

ASSESSING VISITOR INTERPRETATION PREFERENCES WITHIN THE MUSKWA-KECHIKA MANAGEMENT AREA



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Executive Summary

Interpretation is an extremely valuable management tool for resource managers. If properly developed and implemented, interpretation can help managers communicate rules and regulations, enhance visitor safety and minimize recreational conflicts, deal with controversial management issues, promote positive public relations related to resource management, and help people see how their actions will affect the environment and, ultimately, themselves.

This study was undertaken to identify the preferences of area users with respect to different interpretation media, topics, and locations in the Muskwa-Kechika. More specifically, the main objective of this research was to determine preferences for interpretive media, topics, and locations of adult, frontcountry visitors to the Muskwa-Kechika. Preferences were assessed and compared among three categories: respondents' age group (18-39, 40-49, 50+), sex (female and male) and residence (locals, other Canadians and international visitors). By incorporating visitor preferences to interpretive planning, effective interpretative programming can be developed to best meet the needs of the area visitors and land managers alike.

The data were collected at three frontcountry provincial parks within the Muskwa-Kechika Management Area: Liard River Hot Springs Provincial Park, Summit Lake in Stone Mountain Provincial Park, and Tetsa River Provincial Park. The sampling process occurred on weekdays and weekends during morning and evening hours in day use and camping grounds within these three parks. A total of 140 completed surveys were collected.

Among the many findings, the favourite types of interpretive media were identified as interpretive signs, visitor centers, self-guided walks/tours, brochures and displays/exhibits. Favorite interpretive topics included fish and wildlife, the history of the MKMA, why the MKMA is special, geology and wilderness safety. The majority of people surveyed preferred interpretation to be located in provincial parks and campgrounds as compared to roadside pullouts and points of interest. The implications of these and other findings are reviewed throughout the report.

Based on the results of the study, a number of recommendations were made to the managers of the Muskwa-Kechika. First, **MKMA managers should initiate a planning process with the express purpose of creating a variety of interpretive programs within frontcountry areas of the region.** Almost 80% of the sample indicated that they would take the time to view interpretation if it was provided in the Muskwa-Kechika, and over 80% stated that interpretation would increase their enjoyment of the Muskwa-Kechika. Thus, it seems logical to suggest that visitors strongly desire a range of high quality interpretive programs. The creation of an interpretive plan—which would include an inventory of potential media, sites and topics for interpretation in the main highway corridor and other areas of the MKMA and identify potential options and associated costs—will be required.

Second, interpretation provided by the MKMA should be co-ordinated with existing providers of interpretation (e.g., BC Parks) to ensure that consistent messages and compatible goals and objectives are maintained. All existing interpretation in the Muskwa-Kechika is currently provided by external organizations and agencies (e.g., BC Parks). If managers of the Muskwa-Kechika wish to promote their own messages and images regarding the MKMA, they will need to (a) generate their own interpretation programs and (b) co-ordinate existing and future interpretive programs. The duplication of messages, topics and specific media should be avoided.

Third, results of this study regarding visitor preferences of interpretive media, locations and topics should be incorporated into any resulting interpretive plan. The future provision of interpretation within the MKMA should incorporate a wide range of interpretive media, but should concentrate on the top five forms of interpretation preferred by respondents: interpretive signs, visitor centers, brochures, self-guided trails and displays/exhibits. Visitors stated that they preferred to use visitor centres and brochures in urban centres, interpretive signs and evening presentations in provincial parks, and interpretive signs and self-guided walks/tours at roadside locations.

In sum, survey results indicated that visitors strongly supported the provision of interpretation in the MKMA. Respondents were also able to clearly identify interpretive preferences in terms of desired interpretive topics, media and locations, and these preferences were very stable among all age ranges, both sexes, and the three residence categories. As effective interpretation requires in-depth knowledge of the audience, including specific visitor preferences with respect to interpretive types, topics, and locations, these preferences should be reflected in future interpretive programs.

The Muskwa-Kechika region boasts a wide variety of important environmental, cultural, and economic attributes which are attractive to people with many and diverse agendas. Thus, there is a need to cautiously manage all forms of any land use in the region. Interpretation is one management tool that could significantly aid in this process. Therefore, it is recommended that a long-term, co-ordinated interpretive plan should be created for the region in consultation with local residents, tourists, and other stakeholders in the area.

1.0 Introduction

In the early 1990s, tired of the increasing number of confrontations between pro-development and pro-environment groups, the Province of British Columbia recognized the need for fundamental change in its approach to land use planning. A strategic land use planning process for all Crown land in the province was established—the so-called LRMP (Land and Resource Management Planning) process—with the objective of ensuring a sustainable future for the province's environment, economy and communities by balancing conservation and preservation goals.

A stakeholder approach was used in the LRMP process: it was felt that these important decisions should be made not by government, but by the local people who relied on the land and its resources in their daily lives. Thus, planning tables were made up of representatives from industry, conservation, recreation, government (provincial, local and federal), First Nations and other public interests working together in a process of shared decision making.

At the same time, British Columbia (BC) developed a Protected Areas Strategy that established the policies and procedures needed to protect 12% of its land as protected areas. This reflected a commitment to “protecting and restoring the quality and integrity of our environment while ensuring a sound and prosperous economy” (MELP, 1999). The creation of new protected areas were an important cornerstone of the new land use planning process, as protected areas were seen to provide a myriad of benefits to society. These include the preservation of cultural and biological diversity, the provision of benchmark natural areas for scientific research, watershed protection, the creation of high quality recreational and tourism opportunities, and diversification of the provincial economy. Moreover, these protected areas provide excellent interpretive and educational opportunities: residents of and visitors to BC can learn about the natural and cultural history of the region and province, and the important role that parks play in contemporary society.

The Muskwa-Kechika Management Area (hereafter Muskwa-Kechika) was designated in 1997 after four years of negotiations between various stakeholders in the Fort St. John and Fort Nelson regions. The stakeholders agreed that Muskwa-Kechika was unique and should be managed as a special management area that would allow resource development to continue while recognizing, accommodating and protecting important wildlife and environmental values in the area. They also recommended that an advisory board be appointed to advise government on management of the area and that a special trust fund be created to support special projects and planning initiatives within the Muskwa-Kechika.

Thus, a new, innovative model of land management—one comprising of a mixture of protected areas and special management zones—was created. It has been described as one of North America's last true wilderness areas south of the 60th parallel, and is considered to have national, international, and global significance (MELP, 1999). It consists of 4.4 million hectares of mature and old growth forests, spectacular geological formations, pristine mountains and valleys, a vast amount of lakes and rivers, a range of areas from alpine to wetlands, and an abundant diversity of birds and animals. This area is culturally and historically significant as a home to the Kaska Dena First Nations people, as well as being

an important area for fur trading and commercial fishing. In addition, the region boasts great potential for natural gas, forestry, mining, and tourism development. Thus, it is necessary to find a balance between resource management and conservation, to promote the coexistence of competing interests. Careful planning and management are necessary in order to avoid adverse impacts of residents of, and visitors to, the area. One important means to this goal is the provision of interpretive programs in the area.

1.1 The Value of Interpretation

Recreation and tourism are both beneficial and detrimental to protected areas. The opportunity to gain firsthand experience in an area, to see, touch, and appreciate nature, generally leads to visitor support for the protection strategy. However, introducing people to a fragile natural system has various adverse environmental impacts that contradict the mandate of conservation. Providing interpretation to the user population helps mitigate this problem, as “managers are in a unique position to influence and shape the process of learning” (Ceballos-Lascuráin, 1996). By acquainting visitors with the value of what is being protected, and the short- and long-term benefits of protecting them, impacts can be minimized. This is because interpretation has the potential to change visitor attitudes and behaviour if properly designed and implemented.

Basically, interpretation is able to create attitudinal and behavioural change by providing information in a way that challenges visitors’ existing attitudes and behaviour. However, the relationship between ‘information’ and ‘interpretation’ is often confused. Much so-called interpretation merely provides information (i.e., the simple provision of facts). While all interpretation requires the inclusion of factual information, true interpretation is created when these dry facts are used in an entertaining or thought-provoking manner to fire the hearts and minds of visitors in ways that challenge their existing attitudes and beliefs or make them see a familiar landscape feature or ecological relationship in a new and different light (Tilden, 1967). There is also a complex relationship between ‘entertainment’ and interpretation. While interpretation may sometimes—though not always—be entertaining, the entertaining aspect of interpretation must be used to provoke thought rather than simply provide entertainment for entertainment’s sake. All interpretation has an important message, often directly related to the need to conserve natural and cultural values or illuminate difficult or complex resource management issues in a meaningful and powerful way.

Thus, interpretation is a proactive tool used to “create for the visitor an understanding of the history and significance of events, people, and objects with which the site is associated” (Alderson and Low, 1985; Knudson, Cable and Beck, 1995). Interpretation began based on the predicate that an area must be understood to be appreciated, and it evolved as a way to protect the environment (Butler, 1993). Essentially, resources are described in a way that reveals their relevance to the visitor’s own experience in order to instill a broad environmental consciousness. The classic objectives of interpretation, as stated by Sharpe and Sharpe (1986) and reiterated by Knapp, Volk and Hungerford (1997), are:

- (1) to assist visitors in developing a keener awareness, appreciation, and understanding of the area they are visiting;
- (2) to accomplish management goals by encouraging thoughtful use and reasonable behaviour that minimizes impact on the resources; and
- (3) to promote public understanding of agency goals and objectives.

In other words, interpretation can communicate rules and regulations (Wolfe, 1997), enhance visitor safety and minimize recreational conflicts (Butler, 1993), deal with controversial management issues (Burzynski, 1991) and promote positive public relations (Carson and Knudson, 1996) related to resource management, as well as help people see how their actions will affect the environment and, ultimately, themselves. As Beck and Cable (1998) suggest, conveying concepts such as “wise use” of our natural resources and ways to minimize our impact on the environment through interpretation can encourage a greater sensitivity to one’s surroundings. Thus, interpretation can be a useful tool to create support for the management and use of resources with minimal impact on the environment (Field and Wagar, 1973).

