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Slickrock Trail Mountain Bike Survey: Implications for Resource Managers and Area Communities

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Introduction

The Moab Slickrock Trail was the first trail designated primarily for mountain bike use and is one of the most popular mountain bike trails in the world. It was established as a motorcycle trail in 1969, but by the mid 1980s, it was primarily used by mountain bikers. The trail is located on a sandstone plateau overlooking the Colorado River, Moab Valley, and Arches National Park. The trail, parking lot, and surrounding campsites (Sand Flats area) is on land administered by the U.S. Department of Interior's Bureau of Land Management (BLM). BLM figures indicate that the use of the Slickrock Trail increased from 1,000 bikers in 1983 to over 103,000 in 1994.

The Slickrock Trail consists of two primary loops: a short two mile "practice" loop and a 10.3 mile main loop. Both loops are physically and technically demanding. While most of the trail is on "slickrock" (Navajo sandstone worn smooth by erosion), there are many steep inclines and pockets of sand and soil that make biking difficult. And while the trail is recommended only for experienced bikers, many novice mountain bikers can be seen struggling with the difficult terrain. Other problems confronting Slickrock managers include: crowding, vegetation trampling, soil compaction and erosion, safety, litter, and vandalism. These problems are exacerbated because about 90 % of the trail's use is concentrated in just two seasons, spring and fall.

A five-page intercept survey was developed by BLM, Canyonlands Field Institute, and recreation researchers at Utah State University. The survey sample consisted of 650 randomly selected mountain bikers who had just completed riding the Slickrock Trail. Distribution of the surveys during the year was timed to be roughly proportional to total trail use: 400 surveys were distributed in the spring, 50 during the summer, and 200 in fall. Research assistants approached riders as they left the trail and asked one rider from each group to complete the survey on the spot. Of the 650 surveys distributed, 579 were completed and returned for a response rate of 89%. Reasons given for refusing to participate included lack of energy after the ride, minor injuries, extreme thirst, lack of time, and inadequate English.

Background and Trip Characteristics

Mountain bikers on the Slickrock Trail tend to be males (79%) between the ages of 21 and 35 (67%), although 29% were over the age of 34. Mean household income for 1992 was $42,000, and while the modal income category was $80,000 or more, about 26% had incomes of less than $20,000. Our bikers are highly educated (86% had at least some college education) and 41% have a professional occupation while 13% indicated they were students. These results suggestRe

Mountain bikers enjoy the Slickrock Trail at Moab, Utah.

that there are two prevalent mountain biker groups at the Slickrock Trail: relatively affluent young to middle age professional people and college students.

More bikers were from Colorado (37%) than from Utah (20%), while 10% were from California and about 11% came from states east of the Mississippi River. There were 53 respondents (10%) that were international visitors with 32 coming from Canada and the remaining 21 coming from Europe (mostly Germany, Austria, and Switzerland). Only 12 (2%) indicated that they resided in Grand County, Utah where the trail is located.

For most respondents, it was their first (50%) or second (16%) trip to Moab, and 65% indicated that mountain biking was their primary reason for visiting the Moab area. Nearly 90% said that they expected to spend more than one day biking on this trip yet, despite this investment in time, respondents bike relatively few other trails in the Moab area. (Nearly one-third had ridden no other trails and another third had ridden only one or two other trails.) The most common source of information about Moab as a destination for mountain biking was word of mouth; about three-quarters said they heard about Moab from family and friends.

Management Problems and Preferences

While public land resource managers may feel that both resource impacts and crowding are problems, attitudes of the survey respondents were mixed. Over two-thirds felt that the number of people they saw was acceptable, 15% said they would not mind seeing more people, and only 17% indicated they saw too many people.

When we asked about the physical impacts resulting from outdoor recreation in the slickrock/sandflats area, 37% of the respondents indicated that the impacts were moderately or extremely high, 38% felt the impacts were acceptable, and 25% indicated that they were low (Figure 2). Thus,

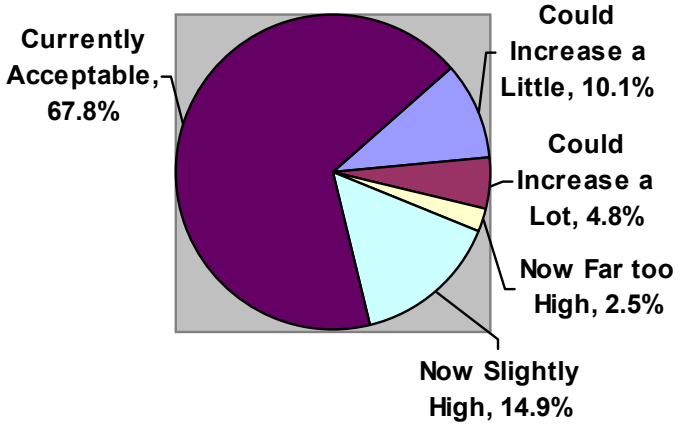

Figure 1. Current level of use.

while most respondents are comfortable with the number of other mountain bikers they see, the physical impacts cause greater concern.

