A STUDY OF BACKCOUNTRY USE IN GRAND TETON NATIONAL PARK

Clynn Phillips
Water Resources Research Institute
University of Wyoming
Project Number 203

Project Background

The increase in wilderness and general backcountry use over the last ten years is a "recreation phenomenon", even in an era of rapid growth in leisure activities. Visitor use estimates compiled by the Forest Service indicate that recreational use of Wyoming's eight wilderness and primitive areas rose from 299,500 visitor days in 1968 to 478,000 visitor days in 1972, an increase of nearly 60 percent. While a growth rate of this magnitude implies a strong demand for wilderness-type activities and experiences, there is evidence that suggests these trends will not be sustained in the future. During the period from 1969 to 1970 a growth rate of 38.2 percent was documented. However, the growth rate progressively decreased between 1970 and 1972. Forest Service data indicate the same trend is occurring in wilderness areas outside Wyoming as well.

The question that arises here is that if overall leisure activity trends are steadily increasing and if these trends are predicted to continue then why is wilderness use declining? This question perhaps becomes even more perplexing as the number of people desiring to escape the pressures of home, job, and city rapidly increase. The possibility exists that perhaps the apparent large latent demand that exists for wilderness areas has caught up with the supply of these areas and that supply and demand pressures have reached a stabilizing point. However, it appears more likely that the decreasing growth rate in demand for wilderness areas may indicate that some aspect of the wilderness experience is changing and thus the wilderness and primitive areas are no longer providing adequate satisfaction opportunities. Indeed either situation or both may be an adequate description of the course of events in some areas. However, in light of the increasing overall recreation demands and increasing social pressures, the second condition is likely to be a much more accurate description of the cause for decreased wilderness use. The increased use of general forest lands suggests that the basic demand for backcountry activities has not declined, nor has it stabilized. There is a general concern within the Forest Service, National Park Service and other agencies and private groups that the decline in growth rate is a reflection of a deteriorating wilderness experience due to over-crowding and other problems of overuse.
This study has concerned itself with this problem of hypothesised deterioration of the wilderness and backcountry experience.

The backcountry of Grand Teton National Park is no exception to the rule of increased use by backpackers, hikers and nature seekers. Records maintained by National Park personnel at Grand Teton indicate that permits were issued for 14,496 person overnight stays in 1969. By 1973 the number of overnight stay permits issued had increased to 31,408, a rise of 117 percent. Observance of parking lots and other trailhead access areas provide strong evidence that day use by other than overnight campers is increasing on a similar scale.

The management of Grand Teton National Park is not only confronted with the problem of increased use by solitude and nature seekers common to these areas, but also must contend with several problems unique to the area which perhaps compound the overcrowding issue.

A major factor to overcrowding is the multiple use aspect of the area. The easy accessibility of the backcountry perimeter provides added incentive to day hikers seeking the nature experience with as little expended time as possible. The high alpine environment in easy reach of a day's hike provides added attraction to overnight campers and mountain climbers. Also, the near proximity of trail ride concessions and guest ranches increases the crowding pressure through the added influence of packtrips and trail rides. With a fixed backcountry base and expanding backcountry use pressures, the question arises as to whether a backcountry management scheme can be devised that will accommodate the expected increase in users without substantially diminishing the quality or level of satisfaction to be derived from the experience.

In an attempt to more satisfactorily handle these aforementioned problems of backcountry management in Grand Teton National Park, it was proposed and authorized that a research project be conducted as a means of obtaining data concerning these problems.

It is recognized that the so-called "wilderness experience" is a product of psychological as well as physical factors. Thus, both the psychological motivations of backcountry users and the physical characteristics of a wilderness area will have to be considered before optimum user plans can be developed. However, it is not the intent of this study to establish behavioral motivations of Grand Teton National Park backcountry users. Rather, the general objective of this study is to determine the number of backcountry users by type, and to develop general activity profiles for these users. As an aid to the development of a more descriptive activity profile of wilderness users, limited attitudinal information will be compiled in an attempt to determine the general level of satisfaction that the different user groups associate with the experience, physical and/or management conditions that detract from user's experience, and possible improvements that would enhance the general benefits to be derived from a wilderness outing.
Collection of Data

All data for analysis were collected during the period of July 1 through August 31 of the summer of 1974. Collection was carried out by a two-man team working six days on and two days off on a rotating schedule whereby each trailhead was worked twice during an eight-day period on varying days of the week. The majority of data was obtained by means of a seven page questionnaire. The questionnaire was administered on a personal contact basis where exiting parties were contacted on one of six major trailheads. All party members 13 and older were asked to participate in the survey. To avoid any bias interjection by the interviewer each participant was asked to complete the questionnaire on his own. If individuals contacted desired not to fill out the questionnaire for any reason they were instructed to return the questionnaire to the interviewer and proceed with their journey. Of those contacted, approximately .009 percent refused to participate in the sampling. During the collection period 1102 questionnaires were completed and gathered.

Use data pertaining to travel patterns was also collected during this same period by means of electronic trail counters installed at trailheads and along major use arteries. Approximately 80 trail counter readings were taken from 7 counters during the field work period. Additional data was also obtained from backcountry use permit records and from trailhead registration stations.

The collection of this data makes possible the attainment of specific objectives, which are vital to responsible backcountry management plans. Through an analysis of the data, the following information will be provided:

1. The number and type (day user, backpacker, horseback rider) of persons using the Grand Teton National Park backcountry area.

2. The spatial distribution of users over the backcountry area in relation to participation in selected backcountry activities.

3. General activity profiles by user type, including length of stay, travel patterns within the area, recreation participation patterns and other information that will indicate resource demands.

4. Problems encountered by users related to physical conditions of the area, user conflicts or management policies imposed that detract from wilderness experience.

5. General attitudinal and user preference information that will assist park officials in evaluating present management policies and/or will provide guidelines for the establishment of new backcountry use policies.
It is the goal of this project to assemble and analyze the existing data in such a manner as to provide the above information. Through the analysis and evaluation of this data, recommendations for problem solutions and improved backcountry management will be proposed for Grand Teton management approval. A final draft of project proceedings and findings is forthcoming.