The use of interpretation as a management tool received increased attention among members of the interpretive profession when Sharpe (1976) noted the potential link between interpretation and park management. He proposed that “interpretation should seek to accomplish management goals by encouraging thoughtful use of resources by visitors and by guiding people away from fragile overused areas into areas that can withstand heavier use” and “promoting public understanding of agencies and their programs” (Hooper and Weiss, 1990). The idea is now commonly held and it is vigorously argued by some (e.g., Butler, 1993) that agencies should use interpretation as one important element of resource management.

1.2 Developing an Interpretive Program

As noted above, interpretation is an important land management tool not only because it enables pleasant, positive experiences for the recreational user (Beck and Cable, 1998), but because it affects the ability to control human impact on an area (Kuehn, 1996; Buckley, 1999). This is accomplished by creating the requisite ecological, environmental, and ethical awareness for favorable attitudes and behaviour. It has been argued by many (e.g., Vaughn and Hernbrode, 1995; Knapp et al., 1997; Wolfe, 1997) that interpretation can and should influence visitors’ attitudes and/or behaviours toward the use of natural resources. The key to attaining this outcome is to develop effectual interpretive programming. Effective interpretation is considered to be essential to the successful management and operation of protected areas (Butler, 1993), and is achieved through (1) a comprehensive understanding of visitor preferences (Farrell and Lundegren, 1991) and (2) continuous evaluation to ensure that objectives are being met, changes in visitor group dynamics are addressed, and innovations in interpretation are incorporated (Burzynski, 1991).

The characteristics of the visitor group must be thoroughly understood in order for interpreters to develop effective programming (Kohen and Sikoryak, 1999). For example, location of residence is often an indicator of preferences (Regnier Gross and Zimmerman, 1994). Audiences are rarely homogeneous, and thus interpretation must be designed to appeal to, and effectively communicate to, visitors of all ages, experience levels, and personalities (Butler, 1993). People engage in interpretive experiences for many diverse reasons, so it is important to consider visitor motivations for and expectations of interpretation.

In the past, the development of interpretive programs was largely based on the *perceived* desires of the audience by interpreters or land managers; however, designing programs using this method requires a number of patronizing assumptions (e.g., the programmer or manager knows best) (Farrell and Lundegren, 1991). In fact, a number of studies have demonstrated that visitors' perceived and actual preferences consistently differ (Manning, 1999). That is, managers *think* they can predict visitor attitudes and management preferences, but often *cannot* do so with a great degree of accuracy. Thus, it is preferable to design interpretive programs based on actual visitor preferences rather than by the perceived needs and wants of park or land managers.

Meredith (2000) also suggests that the traditional 'empathetic approach' is insufficient, and the best way to 'know' an audience is to ask visitors directly what they want and expect from their interpretive experiences. In other words, visitor-centred design and market segmentation (Vaughn and Hernbrode, 1995) should be used to identify who the audience is and what interpretive media and topics will best fit the objectives of both visitors and managers. This is the basic premise behind the present study.

1.3 Objective and Importance of the Study

This study was conducted to identify the preferences of area users with respect to different interpretation media, topics, and locations in the Muskwa-Kechika, so that effective interpretive programming could be developed to best meet the needs of the area visitors and land managers alike.

More specifically, the main objective of this research was to determine visitor preferences for interpretive programming (i.e., interpretive media, topics, and locations) within the Muskwa-Kechika by respondents' age group, sex and residence. In terms of the latter variable, it was hypothesized that four visitor groups—local users from the Muskwa-Kechika region, other Canadian visitors, residents of the United States and international (non-North American) visitors—would be represented in the sample.

There are four main reasons as to why this research is important and necessary. First, the Muskwa-Kechika is relatively new, but is becoming an increasingly popular destination for local recreationists and non-local tourists. Thus, in order to meet the objective of the Protected Area Strategy to preserve biodiversity, recreation, cultural and heritage values in an area and providing a legacy for future generations (MELP, 1999), it is necessary to educate users about a broad range of ecological, environmental, and ethical issues. Interpretation is a valuable tool to accomplish this task,

but as yet, baseline research does not exist to aid in the process of effectual interpretive program development. This research provides this baseline information.

Second, there is a high correlation between prior establishment of visitor preferences and successful interpretive programming (i.e., visitor satisfaction) (Farrell and Lundegren, 1991; Beck and Cable, 1998). Therefore, the data collected are potentially beneficial to public agencies (e.g., MKMA Advisory Board, BC Parks) that strive to enhance user satisfaction and environmental awareness in the Muskwa-Kechika.

Third, successful interpretive programming leads to environmental awareness and ecological sensitivity, which in turn creates change in the attitudes and behaviour of the public with regards to recreational areas (Knudson et al., 1995). In other words, as reviewed in Section 1.1, successful interpretive programming helps to meet objectives for public land use by promoting matters such as the global significance of the MKMA, compliance with rules and regulations, the importance of public safety, and awareness of low impact recreation and tourism practices (Sharpe and Gensler, 1978; Knudson et al., 1995). These objectives parallel those of Muskwa-Kechika managers, Northern Land Use Institute and BC Parks.

Finally, this proposed study directly addresses a research issue identified in the Muskwa-Kechika Research Plan: Theme 4 (Recreation Management), question 23, which indicates a need to identify “the interpretive/educational possibilities relating to the M-K”.

2.0 Methodology

This section of the report reviews the methods used in the study to collect the data contained in this report. The study area is described, the sampling protocol reviewed, and limitations of the study are noted.

2.1 Study Area

Sampling, as per the design described below, occurred at provincial parks within the Muskwa-Kechika Management Area (see map provided in Appendix A). Specifically, three parks were chosen.

- (1) Tetsa River Provincial Park. Located at km 555 on the Alaska Highway, this site was the most easterly sampling site. It was 115 hectares in area and contained 25 campsites. There were no regularly scheduled interpretive programs here.
- (2) Liard River Hot Springs Provincial Park. This park was the most westerly point of study at km 765 on the Alaska Highway. It comprised 976 ha and contained 53 campsites. There were regularly scheduled interpretive programs in the summer season, which included guided walks, evening programs (e.g., slide shows), children's programs, and special events.
- (3) Summit Lake (Stone Mountain Provincial Park). This site was chosen as an intermediate point for the study. The park (25,690 ha) begins at km 595 on the Alaska Highway, 140 km east of Fort Nelson. The campground contained 28 campsites and had no regularly scheduled interpretive programming.

These parks were selected in order to optimize the range of users from the various market segments. For example, Tetsa River is close to Fort Nelson, and is a more probable destination for local travellers; in comparison, Liard River Hot Springs tends to be a destination for international tourists. Other parks in the area such as Muncho Lake are likely frequented by a market segment similar to that of Liard River, and thus were not selected in order to minimize travel distance between survey sites.

2.2 Sampling Protocol

In order to meet the stated objective, systematic random surveys were utilized to sample a proportion of the visitor population to the MKMA in the 2000 summer season. Surveys were designed to best assess the interpretation preferences of area users; more specifically, their preferences in terms of interpretive types, topics, and locations. A pre-test of the survey was performed in Liard River Hot Springs Provincial Park between July 3rd and 7th, which led to small modifications of the survey. A copy of the final survey is included in Appendix B.

The revised survey was used in all sites occurred between July 17th and August 11th, 2000 (see calendar in Appendix C). Randomness was attained by rotating sampling locations, dates and

times, and utilizing a lottery type selection of respondents. When considering an appropriate sampling protocol for this project, several variables had to be accounted for. Both weekday and weekend visitors were required to be surveyed, as it was hypothesized that weekday and weekend visitors may have different characteristics (e.g., residence) and attitudes towards interpretation. For a similar reason, visitors were surveyed in both the morning and afternoon/evening. The importance of the location of the survey sites in terms of residence of the visitors (i.e., local versus international visitor) has already been noted. Also, it was felt to be important to access both day use and overnight visitors at each survey site, as these two groups of visitors may have been significantly different in terms of residence and interpretive preferences.

In sum, it was felt necessary to incorporate the following variables into the sampling protocol: (1) day of the week (weekday versus weekend); (2) time of day (am vs. pm); (3) location within the Muskwa-Kechika; and (4) location within the site (day use versus camping site). The sampling strategy was intended to maximize the random design by accounting for potential differences in the day of the week, time of day, and location. Each variable was considered in an attempt to obtain a sample with high diversity with respect to the respondents' region of origin. Each of these was considered, and a sampling protocol was developed as described below.

2.2.1 Day of the Week

Weekdays within the sampling period were selected via a lottery in all three locations (Tetsa, Summit, and Liard). A location was randomly chosen, as was a weekday, and these two pairings were recorded. The location was thrown back into the pile until 5 weekdays were chosen for each location. Then the 20 weekdays were thrown back into the draw, and the process was repeated to get a total of 10 sampling weekdays for each location.

Weekend days were drawn in a lottery style in the same manner as weekdays. There were 6 total weekend days drawn due to time constraints involved in travelling between sites and the number of interviewers available. Thus, each location was surveyed for two weekend days.

2.2.2 Time of Day

Time of day was chosen separately for weekdays and weekend days. Each location had 5 am time slots and 5 pm time slots for weekdays, and 1 am and 1 pm for weekend days. These were drawn for each location in chronological order as per the previous draws. The time slots were chosen as am = 9am to 2pm and pm = 4pm to 9pm.

2.2.3 Location

As noted in Section 2.1, the three survey sites were chosen to include both local and international visitors, as the potential differences between these two groups in terms of their interpretive preferences was a major focus of this study.

Specific sites within each park reflected two criteria: day users versus campers. The day-use groups were selected by approaching every 1 in 3 groups. In terms of selecting campers, a lottery system was used. The campsite lottery consisted of making random number lists of 50% of the total number of campsites within the respective provincial park (i.e., a campground with 50 sites generated a list of 25 numbers). Each list was backed up by another corresponding number list in order to minimize selection of unoccupied sites. In order to minimize respondent bias, the specific respondent within the group chosen was determined in a random manner: the person who was born closest to the day in which the survey was conducted was asked to participate in the survey. Three interviewers were used to contact respondents and initiate the survey process. The answers to the questions in the questionnaires were directly coded onto the survey by the interviewer.