Respondent attitudes toward physical impacts may be a reaction to other types of recreation uses in addition to mountain biking. A list of general recreation problems in the Moab area, however, resulted in only two items that were viewed as problems: "vehicle travel off designated routes" and "human waste and garbage disposal." Thus, mountain bikers view vehicles going off designated routes and human garbage and waste as being bigger problems than biking; camping is felt to have about the same impact as biking; and livestock use, hiking, and available automobile parking are viewed as less problematic.

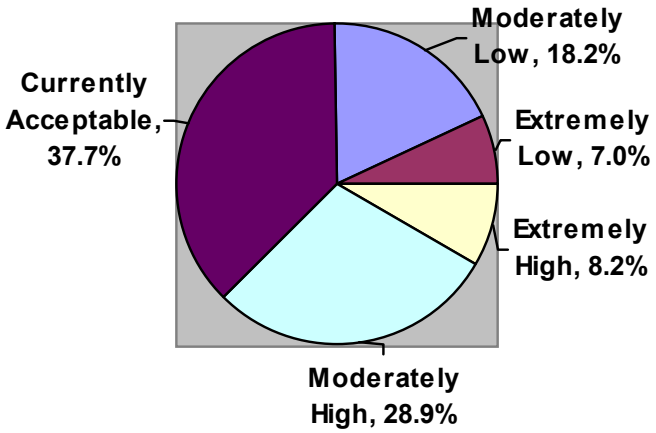

Figure 2. Physical impacts from recreation in the Moab area.

On a question regarding general management orientation, respondents were asked if they would prefer to see more focus on providing visitor services, more focus on land protection, or an even mix of protection and services. While an even mix of protection and services was the preferred choice for over half of the respondents, most of the rest opted for resource protection (39%) over providing services (6%) (Figure 3). This result is supported by the findings from a separate question that asked how important the mountain bikers thought it was that managers provide nine different services at the Slickrock trailhead. Only two of the nine, providing drinking water and toilets, had mean scores that rated them as being important, while other concessions -- firewood sales, bike repairs, picnic tables, showers, more auto parking, and shade structures -- were rated as not important.

Sources of Funding for Trail Management

Most mountain bikers (over 80%) support using fees to help fund Slickrock Trail management, and a daily use fee is the preferred collection method (Figure 4). The modal category for a daily fee is $2.00 per person (37%), $10.00 for a weekly fee (26%), and $20.00 for an annual fee (51%)(Figure 5).

Seventy-nine percent of the respondents were willing to pay at least $4.00 for an annual fee.

Discussion and Conclusions

Information gathered from bikers on the Slickrock Trail cannot be considered representative of mountain bikers in general for several reasons. First, the trail is a highly publicized, tourism destination trail. Second, the mountain bikers appeared to be more experienced than the "average" biker. And third, the surveys were completed by representatives of the group, not a random sample of all bikers. While the data are not generalizable beyond the Slickrock Trail, they do provide some important insights into Slickrock Trail users and management.

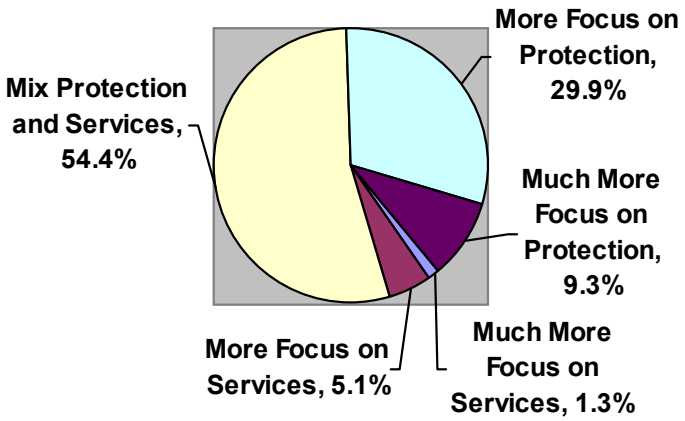

Figure 3. Preferred focus of land managers.

