

Minimum group sizes: allowing public access and increasing safety

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Background

The Moraine Lake area of Banff National Park receives high levels of human use every year, from a variety of activity groups. Backcountry human use over the summer months in the Moraine Lake area includes hiking, mountain biking, climbing and scrambling, horse use, as well as an assortment of day uses.

In addition to human use, the Moraine Lake area is a part of the home range of a grizzly bear. Due to the high numbers of visitors in the area, the bear has become habituated to people, vehicles, and facilities. The result has been distinct bold behavior shown by the grizzly bear (e.g., following hikers, initiating bluff charges), thus creating conflict between human use and bear use.

Interim operational protocols for the Moraine Lake area have been identified to manage bears and people. In 1997 and 1998, the area was closed for the majority of the summer season in response to the Moraine Lake grizzly. In 1999, in an attempt to allow human use in the area while at the same time reducing the potential for bear-human conflict, an interim management protocol, known as "restricted access," was implemented. This protocol, which has legal force, means that while the grizzly bear is in the area:

- Hikers are required to travel in a tight group of six or more on backcountry trails;
- Mountain bikers are not permitted on the designated mountain biking trail; and
- Horse users must travel in a group of two or more.

Restricted access compliance was evaluated in 1999 through warden patrols and the administration of a trail-user survey. While public support for the initiative was high, group compliance with the strategy was found to be relatively low (54%). It was also found that specific groups were not as compliant as others were.

After the test run of restricted access in 1999, the park executive decided to continue with the approach in 2000, with an overall goal of 80% compliance with the strategy. Three components of the strategy require complete evaluation before a determination on the success of restricted access can be made: (1) ecological effects (effects on wildlife); (2) social effects (effects on users of the area); and (3) operational effects (effects on resources, staff, costs). In 2000, the focus was on evaluating the social effects of restricted access.

Restricted access implementation 2000

After several earlier sightings of the Moraine Lake grizzly, restricted access was invoked on August 2, 2000. After the subsequent two weeks had elapsed without a sighting of the bear, the restricted access order was lifted on August 16. Restricted access was then reinstated on August 24, due to another bear-human encounter. Restricted access stayed in place until September 20, 2000, when, after a number of encounters with the Moraine Lake grizzly, the Moraine Lake backcountry area was closed to all users.

Methods

Throughout the summer, a questionnaire was administered to the users of the Moraine Lake area who had been affected by both closures and restricted access in the past. A random sampling technique (next-to-pass) was used, with an over-sampling of the user population during restricted access. In total, 653 surveys were completed, 393 prior to restricted access and 260 during the restricted-access period. The results presented are considered accurate within 5.7% 19 times out of 20. As a result of the methods used, and rigor applied through the survey administration, we are comfortable in stating that the results accurately depict the opinions of the hikers in the area.

User support

Overall, users of the Moraine Lake area stated that they were supportive of the restricted access strategy. Throughout the hiking season, users were asked to state their level of support for the strategy, on a scale of one to five. Depicted in Figure 31.1 are the stated levels of support for the strategy.

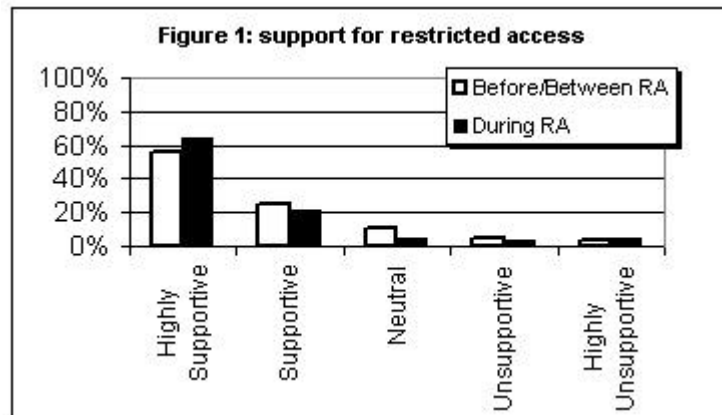


Figure 31.1. Support for restricted access.

The results, as presented in Figure 31.1, indicate both a higher level of support for restricted access during the time over which it was implemented and also a higher level of dissatisfaction with the strategy. When restricted access is in place, the public has the opportunity to access the area, while the alternative scenarios in the past have resulted in no access; therefore, this is a better situation, thus higher levels of support. Dissatisfaction may be attributed to the inability to access the area as they wish to, in small groups for example. The difference in results between the time when restricted access was in effect and the time when the area was simply open illustrates the difference between theoretical and actual support. As a general rule, people's opinions change when they answer actual versus theoretical questions. It is interesting that people's opinions of restricted access indicate a greater level of support when the strategy affected them directly.

