (Arnberger and Haider, 2007) are one relatively low-cost opportunity to understand potential displacement. Following up with those visitors that indicate they are going to displace would be an opportunity to check the correlation between planned and actual displacement. Attention to nonvisitors is needed so that management agencies can understand leisure preference and participation constraints, identify a baseline for the relationship with nonusers, and work

to enhance the perceived trust and commitment among the public. Challenges to studying nonvisitors include finding them, employing effective methodology to engage them in the research, and locating research resources to conduct the research.

Certainly social and managerial forces will continue to evolve and influence how visitors and nonvisitors perceive and experience wilderness. Considering and expanding research on actual visitor changes, such as displacement, will inform management and the public. Active management and science cooperation in these efforts can minimize recreation constraints, improve relationships with the public, and enhance the benefits of wilderness management overall. **IJW**

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## REFERENCES

Anderson, D. H., and P. J. Brown. 1984. The displacement process in recreation. *Journal of Leisure Research* 16(1): 61–73.

Arnberger, A., and W. Haider. 2007. Would you displace? It depends! A multivariate visual approach to intended displacement from an urban forest trail. *Journal of Leisure Research* 39(2): 345–65.

Barnett, A. 2004. Displacement and coping at wilderness climbing destinations: A survey of mountaineers in Washington and Oregon. Masters thesis, University of Idaho, Moscow.

Borrie, W. T., N. Christensen, A. E. Watson, T. A. Miller, and D. W. McCollum. 2002. Public purpose recreation marketing: A focus on the relationships between the public and public lands. *Journal of Park and Recreation Administration* 20(2): 49–68.

Earle, T. C., and G. T. Cvetkovich. 1995. *Social Trust: Toward a Cosmopolitan Society*. Westport, CT: Praeger Publishers.

Gramann, J. H. 2002. *The Role of Crowding in Visitor Displacement at Mount Rainer and Olympic National Parks*. Final Report. Subcontract No. GNK097. Moscow: University of Idaho.

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Hall, T. E., and D. N. Cole. 2007. *Changes in the Motivations, Perceptions, and Behaviors of Recreation Users: Displacement and Coping in Wilderness*. Research Paper RMRS-RP-63. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Hall, T., and B. Shelby. 2000. Temporal and spatial displacement. *Journal of Leisure Research* 32(4): 435–56.

Hammitt, W. E., and M. E. Patterson. 1991. Coping behavior to avoid visitor encounters: Its relationship to wildland privacy. *Journal of Leisure Research* 23: 225–37.

Johnson A. K., and D. P. Dawson. 2004. An exploratory study of the complexities of coping behavior in Adirondack Wilderness. *Leisure Sciences* 26: 281–93.

Kuentzel, W., and T. Heberlein. 1992. Cognitive and behavioral adaptations to perceived crowding: A panel study of coping and displacement. *Journal of Leisure Research* 24: 377–93.

Lime, M., and M. S. Lewis. 2000. *Boundary Waters Canoe Area Wilderness User Fee Evaluation: 1999 Study of Camper Party Leaders*. Technical Report to the USDA Forest Service, Superior National Forest. St. Paul, MN: University of Minnesota, Department of Forest Resources.

Robertson, R. A., J. A. Regula. 1994. Recreation displacement and overall satisfaction: A study of central Iowa's licensed boaters. *Journal of Leisure Research* 26: 174–81.

Schneider, I. E. 2000. Responses to conflict in urban-proximate areas. *Journal of Park and Recreation Administration* 18(2): 37–53.

Schneider, I. E., and W. E. Hammitt. 1995. Visitor responses to on-site recreation conflict. *Journal of Applied Recreation Research* 20(4): 249–68.

Schwartz, Z., and L. Lin. 2006. The impact of fees on visitation of national parks. *Tourism Management* 27: 1386–96.

Shelby, B., H. Bregenzer, and R. Johnson. 1988. Displacement and product shift: Empirical evidence from two Oregon rivers. *Journal of Leisure Research* 20: 274–88.

Winter, P. L., L. J. Palucki, and R. L. Burkhardt. 1999. Anticipated response to a fee program: The key is trust. *Journal of Leisure Research* 31: 207–26.

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