Thirty-six time slots were sampled over 28 days, with 16 days and 94 surveys in July and 12 days and 46 surveys collected in August. Thirty of these sampling dates were weekdays and six were weekend days. Overall, the average number of completed surveys collected was 5.0 surveys per day, with 5.3 and 4.0 samples obtained per weekday and weekend day, respectively. In addition, 29 and 111 surveys were collected in morning and evening time slots respectively. In terms of location, 59 surveys were collected at Liard Hot Springs, 37 at Summit Lake, and 43 at Tetsa River.

A total of 140 completed surveys were collected out of 149 contacts, for a response rate of 94%. The nine non-respondents were primarily international travellers. Their non-response was mainly due to a language barrier, where either the interviewer decided that the potential respondent did not grasp the English language enough to complete the survey, or the interviewee declined for the same reason. Due to language and financial limitations, the researcher was unable to translate the questionnaire into other languages.

2.3 Limitations of the Study

It is important to note that only visitors to frontcountry areas (i.e., those visitors to the most highly developed, most easily accessed parts of parks) were surveyed. Typically, between 80-90% of all park visitors restrict their visit to frontcountry areas. Thus, the sample is representative only of frontcountry visitors and areas: backcountry visitors may have different interpretive preferences than the frontcountry users sampled in this study. Moreover, sampling sites were all located on the main Alaska Highway corridor, and so the results of this study can only be applied to this section of the Muskwa-Kechika. At present, it is unclear what percentage of the total recreational and tourist use of the Muskwa-Kechika is contained within this corridor.

Also, only those 18 years of age and older were included in the sample, so the results of this study are representative of adult visitors only. Those visitors under 18 years of age may have significantly different interpretive preferences.

Finally, due to time constraints, it should be noted that the data was collected in the peak season (July-August) only. While this time of the year is by far the most effective time to collect data from visitors (i.e., the majority of visits occur at this time of the year), there may be significant differences

between, for example, winter season or shoulder season visitors and peak season travelers in terms of their interpretive preferences. Future research programs wishing to involve off peak visitors must employ a large number of researchers or even utilize different data collection tools (mail surveys versus on site surveys). Thus, the information provided in this report relates only to peak season visitors, who probably make up at least 70-80% of the total recreational and tourism use of the Muskwa-Kechika, due to severe climatic conditions in the area that limits visitation in the winter months.

3.0 Results

The following section provides graphical and statistical presentation of the results obtained during the summer 2000 field season. There were four distinct sections of the questionnaire: 1) demographic information, 2) trip characteristics, 3) previous exposure to interpretation, and 4) interpretive preferences. For the purposes of clarity, each of the four sections of the survey will be examined in turn to facilitate explanation.

Due to the benchmark nature of this research—it is the first analysis of interpretive preferences in the Muskwa-Kechika, and one of few attempted in BC—and the small sample size, the statistical analysis of the data is limited to frequency and ANOVAS of mean scores. Basically, the ANOVA test compares mean scores from different sub-samples (e.g., men versus women) and states if there are any statistically significant differences between these mean scores ($\alpha = 0.05$). If significant differences are found, a so-called post-hoc comparison test (Tukey’s Honest Significance Difference [HSD]) is performed to relate the direction of the significant differences (e.g., to determine if men have statistically higher or lower scores than women or vice versa).

3.1 Demographic Information

The purpose of this section is to obtain a basic understanding of the demographic characteristics of the sample population. Table 1 presents the data acquired from questions 14 through to 16 in the survey (see Appendix B). There were more male (55%) than female (45%) respondents. Second, there was a noticeable trend of increasing sub-sample size with age: the youngest respondents (18 to 29 years of age) comprised 14.3% of the sample population, while 27.1% fell into the 60+ range. Upon initial analysis of the data, the age range classes of 18-29 and 30-39, as well as those of 50-59 and 60+ were statistically homogeneous and were therefore subsequently grouped together to increase sub-sample size. The class of 40-49 was found to differ greatly from the other categories, and was therefore kept separate even though the sub-sample size is slightly less than 30.

Table 1: Age, Sex, and Nationality of Respondents

Age Range	N	%	Sex	N	%	Country	N	%
18-29	20	14.3	Female	63	45.0	Australia	1	0.7
30-39	20	14.3	Male	77	55.0	Canada	89	63.6
40-49	28	20.0				Germany	2	1.4
50-59	34	24.3				Holland	2	1.4
60+	38	27.1				USA	46	32.9

The majority of people surveyed originated from Canada (63.6%), while 32.9% were travelling from the United States. The remaining 3.6% stated that they were from Australia, Germany, or the Netherlands. Table 2 segments the place of origin designations into residence categories, as per the objective of this study. As noted in Section 1.2, the original objective was to create four residence categories: local visitors, other Canadian visitors, visitors from the United States, and international visitors. However, due to a smaller than anticipated sample size, and thus less than optimal sub-sample sizes, three residence categories were created. The ‘Local’ category includes respondents from towns or cities within 400 km of the Muskwa-Kechika boundary. The ‘Canada (Other)’ category includes respondents from all other Canadian locations. The ‘USA’ category includes all visitors from the United States. Due to the low number of respondents involved, the five surveys from countries other than those listed above were removed from this analysis. The local group comprised 23.7% of the sample population; 42.2 and 34.1% of respondents were from other Canadian locations and the United States, respectively.

Table 2: Residence Category of Respondents

Residence Category	N	% of Sample
Local	32	23.7
Canada (Other)	57	42.2
USA	46	34.1

3.2 Trip Characteristics

The first four questions of the survey pertained to the composition of travelling parties, length of stay in the MKMA, and stopping points within the area. The number of people in each party (Figure 1) ranged from 1 to 10, with a mean of 2.8 and a standard deviation of 1.52 (n = 135). The party composition consisted primarily of family members (60.7%), but also friends (13.3%), a mixture of family and friends (7.4%), and solo travellers (8.9%) (Figure 2). The remaining 9.6% were classified as ‘other’; all of these respondents stated that they were travelling with their partner.

Figure 1: Party Size

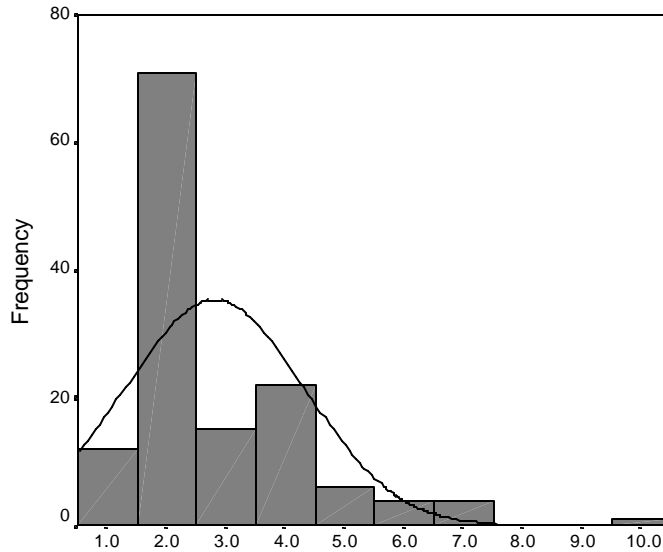
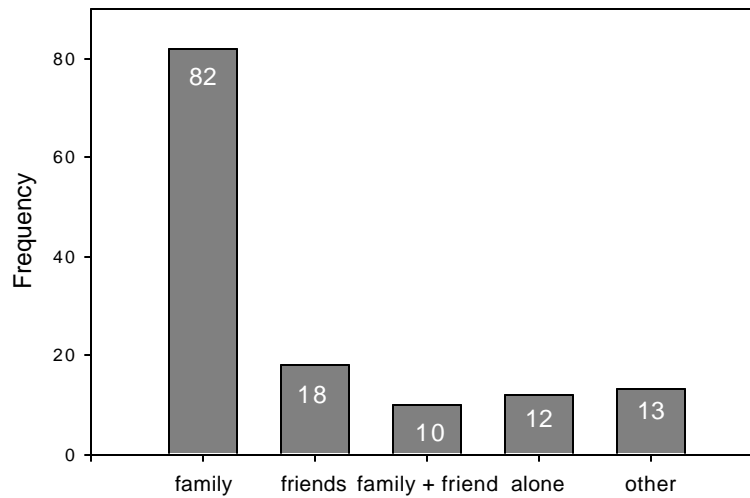
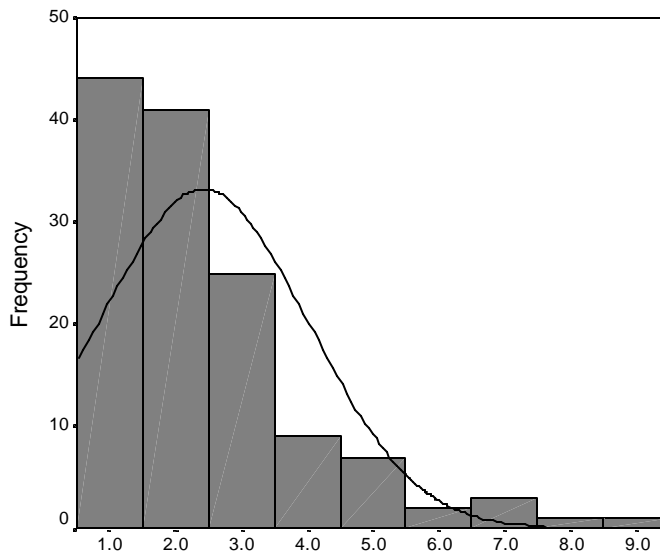


Figure 2: Party Composition



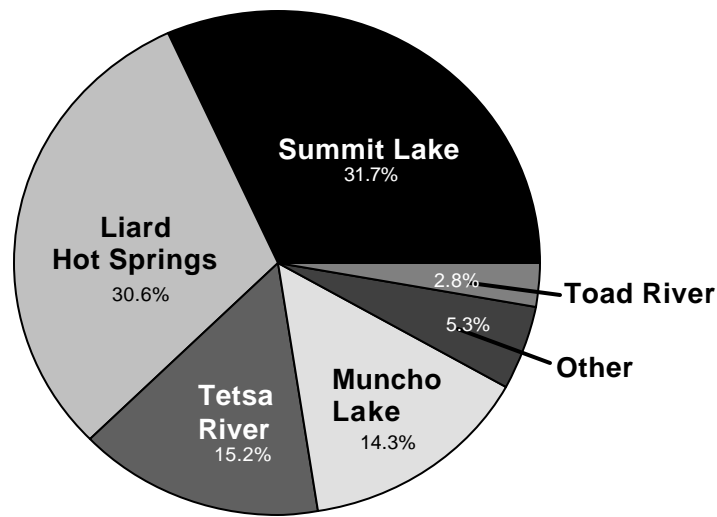
The third question was concerned with the respondent's length of stay within the MKMA. The range of values was 1 to 120 days, the mean was 3.9 and the standard deviation was 12.7 ($n = 135$). The large variation was mainly due to answers from two respondents, who intended to reside within the MKMA for 90 and 120 days, respectively. This was likely due to summer employment within the area. Figure 3 represents the distribution of length of stay if the two large values are removed: the modified mean is 2.4 days and the standard deviation is 1.6 ($n = 133$).