Effect on experiences

Because the requirements of restricted access significantly change the way people travel, we were interested in knowing how that affected people's experiences. The results indicated that 60% of users felt that their experience was not affected by restricted access. Approximately 24% said that it had a positive effect (by meeting new people with similar interests), and 16% indicated that the effect was negative.

Compliance

The identified compliance target against which the success of restricted access was to be measured is 80% of users traveling out of the area. Presented in Figure 31.2 are the resultant effects of having a uniformed park presence at the trailheads, in addition to the general compliance as a result of the communication tools in place. Through conversations with the users of the area, compliance of hikers going into the restricted access area increased by 23% and the overall compliance by 12%.

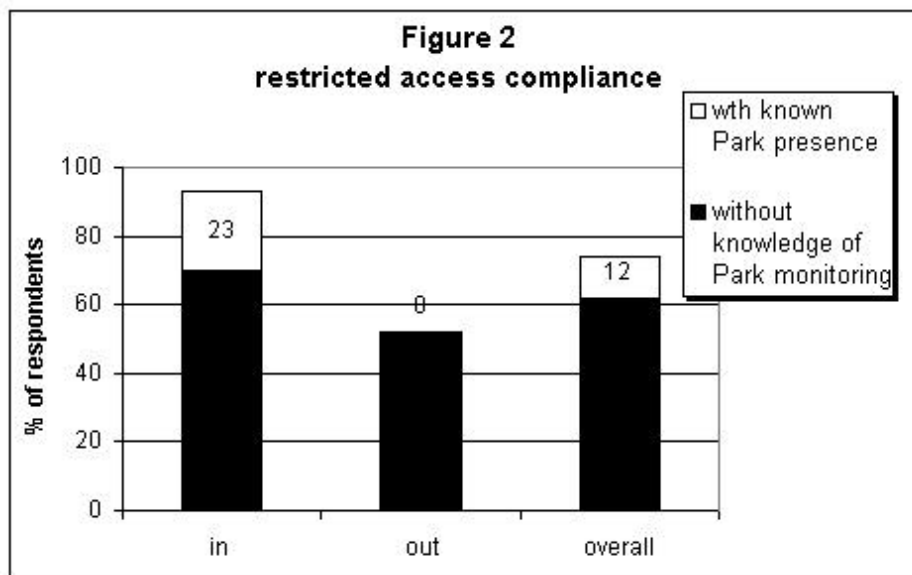


Figure 31.2. Restricted access compliance.

Changes in compliance as restricted access was reapplied

As a result of observed activity by the grizzly in the area, the restricted access order was lifted on August 16, 2000, and reapplied on August 24. During that time, some serious and high-profile human-grizzly encounters occurred in and around Canmore and Kananaskis Country, Alberta. Those encounters may have affected the level of compliance with restricted access, due to the elevated media profile around the other mentioned incidents. Presented in Figure 31.3 are the compliance levels based on the two applications of restricted access. It is fairly evident that the longer restricted access was in place, the greater the level of compliance. However, the crux of the issue is the fact that through all of our efforts, compliance for groups traveling out of the restricted access areas was below the established target.

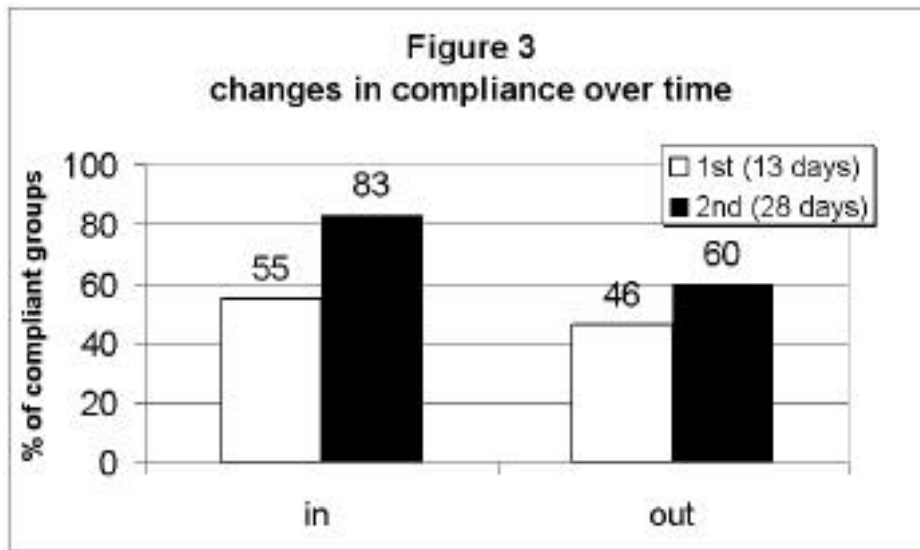


Figure 31.3. Changes in compliance over time.

Volume of use and group size

As could be expected, restricted access had a marked difference on both the numbers of people entering the trails around the Moraine Lake area, and the group size in which they traveled.