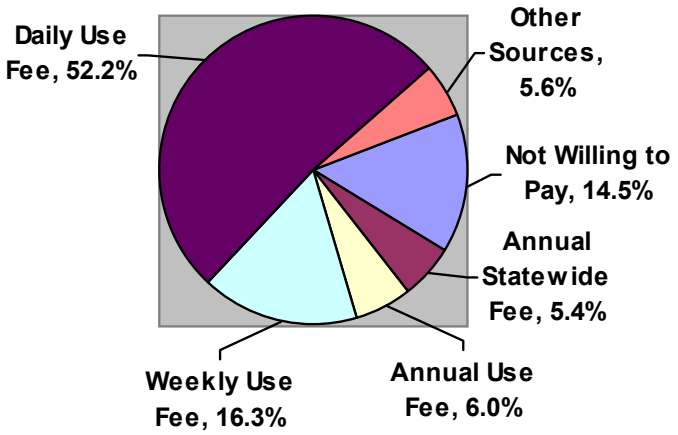

Figure 4. Preferred funding method.

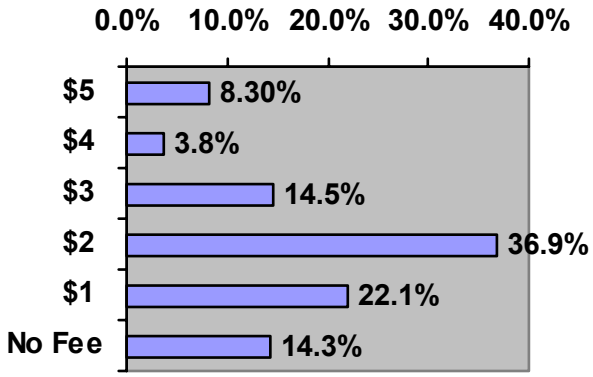

Figure 5. Reasonable daily use fee. Average fee amount: $1.96

The Slickrock Trail is obviously a tourism destination trail; almost 98% of the respondents live outside of Grand County, Utah, and most were visiting Moab primarily to go mountain biking and to use the Slickrock Trail. The trail appears to be a single focus attraction that rivals certain high visibility areas like national parks and wilderness areas. For some, this represents good economic news for Moab which has floundered in the past due to the boom and bust cycles of mining and oil and gas exploration. And most of the money spent in the Moab area comes from other regions, especially the Colorado Front Range, the Wasatch Front, and California. For those who feel that the mountain biking boom has gone too far in Moab, the news may not be so good. Information about mountain biking opportunities near Moab mostly travels by word of mouth; even if advertising efforts are curtailed, bikers will most likely continue to flock to the area.

These results, however, are encouraging for land managers. Over 82% of the respondents felt that the number of other people they saw on the trail was acceptable or could even increase without affecting their experience. Less than 3% felt the number of people they saw was "far too high," and this could be the result of the specific day they were on the trail (e.g., the Memorial Day weekend). Anti-crowding measures, such as use restrictions, are not necessary at this time, but managers may want to post locations and characteristics of alternative trails at the trailhead to accommodate the few users bothered by crowded conditions.

Respondents indicated that they were aware of impacts resulting from mountain biking and support a management emphasis on protecting resources rather than providing additional services. This would indicate that visitors would support restrictions implemented to protect natural resources, such as closing trail spurs or overlooks, but informational signs and brochures are necessary to explain the reasons for management actions while also emphasizing impacts caused by inappropriate activities. Additional services respondents would appreciate are water and toilet facilities at trailheads.

Finally, respondents recognized that Slickrock Trail management requires funding; they do not expect a free ride for use of the trail, and appear willing to support modest fees for the opportunity to bike on the trail. Other land manage-

ment agencies should take note and investigate the possibility of charging fees for other popular trails and attractions to supplement existing funding.

1999 Status

The Slickrock Trail continues to attract large numbers of mountain bikers: there were nearly 120,000 bike trips in 1998. Results from this research and a companion study that surveyed mountain bikers in the Moab area in general influenced several management changes. A fee collection system has been implemented that charges a modest daily use fee of $5.00 per car for 3 days use of the Slickrock Trail area. Fees collected go toward improvements and maintenance on the trail itself, direct support facilities (such as the parking lot and toilets), and indirect facilities (e.g., campgrounds). Partnerships with non-government organizations have also been initiated. Local bikers (Moab Bike Patrol) assist in patrolling the trail and collecting user fees while service organizations have provided manpower in helping the BLM build and improve camping facilities.

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