Figure 3: Length of Stay (in Days)



The last question of this section dealt with the main stopping points of travellers within the MKMA during their stay. Respondents were given a laminated map of the area and asked to pinpoint their major stops. The interviewer recorded up to ten stops per traveller. The answers were then added to get percentage values (Figure 4). Summit Lake and Liard Hot Springs were the most frequented with 31.7 and 30.6% of the total number of stops recorded. Tetsa River and Muncho Lake followed with 15.2 and 14.3%, respectively, and Toad River comprised 2.8% of the answers. The “Other” category consisted of 15 stops with three or less responses, including Stone Mountain, Strawberry Flats, and Trout River. Importantly, Summit Lake, Liard Hot Springs, and Tetsa River were named as stopping points by approximately 82, 81, and 40% of the sample population, while 26.4, 42.1, and 30.7% of the total number of surveys were collected from the same respective locations.

Figure 4: Major Stopping Points of Respondents Within the Muskwa-Kechika



3.3 Previous Exposure to Interpretation

The second section of the survey consisted of questions pertaining to the respondent's level of exposure to, and relative interest in, interpretation. As the concept of interpretation is not always clearly understood by visitors, prior to answering these questions, the interviewees were given a brief definition of interpretation (see Appendix B). In this way, each respondent was working with a common definition/description of interpretation, thus minimizing potential respondent bias.

The first question asked the respondent whether they had attended an interpretive program in the past year and, if so, where and what type. Of the 140 people surveyed, 80 (57.1%) responded that they had attended some sort of interpretive program in the year prior to the date that they were surveyed. Table 3 displays number, and percentage, of respondents answering the affirmative as categorized by age range, sex, and residence. People of all ages had statistically similar answers. Women and men had similar amounts of previous exposure to interpretation. Finally, people residing within 400 km of the area boundary were significantly less likely ($p = 0.008$) than respondents originating from other regions of Canada or the United States to have attended a program in the past year.

Table 3: Previous Exposure to Interpretation by Age, Sex and Residence

Age	%	Sex	%	Residence	%
18-39	55.0	Female	57.1	Local	34.4
40-49	46.4	Male	57.1	Canada (other)	63.2
50+	62.5			USA	67.4

In addition, respondents were asked to name the location where they had attended these programs. Table 4 lists the answers, as well as the percentage frequency that each particular location was identified. If a specific response was given greater than three times, it is listed separately, whereas those answered less than three times were grouped into the ‘Other (Canada)’ or ‘Other (USA)’ categories. Those locations not in Canada or the USA were designated as ‘Other’. The highest percentage (22.4%) belongs to the ‘Other (Canada)’ category. However, the locations found along or near the Alaska Highway (the major thoroughfare for the MKMA) combined surpass that percentage. These locations include Dawson Creek, Liard River Hot Springs, Fort Nelson, Watson Lake, and Whitehorse as people typically travel to the ultimate destination of Alaska.

Table 4 also presents the frequency of responses for the question of what type of interpretive program was attended at these locations. The majority of respondents stated that they had experienced a program involving the physical presence of an interpreter in the form of oral or audio-visual presentations (35.3%) and/or guided walks (23.7%), whereas

Table 4: Location and Type of Previous Exposure to Interpretation

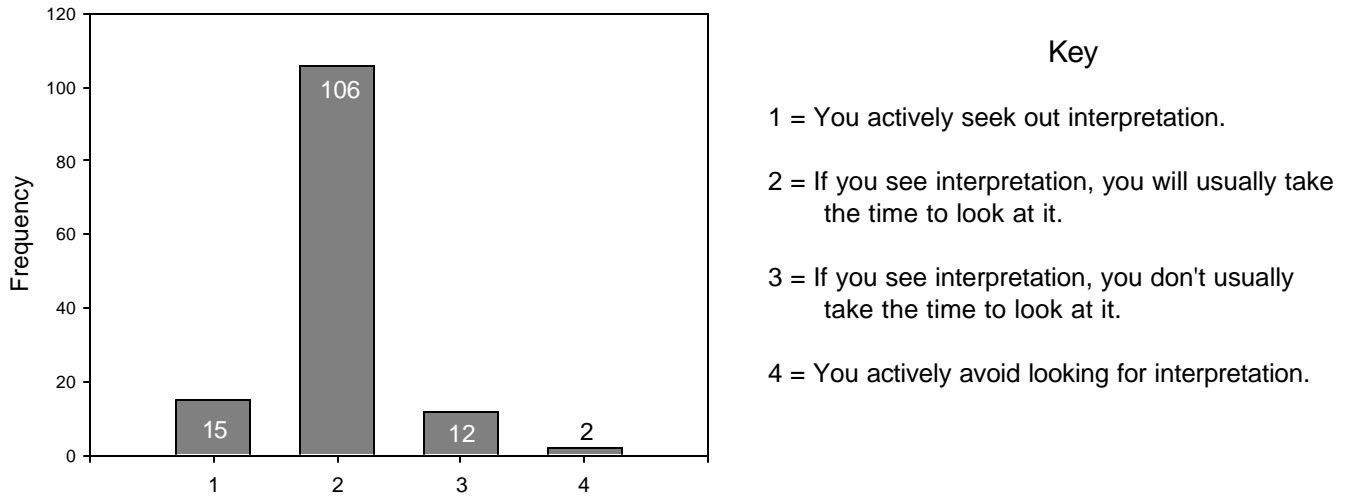
Location	%	Location	%	Type of Interpretation	%
Liard River Hot Springs, BC	9.5	Denali National Park, AL	4.3	Presentation	35.3
Banff National Park, AB	6.9	Dawson Creek, BC	4.3	Guided Walk/Tour	23.7
Alaska	6.9	Drumheller, AB	3.4	Museum	15.8
Whitehorse, YK	6.0	Vancouver, BC	1.7	Displays/Exhibits	8.6
Dawson City, YK	6.0	Other (Canada)	22.4	Self-Guided Walk/Tour	7.9
Jasper National Park, AB	5.2	Other (USA)	8.6	Visitor Centre	3.6
Watson Lake, YK	5.2	Other	4.3	Children’s Program	2.2
Fort Nelson, BC	5.2			Other	2.9

displays/exhibits and self-guided walks were frequented by 8.6 and 7.9%, respectively, of those surveyed.

The next question in this section related to the respondents’ normal level of interest in interpretation while travelling. This closed-ended question provided four possible answers, which were coded on a scale of 1 to 4, where ‘1’ represented the highest and ‘4’ the lowest amount of interest in interpretation (see Figure 5). The resulting mean was 1.99 with a standard error of 0.04 (n = 135). Thus, the mean corresponds to category 2, which, as is illustrated by Figure 5, connotes that most of the

surveyed travellers through the MKMA usually take the time to experience interpretation if it is provided.

Figure 5: Normal Level of Interest in Accessing Interpretation while Travelling



The responses to this question were then categorized by age range, sex, and residence (Table 5). An analysis of variance (ANOVA) test indicated no statistical differences between respondents' level of interest in interpretation and their age ($p = 0.081$), sex ($p = 0.422$) or residence ($p = 0.113$). That is, members of all ages, both sexes, and all three residence categories had statistically similar levels of interest in interpretation while travelling.

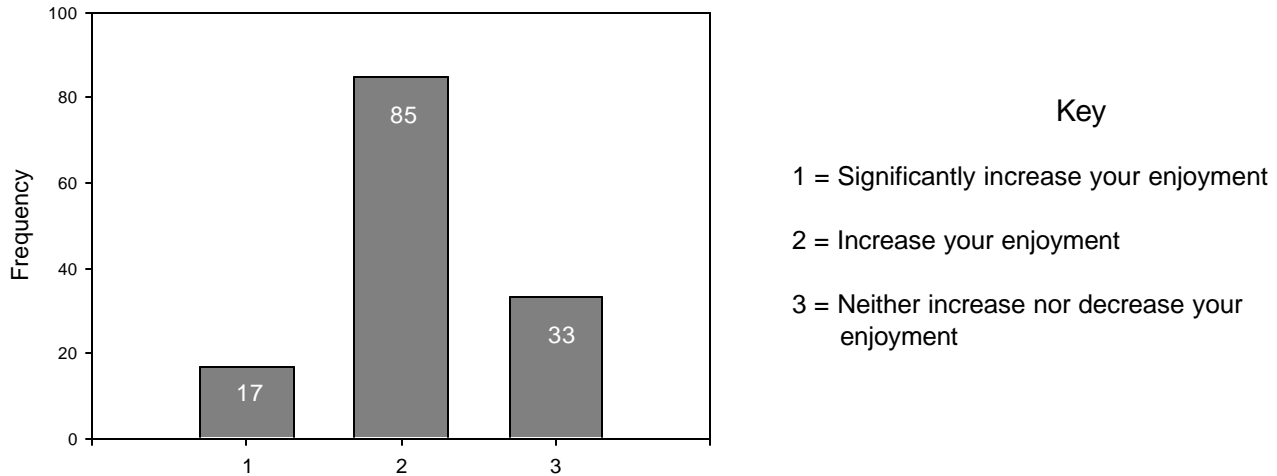
Table 5: Mean Level of Interest in Interpretation by Age, Sex, and Residence

Age	Mean	Sex	Mean	Residence	Mean
18-39	2.13	Female	2.03	Local	2.16
40-49	2.04	Male	1.96	Canada (Other)	1.96
50+	1.90			International	1.96

Key: 1 = highest to 4 = lowest interest.