The size of the groups entering the area changed significantly between the periods of restricted access and non-restricted access. As depicted in Figure 31.4, the average group size of survey respondents during the second application of restricted access was more than the requested six people per group.

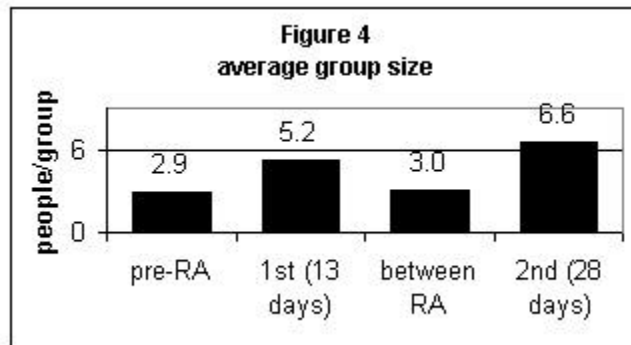


Figure 31.4. Average group size.

Discussion

Restricted access represents a “learning curve” for both the public and Parks Canada. It is encouraging that compliance with the strategy increased as it was ap-

plied throughout the summer. This may be evidence to suggest that the public may be slowly becoming more accepting of restricted access, and willing to modify their patterns of use to ensure that the area remains open.

The evaluation of the social components of restricted access focused beyond compliance. Even if compliance were very high, there needs to be a general societal acceptance for altering behaviors.

- The users are generally very supportive (81% of respondents) of the idea of restricted access. The users were more supportive (86%) of the restricted access protocol when it was in place and affected their experiences.
- The majority of visitors to the area (60%) did not have their experience affected by restricted access; 24% said that it affected them in a positive way.
- There is evidence to suggest that restricted access increases people's bear awareness and safety precautions.
- Average group size is significantly increased during restricted access, thereby (it is hoped) reducing the chances of an encounter with the grizzly.
- The volume of use on the trails (including sensitive alpine areas of the Larch and Paradise valleys) dropped during restricted access. Although this is not a goal of restricted access but rather a result, it may contribute to fewer human-bear encounters on the trail.
- Fifty-two percent of the users of the area were aware of the restricted-access protocol prior to reaching the trailhead. Approximately 48% of the 2000 survey respondents indicated that they found out about the restricted-access protocol at the trailhead, compared with approximately 95% in the 1999 survey.
- Overall, there were fewer sightings of the grizzly bear during the summer of 2000 (Morrison 2000). We are unable to directly link this to the restricted-access protocol.

The fact that restricted access was implemented without a decrease in the proportion of visitors satisfied with their experience is very promising. Public support for restricted access, both before and during the time it is applied, continues to be very high. Bear safety precautions, such as people increasing their group size and carrying bear spray, increased during periods of restricted access.

Challenges

One of the greatest challenges that was identified for the communications during the summer was the inability to present the overall goal of grizzly bear management for the area. It was very difficult to communicate the big picture, in terms of bears and people, for the Moraine Lake area. Another significant challenge in the general context is what messages should be presented to the public with relationship to habituated bears. A level of habituation has been accepted for the Moraine Lake grizzly, but what will that mean for other habituated grizzlies throughout the park? These issues are not specific to the restricted-access protocol; however, they did make effective communication—that which is in context with an overall vision—very difficult.

Obviously for restricted access to be truly effective, compliance rates must continue to increase. This is directly linked with the ability to effectively communicate our message. The greatest communication challenge is that the public's overall level of understanding of the reasoning behind restricted access is still unclear. Many comments captured through the survey identified a general lack of understanding of the rationale behind the restricted-access protocol.

Future application of restricted access

Based on the results presented, the park's executive must decide if the restricted-access approach, as a means to allow public access with some level of public

safety, is a good one for the Moraine Lake area. They must understand the many challenges and benefits, and seriously consider this prior to future application. The question remains as to whether the protocol will be implemented as it was during summer 2000, or if we can modify the protocols to increase the level of success. The decision for the future application of the restricted-access protocol will have to consider legal liability to the Parks Canada agency.

Although this report has focused primarily on the social effects of restricted access, the park needs to better understand the effects of this type of strategy on the grizzly bear. If we are to gain knowledge on the wider application of this approach, we need to evaluate it beyond the social effects and link it to the ecological effects. One of the primary knowledge gains as a result of the study is that we can alter the way people visit an area, while simultaneously maintaining quality experiences. What we need to determine is, can we continue to allow the current protocol—and continue to support the resident bear's needs?

References

- Gray, D.L., W. Tucker, L. Cormier, and C. Day. 2000. Restricted Access 2000: An evaluation of the social effects. Unpublished report. Victoria, B.C.: University of Victoria.
- Morrison, H. 2000. Moraine Lake bear encounters 1995-2000. Unpublished report. Banff, Alta.: Parks Canada.
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