The next question asked respondents to what degree interpretation in the MKMA would increase or decrease their enjoyment of the area. Respondents were supplied with five possible answers, but, as is shown in Figure 6, only the first three choices were actually selected by respondents. In other words, those interviewed did not believe that interpretation would *decrease* their enjoyment of the Muskwa-Kechika in any way. This limited the graphical representation of the results to three categories (see Figure 6): the mean was 2.11 with a standard error of 0.05 ($n = 135$). Thus, the mean corresponds to category 2, which indicates that most of the surveyed travellers through the MKMA believe that interpretation would increase their enjoyment of the area.

Figure 6: Effect of Interpretation on Enjoyment



The responses were then categorized by age range, sex, and residence (Table 6). There were no significant difference between the positive effect of interpretation and age ($p = 0.18$), sex ($p = 0.30$), or residence ($p = 0.09$). That is, all respondents, regardless of age, sex or residence, stated that interpretation had similarly positive effects on their enjoyment.

Table 6: Effect of Interpretation on Experience by Age, Sex and Residence

Age	Mean	Sex	Mean	Residence	Mean
18-39	2.25	Female	2.03	Local	2.22
40-49	2.11	Male	1.96	Canada (Other)	2.18
50+	2.03			International	1.98

Key: 1 = significantly increase to 5 = significantly decrease enjoyment.

3.4 Interpretation Preferences

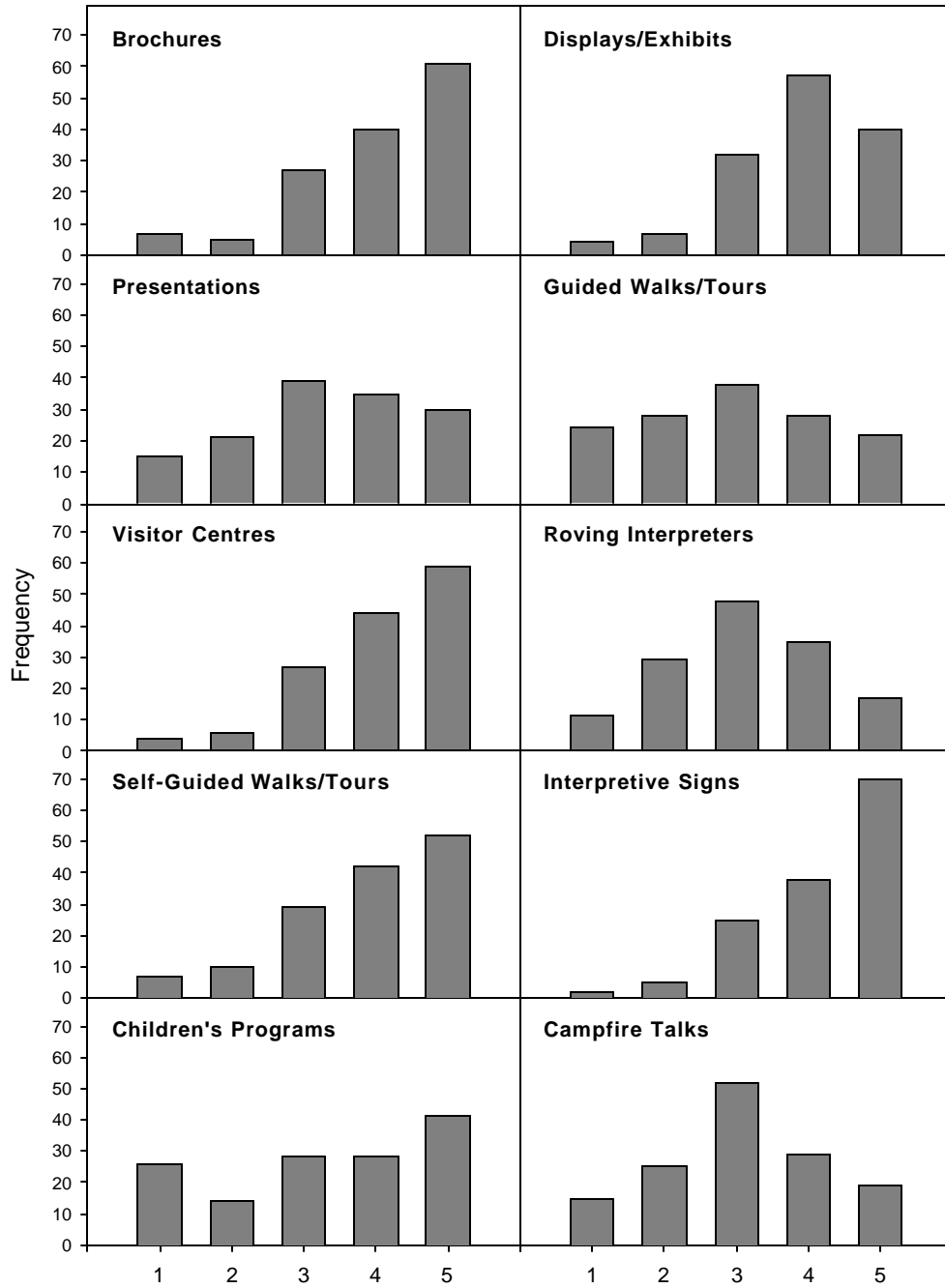
The third section assessed the interpretive preferences of visitors to the MKMA in terms of interpretive media, locations, and topics. First, respondents were asked to rate each of ten types of interpretive media on a scale of least to most preferred. Figure 7 illustrates the results. In terms of mean values, where 1 = least preferred to 5 = most preferred, the preferred types of interpretive media was ranked as follows: (1) interpretive signs (4.24); (2) visitor centres (4.05); (3) brochures (4.00); (4) displays/exhibits (3.89); (5) self-guided walks/tours (3.84); (6) children's programs (3.36); (7) evening

presentations (3.33); (8) roving interpreters (3.13); (9) campfire talks (3.08); and (10) guided walks/tours (2.96).

These average values were broken down by age range, sex, and residence in Table 7. An ANOVA was performed to assess any statistical differences, and none were found with the exception of age class ($p = 0.018$) and residence ($p = 0.010$) for visitor centres and residence ($p = 0.003$) for brochures. A post-hoc comparison (Tukey's HSD), found that: (1) the age class 50+ was more likely to prefer visitor centres than respondents aged 18-39; (2) respondents residing outside of Canada preferred visitor centres far more than non-local Canadians; and (3) local residents were significantly less interested in brochures as a type of interpretive media than were other Canadians and Americans.

The next question asked respondents to identify the three types of interpretation they most like to see in the Muskwa-Kechika. As shown in Table 8, the favourite type of interpretive media was visitor centres, with 24.3% noting this as their first choice. The most popular second and third choices were interpretive signs. When the top three responses were cumulated, the favourite types of interpretive types were: (1) interpretive signs; (2) visitor centres; (3) self-guided walks/tours; (4) brochures; (5) displays/exhibits; (6) evening presentations; (7) children's programs; (8) guided walks/tours; (9) campfire talks; and (10) roving interpreters.

Figure 7: Preference of Interpretive Media



Key: 1 = least preferred, 5 = most preferred.

Table 7: Preferences of Interpretive Media by Age, Sex and Residence

	Brochures	Evening Presentations	Visitor Centres	Self-Guided Walks	Displays/ Exhibits	Guided Walks	Roving Interpreters	Interpretive Signs	Children's Programs	Campfire Talks
Age										
18-39	3.73	2.98	3.73	4.15	3.65	3.03	3.08	4.05	3.41	3.18
40-49	4.11	3.54	4.11	3.93	4.11	2.82	2.93	4.32	3.25	2.96
50+	4.15	3.42	4.22	3.69	3.90	3.00	3.24	4.25	3.30	3.08
Sex										
Female	4.16	3.27	4.13	3.70	3.75	2.98	2.95	4.27	3.16	3.06
Male	3.91	4.00	4.00	4.01	3.97	2.96	3.27	4.16	3.45	3.10
Residence										
Local	3.44	3.38	3.91	4.06	3.97	2.94	3.34	4.19	3.65	3.22
Canada (Other)	4.11	3.25	3.82	3.95	3.77	2.98	2.93	4.16	3.49	3.02
USA	4.26	3.41	4.43	3.57	3.98	2.93	3.24	4.37	3.02	3.07

Key: 1 = least and 5 = most preferred. Significant differences are italicized and bolded.

Table 8: Three Favourite Types of Interpretive Media Among Respondents

Interpretive Media	First Choice (%)	Second Choice (%)	Third Choice (%)	Cumulative (%)
Brochures	17.9	12.9	10.7	41.4
Evening Presentations	8.6	5.7	6.4	20.7
Visitor Centres	24.3	11.4	10.7	46.4
Self-Guided Walks	18.6	12.9	12.9	44.3
Displays/Exhibits	8.6	5.0	17.9	31.4
Guided Walks	4.3	7.1	2.9	14.3
Roving Interpreters	1.4	2.9	2.1	6.4
Interpretive Signs	5.7	25.7	21.4	52.9
Childrens' Programs	5.7	7.1	7.1	20.0
Campfire Talks	1.4	5.7	4.3	11.4

Question 10 of the questionnaire was an open-ended question that asked respondents where they would most like to see interpretation in the stops they had made on their trip. The answers were grouped into three categories: (1) provincial parks and campgrounds, (2) roadside pullouts, and (3) points of interest (including major attractions within the MKMA). As can be inferred from Figure 8, the majority of the people surveyed believed that interpretation would be of greatest use if located in provincial parks and campgrounds. Thus, the status quo was supported: most interpretation in this and other regions throughout North America are found in protected areas.

More specifically, respondents were asked which types of interpretation they personally thought would be most appropriate for cities (e.g., Fort Nelson), provincial parks and campgrounds, and roadside locations along the Alaska Highway. The results are presented in Table 9. The majority (46.7%) of people surveyed felt that visitor centres would be most appropriate for city locations. This is a somewhat surprising finding, as visitor centres are always located in frontcountry areas of parks. However, it may be that respondents confused 'information' or 'tourist' centres—located in almost every city in the world—with the visitor centres provided in most high profile protected areas. Respondents also supported the provision of brochures (23.9%), displays/exhibits (11.8%), and interpretive signs (8.2%) in city locations. For provincial parks and campgrounds, 25.8% of the respondents chose interpretive signs, with evening presentations, self-guided walks/tours, and displays/exhibits receiving 16.5, 13.8, and 10.4% of the total. Lastly, interpretive signs received an overwhelming majority of the support as being appropriate for roadside locations, with 56.7% of the sample. Finally, respondents preferred self-guided walks (13.8%), displays/exhibits (11.6%), and brochures (7.1%) at roadside locations.

Figure 8: Preferred Location of Interpretation (%)

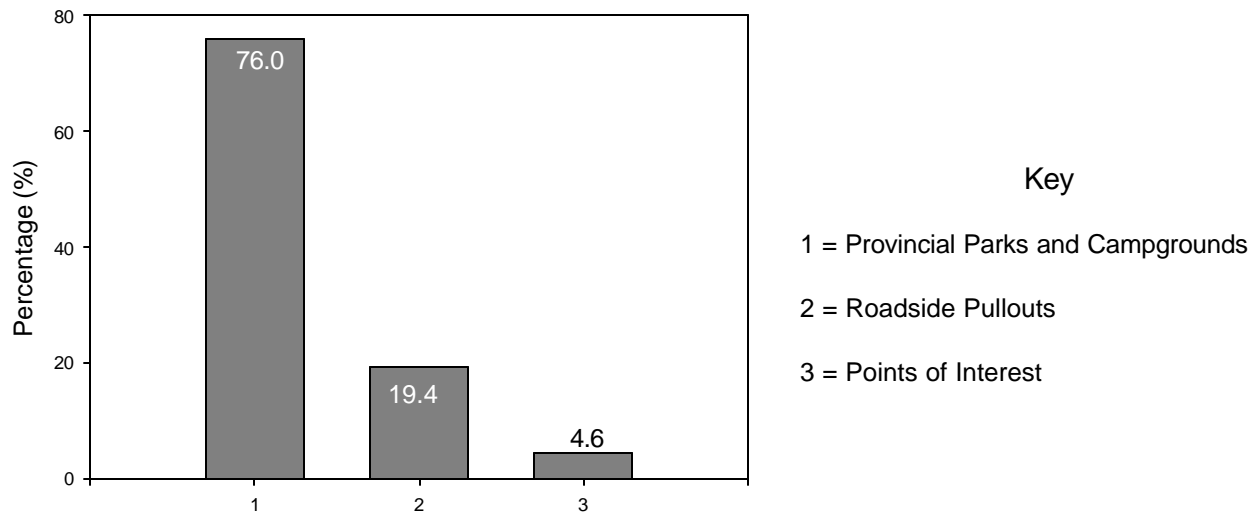
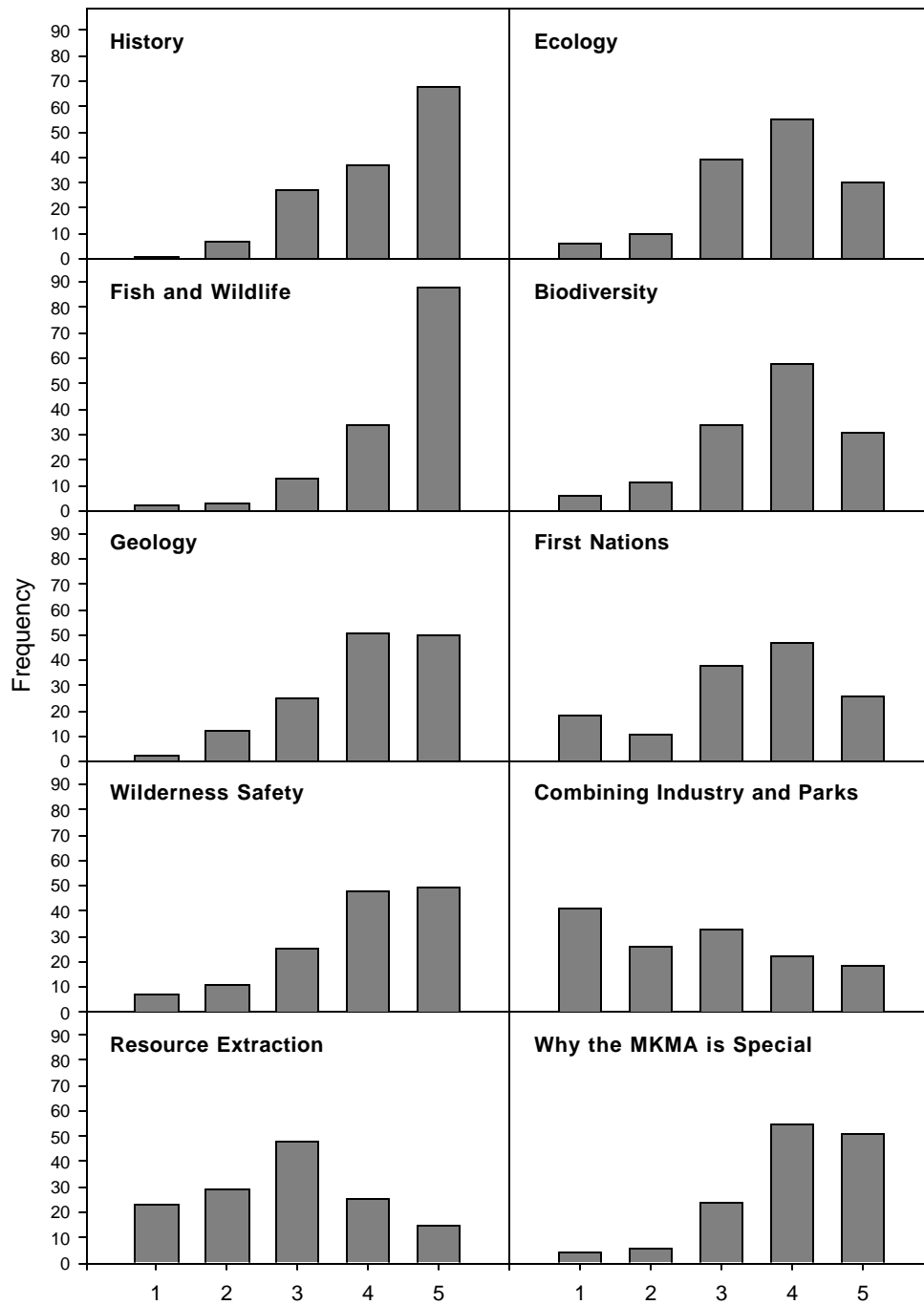


Table 9: Preferred Interpretive Media by Location (%)

Media	Cities	Provincial Parks	Roadside Locations
Brochures	23.9	8.5	7.1
Evening Presentations	1.6	16.5	0.9
Visitor Centres	46.7	-	2.2
Self-Guided Walks	2.0	13.8	13.8
Displays/Exhibits	11.8	10.4	11.6
Guided Walks	2.0	6.2	1.3
Roving Interpreters	-	5.8	0.9
Interpretive Signs	8.2	25.8	56.7
Childrens' Programs	-	8.1	-
Museums	2.0	-	-
Others	2.0	3.8	5.4

With respect to interpretive topics, respondents were asked to rate each of ten possible subjects on a scale of least to most interesting. Figure 9 illustrates the results. In terms of mean values, the topics for interpretation specifically in the MKMA (see Appendix B for an exact wording of the choices) ranked as follows: (1) fish and wildlife (4.44); (2) history (4.21); (3) why the MKMA is special (4.01); (4) geology (3.99); (5) wilderness safety (3.84); (6) ecology (3.69);

Figure 9: Preferred Interpretive Topics



Key: 1 = lowest level to 5 = highest level of interest

(7) biodiversity (3.66); (8) First Nations (3.35); (9) resource extraction (2.88); and (10) combining industry and parks (2.67).

These average values for interpretive topics are broken down by age range, sex, and residence in Table 10. An ANOVA was performed to assess any statistical differences, and none were found with the exception of sex ($p = 0.022$) for the topic of resource extraction in the MKMA and residence ($p = 0.010$) for First Nations as an interpretive issue. Upon conducting a post-hoc comparison (Tukey's HSD), it was found that: (1) males are more interested in learning about resource extraction in the MKMA than females; and (2) respondents residing outside of Canada would like to hear about regional First Nations groups more than would local residents.

Table 10: Preferred Interpretive Topics by Age, Sex, and Residence

	History	Fish & Wildlife	Geology	Wilderness Safety	Resource Extraction	Ecology	Biodiversity	First Nations	Industry & Parks	Why MK is Special
Age										
18-39	4.05	4.60	3.93	3.78	2.88	3.85	3.78	3.58	2.73	3.78
40-49	4.25	4.43	3.93	4.11	2.86	3.54	3.89	3.32	2.61	4.00
50+	4.21	4.38	4.00	3.82	2.85	3.61	3.57	3.28	2.61	4.17
Sex										
Female	4.05	4.44	4.03	3.87	2.60	3.62	3.60	3.44	2.48	4.05
Male	4.27	4.45	3.90	3.85	3.06	3.70	3.77	3.31	2.78	4.00
Residence										
Local	4.06	4.56	3.84	4.03	2.72	3.66	3.75	2.88	2.63	3.94
Canada (Other)	4.23	4.40	3.91	3.79	2.88	3.75	3.63	3.28	2.74	4.00
USA	4.28	4.41	4.20	3.76	3.00	3.63	3.63	3.76	2.61	4.07

Key: 1 = lowest to 5 = highest preference. Statistically significant differences are in bold and italics.

4.0 Recommendations and Conclusions

Since there is a need to protect the natural and cultural resources within the Muskwa-Kechika, there is a need for interpretation in the region. Interpretation is a valuable management tool that can challenge visitors to consider important and difficult management issues, improve the visitors' knowledge and understanding of these issues, affect their behaviour inside and outside the site, and improve the enjoyment of their visit to the region. However, effective interpretation requires an in-depth knowledge of the audience and their specific preferences, desires and needs with respect to interpretive types, topics, and locations. Moreover, interpretation must be monitored periodically to ensure that the desired messages are being transferred to the appropriate audience and that visitors enjoy and respond to the interpretation in the desired manner.

This study provides a first assessment of the interpretive preferences of adult frontcountry visitors to the Muskwa-Kechika. This final section of the report will review the findings of this study and provide several recommendations that will benefit the development of effective interpretive programming, which will subsequently aid in land use planning for the Muskwa-Kechika region.

4.1 Review of Study Findings

Generally, men and women of all age groups and residence types (locals, other Canadians and international visitors) had very similar attitudes to and preferences of interpretation media, topics and locations. That is, very few statistically significant differences were revealed in this study. While the smaller than anticipated sample size may have been a factor in finding this 'sameness' in attitudes and preferences, it appears that these similarities are pervasive and representative of current adult, frontcountry visitors to the area. That is, all visitors—whether men or women, young or older adults, local, other Canadians or American visitors—had remarkably positive attitudes to the provision of interpretation in the Muskwa-Kechika, and were of relatively like mind when it came to choosing preferences in terms of (a) which interpretive topics should be provided, (b) which interpretive media were favoured, (c) the preferred location of interpretation in general and specific types of interpretation, and (d) the positive effect that encountering interpretation would have on their trip through or to the Muskwa-Kechika frontcountry.

Several more specific findings can also be identified.

- In terms of demographics, the majority of people traveling through the MKMA were aged 50 or greater and were residents of Canada. However, a substantial cohort of visitors from the United States (approximately 33% of all respondents) also made a number of stops in the region, primarily on their way to or from Alaska.
- Most respondents stated that they were traveling with members of their family. Despite this, children's programs only received moderate to low support. This is probably due to the fact that most visitors were at such an age that their offspring were young adults and therefore not

appropriate to children's interpretation or had not accompanied their parents to the Muskwa-Kechika.

- Generally, small groups of an average of two to three people traveled for a short period of time (about one or two days) in the area.
- The most frequented stops were provincial park campgrounds such as Summit Lake, Liard River Hot Springs, Tetsa River, and Muncho Lake.
- Approximately 57% of visitors surveyed had been exposed to interpretation in the past year, although significantly less local residents than international visitors had encountered interpretation in the last year. Local visitors were also somewhat less likely to actively seek out interpretation, although the general support for interpretation was high for all groups, regardless of age, sex, or residence.
- Most of the visitors to the MKMA stated they would take the time to experience interpretation if it was provided (77.9%). Further, there is a trend of actively seeking out interpretation with age and International residence, especially among males, although these differences were not statistically significant in this sample.
- The majority of people surveyed preferred interpretation to be located in provincial parks and campgrounds as compared to roadside pullouts and points of interest. They were able to suggest—again, with a great degree of uniformity—which types of interpretive media they considered to be most appropriate in each location.
- In terms of the optimal locations for interpretation, those surveyed felt that the most appropriate media in cities were types were visitor centres and brochures, in provincial parks interpretive signs and evening presentations, and at roadside locations interpretive signs and self-guided walks/tours. As previously noted, however, the term 'visitor centre' may have been confused with 'information' or 'tourist' centers that provide visitor information as opposed to interpretation.
- When asked to rate each of ten types of interpretive media separately, the resulting order of preference, as indicated by mean values, was: (1) interpretive signs; (2) visitor centres; (3) brochures; (4) self-guided walks/tours; (5) displays/exhibits; (6) children's programs; (7) evening presentations; (8) roving interpreters; (9) campfire talks; and (10) guided walks/tours. While a small number of statistically significant differences were found, overall age, sex and residence groups had very similar preferences.

It is unusual for non-personal forms of interpretation (i.e., those not requiring the actual presence of an interpreter) to be preferred over personal forms of interpretation (e.g., guided walks, evening presentations, campfire talks). That is, previous studies—although somewhat limited in number—have suggested that personal forms of interpretation are typically far more preferred

than non-personal forms. If this sample is indeed representative of all adult, peak season, frontcountry visitors to the Muskwa-Kechika, then this has important ramifications for future interpretive programmers.

- When asked to rate each of ten potential topics for interpretation in the MKMA, the resulting ranking was: (1) fish and wildlife; (2) history; (3) why the MKMA is special; (4) geology; (5) wilderness safety; (6) biodiversity; (7) ecology; (8) First Nations issues; (9) resource extraction; and (10) combining industry and parks. No statistically significant differences were found with the exception of the fact that more males were interested in learning about resource extraction in the MKMA and International residents were more likely to be interested in First Nations topics than locals. It was interesting that the most potentially controversial topics—resource extraction and combining industry and parks—were the least preferred among all groups. Another controversial topic in BC—First Nations issues—were least preferred among local residents, while American visitors had significantly more preference for this topic.

4.2 Recommendations

Based on the results noted above, a number of recommendations can be made to the managers of the Muskwa-Kechika.

1) **MKMA managers should initiate a planning process with the express purpose of creating a variety of interpretive programs within frontcountry areas of the region.**

Given that almost 80% of the sample indicated that they would take the time to view interpretation if it was provided in the Muskwa-Kechika, and that over 80% stated that interpretation would increase their enjoyment of the Muskwa-Kechika, it seems logical to suggest that visitors strongly desire a range of high quality interpretive programs. Three funding sources can be used: internal funds can be specifically targeted to create interpretation and monitor the success or failure of these programs, external funding could be sought, or a combination of internal and external funds could be utilized. A five and/or ten year plan could be created to provide a timeline and objectives for the creation of an interpretive program.

Eventually, an interpretive plan will be required. A regional interpretive plan could include an inventory of potential media, sites and topics for interpretation in the main highway corridor (and elsewhere if required) and identify potential options and associated costs.

The expertise required to create such a plan, put the plan into place, and monitor the interpretation provided is not currently held by MKMA managers. Thus, external assistance—most likely from provincial and federal government protected area agencies (e.g., BC Parks and Parks Canada), academics and external consultants—must be accessed to ensure a high quality and successful interpretive system.

2) Interpretation provided by the MKMA should be co-ordinated with existing providers of interpretation (e.g., BC Parks) to ensure that consistent messages, and compatible goals and objectives, are maintained.

All existing interpretation in the Muskwa-Kechika is currently provided by external organizations and agencies (e.g., BC Parks). This is fortuitous in terms of minimizing costs for Muskwa-Kechika managers, but unfortunate in that external organizations control which messages are provided to visitors of the region. If managers of the Muskwa-Kechika wish to promote their own messages and images regarding the MKMA, they will need to (a) generate their own interpretation programs and (b) co-ordinate existing and future interpretive programs.

Also, given the size and extent of the Muskwa-Kechika region, it will be necessary to co-ordinate the provision of interpretation throughout the MKMA. Thus, an inventory of interpretation in the MKMA and surrounding region should be collected (this information could also be included in an interpretive plan). Existing interpretation will primarily be housed in provincial and national parks, but ecotourism and other tourism operators are increasingly including interpretation in their operations. Existing providers could be used to staff and/or design new interpretive programs.

Understanding the existing topics, messages, and interpretive media throughout the greater MKMA region (the southern Yukon, northern British Columbia and northwestern Alberta) will ensure, for example, that certain topics are not repeated, and that specific interpretive media are not over-used.

3) Results of this study regarding visitor preferences of interpretive media, locations and topics should be incorporated into any resulting interpretive plan.

a) The future provision of interpretation within the MKMA should include a wide range of interpretive media, but—especially in the first few years—should concentrate on the top five forms of interpretation preferred by respondents: interpretive signs, visitor centers, brochures, self-guided trails and displays/exhibits.

In terms of visitor centers, while there may have been confusion between ‘visitor centres’ in or near protected areas and ‘information centres’ found in urban areas in this study, it may be useful to create one or more major visitor centers for the Muskwa-Kechika region at the beginning and/or end of the region. Depending on the amount of funding available, one or two visitor centers that provide information and interpretation directly concerning the Muskwa-Kechika region could be constructed. More detailed studies on visitor flows through the region would indicate the optimal placing of such a facility. This visitor centre and accompanying interpretation would significantly increase the awareness and

status of the MKMA among visitors, many of whom are probably largely unaware of the existence and significance of the Muskwa-Kechika.

b) The location of specific interpretive media should also attempt to incorporate the preferences noted by the respondents in this study: visitor centres and brochures in urban centres, interpretive signs and evening presentations in provincial parks, and interpretive signs and self-guided walks/tours at roadside locations .

By linking visitors' location preferences with the future provision of interpretation, visitors' use and enjoyment of these forms of interpretation would be maximized. This would then increase the potential of successfully meeting the goals and objectives of the interpretation and the Muskwa-Kechika itself.

c) Finally, as there was general agreement between various sub-samples in this study regarding the topics addressed by interpretive media, the following topics should receive particular attention: wildlife issues in the region, the history of the region (all facets of its history, both cultural and natural), the attributes that make MKMA unique and the geology of the area.

These findings are not surprising, as most studies have found that park visitors tend to express interest in wildlife (particularly charismatic megafauna) and environmental issues in general. Caution must be taken, however, as for logistical reasons the survey provided a pre-selected list of potential topics (e.g., respondents are often unable to easily articulate desired topics); other topics may exist that are of greater interest to visitors.

Generally, the topics addressed by interpretation are a direct reflection of the location selected. That is, as noted in Section 1.1, interpretation tells a story of the location the visitor is in at the time: visitors should be able to see (and/or smell, touch and taste) the topic being addressed. Thus, the natural or cultural feature itself decides what the appropriate topic should be. For example, a site which contains a significant geological feature would be an appropriate location for a discussion of the geology of or geological processes expressed at the site or region, but not for a discussion on the wildlife or ecology of the area.

It should also be noted that preferences are not static, and periodic surveys—perhaps associated with interpretive monitoring—should be undertaken to ensure that topics, types and locations of interpretation continue to match visitors' preferences to the greatest extent possible. In addition, an interpretive plan must assess the results of similar studies from other locations to assess more general trends and findings related to interpretive preferences.

4.3 Lessons Learned

In terms of methodological issues, a number of lessons were learned during this study that may be of use in future social surveys in the Muskwa-Kechika. The most important lessons learned from this study were:

- Surveying, especially interviewing, requires that people be accessible. The sample size for this study was limited due to the fact that people were not available during designated times. The morning timeslot produced very few completed surveys, and future surveys might wish to concentrate data collection in afternoon and evening periods. People were much more responsive during these times because they were settled for the night, rather than busy packing up or traveling.
- The sites selected for this survey were optimal in theory; however, in practice it was difficult to account for differences in weather conditions between sites. It is recommended that Summit Lake either not be included in future studies, or be supplemented with another site such as one of the campgrounds in Muncho Lake Provincial Park (e.g., Strawberry Flats and/or MacDonald campgrounds). The potential for high winds and frequent storms at Summit Lake made it difficult to entice people into participating in the study.
- A similar concern is that Tetsa River and Summit Lake rarely achieved a level of capacity for campsites. In other words, the populations at these two sites were well below expected, and thus the sample size was limited for this reason. This problem could be mitigated by expanding the number of study sites, or focusing on Liard River Hot Springs, as this site frequently reaches capacity and contains more campsites. However, the danger of focusing on the most popular sites is that this population may or may not reflect the total population: for example, some users avoid ‘popular’ sites purposefully, and these visitors would not be represented in survey results.
- One major obstacle for this present study was that the objective was to examine interpretive preferences in the context of market segments—those being the four regions of origin outlined in the first section of this report. However, we were unable to obtain 30 surveys for each segment. One way to solve this problem would be to significantly increase the sample size. Another could be to provide surveys that have been translated to another language (preferable German), and/or a language interpreter. This could result in a significant increase in the international category of respondents, which would enable the collection of a much more accurate cross-section of information.

4.4 Conclusion

The present study was effective at obtaining information pertaining to the wants and desires of visitors with respect to interpretive types, topics, and locations. It found that preferences were remarkably homogeneous, which perhaps simplifies the provision of interpretation in the Muskwa-Kechika region.

Field and Wagar (1973) acknowledged two major issues regarding interpretation: there has been an inadequate (1) emphasis on interpretation in resource management agencies and (2) monitoring of the effectiveness of interpretive efforts. Huggins (1986) states that “any program that does not address a management concern is simply entertainment, and therefore is inappropriate from a cost-effectiveness point of view.” Thus, not only is it important to use interpretation as a management tool, but it is essential to evaluate interpretation to ascertain whether it meets the intended objectives of both visitors and managers. For example, we need “to find out how successful a program is at teaching what needs to be taught in a way that interests the larger audience” (Weaver, 2000). Thus, any interpretive programs in the Muskwa-Kechika should incorporate a meaningful monitoring system. Information derived from such an evaluation should lead to more effective interpretive programs.

In summary, survey results supported interpretive literature in suggesting that interpretation is a useful and appreciated management tool. Effective interpretation requires in-depth knowledge of the audience, including demographics as well as specific visitor preferences with respect to interpretive types, topics, and locations. The Muskwa-Kechika region in northern British Columbia boasts a wide variety of important environmental, cultural, and economic attributes which are attractive to people with many and diverse agendas. Thus, there is a need to cautiously manage all forms of any land use in the region. Interpretation is one management tool that could significantly aid in this process. Therefore, it is recommended that a long-term interpretive plan should be created for the region, after consultation with local residents, visitors, and other stakeholders in the area.

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Appendices

Appendix A: Map of the Muskwa-Kechika and Study Area

Appendix B: Questionnaire

Appendix C: Calendar of Sampling Regime

Appendix A



Muskwa-Kechika Area



Protected Areas
Special Management

Muskwa-Kechika Area
Alaska Highway

Appendix B

Date: _____ Time: _____ am / pm Location: _____

Interviewer: _____ Weather: _____

Interpretive Preferences in the MKMA

"Hi, my name is _____ and I'm part of a team of researchers asking visitors to northeastern BC for their thoughts about creating interpretive programs in this area. Your group has been randomly selected to participate in this study: could you help us out by answering a few questions? It should only take your group member 5 minutes of their time, and would really help us get a sense of what people like you want to see in the Muskwa-Kechika area."

If they agree: ask for the adult (>18 years) person in the group with next birthday.

Section 1: Trip Characteristics

"The first questions are about the trip you are on right now."

1. How many people are in your party, including yourself? _____

2. Who are you traveling with? (e.g., family, friends, tour group, etc.) *Note: this is an open question: do not list the choices, but select based on the respondent's answer.*

- | | |
|--|--|
| <input type="checkbox"/> family | <input type="checkbox"/> alone |
| <input type="checkbox"/> friends | <input type="checkbox"/> tour group |
| <input type="checkbox"/> both family and friends | <input type="checkbox"/> other (specify) _____ |

3. How many days do you intend to stay in the Muskwa-Kechika Management Area? *(give respondent the laminated MKMA map)*

4. Please pinpoint your main stops during your stay in the MKMA on this map. *(indicate the locations within the spaces provided below)*

- | | |
|----------|-----------|
| 1) _____ | 6) _____ |
| 2) _____ | 7) _____ |
| 3) _____ | 8) _____ |
| 4) _____ | 9) _____ |
| 5) _____ | 10) _____ |

Section 2: Interpretive Exposure

"The next few questions ask about your previous exposure to interpretation. By interpretation, I am referring to information provided in a thought-provoking and entertaining way. Interpretation is most often found in places like national and provincial or state parks in various forms such as signs, brochures, and guided walks."

5. In the last year, have you attended an interpretive program in a park or museum (again, examples could include a guided walk or slide show provided by an interpreter or naturalist).

Yes No (go to question #6)

- 5b. Where did you attend this program or programs?

- 5c. What type of interpretive program did you attend (e.g., children's program, guided walk, etc.)?

6. Which of the following statements best describes your normal level of interest in accessing interpretation when you travel:

- a) I actively seek out interpretation.
- b) If I see interpretation, I will usually take the time to look at it.
- c) If I see interpretation, I don't usually take the time to look at it.
- d) I actively avoid looking for interpretation.

7. How much do you think providing interpretation would increase or decrease your enjoyment of travelling through the MKMA?

- a) Significantly increase my enjoyment.
- b) Increase my enjoyment.
- c) Neither increase nor decrease my enjoyment.
- d) Decrease my enjoyment.

e) Significantly decrease my enjoyment.

Section 3: Interpretation Preferences

"The next few questions ask for your interpretive preferences: the types and topics of interpretation you would like to see in the Muskwa -Kechika area."

8. Please rate each of these interpretive media on a scale of least to most preferred (1 = least preferred to 5 = most preferred). *(Give respondent the laminated list of methods and explain the scale of preference)*

_____	_____	brochures	_____	_____	guided walks
_____	_____	evening presentations	_____	_____	roving interpreters
_____	_____	visitor centres	_____	_____	interpretive signs
_____	_____	self-guided trails	_____	_____	children's programs
_____	_____	displays/exhibits	_____	_____	campfire talks

9. Using this same list, what three types of interpretation would you most like to see in the Muskwa-Kechika area? (in order of preference, from your most favorite to your third most favorite)

Indicate the preference on the list provided for question 8.

10. Of the places that you have stopped within the MKMA, where would you most like to see interpretation provided?

1) _____
2) _____
3) _____

11. For each of these locations, which type(s) of interpretation do you personally think would be most appropriate? Feel free to list up to three types per location.

City (e.g., Fort St. John/Nelson) _____

Roadside Locations along the Alaska Highway _____

Provincial Park Campgrounds _____

Any Other Locations You Would Like to See Interpretation? _____

"Thank you very much for taking the time to fill out this survey, I really appreciate your help. Do you have any other comments on the MKMA you would like to make?"

Possible Types of Interpretation

Please score each item from 1 (least preferred) to 5 (most preferred)

a) Brochures

f) Guided walks

b) Evening presentations

g) Roving interpreters

c) Visitor centres

h) Interpretive signs

d) Self-guided trails

i) Children's programs

e) Displays/exhibits

j) Campfire talks

Possible Interpretive Topics for the Muskwa-Kechika Management Area

Please score each item from 1 (least preferred) to 5 (most preferred)

- a) History of the MKMA
- b) Fish and Wildlife in the MKMA
- c) Geology of the MKMA
- d) Wilderness Safety
- e) Forestry in the MKMA
- f) Ecology of the MKMA
- g) Biodiversity in the MKMA
- h) First Nations in the MKMA
- i) Combining Industry and Parks
- j) Why the MKMA is Special

Appendix C

JULY

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1 <i>CANADA DAY</i>
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17 Liard PM	18 Liard AM Testa PM	19 Liard PM Testa AM	20 Summit AM	21 Summit PM	22 Liard PM
23 Liard AM	24 Summit AM	25 Summit AM Liard PM	26 Liard PM	27 Liard AM Tetsa PM	28 Tetsa AM Summit PM	29 Summit AM
30 Summit PM	31 Liard AM Tetsa PM					

AUGUST

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1 Tetsa AM Summit PM	2 Tetsa PM	3 Summit AM	4 Summit PM	5 Tetsa AM
6 Tetsa PM	7 BC DAY Summit PM	8 Liard AM Tetsa PM	9 Tetsa AM Liard PM	10 Tetsa AM	11 Liard AM Summit AM	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		